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INFORMATION SERVICES IN THE 1990S: A CASE STUDY IN RETHINKING THE BENEFICIAL USES OF INDUSTRIAL POLICY

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I. INTRODUCTION

On September 23, 1992, FCC Commissioner Ervin S. Duggan delivered an address to the Federal Communications Bar Association

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entitled *It's Time to Re-Think Industrial Policy*.¹ In his address, Commissioner Duggan defined industrial policy as putting "the power of public policy behind private economic activity,"² as well as "government's involving itself in the work of setting industrial goals and promoting industrial progress."³ He bemoaned what he called the current bias against "industrial policy," and he claimed that "[t]he next Administration . . . cannot succeed in its role of economic leadership unless it accepts, unblinkingly, the necessity of rethinking industrial policy -- and accepts the challenge of doing it well."⁴

Disclaiming any attempt to be exhaustive, Commissioner Duggan offered what he called three guiding principles that might lead toward sound industrial policy:

1. Any worthwhile industrial policy should promise a significant multiplier effect: a gigantic boom for a relatively small investment.

2. Any successful American industrial policy should revere private initiative and private market forces.

3. Because a successful American industrial policy must revere private initiative, it should create "arenas for competition."⁵

Commissioner Duggan indicated a belief that the information services industry would be an attractive and deserving target of attention for a properly formulated and applied industrial policy. He observed that "communications and information processing are near the forefront among America's strongest and most competitive industries," and that these industries "are worth pinning our global hopes upon."⁶ Indeed, he stated that "[i]n the coming century, tele-transportation -- the movement of information and ideas -- will be the new source of economic growth and of personal fortunes"⁷

Drawing upon the pragmatic approach outlined by Commissioner Duggan, this article describes a framework for determining the proper employment of industrial policy by the United States government. The article argues that public policymakers should be receptive to a fresh understanding of the appropriate uses of a new industrial policy paradigm, especially in those situations where the employment of that paradigm will involve no expenditure of public monies or resources and will yield considerable benefits to the American people. This article then

1. FCC Commissioner Ervin Duggan, *It's Time to Re-Think Industrial Policy*, Remarks Before the Federal Communications Bar Association (September 23, 1992) (on file with FCC).

2. *Id.* at 2.

3. *Id.* at 1.

4. *Id.* at 3.

5. *Id.* at 5-6.

6. *Id.* at 7.

7. *Id.*

applies the new industrial policy framework to a specific case study: the long-standing controversy concerning the FCC's access charge treatment of enhanced service providers. The article concludes that, based on the application of the new paradigm, the FCC should reconsider the recent changes in its access charge policy toward ESPs so as to preserve and extend the growth and success of the domestic information services marketplace, and thereby, the U.S. economy as a whole.

II. A NEW FORMULATION OF INDUSTRIAL POLICY

Commissioner Duggan noted that the practice of industrial policy can lead, on one hand, to "too much central planning, too much government intrusion," while on the other hand one can end up "neglecting what national leaders can and should do" and thereby "render government feckless and irrelevant."⁸ To steer the middle ground, Commissioner Duggan suggested the three principles outlined above, which he admits are merely guideposts for an intelligent industrial policy: the promise of a significant economic "multiplier" effect; a predisposition towards private initiative and market forces; and the creation of "arenas for competition."⁹

Commissioner Duggan stated that the FCC now should confront the question of industrial policy squarely to "decide how we can best spur our communications industries to health at home and success abroad—without jeopardizing the interests of consumers or preempting market forces."¹⁰ Thus, he urged the FCC to look carefully at what it does in the telecommunications marketplace, including "[t]he public-policy goals we set, the industries and services we choose to encourage, and the specific policies we make . . ."¹¹

Commissioner Duggan undoubtedly is correct that a properly formulated "industrial policy" can be beneficial in certain instances. In fact, given Commissioner Duggan's definition,¹² any exercise of

8. *Id.* at 5.

9. *Id.* at 5-6. Commissioner Duggan stated that the first principle, the economic multiplier effect, is exemplified by the interstate highway system, land-grant colleges, the G.I. bill, and in the communications area, by the FCC's policies relating to the establishment of the cellular telephone industry. He suggested that the second principle, revering private initiative, was ignored, for example, when the federal government created the Synfuels Corporation. The third principle, fostering the creation of "arenas" of private competition, is exemplified by the FCC's "open skies" policy for domestic communications satellites. See Establishment Of Domestic Communications-Satellite Facilities By Nongovernmental Entities: Report and Order, 22 F.C.C.2d 86 (1970), Second Report and Order, 35 F.C.C.2d 844 (1972), *recon. granted in part*, Mem. Op. and Order, 38 F.C.C.2d 665 (1972).

10. Duggan, *supra* note 1, at 7.

11. *Id.*

12. *Id.* at 1-2.

government power which has an impact on the marketplace, as well as any deliberate refusal to exercise such power, can be characterized to some degree as the use of "industrial policy." Title I of the Communications Act of 1934 directs the FCC to regulate interstate and foreign communications "so as to make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service"¹³ And, Section 7 of the Act states that the federal government's policy is "to encourage the provision of new technologies and services to the public."¹⁴ The FCC must engage in some form of industrial policy in order to fulfill those statutory goals.

III. THE INFORMATION SERVICES MARKET AS A PRIME CANDIDATE TO BENEFIT FROM THE APPLICATION OF A NEW INDUSTRIAL POLICY

The government should be less hesitant to use its power in a specific market where that market is considered by most impartial observers to be a growing and vital part of the country's economy. While some might argue more abstractly that all or many industry segments in this country are deserving of special attention by the government, as a practical matter such a position is not realistic. Certain industry segments are more important to the existing and future national economic base than others. This observation relates to the first principle articulated by Commissioner Duggan, namely that industrial policy is employed more suitably where a minimal but definite investment of effort and resources will result in the maximum yield. As Commissioner Duggan himself recognizes, in today's economy one such key industry is undoubtedly telecommunications-based information services¹⁵, or what the FCC calls "enhanced" services.¹⁶

A. Definition of Enhanced Services For Regulatory Purposes

Beginning in 1966, and continuing into the early 1980s, the FCC wrestled with the regulatory and policy questions that emerged as the result of the growing interdependence of computers and communications services and facilities. In its *Computer I* decisions,¹⁷ the FCC recognized

13. 47 U.S.C. § 151 (1988).

14. 47 U.S.C. § 157 (1988).

15. Duggan, *supra* note 1, at 7.

16. See *infra* note 23 and accompanying text for the definition and scope of "enhanced services".

17. Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Service Facilities: Notice of Proposed Rulemaking and Tentative Decision, 28 F.C.C.2d 291 (1970) [hereinafter *Computer I* Tentative Decision], Final

that "there is a close and intimate relationship between data processing and communications services and that this interdependence will continue to increase."¹⁸ Even at that early stage, the Commission recognized that "the data processing industry has become a major force in the American economy, and that its importance to the economy will increase in both absolute and relative terms in the years ahead."¹⁹ While temporarily sidestepping the question of whether it possessed the statutory authority to regulate all data processing services, the FCC concluded that it should forbear from regulating these services.

One of the major issues facing the FCC in the *Computer I* decisions was the creation of a workable definition of data processing services in contrast to the underlying regulated telephone services on which remote access data processing services rely for transport. Such a distinction was critical because the Commission had concluded that "the offering of data processing services is essentially competitive and . . . there is no public interest requirement for regulation by government of such activities."²⁰ Obviously, the definitional scheme employed would have a major impact not only on the specific services which are or are not subject to public utility-type regulation under the Communications Act, but also on the ability of providers of data processing services, in their business decisions and dealings, to rely on a sharply delineated line between regulated and unregulated services.

After several definitional attempts that proved unworkable, the FCC in the early 1980s issued its *Computer II* orders²¹ establishing what it called a "clear-cut" regulatory dichotomy between regulated "basic" and unregulated "enhanced" services.²² Under Section 64.702 of the FCC's rules, adopted in the *Computer II* decisions, a service is considered "enhanced" if it does at least one of the following:

1. employs computer processing applications that act on the format, content, code, protocol, or similar aspects of the subscriber's transmitted information; *or*

Decision and Order, 28 F.C.C.2d 267 (1971) [hereinafter *Computer I* Final Decision], *aff'd in part sub nom.* GTE Service Corp. v. FCC, 474 F.2d 724 (2nd Cir. 1973), *decision on remand*, Order, 40 F.C.C.2d 293 (1973).

18. *Computer I* Final Decision, *supra* note 17, 28 F.C.C.2d at 269.

19. *Id.* at 268-69 (citations omitted).

20. *Computer I* Tentative Decision, *supra* note 17, 28 F.C.C.2d at 297, para. 20.

21. Amendment of Section 64.702 of the Commission's Rules and Regulations (Second *Computer Inquiry*): Tentative Decision, 72 F.C.C.2d 358 (1979), Final Decision, 77 F.C.C.2d 384 (1980) [hereinafter *Computer II* Final Decision], *recon.*, Mem. Op. and Order 84 F.C.C.2d 50 (1981), *further recon.*, Order on Further Reconsideration, 88 F.C.C.2d 512 (1981), *aff'd sub nom.* Computer and Communications Industry Ass'n. v. FCC, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983), *aff'd on second further recon.*, Mem. Op. and Order, 56 Rad. Reg. 2d (P&F) 301 (1984).

22. *Computer II* Final Decision, *supra* note 21, 77 F.C.C.2d at 420.

2. provides the subscriber additional, different, or restructured information; *or*

3. involves subscriber interaction with stored information.²³

Under the FCC's three-pronged definition, virtually any telephone-based information service that involves a computer's manipulation of customer data is classified an "enhanced service." On the other hand, a basic service is the offering of "a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information."²⁴ In contrast to enhanced services, which are unregulated, basic services are considered regulated common carriage subject to Title II of the Communications Act of 1934, as amended.²⁵

There are a wide range of information services which are classified as unregulated "enhanced services."²⁶ The term is often used to refer more specifically to on-line interactive data services, which send information from computer databases over telephone lines to subscribers' terminals, personal computers, or teleprinters. The term videotext services, often used synonymously with on-line services, denotes computer-to-computer communications, information, entertainment, or transactional services. Videotext services typically include instructional and reference services, such as foreign language instruction, medical databases, news and weather services, and subscriber bulletin boards; entertainment services, such as book, music, and concert reviews, and recreational forums; and business services, such as stock market quotations and portfolio management services. Well-known enhanced service providers (ESPs) that supply videotext services utilizing telephone lines include CompuServe, Prodigy, GENIE, America On-line, Lexis, Dow Jones, and a host of others. One specific example of a videotext system is a computerized reservation service, which is an on-line system operated by airlines and others that offers flight schedule and fare information and allows subscribers to book travel arrangements for hotels, car rentals, and entertainment. In contrast to videotext, audiotext services are information services delivered by spoken or recorded voice over telephone lines.

Other types of telecommunications-based services, many of which overlap with each other, also are classified as "enhanced" under the FCC's definition. Protocol processing services allow two different computers to "speak the same language." Electronic data interexchange

23. 47 C.F.R. § 64.702 (1992).

24. Computer II Final Decision, *supra* note 21, 77 F.C.C.2d at 420.

25. 47 U.S.C. §§ 201-27 (1988 & Supp. III 1991).

26. For descriptions and definitions of many of the terms in this section see DIGITAL INFORMATION GROUP, 1990-91 INFORMATION INDUSTRY FACTBOOK (1991).

(EDI) is the exchange of trade-related documents electronically and has been used extensively in the transportation, retail, and grocery industries. Point-of-sale (POS) transaction processing uses the telecommunications network to validate credit cards purchases by linking "swipe" machines resident at the retailer's premises to large databases. Other information services include batch processing, value-added service networks, and electronic mail.

All these different information services, with their differing applications and uses, use the same telecommunications network to reach the customer, and the Commission classifies them universally for regulatory purposes as enhanced services without further distinctions. The FCC reaffirmed the basic/enhanced services dichotomy in its *Computer III* decisions,²⁷ and that definitional scheme for regulatory purposes remains in place today.

B. Importance of Information Services to the Nation's Economy

It is beyond dispute that the information services industry is of vital importance to our nation's economy. According to the 1992 Department of Commerce *Industrial Outlook* report, there are over 24,000 individual information providers competing in the domestic market, employing nearly one million people.²⁸ Revenues of the electronic information services industry grew by 18.5 percent in 1991, amounting to \$10.2 billion; on-line information services accounted for 78 percent of these revenues.²⁹ The electronic information services industry is expected to grow by about 20 percent in 1992, reaching \$12 billion in revenues, and is projected to grow by 20 percent annually through the next five years.³⁰

The Department of Commerce concludes that information services "are a growing share of the U.S. economy" and "a strategic input" to making the domestic business sector more competitive internationally.³¹ In most respects, the United States has "the most advanced and diversified electronic information services industry in the world."³² The

27. Amendment of Section 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry): Report & Order, 104 F.C.C.2d 958 (1986), *recon.*, Phase I Reconsideration Order, 2 F.C.C.R. 3035 (1987), *further recon.*, Order on Further Reconsideration, 3 F.C.C.R. 1135 (1988), *second further recon.*, Order on Second Further Reconsideration, 4 F.C.C.R. 5927 (1989), *Report & Order* and *Phase I Reconsideration Order vacated sub nom. California v. FCC*, 905 F.2d 1217 (9th Cir. 1990), *decision on remand*, Computer III Remand Proceedings: Report and Order, 5 F.C.C.R. 7719 (1990) [hereinafter Computer III Remand Order].

28. U.S. DEPARTMENT OF COMMERCE/INTERNATIONAL TRADE ADMINISTRATION, U.S. INDUSTRIAL OUTLOOK '92 26-1 (Jan. 1992).

29. *Id.*

30. *Id.* at 26-2.

31. *Id.* at 26-1.

32. *Id.* at 26-2.

Department of Commerce states that U.S. information services "will be in great demand in the evolving global economy," in part because information service companies "are finding innovative and cost-effective ways to create, store, manipulate, and cross-correlate information."³³ As these facts indicate, the continued growth and success of the domestic information services industry is vital to the advancement of this country's economy. In its *Computer II* decisions, the FCC stressed that the ultimate success of the "fast-moving, competitive market" for enhanced services was of great importance to the country's consumers,³⁴ and this consideration undoubtedly has informed many of its regulatory policies with regard to enhanced services.

In light of the importance of the domestic information services industry to the national economy, and to the leadership of the United States in this sector of the global economy, it is appropriate for government policymakers to be sensitive to the need to adopt regulatory policies which will not stifle or impede its continued growth. Conversely, the government should, where feasible, affirmatively adopt policies which encourage the growth and competitive success of the information services industry. This is particularly true where these policies will enhance competition and do not involve the outlay of public funds.

IV. APPLICATION OF THE NEW INDUSTRIAL POLICY FRAMEWORK TO THE FCC'S ACCESS CHARGE REGIME

Commissioner Duggan's outline of a new, "intelligent" industrial policy paradigm offers a foundation for a reappraisal of the FCC's regulatory policies as they relate to the enhanced services industry. One such policy is embodied in the FCC's access charge regime. Governed by Part 69 of the FCC's Rules,³⁵ access charges essentially are the fees paid to local exchange carriers (LECs) by end users and interexchange carriers (IXCs) in order to originate and terminate interstate calls over the LECs' local exchange facilities. IXCs are primarily long distance voice carriers such as AT&T and MCI. Although IXCs and end users both pay federal access charges, IXCs must pay usage-sensitive charges while end users pay flat-rated Subscriber Line Charges and a Private Line surcharge. The FCC's recent proposals to impose usage-sensitive common carrier-type access charges on enhanced service providers, most recently as a condition precedent to using any of the advanced features made available under the FCC's Open Network Architecture program, offer a good case

33. *Id.* at 26-1.

34. *Computer II* Final Decision, *supra* note 21, 77 F.C.C.2d at 434.

35. 47 C.F.R. §§ 69.1- .612 (1992).

study for the application of Commissioner Duggan's industrial policy framework.

A. An Overview of the ESP Access Charges Issue

The ability of enhanced service providers to offer advanced information services to their subscribers at a reasonable price is directly dependent upon their ability to obtain cost-based access to local telephone facilities. ESPs subscribe to local telephone lines to allow their subscribers to access their information services with a local telephone call. The large nationwide ESPs, such as CompuServe and Prodigy, subscribe to thousands of these lines. To date, ESPs have been able to use non-usage-sensitive local business lines, obtained from the local telephone companies at rates based on tariffs filed with the state public utility commissions, to make available their on-line information services to customers. These state-tariffed local lines typically cost between \$25.00 and \$35.00 per month on a flat-rate basis.³⁶ By using flat-rate, state-tariffed business lines, ESPs are not required to pay the usage-sensitive access charges which are part of the federal access charge regime originally created primarily for long distance voice common carriers such as AT&T and MCI. Based on an assumed usage of 100 hours per month per line, which is typical of the usage of local telephone lines by ESPs, voice common carriers would pay at least \$160.00 per month in usage-sensitive charges in order to use these same lines.³⁷

For the past 15 years, the FCC has wrestled with the problem of creating a rational access charge system to compensate local exchange carriers for the use of their facilities to originate and terminate interstate traffic. In 1978, the Commission initiated a *Notice of Inquiry and Proposed Rulemaking* "to determine what reimbursement interstate services should make to local operating companies for the use of local plant, on a cost causation basis."³⁸ After four supplemental notices of proposed rulemaking,³⁹ and in anticipation of the imminent break-up of the Bell

36. See, e.g., Additional Comments of CompuServe Incorporated at 9, Amendment of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture, 6 F.C.C.R. 4524, (CC Docket No 89-79, filed Sept. 30, 1992) [hereinafter Additional CompuServe Comments].

37. *Id.* at 9. The \$160 per month figure is derived by multiplying 6000 minutes of use per month by 2.67¢ per minute, which is the minimum usage-sensitive charge that would apply.

38. MTS and WATS Market Structure: Notice of Inquiry and Proposed Rulemaking, 67 F.C.C.2d 757, 759 (1978).

39. MTS and WATS Market Structure: Supplemental Notice, 73 F.C.C.2d 222 (1979); Second Supplemental Notice, 77 F.C.C.2d 224 (1980); Third Supplemental Notice, 81 F.C.C.2d 177 (1980); Fourth Supplemental Notice, 90 F.C.C.2d 135 (1982).

System,⁴⁰ the Commission finally adopted its *Third Report and Order* in 1983.⁴¹ In this decision, the FCC established four goals for pricing access to local facilities which it said were derived from several provisions of the Communications Act: "the continued assurance of universal service; the elimination of unjust discrimination or unlawful preferential rates; the encouragement of network efficiency; and prevention of uneconomic bypass."⁴² The Commission also noted the additional non-statutory objective of full and fair competition in the interexchange market.⁴³ The FCC recognized that these principles "are to some extent conflicting and there is no possibility of devising a 'perfect' plan that would fully and immediately effectuate all of our goals." Rather, the Commission believed that "any acceptable plan must balance these goals in a satisfactory manner."⁴⁴

Use of the local exchange facilities by interexchange carriers and end users imposes both non-traffic sensitive (NTS) and traffic sensitive (TS) costs. While recovering all traffic-sensitive costs on a usage-sensitive basis, the Commission adopted a bifurcated approach to recover the non-traffic sensitive costs. A monthly flat rate subscriber line charge (SLC) was assessed on residential and business subscriber lines to recover a portion of the NTS costs, while the remainder of NTS costs were to be collected from interexchange carriers on a usage-sensitive basis through a rate element called the Carrier Common Line Charge (CCLC). The CCLC is intended to recover the explicit subsidy amounts that historically were incorporated into the rates paid by long distance voice services to defray the costs of local telephone service, especially the costs of residential service.

The *Third Report and Order* did not specifically mention the access charge treatment applicable to the use of local exchange facilities by ESPs to originate or terminate their services. On reconsideration⁴⁵ however, the Commission stated that "there is some uncertainty as to whether the [FCC's carrier access charge] rules would apply to entities which may not be considered carriers, such as enhanced service providers . . . but which also use access service."⁴⁶ The *First Reconsideration Order* expressly declined to apply usage-sensitive carrier access charges to ESPs, due in

40. See *United States v. AT&T (Modified Final Judgment)*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

41. *MTS and WATS Market Structure: Third Report and Order*, 93 F.C.C.2d 241 (1983) [hereinafter *Third Report and Order*].

42. *Id.* at 278.

43. *Id.* at 267-68.

44. *Id.* at 278.

45. *MTS and WATS Market Structure: Mem. Op. & Order*, 97 F.C.C.2d 682 (1983) [hereinafter *First Reconsideration Order*].

46. *Id.* at 711.

part to the Commission's concern that such an action would result in "huge increases in their costs of operation which could affect their viability."⁴⁷ In addition to concern about the impact of "rate shock," the Commission recognized the practical implementation problems that local exchange carriers would face in attempting to measure ESP usage for jurisdictional purposes, and in assessing switched access charges on ESPs and other end users employing what is known as a "leaky PBX" configuration.⁴⁸

Thus, at the inception of the federal access charge regime, the FCC treated ESPs as end users which were not subject to the same high level of access charges as voice common carriers. Indeed, the Commission's access charge decisions never discussed in any substance whether ESPs should, as a matter of law or policy, pay access charges at the same rates as interexchange carriers. Instead, the FCC established two categories of users of the local exchange facilities: interexchange carriers, which are subject to usage-sensitive charges, and end users, which are not.⁴⁹

Upon review, the D.C. Circuit upheld the *Third Report and Order in National Association of Regulatory Utility Commissions v. Federal Communications Commission*.⁵⁰ The Court stated that the FCC's access charge policies "are within the Commission's authority and, for the most part, are rationally grounded and sufficiently supported by evidence."⁵¹ The D.C. Circuit observed that the FCC had considerable statutory discretion to "balance the multiple goals embodied in the Communications Act,"⁵² and that the adopted access charge rules are well within the FCC's "broad zone of expertise and discretion . . ."⁵³

In July 1987, the Commission released a *Notice of Proposed Rulemaking* proposing amendment of Part 69 of the Commission's rules

47. *Id.* at 715.

48. *Id.* at 713-14. A flat-rate special access surcharge was applied to ESPs with "leaky PBX" traffic.

49. The rules state that carrier's carrier charges "shall be computed and assessed upon all interexchange carriers that use local exchange switching facilities for the provision of interstate or foreign telecommunication services," while end user charges "shall be computed and assessed upon end users." 47 C.F.R. § 69.5 (1992). An end user is defined as "any customer of an interstate or foreign telecommunications services that is not a carrier . . ." 47 C.F.R. § 69.2(m) (1992). The FCC's rules do not define the term "enhanced service provider," but the end user definition plainly includes ESPs. *See, e.g.,* Northwestern Bell Telephone Company, 2 F.C.C.R. 5986, 5988 (1987) ("enhanced service providers are treated as end users for purposes of our access charge rules.").

50. *NARUC v. FCC*, 737 F.2d 1095 (D.C. Cir. 1984), *cert. denied*, 469 U.S. 1227 (1985).

51. *Id.* at 1103. In an order effective January 1, 1987, the Commission applied carrier access charges to data and telex resale carriers. However, the rule change adopted was not intended "to apply [carrier] access charges to enhanced service providers." Common Carrier Services: WATS-Related and Other Amendments of Part 69 of the Commission's Rules, 51 Fed. Reg. 33,751, 33,752 (1986).

52. *NARUC*, 737 F.2d at 1134.

53. *Id.* at 1138.

relating to ESPs.⁵⁴ The FCC tentatively concluded that enhanced service providers should be accorded the same access charge treatment as voice common carriers, thereby eliminating ESP's use of flat-rated, state-tariffed access arrangements for the origination and termination of their services. Rather than making an explicit determination, as a matter of law or policy, that usage-sensitive carrier access charges should in fact apply to ESPs, the *Part 69 NPRM* instead referred to an "interim" ESP "exemption" from common carrier access charges, thereby implying that ESPs all along would have been subject to such charges absent this "exemption." The FCC stated that federal carrier access charges now should be applied to ESPs because "a rate shock rationale no longer justifies an access charge exemption for enhanced service providers."⁵⁵ The Commission noted that previously "[w]e feared that if we imposed full interstate access charges on enhanced service providers, which were then paying local business rates for their interstate access they would face large increases in their operating costs and might no longer be viable."⁵⁶ The *Part 69 NPRM* sought comments addressing the FCC's tentative conclusions about rate shock and various issues relating to implementation of its proposal to impose carrier access charges on ESPs.

On April 27, 1988, the FCC released its *Part 69 Order* which concluded that the so-called ESP "exemption" from carrier access charges should be retained.⁵⁷ Although the FCC seemed to focus exclusively on the access charge principle of nondiscrimination to the exclusion of the other principles adopted in its 1983 *Third Report and Order*,⁵⁸ nonetheless it stated that the imposition of access charges on ESPs "could cause such disruption in this industry segment that provision of enhanced services to the public might be impaired."⁵⁹ Thus, although the Commission did not make an explicit finding on the point, it apparently believed that, absent concerns about "rate shock," carrier access charges should be applied to ESPs.

In 1989, the FCC once again invited comments concerning the "special treatment" being given to ESPs vis-a-vis other access customers.⁶⁰

54. Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers: Notice of Proposed Rule Making, 2 F.C.C.R. 4305 (1987) [hereinafter Part 69 NPRM].

55. *Id.* at 4306.

56. *Id.*

57. Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers: Order, 3 F.C.C.R. 2631 (1988) [hereinafter Part 69 Order].

58. Third Report and Order, *supra* note 41, 93 F.C.C.2d at 2631. See *supra* notes 41-44 and accompanying text.

59. *Id.* at 2633 (footnote omitted).

60. Amendment Of Part 69 of the Commission's Rules Relating To The Creation Of Access Charge Subelements For Open Network Architecture: Notice of Proposed Rulemaking, 4 F.C.C.R. 3983 (1989).

This time the issue concerning the appropriate access charge treatment of ESPs arose in the context of a proceeding specifically intended to decide how ESPs will be able to access new telephone network services and functions which are part of the FCC's Open Network Architecture (ONA) program. In its ONA proceedings,⁶¹ the Commission had stated that ONA was intended as a means to make new and unbundled features of the local exchange network available on a uniform basis to enhanced service providers. This new program, which became a condition precedent to removal of structural separation requirements which previously had governed the Regional Bell Operating Companies' (RBOCs) participation in the enhanced service marketplace, was intended to "open up network capabilities to competing providers of enhanced services."⁶² The Commission stated that a "major goal of ONA is to increase opportunities for ESPs to use the RBOCs' regulated networks in highly efficient ways, enabling them to expand their markets for their present services, and develop new offerings as well, all to the benefit of consumers."⁶³ In its original *ONA Phase I Order*, the FCC indicated that its planned pricing of ONA services used by ESPs "should ensure that these services are cost-based and bring related benefits to the enhanced service industry."⁶⁴

In July 1991, the FCC, citing concerns about possible disruption of the enhanced services industry, retained the so-called ESP "exemption" from usage-sensitive carrier access charges, but in a way sure to constrain its applicability in the future. In the *Part 69 ONA Order*,⁶⁵ the Commission adopted rules which impose common carrier-type access charges on enhanced service providers as a condition for ESPs' use of the new network features and functionalities to be made available as part of the FCC's Open Network Architecture program. The FCC ruled in the *Part 69 ONA Order* that all enhanced service providers that wish to use new ONA features, generally referred to as "Basic Service Elements" or BSEs, must acquire a new access arrangement called a "Basic Serving Arrangement" or BSA.⁶⁶ The use of BSEs which are made available as part of the ONA program should enable enhanced service providers,

61. Filing and Review of Open Network Architecture Plans: Phase I Order, 4 F.C.C.R. 1 (1988) [hereinafter *ONA Phase I Order*], *modified on recon.*, Order on Reconsideration, 5 F.C.C.R. 3084 (1990) [hereinafter *ONA Reconsideration Order*], *further recon.*, Order on Further Reconsideration, 5 F.C.C.R. 3103 (1990).

62. *ONA Reconsideration Order*, *supra* note 61, 5 F.C.C.R. at 3084.

63. *Computer III Remand Order*, *supra* note 27, 5 F.C.C.R. at 7719-20.

64. *ONA Phase I Order*, *supra* note 61, 4 F.C.C.R. at 85 n.326.

65. Amendment Of Part 69 Of The Commission's Rules Relating To The Creation Of Access Charge Subelements For Open Network Architecture: Report and Order & Order on Further Reconsideration & Supplemental Notice of Proposed Rulemaking, 6 F.C.C.R. 4524 (1991) [hereinafter *Part 69 ONA Order*].

66. *Id.* at 4535.

particularly in the future, to provide their information services to the public on a more efficient, low-cost, and user-friendly basis than is possible with today's technology. However, the BSA outlined in the *Part 69 ONA Order* is modeled on the carrier access charge regime, and, therefore, it contains the explicit subsidy elements of the CCLC to defray the costs of local telephone service.⁶⁷

In the *Part 69 ONA Order*, the FCC refused requests by ESPs to require the local exchange carriers to create a federally-tariffed BSA that, rather than being designed for voice common carriers, specifically would be designed to meet the needs of ESPs and which would not be priced to recover the explicit cost subsidy contained in the new Basic Serving Arrangement. The Commission explained that such an ESP-specific access arrangement "is inconsistent with our current rate structure," and there is "no reason" to deviate from present access charge rate structures "for one group of access users."⁶⁸ In addition, the Commission refused, even on an interim basis pending the development of a new cost-based BSA designed for ESPs, to allow enhanced service providers to continue their access to the local exchange network through local business lines in conjunction with using the advanced functionality of new federally-tariffed BSEs. The FCC stated that this so-called "mix and match" option "could result in a mismatch of BSE costs and revenues, seriously undermine state policies, and create jurisdictional boundary problems."⁶⁹

Accordingly, rather than imposing common carrier access charges on ESPs directly, as earlier proposed in 1987, the FCC's new rules expressly condition the availability of new federally-tariffed ONA services upon the purchase of an access arrangement which is priced virtually the same as the pre-existing common carrier access charge model. The result is that ESPs, in order to use new network features and functionalities, will be compelled to pay *at least* three to four times as much as they pay currently for local network access, even though the actual costs to the telephone company of providing the local access arrangement would be virtually the same.⁷⁰

B. The Commission's Legal Authority To Apply A New Industrial Policy Paradigm To The Access Charge Issue

In relating the issue of the appropriate access charge treatment for ESPs to a new industrial policy paradigm for information services, it is important to understand that the FCC is not compelled as a matter of law to impose common carrier-type access charges on enhanced service

67. *Id.* at 4525.

68. *Id.* at 4535.

69. *Id.*

70. See *supra* notes 36-37 and accompanying text.

providers, either on a stand-alone mandatory basis (that is, apart from the use of ONA features) or as a precondition to the use of federal ONA features and functionalities. In fact, the FCC possesses the legal flexibility and discretion to adopt a new industrial policy that fosters the important public policy of promoting the continued development and growth of the information services market.

In *NARUC v. FCC*,⁷¹ which upheld the *Third Report and Order* in the access charge proceeding, the D.C. Circuit also upheld the FCC's broad statutory discretion. The Court observed that those parties challenging the FCC's newly-adopted access charge regime ignored "the breadth of the Commission's statutory discretion to balance the multiple goals embodied in the Communications Act."⁷² The Court stated that the access charge plan fell within "the broad zone of expertise and discretion which must be granted to the Commission in a proceeding which touches the very core of the rapidly developing telecommunications industry."⁷³ The D.C. Circuit approved the FCC's access charge orders because they "reconciled widely diverse policy goals and numerous competing interests."⁷⁴ It found that although the FCC had not achieved "a plan of pristine quality," the Court's review of that plan did not and could not "require perfection."⁷⁵

In particular, the D.C. Circuit indicated that the FCC was permitted to resolve policy questions by using a differential access charge treatment for various types of users of local access. For example, the FCC could impose flat-rate charges on end users as a means to preserve universal service because "rates may be structured to avoid disruptive service impacts."⁷⁶ The Court stated that:

The Communications Act authorizes the Commission to impose reasonable charges to promote a rapid, efficient, and modern telecommunications network in which technological innovations are encouraged in order to permit the development of facilities adequate to provide this service.⁷⁷

The Court also cited the Commission's decision on the appropriate treatment of foreign exchange (FX) service users for access charge purposes as an example of a question which was within "the FCC's ambit of discretionary authority."⁷⁸

71. *NARUC v. FCC*, 737 F.2d 1095 (D.C. Cir. 1984), *cert. denied*, 469 U.S. 1227 (1985).

72. *Id.* at 1134.

73. *Id.* at 1138.

74. *Id.* at 1147.

75. *Id.*

76. *Id.* at 1135.

77. *Id.*

78. *Id.* at 1147.

The FCC's broad discretion to adopt statutory-based regulatory policy also is reinforced by the Supreme Court's landmark decision in *Chevron U.S.A. v. Natural Resources Defense Council*.⁷⁹ There, the Supreme Court upheld the Environmental Protection Agency's (EPA's) construction of the Clean Air Act Amendment of 1977 in defining a "source" of air pollution.⁸⁰ The EPA adopted a broad reading of the term "source" to include all plantwide emissions, allowing air-polluting facility operators to offset increases in pollution from one part of a plant with decreases in another part.⁸¹ The Court stated that, where Congress has not indicated its definitional intent in an area, the federal courts must determine only whether the agency's view of the statute in the context of a particular proceeding is "a reasonable one."⁸² The Court went on to state that the EPA's interpretation of the statutory term represented "a reasonable accommodation of manifestly competing interests and is entitled to deference: the regulatory scheme is technical and complex, the agency considered the matter in a detailed and measured fashion, and the decision involves reconciling conflicting policies."⁸³ The Court continued: "[w]hen a challenge to any agency construction of a statutory provision, fairly conceptualized, really centers on the wisdom of the agency's policy, rather than whether it is a reasonable choice within a gap left open by Congress, the challenge must fail."⁸⁴

The *Chevron* decision precedes other recent Supreme Court decisions which afford agencies considerable discretion to formulate regulatory policies in accordance with "reasonable" interpretations of their governing statute.⁸⁵ Most recently, the Supreme Court stated that it has reaffirmed *Chevron* "often" and that "[j]udicial deference to reasonable interpretations by an agency of a statute that it administers is a dominant, well settled principle of federal law."⁸⁶ Recent D.C. Circuit decisions also have applied the Supreme Court's *Chevron* rationale to

79. 467 U.S. 837 (1984).

80. *Id.* at 866.

81. *Id.* at 840, 858.

82. *Id.* at 845.

83. *Id.* at 865 (citations omitted).

84. *Id.* at 866.

85. *See, e.g.*, *National Labor Relations Board v. United Food and Commercial Workers Union*, 484 U.S. 112, 123 (1987) (Court upholds NLRB's construction of statute, citing *Chevron* and the traditional deference accorded the Board's "rational" interpretations of the statute); *Commodity Futures Trading Comm'n v. Schor*, 478 U.S. 833, 844-45 (1985) (Court upholds CFTC's construction of statute, stating that "considerable weight must be accorded the CFTC's position" and citing the agency's "superior" expertise in determining whether a regulation is "reasonably necessary" to accomplish the purpose of the agency's governing statute).

86. *National R.R. Passenger Corp. v. Boston & Me. Corp.*, 112 S.Ct. 1394, 1401 (1992).

various FCC actions,⁸⁷ and in particular have upheld the FCC's broad discretion to determine the reasonableness of telephone rates and charges.⁸⁸ Thus, the federal courts have recognized that the FCC possesses considerable discretion, of course, within the bounds of rational decisionmaking, to adopt policies which promote the public interest.

Given the discretion possessed by the FCC, and the importance to the development of an advanced information services infrastructure of creating and preserving reasonable, cost-based access for ESPs, it is perhaps surprising that the Commission in recent years has sought repeatedly to impose higher carrier access charges on ESPs, either directly initially, or subsequently as a precondition to utilizing ONA services. Even if "rate shock" arguments⁸⁹ may have diminished somewhat due to the growth of the industry, substantial increases in access costs will certainly have a materially adverse effect on the continued development of the information services marketplace and infrastructure.

It is apparent that the FCC's focus has been primarily on the aspect of nondiscrimination among users of local exchange facilities, to the detriment of the other three equally-important statutorily-derived principles.⁹⁰ The FCC derived its nondiscrimination principle from Section 202(a) of the Communications Act.⁹¹ This provision states that it is

unlawful . . . to make any unjust or unreasonable discrimination in charges . . . for or in connection with like communications service . . . or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage.⁹²

The key word in this provision, of course, is "unreasonable." The Act plainly contemplates that the FCC could adopt and implement a rate scheme which discriminates against or in favor of certain classes of telecommunications providers and users, as long as such discrimination is reasonable. As the D.C. Circuit indicated in the *NARUC* decision, "when there is a neutral, rational basis underlying apparently disparate

87. *e.g.*, *TRT Telecommunications Corp. v. FCC*, 876 F.2d 134, 146 (D.C. Cir. 1989) (*Chevron* test used to uphold FCC's "reasonable" interpretation of Communications Act); *King Broadcasting Co. v. FCC*, 860 F.2d 465, 469 (D.C. Cir. 1988) (*Chevron* test applied to FCC broadcasting decision); *Pappas v. FCC*, 807 F.2d 1019, 1024 (D.C. Cir. 1986) (FCC decision is upheld as permissible construction of Communications Act under *Chevron*).

88. *e.g.*, *Illinois Bell Tel. Co. v. FCC*, 911 F.2d 776, 781 (D.C. Cir. 1990) (FCC has "considerable discretion" to determine appropriate telephone company rate base items); *Alltel Corp. v. FCC*, 838 F.2d 551, 557 (D.C. Cir. 1987) (FCC has broad discretion "in its choice of methods for the determination of [telephone company] rates.").

89. *See supra* notes 46-59 and accompanying text.

90. *See supra* notes 41-44 and accompanying text.

91. Third Report and Order, *supra* note 41, 93 F.C.C.2d at 265.

92. 47 U.S.C. § 202(a) (1988).

charges, the [access charge] rates need not be unlawful."⁹³ The Commission itself concluded in the *Part 69 Order* that "to the extent the exemption for enhanced service providers may be discriminatory, it remains, for the present, not an unreasonable discrimination within the meaning of Section 202(a) of the Communications Act of 1934."⁹⁴

In addition, Section 202(a) allows the FCC to adopt different rates for two or more types of services or service providers that are not "like" one another.⁹⁵ Initially, it is not at all clear that the present access charges system *does* discriminate in favor of ESPs versus carriers -- in fact, the reverse may be true. Many ESPs long have held that their use of local facilities is not "like" the use of local facilities that interexchange carriers exhibit, as is required to trigger the nondiscrimination standard of Section 202(a). Under this view, the local exchange access currently used by ESPs actually is "like" the local exchange access used by all other end users. These ESPs point to many differences between voice telephony and data services, and the similarity between ESPs and other end users (such as ordinary business users) in terms of the way in which they utilize the local exchange network.⁹⁶ Thus, these ESPs argue, imposing carrier access charges on enhanced service providers would violate the Communications Act by subjecting them to "undue or unreasonable prejudice or disadvantage."⁹⁷

Putting aside the not unimportant issue whether imposing access charges would unreasonably discriminate against ESPs,⁹⁸ the question remains whether the "discrimination" supposedly created by the current access charge treatment of ESPs, or the extension of that treatment as part of the ONA regime, can be viewed as reasonable. It is here that the FCC's

93. 737 F.2d at 1133.

94. *Part 69 Order*, *supra* note 57, 3 F.C.C.R. at 2633.

95. *See MCI Telecommunications Corp. v. FCC*, 917 F.2d 30, 39-40 (D.C. Cir. 1990) (application of Section 202(a) "likeness" analysis to FCC's policies regarding AT&T's Tariff 12 arrangements); *Ad Hoc Telecommunications Users Comm. v. FCC*, 680 F.2d 790, 795 (D.C. Cir. 1982) (explication of customer-oriented "functional equivalency" test for determining "like" services).

96. For example, while IXC's furnish the essentially homogenous service of transmitting voice messages from one location to another, ESPs provide a diverse and ever-changing array of data-based services, such as packet switching, point-of-sale credit verification, on-line database information retrieval, remote computing bulletin board and electronic conferencing services, and electronic mail. *See supra* note 26 and accompanying text. The many differences that exist between ESPs and interexchange carriers are reflected in a host of access features provided to IXC's as part of the FCC's Basic Serving Arrangement which are not needed or used by ESPs, such as presubscription, extensive tandem switching, NANP transmission, call denial, service code denial, service class routing, trunk-side signaling, one-plus dialing capability, and equal access features.

97. 47 U.S.C. § 202(a) (1988).

98. The FCC avoided deciding this specific question in the *Part 69 Order*, stating that it "need not . . . resolve that issue in this order." *Part 69 Order*, *supra* note 57, 3 F.C.C.R. at 2633.

broad discretion in balancing its statutory goals comes into play in conjunction with the formulation of a new industrial policy paradigm relating to information services. In particular, the agency possesses discretion to balance the various goals of its access charge policy without continuing to focus predominately on the nondiscrimination principle to the exclusion of other worthwhile public policy objectives.

Recall that in the *NARUC* decision the D.C. Circuit concluded that "rational" distinctions in rate treatment can serve other important public policy goals. Indeed, as pointed out previously, in discussing the access charge treatment of ESPs the Court indicated that the Act "does not prevent all discrimination—disparities in prices for similar services—but only *unreasonable* discrimination. The reasonableness of the price disparity must be judged by the circumstances in which it is assessed."⁹⁹ The D.C. Circuit concluded that neither it nor the FCC has ever held "that all pricing disparities which may fail to recover full costs from the customer—however temporary or necessary to achieve the statutory policies of the Communications Act—are invariably banned by the antidiscrimination sections of the Act."¹⁰⁰ Thus, in order to be consistent with the Communications Act, a sound access charge regime need not give undue weight to the nondiscrimination concern to the exclusion of other valid public policy goals.

As discussed earlier,¹⁰¹ aside from concerns about discrimination among local exchange users, the FCC articulated three other access charge principles, derived largely from Section 1 of the Communications Act.¹⁰² One of these principles is to foster the efficiency of the telephone network. The FCC stated in the *Third Report and Order* that this goal could be viewed narrowly as "efficient utilization of a network" through "the creation of customer incentives," or more broadly as a "concern with the cost and quality of service."¹⁰³ Under either view, the Commission indicated that non-cost-based access charges would harm the enhanced services industry because "access pricing that does not reflect cost can turn computer technologies [*i.e.* enhanced services] from directions that would enhance the productivity of this essential U.S. industry and all of the industries that depend on computers and communications toward simple avoidance of non-cost-based telecommunications prices."¹⁰⁴ By imposing non-cost-based access charges on ESPs, the FCC in effect would be inviting just such a result, which would not be in the public interest.

99. 737 F.2d at 1136 (emphasis in original, citations omitted).

100. *Id.* at 1137.

101. See *supra* note 42-43 and accompanying text.

102. 47 U.S.C. § 151 (1988).

103. Third Report and Order, *supra* note 41, at 266.

104. *Id.* at 252.

Rather than emphasizing unduly its largely theoretical "nondiscrimination" concerns, the FCC should look as well to the relative importance of network efficiency.

In addition, the principle that uneconomic bypass should be discouraged also is implicated by the access charge treatment of ESPs. The FCC stated in the *Third Report and Order* that bypass involves the "possibility of users, particularly the nation's largest telecommunications users, abandoning the network for less efficient alternatives."¹⁰⁵ This "might mean higher long-run costs for those who were required to remain on the network," as well as "for those who were able to use bypass services."¹⁰⁶ No such viable bypass alternatives exist at present for ESPs. The required long-term concerted effort to develop and implement any feasible bypass options likely would be very costly to ESPs. Moreover, uneconomic bypass, by artificially restricting the volume of enhanced service traffic being provided over the public telephone network, would lower revenues from ESP business for the LECs, reduce efficiency, and impose increased costs on those customers remaining on the network. Conversely, by retaining, and even increasing, the number of ESPs using the local telephone network, more Americans will be attracted to utilize reasonably-priced information services, thereby reducing the shared cost burden for all other users. Thus, the prevention of uneconomic bypass not only benefits the information services market specifically, but all the users of the telecommunications network generally.

V. RECONSIDERING THE ESP ACCESS CHARGES ISSUE UNDER THE NEW INDUSTRIAL POLICY PARADIGM

There is no question that access by ESPs to advanced telephone network functionalities and features is crucial in building a telecommunications network infrastructure that will bring an even greater number of Americans the benefits of the "Information Age." Given this fact, and the important role of the information services industry in the development of this country's economic future, the FCC should not impose what in effect are enormous financial penalties on ESPs simply because they wish to use relatively inexpensive advanced network functionalities and features (BSEs) in conjunction with their present local telephone access arrangements. Unfortunately, as explained in the previous section, thus far the FCC continues to focus exclusively on the perceived nondiscrimination goal to the exclusion of other important objectives, such as promoting network efficiency, preventing uneconomic

105. *Id.*

106. *Id.*

bypass, and promoting universal service in terms of increased consumer access to reasonably-priced information services.

The FCC has pending before it a number of petitions for reconsideration of its *Part 69 ONA Order*.¹⁰⁷ Thus, the FCC has the opportunity at this crucial juncture to reevaluate its prior decision. If not reconsidered, the FCC's ONA pricing decision necessarily will impede the ability of information service providers to provide consumers with advanced information services at reasonable prices that promote widespread usage.

Among other things, the FCC's action is inconsistent with the new industrial policy's "multiplier" principle. In fact, the *Part 69 ONA Order* ignores the principle altogether because the higher rates that ESPs would be required to charge would repress demand for their services. Thus, rather than having a "multiplier effect," the FCC's actions would have a constricting effect on the development of new services and technologies.

Moreover, contrary to Commissioner Duggan's concerns about fostering growth in private markets, the *Part 69 ONA Order* likely will result in considerable economic damage to the market for enhanced services. Under the FCC's decision, ESPs are left with a no-win "Hobson's choice" either to retain their present state-tariffed access arrangements without the ability to associate that access with the promised feature-rich federal BSEs, or to purchase above-cost, usage-sensitive federal BSAs in order to use the federal BSEs. Given the thousands of domestic ESPs, each with different customer markets, cost structures, and service configurations, some ESPs may choose one of these "options" and some another. As a result, the market for enhanced services will be artificially skewed because of the negative impact of a regulatory policy will outweigh actual competitive differences in service choice, quality, or cost.

For example, some ESPs may be forced to exit the market entirely rather than pay usage-sensitive carrier access charges to utilize needed BSEs, thereby depriving the market of additional sources for information services. Other ESPs may decide to use federal ONA features, but the excessive cost increase required to do so necessarily will limit their ability

107. See, e.g., Petition for Partial Reconsideration of CompuServe Incorporated, CC Docket No. 89-79, filed August 26, 1991; Petition for Reconsideration of ADAPSO, CC Docket No. 89-79, filed August 26, 1991; Petition for Reconsideration of BT North America, CC Docket No. 89-79, filed August 26, 1991. These petitions ask that the FCC require the local exchange carriers to offer ESPs a Basic Serving Arrangement that is designed specifically for ESPs. They also request that the Commission enable ESPs to associate federally-tariffed Basic Service Elements with their present state-tariffed access arrangements, at least until the new BSA has been developed. In August 1992, the FCC issued a *Public Notice* soliciting additional comments regarding these pending petitions. Public Notice: Additional Comments Solicited with Respect to Issues Raised in Petitions for Reconsideration of the Part 69/ONA Order, 7 F.C.C.R. 5309 (1992).

to invest in other new services and applications, and could curtail their service to customers. Still other ESPs, likely the majority, will decline to use federal ONA services and face the distinct possibility in the future of being left behind technologically and competitively in their provision of advanced and efficient services to the public. Such a likely combination of defunct, financially troubled, and/or technologically-limited ESPs will do nothing to advance the market for information services in the United States.

The international leadership of the United States in the information services field also could be jeopardized should the FCC not reconsider its *Part 69 ONA Order*. Among other things, the positive trade balance traditionally associated with the American information services market¹⁰⁸ could be reversed should domestic ESPs be forced to operate under the Commission's present ONA pricing rules.

Finally, it is also evident that under the *Part 69 ONA Order* the private market for information services will be further skewed toward those ESPs affiliated with the local exchange carriers and away from unaffiliated, independent ESPs. For the local exchange carrier-affiliated ESPs participating in federal ONA, the high carrier access charge rates which comprise the new BSA are, in effect, being transferred from one local exchange carrier pocket to another. The LEC affiliates will be insulated largely from the full financial effect of the Commission's decision, and thereby will possess a distinct—and unwarranted—advantage over unaffiliated ESPs.¹⁰⁹

All these various artificial skews of the information services market caused by the FCC's access charge policy, rather than helping private market forces and fostering "arenas for competition," will only stifle the efforts of ESPs to provide consumers with advanced and reasonably-priced information services. For this reason, the FCC should not impose usage-sensitive carrier access charges on information providers as a condition precedent to obtaining new technologically advanced network features.

Given the demonstrated need for an access arrangement that ESPs can use to acquire federal ONA services, the employment of an appropriate industrial policy paradigm dictates that the FCC create a cost-based, flat-rated Basic Serving Arrangement tailored to the specific needs of ESPs. By stripping this new BSA of all non-cost subsidies and those features and functionalities not used or needed by ESPs, the Commission will create a federal access arrangement that will encourage

108. See U.S. INDUSTRIAL OUTLOOK '92, *supra* note 26, at 26-1.

109. In this situation as well, the local exchange carriers will have an increased incentive to keep BSA rates above costs, thereby contributing to the economic distress of independent ESPs.

more efficient use of the telephone network and help prevent uneconomic bypass of the public network. A cost-based federal access arrangement designed for ESPs passes the economic "multiplier" effects test because, while no public funds will be expended in support of enhanced services, the result will be the continuing growth of this dynamic and vital industry. This is a key point, because it shows that application of industrial policy need not require direct expenditure of public funds. The particular application of sound industrial policy discussed here would not entail spending any taxpayer money.

In addition, a new cost-based access arrangement will allow ESPs to utilize all new and advanced ONA features and functionalities on a uniform, nationwide basis. Rather than stifling and preempting private initiative and "arenas for competition," a new BSA for ESPs will help spur the national market for information services. Thus, in furtherance of a sound industrial policy that properly balances the considerations relevant to the Commission's access charge principles, the FCC should act quickly to create a cost-based Basic Serving Arrangement designed to meet the unique needs of ESPs.

In the interim, while the Commission is undertaking to fashion a cost-based BSA for use by ESPs, it should allow ESPs to utilize federally-tariffed Basic Service Elements in conjunction with their present state-tariffed business lines. Again, no public outlays are involved, but such a policy would spur the continued proliferation of technologically-advanced information services and development of a more efficient telecommunications network.¹¹⁰

110. This article's focus on the specific issue of carrier access charges should not be interpreted as indicating that a new industrial policy paradigm could not, and should not, be considered in formulating other government policies which affect information services. For example, one recent use of industrial policy in this area is the information services "superhighways" that have been created in the past twenty years as a partnership of public and private resources and management. Legislation sponsored by then-Senator Albert Gore, the High-Performance Computing Act of 1991, P.L. 102-194, 105 Stat. 1594 (1991), was signed into law in December 1991 and promises to help stimulate the information services and computer markets for years to come.

In addition, the FCC also possesses the authority to require the LECs to modify the very architecture of their local exchange networks to accommodate the needs of multiple providers and services, including ESPs. In November 1991, the FCC issued a *Notice of Inquiry* in CC Docket No. 91-346 seeking comments on the architecture that the local exchange carriers intend to use in implementing their proposed Advanced Intelligent Network (AIN). In the Matter of Intelligent Networks: Notice of Inquiry, 6 F.C.C.R. 7256 (1991). In August, 1993, the Commission released a *Notice of Proposed Rulemaking* in this proceeding which would require the major LECs to provide "mediated" access to these networks. Notice of Proposed Rulemaking, CC Docket No. 91-346, FCC 93-380, __ F.C.C.R. __, __ (released August 31, 1993). In order for this country to fully realize the benefits of the Information Age, future LEC networks should not be based on the closed, non-responsive, and monopolistic model of the present, but rather should be designed to be as open, responsive, and pro-competitive as possible.

VI. CONCLUSION

Commissioner Duggan's September 1992 speech urges us to take another look at the often maligned concept of industrial policy. Rather than denigrating and rejecting industrial policy, Commissioner Duggan has suggested a sensible framework for thinking more unabashedly about the employment of government's powers in ways that further the public interest. The time may be ripe for policymakers to rely, not just on market forces alone, but market forces in conjunction with a properly-formulated industrial policy paradigm, in order to maximize the public good.¹¹¹

In particular, a newly-formulated industrial policy might be applied to consideration of the FCC's access charge regime. The Commission has the opportunity to reassess its access charge regime so that new and advanced enhanced services can continue to be provided to consumers on a reasonably-priced, competitive basis. Without the FCC's reassessment, however, it is likely that its Open Network Architecture program, which was touted as a key to the development of this country's information infrastructure, will fail. Rather than benefiting enhanced service providers, the ONA program will actually cause harm to ESPs. Nonetheless, it is not too late for the FCC to rethink the employment of a new industrial policy paradigm that melds the public good with the private interest in the information services area.

111. In September, 1993, the Clinton Administration released with considerable fanfare a policy initiative related to what it called the National Information Infrastructure (NII). DEPARTMENT OF COMMERCE, THE NATIONAL INFORMATION INFRASTRUCTURE: AGENDA FOR CHANGE (released September 15, 1993). The policy commits the Administration to the development of a national information infrastructure that "enables all Americans to access information and communicate with each other using voice, data, image, or video at anytime, anywhere." *Id.* at 2. While the NII initiative does not specifically address the pricing of information services in general, or the impact of local exchange carrier access charges in particular on the pricing of such services, the NII paper does adopt as one of nine principles and goals an extension of "the 'universal service' concept to ensure that information resources are available to all at affordable prices." *Id.* at 4. Regarding private sector/public sector relationships, the policy paper states that "carefully crafted governmental action can complement and enhance the benefits of . . . private sector initiatives." *Id.* Of course, one of the principal ways the government can encourage wider availability and usage of information services—that is, movement towards accomplishment of the "universal service" goal—is for the FCC to reconsider the access charge treatment of enhanced service providers as suggest in this article.

ARTICLE

INTELLECTUAL PROPERTY PROTECTION AND REVERSE ENGINEERING OF COMPUTER PROGRAMS IN THE UNITED STATES AND THE EUROPEAN COMMUNITY

CHARLES R. MCMANIS †

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I. INTRODUCTION

Perhaps the single most important intellectual property issue in the United States today is the scope of legal protection to be given computer programs.¹ Legal protection for computer programs can involve as many as four different forms of intellectual property law—trade secret law, copyright law, trademark law, and patent law. When courts have the discretion to decide the precise scope of protection to be provided computer programs under any one of the foregoing bodies of law, the other three must be taken into account, and some reference must be made to a fifth, closely related form of federal intellectual property protection for semiconductor chip designs.² In addition, courts should be aware of developments in foreign and international protection of computer programs, such as the recently promulgated European Community Directive on the Legal Protection of Computer Programs (“EC Directive”).³ That a tension exists among these overlapping forms of protection is particularly apparent in cases where a user of a computer program disassembles, decompiles, or in some manner “reverse engineers” the program.⁴

1. Throughout this article, the term “computer program” will be used as it is defined in § 101 of the Copyright Act of 1976, 17 U.S.C. § 101 (1988), to refer to “a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.” *Id.* The term “software” will be used in this article as a more generic term that includes computer programs, databases, and documentation. See generally 1 DAVID BENDER, *COMPUTER LAW* §§ 1.05, 2.06[1] (1992).

2. For examples of judge-made law in each of these areas of intellectual property, see *infra* Part III. For a discussion of semiconductor chip design protection, see *infra* Parts III, IV(C)(2).

3. Council Directive 91/250 of 14 May 1991 on the Legal Protection of Computer Programs, O.J. (L122/42) [hereinafter EC Directive]. For a discussion of the E.C. Directive, see *infra* Parts IV(B)(C)(D). See also Keiji Sugiyama, *Reverse Engineering and Other Issues of Software Protection in Japan*, 11 EUR. INTELL. PROP. REP. 395 (1991) (observing that most Japanese scholars consider reverse engineering to be a lawful practice).

4. The Supreme Court of the United States has described reverse engineering as “starting with the known product and working backward to divine the process which aided its development or manufacture.” *Kewanee Oil Corp. v. Bicron Corp.*, 416 U.S. 470, 476 (1974). As applied to computer programs, reverse engineering embraces a wide variety of methods for analyzing existing computer programs. For a detailed explanation of reverse engineering of computer programs and the difference between disassembly, decompilation, and other forms of reverse engineering, see *infra* note 15. For the reasons a computer program user or developer may wish to reverse engineer a program, see *infra* text accompanying note 19.

Despite the variety of intellectual property protection available for computer programs, United States courts have only recently dealt in a comprehensive fashion with the legality of reverse engineering of computer programs. In *Atari Games Corp. v. Nintendo of America*⁵ and *Sega Enterprises v. Accolade, Inc.*,⁶ two separate courts of appeals held that, at least where the computer program involved is part of a lockout device designed to prevent unauthorized electronic game cartridges from operating on a game console, decompilation or disassembly of the program can constitute a fair use under § 107 of the Copyright Act of 1976⁷ ("Copyright Act"). In so holding, the courts explored various points of intersection between copyright protection for computer programs and protections under patent, trademark and semiconductor chip design law.⁸ These two decisions, along with a third, *Vault Corp. v. Quaid Software Ltd.*,⁹ which held that reverse engineering not involving decompilation or disassembly was a permissible use under §117 of the Copyright Act, appear to bring United States copyright law into harmony with two reverse engineering provisions contained in the EC Directive.

The cases also raise two further issues: 1) whether computer software developers who use computer programs as lockout devices to eliminate competition, or who unilaterally place contractual restrictions on the reverse engineering of publicly distributed computer programs, are engaging in copyright misuse, and 2) whether the enforcement of contracts restricting reverse engineering of publicly distributed computer programs undermines and is thus preempted by federal copyright or patent law.¹⁰

Part II of this article provides an overview of the process of, and reasons for, reverse engineering of computer programs.

Part III describes the various forms of intellectual property protection available for computer programs in the United States, with particular emphasis on federal copyright law, and discusses the limitations on each of these forms of protection.

Part IV discusses the extent to which reverse engineering may be permitted under §§ 107 and 117 of the Copyright Act and under the EC Directive. It also discusses whether either use of a computer program as a lockout device to eliminate competition or use of contracts to prevent reverse engineering of publicly distributed computer programs constitutes copyright misuse.

5. 975 F.2d 832 (Fed. Cir. 1992).

6. 977 F.2d 1510 (9th Cir. 1992), *amended*, 1993 U.S. App. LEXIS 78.

7. 17 U.S.C. §107 (1988).

8. *See, e.g., infra* Part III.

9. 847 F.2d 255 (5th Cir. 1988).

10. For discussion of the first question, see *infra* Part IV(C)(3)(a). For a discussion of the second, see *infra* Part V.

Part V of the article considers the extent to which federal patent law, as well as federal copyright law, might be said to preempt enforcement of contracts that attempt to restrict the right to reverse engineer publicly distributed computer programs.

This article comes to the following conclusions: (1) As under the EC Directive, reverse engineering of publicly distributed computer programs, including decompilation and disassembly, constitutes a "fair use" under § 107 of the Copyright Act, where the reverse engineering is necessary to achieve interoperability with another program; (2) reverse analysis that can be accomplished merely by using a publicly distributed program in conjunction with a computer is a permissible use under § 117 of the Copyright Act; (3) computer software developers who use computer programs as lockout devices to eliminate competition or who unilaterally place contractual restrictions on the reverse engineering of publicly distributed programs may be engaging in copyright misuse; and (4) federal patent law, as well as federal copyright law, should be held to preempt the enforcement of contractual restrictions on the reverse engineering of publicly distributed computer programs.

II. REVERSE ENGINEERING

Computer programs are commonly distributed to consumers only in machine-language (or object-code) form, while the developer maintains the human-readable (or source-code) version of the program¹¹ as a trade secret.¹² The object-code version is virtually impossible for a user to

11. For an explanation of the difference between source code and object code, see *Apple Computer v. Franklin Computer Corp.*, 714 F.2d 1240, 1243 (3d Cir. 1983). For a discussion of trade secret protection for source code, see *infra* Part III(A).

12. See L.J. KUTTEN, *COMPUTER SOFTWARE* (1992) § 9.01, (quoting *In re Bedford Computer Corp.*, 62 Bankr. 555, 562 n.6 (C.D.N.H. 1986)) ("[T]he source code is the 'Lifeblood' of any computer company and it is rarely disclosed."). Kuten discusses at length the escrow arrangements which have been used in the software industry to protect secrecy. See also Allen R. Grogan, *Decompilation and Disassembly: Undoing Software Protection*, *COMPUTER LAW*, Feb. 1984, at 1, 3, 11 (noting that underlying design elements are viewed as protectible trade secrets because they determine such factors as the software's speed, accuracy, cost, and commercial feasibility, and concluding that through carefully drafted, enforceable agreements, a licensor should be able to restrict or prohibit reverse engineering, and that if programs are sold without restriction, any attempt to decompile or disassemble object code should be deemed to constitute copyright infringement unless it is undertaken 1) for non-profit or similar purposes and otherwise falls within the fair use provisions of section 107 of the 1976 Copyright Act, or 2) to use the program in conjunction with a machine as contemplated by section 117 of the Act.); Anne C. Keays, *Software Trade Secret Protection*, 4 *SOFTWARE L.J.* 577 (1991) (discussing trade secret protection under the Restatement (First) of Torts and the Uniform Trade Secrets Act, as well as the scope of trade secret protection in Europe and Japan); Ronald S. Laurie, *Protection of Trade Secrets in Object Form Software: The Case for Reverse Engineering*, *COMPUTER LAW*, July 1984, at 1 (noting that many software producers consider the internal structure and logic of their software to be a trade secret despite unrestricted distribution of the object code form, but concluding that an act of decompilation or

"read" while it remains in object code.¹³ Therefore, users and developers wishing to study the structure and technical parameters of an existing program must gain access to the program in its source-code form.

For this reason, users and developers who lack access to source code may engage in "reverse engineering," which attempts to reverse the steps originally involved in creating a program.¹⁴ Reverse engineering allows a user to create an equivalent of the original source-code version of the program. Methods of reverse engineering range from analyzing screen displays of the object code to decompilation or disassembly of the program.¹⁵

disassembly performed in order to gain access to the internal structure and logic of the program does not constitute copyright infringement, and that a trade secret claim based on decompilation or disassembly of object code, absent a contractual or confidential relationship, is preempted by federal copyright law). For a discussion of decompilation and disassembly, see *infra* note 15.

13. See Grogan *supra* note 12, at 2. See also Andrew Johnson-Laird, *Reverse Engineering of Software: Separating Legal Mythology from Actual Technology*, 5 SOFTWARE L.J. 331, 343 (April, 1992) ("Deciphering computer-executable programs is extremely tedious and error prone; it can take up to a minute or so for each computer instruction (a typical program might contain 500,000 instructions—347 days' worth of deciphering).").

14. Computer programming has been described as a three-step process that works from the general to the specific: 1) Defining the problem to be solved; 2) flow charting the logical sequence of steps to be performed in solving the problem and breaking the steps down into increasingly specific subroutines or modules; and 3) coding the program. The third step, in turn, involves two further steps: first, writing the program in human-readable source code (which can consist of either any one of several high-level computer languages that resemble human language and utilize human logic, or of assembly language, which requires the programmer to approach each problem using generally far more detailed machine logic); and second, utilizing an interpreter or compiler program for high-level source code, or an assembler program for assembly language source code, to translate the source code into machine-readable form, called object code. Object code is simply a binary language, consisting of zeros and ones, through which the computer hardware directly receives its instructions as a series of electronic pulses generated by the object code. See generally 1 BENDER, *supra* note 1, § 2.03; Laurie, *supra* note 12, at 3-4.

15. For an accessible non-technical description of the process of reverse engineering of computer programs and its role in software development, see Johnson-Laird, *supra* note 13. This commentator claims that the term "reverse engineering" is a misnomer, "a convenient 'handle' ascribed to the process of analyzing existing software." *Id.* at 342. Reverse engineering, he says, is actually an "additive" process, by which programmers must "recreate" the logical structure of the original program, which demands a considerable amount of information from the reverse engineer. *Id.* at 344. See also Thomas C. Vinje, *The Development of Interoperable Products Under the EC Software Directive*, COMPUTER LAW., Nov. 1991, at 3. Vinje distinguishes between "reverse analysis" techniques, such as test runs, communication line traces, storage media dumps, and screen displays of object code, which do not involve translation of the analyzed program's object code into anything similar to its original assembler source code, and those techniques which do involve such a translation, known as disassembly or decompilation. *Id.* at 10 n.23. Disassembly and decompilation attempt to reverse the assembly and compilation processes described *supra* note 14. Of these two reverse engineering techniques, Vinje notes:

Disassembly is conducted by using a disassembler program to translate object code back into something akin to assembler source code.

Computer tasks typically require several different "layers" of programs. The top layer is most accessible to (or perhaps even custom-designed by) computer users, and consists of applications programs that interact with the user to perform tasks such as word processing, or creation of a spread sheet or graphics design.¹⁶ These programs are generally embodied in magnetic media, such as tapes or discs; optical media, such as CD-ROMs; or solid-state memories, such as cartridges for games. Beneath that layer is the computer's operating system, which performs basic machine functions such as coordinating application programs, and storing and retrieving information.¹⁷ Operating system programs are generally embodied in magnetic media or solid-state memories. At the base of the computer hierarchy is microcode, a body of instructions embedded in an integrated circuit or semiconductor chip. Microcode transforms the higher-level object-code instructions from the application program or operating system into electronic signals necessary to control the computer's circuits.¹⁸ Reverse engineering may involve any of these "layers" of computer programs.

Users or developers of computer programs may wish to study the design of a particular program for a variety of purposes. One purpose is to learn or teach new programming techniques, either for purely academic reasons or in order to create a commercially-marketable software product. Another is to make more effective use of the program by identifying and locating program errors ("debugging"), customizing the program to meet the user's own particular requirements, or modifying a program in order to make it compatible with another

"Decompilation" has come to be used more generally to connote the computerized translation of a computer program's object code into something akin to its origin source code. . . . The appropriateness of the term "decompilation" has been questioned by many who deny the existence (or even the theoretical possibility) of any technique by which high level source code can be recreated from object code. In any event, disassembly is a technique that clearly exists—indeed any operating system will include as a matter of course a disassembly tool—and disassembly has been subsumed within the term "decompilation."

Id. at 10 n.38. See also Grogan, *supra* note 12, at 7:

A compiled program is likely to be relatively more time-consuming and difficult to reverse engineer than a program written in assembly language . . . because the internal structure of a program which has been compiled and optimized tends to be jumbled and confusing. . . . [A] decompiler will not be able to generate the higher level language in which the compiled program was originally written.

Id. Reverse engineering of computer programs should not be confused with reverse engineering of semiconductor chips. For a discussion of the difference, see *infra* note 57.

16. See 1 BENDER, *supra* note 1, § 2.06[2].

17. *Id.*

18. See Ronald S. Laurie, *The Copyrightability of Microcode: Is It Software or Hardware . . . or Both?*, COMPUTER LAW., Mar. 1985, at 1.

program or a particular piece of computer hardware ("porting"). A third purpose is to develop a specific, commercially-marketable, non-competing program that will interact compatibly with the reverse engineered program. Here, the developer's goal could either be to create a new application, compatible with an existing operating system, or to improve or counteract features contained in an existing application. Finally, a user may wish to develop a functionally equivalent product that will compete directly with the original program. Such a program may need to "understand" enough of the command and file structure of the reverse-engineered program to interact with the files or documents it produces, or actually employ particular features (e.g., subroutines) it contains.¹⁹

III. FORMS OF INTELLECTUAL PROPERTY PROTECTION FOR COMPUTER PROGRAMS IN THE UNITED STATES

Determining the legality of reverse engineering of computer programs is complicated, since computer programs are virtually unique in the field of intellectual property law. Computer programs function both as a part of a machine, in their object-code form, and as a means of communicating with other human beings, in their source-code form, and are thus eligible for federal patent protection as well as federal copyright protection.²⁰ Moreover, computer programs can simultaneously be publicly distributed, in their object-code form, while being kept secret, in their source-code form, and thus may also be eligible for state trade secret protection.²¹ To further complicate matters, some programs can be embedded in semiconductor chips, the designs of which are separately protected by a *sui generis* form of intellectual property protection.²² Screen displays generated by computer programs may be separately protected as copyrightable literary or artistic works, may contain sufficiently distinctive product features to qualify for protection as trademarks, and may even be eligible for federal design patent protection as new and non-obvious ornamental designs for an article of manufacture.²³

19. The foregoing list of reasons for engaging in reverse engineering is based on a similar list contained in a report of the Committee on Computer Law, *Reverse Engineering and Intellectual Property Law*, 44 REC. ASS'N. B. CITY OF N.Y., 132, 134-35 (1989), (hereinafter "Committee Report"), reprinted in 3 ROGER MILGRIM, MILGRIM ON TRADE SECRETS (1991) App. B-8, in 12-12B BUSINESS ORGANIZATIONS (1990). For a discussion of this report, see *infra* Part IV(C)(3).

20. See *infra* notes 37-39, 45-51, and accompanying text, and Part V(B), discussing patent preemption of state law.

21. See *supra* note 12 and accompanying text.

22. See *infra* Part IV(C)(2) for a discussion of the Chip Act.

23. See *infra* notes 53-55 and accompanying text, and Part IV(C)(3)(a), discussing trademark misuse and the first fair use factor.

A. Trade Secret Protection for Publicly Distributed Computer Programs

1. STATE TRADE SECRET LAW

The earliest form of legal protection for computer programs was state trade secret law. During the mainframe era of computer hardware development, when the right to use a computer program could be "bundled" with the overall leasing arrangements for mainframe computer hardware, there was little need for any additional legal protection.²⁴ The equipment manufacturer simply negotiated a contract with each user.

Although copyright and patent protection for computer programs have become preeminent in the era of the personal computer and publicly distributed software,²⁵ trade secret law continues to provide an important subsidiary form of protection for source code. To take advantage of state trade secret protection, a developer need only control access to the source code and contractually bind all parties who have access to the source code to maintain its confidentiality.²⁶ State trade secret law not only enforces such provisions, but provides common-law tort remedies for inducing another to breach such provisions or for acquiring another's trade secret by otherwise improper means, such as industrial espionage.²⁷ State trade secret law also prohibits the use of a trade secret by a party who knows or has reason to know that the secret information was improperly acquired or disclosed by a third party.²⁸ Trade secret protection is of potentially indefinite duration, so long as one maintains the secrecy of the information.

However, the scope of trade secret protection is qualified. Trade secret law prohibits the acquisition, use or disclosure of another's trade secret only when it is "improper."²⁹ One is explicitly permitted not only to independently develop trade secrets, but to reverse engineer publicly distributed products.³⁰ Thus, if state trade secret law were the only legal protection available for publicly distributed computer programs, reverse engineering of such programs would clearly be legal.

24. See BENDER, *supra* note 1, §3.02[4].

25. See *infra* Part III(B).

26. See generally 1 MILGRIM, *supra* note 19, §§ 2.03-.04, 3.01, 4.01.

27. *Id.* at §§ 5.04-05.

28. *Id.* at § 5.04[2]-[3].

29. *Id.* at § 5.04-05.

30. *Id.* at § 5.04[1].

2. DE FACTO FEDERAL PROTECTION OF TRADE SECRETS

The Copyright Office provides a sort of trade secret protection for the source code of copyrighted programs by limiting the circumstances in which works deposited at the Copyright Office can be reproduced.³¹ The Copyright Office also allows those registering computer programs for copyright protection to deposit only the identifying portions of the source-code versions of their programs.³² Under certain circumstances, copyright applicants may block out portions of the source code containing trade secrets.³³ Additionally, under the Copyright Office's "rule of doubt" policy, some copyright applicants may deposit only the object code, along with written assurances that it contains copyrightable authorship.³⁴ These Copyright Office regulations in effect create a federal form of trade secret protection for computer programs.

B. Intellectual Property Protection for Publicly Distributed Computer Programs

1. COPYRIGHT, TRADEMARK, AND PATENT PROTECTION, AND THE SEMICONDUCTOR CHIP ACT OF 1984

It is now well established that all computer programs, regardless of their form (source code or object code), function (applications programs or operating system programs), or medium of expression (magnetic tapes or discs, optical media, solid-state memory, or microcoded semiconductor chips), are protectible under § 102(a) of the Copyright Act of 1976 as works of authorship—specifically, as "literary works."³⁵ It is equally well

31. Section 702 of the 1976 Copyright Act authorizes the Register of Copyrights "to establish regulations not inconsistent with law for the administration of the functions and duties made the responsibility of the Register under this title." 17 U.S.C. § 702 (1988). Section 705 of the 1976 Copyright Act specifies that articles deposited in connection with a completed registration are to be open to public inspection, but section 706 states that copies of deposited articles are to be authorized or furnished "only under the conditions specified by the Copyright Office regulations." 17 U.S.C. §§ 702, 706 (1988). These regulations, in turn, permit reproduction of deposited articles only if 1) the copyright owner grants permission, 2) a court orders reproduction, or 3) the Copyright Office receives a written request from an attorney on behalf of a party to actual or prospective litigation involving the copyrighted work, and the attorney gives satisfactory assurances that the requested reproduction will be used only in connection with the specified litigation. 37 C.F.R. § 201.2(d)(2)(i)-(iii) (1991).

32. 37 C.F.R. § 202.20(c)(2)(vi) (1992).

33. *Id.*

34. 37 C.F.R. § 202.20(c)(2)(vi)(vii) (1992).

35. Section 102 specifies that

(a) Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced,

established that screen displays generated by a computer program are separately protectible as works of authorship—either as literary works, or as pictorial, graphic or audiovisual works, depending upon the nature of the particular screen displays.³⁶

or otherwise communicated, either directly or with the aid of a machine or device. Works of authorship include the following categories:

- (1) literary works;
- (2) musical works, including any accompanying words;
- (3) dramatic works, including any accompanying music;
- (4) pantomimes and choreographic works;
- (5) pictorial, graphic, and sculptural works;
- (6) motion pictures and other audiovisual works;
- (7) sound recordings; and
- (8) architectural works.

(b) In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.

17 U.S.C. § 102 (1988).

Section 101 defines "literary works" as "works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects, such as books, periodicals, manuscripts, phonorecords, film, tapes, disks, or cards, in which they are embodied." 17 U.S.C. § 101 (1988).

Apple Computer v. Franklin Computer Corp., 714 F.2d 1240 (3d Cir. 1983), held that both the source code and object code of a computer program are protectible by copyright law, that the embodiment of a program in a read-only-memory (ROM) does not deprive a program of its copyright protection, and that operating programs as well as application programs are protected by copyright. *NEC Corp. v. Intel Corp.*, 10 U.S.P.Q.2d 1177 (N.D. Cal. 1989) held, among other things, that microcode embedded in a microprocessor is a protectible computer program. For the court's observations on reverse engineering of microcode, see *infra* notes 128-30 and accompanying text. See generally Laurie, *supra* note 12, at 1 (classifying computer programs by form, function and medium of expression and discussing the copyrightability of microcode).

36. See generally 1 BENDER, *supra* note 1, § 4.04[2] (discussing the case law concerned with copyright protection for screen displays); Ross Katchman, *Copyright Registration of Computer Screen Displays from the Perspective of the Copyright Office*, COMPUTER LAW., Oct. 1987, at 16. For a polemic critique of the Copyright Office regulations governing registration of screen displays, see Gary L. Reback & David L. Hayes, *A Candid Assessment of the New Software Copyright Registration Procedures*, COMPUTER LAW., July 1989, at 1. Some courts have misleadingly referred to screen displays as non-literal elements of the program that generates them, while other courts have equally misleadingly suggested that a similarity between screen displays is evidence of a similarity in the expression of the programs that generate them. See *e.g.*, *Whelan Assoc. v. Jaslow Lab.*, 797 F.2d 1222, 1244 (3d Cir. 1986) (holding that screen displays could serve as indirect evidence of copying of the underlying program); *Broderbund Software v. Unison World*, 648 F.Supp 1127 (N.D. Cal. 1986) (treating screen displays as non-literal elements of the underlying computer program). Although Copyright Office regulations allow a single registration for computer programs and the screen displays they generate, the two are nevertheless conceptually distinct copyrightable works. Identical screen displays, moreover, can be generated by computer programs that do not themselves contain substantially similar expression.

Additionally, any aspect of a screen display that either inherently identifies or comes to be associated with the underlying program, and is not otherwise functional, may also be protectible under federal and state law as a trademark. Protection under trademark law applies to distinctive brand names, logos and product features.

Federal patent law also provides protection for publicly distributed computer programs. It is becoming increasingly clear that computer-related inventions that are sufficiently new, useful and non-obvious may be the subject of federal *utility* patent protection, and that ornamental features of a screen display that are sufficiently new, original and non-obvious may be entitled to *design* patent protection. A recent study concluded that the United States Patent and Trademark Office (USPTO) is now issuing significant numbers of "pure" software utility patents.³⁷ A number of such patents have been upheld as valid by federal courts, including the Court of Appeals for the Federal Circuit.³⁸ In addition, the USPTO Board of Patent Appeals and Interferences recently rendered its first decision acknowledging that ornamental elements of computer screen displays may be the subject of design patent protection if they are described, shown and claimed as an integral part of a computer system.³⁹

Finally, as a result of the Semiconductor Chip Protection Act of 1984,⁴⁰ (hereinafter "Chip Act") there is also a new *sui generis* form of federal intellectual property protection for semiconductor chip designs, which the Act refers to as "mask works." The purpose of the Chip Act is to protect the design of semiconductor chips of all kinds, ranging from microprocessors (i.e., "computers on a chip") to mere memory chips designed to store information.⁴¹

37. See *Survey of U.S. Business Software Patents: Post-Diehr Through December 1990*, State Bar of Michigan, 56th Annual Meeting, reprinted in 1 BENDER, *supra* note 1, App. 3A[6]. An earlier version of the survey is reprinted in 1 BENDER, App. 3A[4]. The [earlier] version of the survey defines "pure" software patents as patents that "specifically disclose and claim software technology without directly referring to hardware, other than a conventional computer and peripheral devices." *Id.* at App. 3A-102. But see Pamela Samuelson, *Benson Revisited: The Case Against Patent Protection for Algorithms and Other Computer Program-Related Inventions*, 39 EMORY L.J. 1025 (1990). For a more extended discussion of patent protection for computer programs, see *infra* Part(V)(B).

38. See 1 BENDER, *supra* note 1, § 3A.03[2][c]. But cf. D.C. Toedt, *Software Patent Controversies Lead to Different Outcomes in the Federal Circuit*, PTO, COMPUTER LAW., July 1992, at 18. See generally Samuelson, *supra* note 37.

39. See Robert Barr & Susan Hollander, *Design Patents Revisited: Icons as Statutory Subject Matter*, COMPUTER LAW., June 1992, at 13, 15.

40. 17 U.S.C. §§ 901 *et seq.* (1988).

41. See RICHARD STERN, SEMICONDUCTOR CHIP PROTECTION § 1.1 (1986). Stern states that the two most important types of semiconductor chip product, in terms of sales volume, are microprocessors and memory chips. *Id.* at 4.

2. LIMITATIONS ON PROTECTION

The protection provided by each of the foregoing bodies of law comes with its own distinct limitations. Federal copyright law protects only an author's original expression, not the ideas expressed, and permits not only free public use of these ideas but also a variety of "fair uses" of otherwise protectible expression.⁴² Factual or utilitarian works, in particular, are protected only against substantial appropriations of literal expression.⁴³ Proof that a work has been independently created, although not sufficient to defeat a claim of patent infringement, will defeat a claim of copyright infringement. On the other hand, federal copyright law requires no great novelty of expression—originality having been defined as requiring little more than that the copyrighted work owe its origin to the author claiming copyright protection and not be a slavish copy of someone else's work.⁴⁴

Federal patent protection for either an invention or a design is limited to subject matter that is not only new, but also non-obvious to those skilled in the art to which the subject matter pertains.⁴⁵ It has been estimated that well over 90 percent of computer programs will fail to meet this requirement.⁴⁶ The issuance of a patent is also conditioned upon the applicant's complete disclosure of the subject matter claimed.⁴⁷ This disclosure allows the public to benefit from the advance in the art, both during and after the expiration of the limited patent term.⁴⁸ Although these disclosure requirements do not necessarily require a patent application for a program-related invention to reveal the literal

42. See 17 U.S.C. §§ 102, 107 (1988). For the text of sections 102 and 107, see *supra* note 35 and *infra* note 121, respectively.

43. The appropriation that a defendant has a right to prevent includes any use of the copyrighted work that violates the exclusive rights enumerated in 17 U.S.C. § 106 (1988). For the text of section 106, see *infra* note 60. For a discussion of the scope of protection for factual or utilitarian works, see *infra* notes 65-66 and accompanying text.

44. *Feist Publications, v. Rural Tel. Serv. Co.*, 111 S. Ct. 1282 (1992).

45. 35 U.S.C. §§ 103, 171 (1988) (inventions and designs, respectively).

46. See 1 BENDER, *supra* note 1, § 3A.02.

47. 35 U.S.C. §§ 112, 159 (1988).

48. In two respects, the disclosure of the invention benefits the public during the patent term. On the one hand, disclosure informs the public about the very existence of the invention and may trigger a process of negotiation with the patentee aimed at reaching a license agreement. On the other hand, disclosure, with the accompanying description of the state of the art, is helpful for competitors "to invent around" the potential invention when the invention is commercially successful and the patentee is not willing to license it. Contrary to the general belief, "inventing around" is not necessarily wasteful of social resources—on the contrary, it is procompetitive and stimulates innovation. It is precisely the procompetitiveness of "inventing around" in the patent context that led Congress, in section 906 of the Semiconductor or Chip Protection Act, 17 U.S.C. § 906 (1988), to authorize the reverse engineering of chips, and led the Ninth and Federal Circuits, in the *Atari* and *Sega* cases, to allow the reverse engineering of computer programs.

code of the program involved, there must be sufficient disclosure to ensure that a person of ordinary skill in the art disclosed could practice the invention without undue experimentation.⁴⁹ Where the disclosure requirements are met and a patent is issued, the patent owner may exclude others from (1) making, using or selling the patented invention; (2) importing, using or selling the product of a patented process; or (3) actively inducing or contributing to an infringement,⁵⁰ subject only to certain narrowly tailored "fair" uses.⁵¹

Thus, while the scope of protection is narrower under copyright law than in patent law, the requirements for obtaining copyright protection are more modest. Additionally, the term of copyright protection is

49. See 1 BENDER, *supra* note 1, § 3A.05; David Bender & Anthony Barkume, *Disclosure Requirements for Software-Related Patents*, COMPUTER LAW., Oct. 1991, at 1, 3. For a more detailed discussion of the disclosure requirements for computer program related inventions, see *infra* notes 364-66 and accompanying text.

50. 35 U.S.C. §§ 154, 271 (1991). As a result of the Patent Law Amendments Act of 1984, Pub. L. No. 98-622 § 101(a), 98 Stat. 3383 (1984), it is an infringement to supply within the United States, or to export from the United States, all or a substantial portion of the uncombined components of a patented invention in such a manner as to actively induce a combination of such components outside the United States that would infringe the patent if such combination occurred within the United States. 35 U.S.C. § 271(f) (1988). This provision gives extraterritorial effect to U.S. patent law by making it an infringement to contribute to conduct occurring outside the United States that would be an infringement if it took place within the United States. As a result of provisions in the Omnibus Trade and Competitiveness Act of 1988, Pub.L. No. 100-418, § 9006, 102 Stat. 1156 (1988), it is an infringement to import into the United States, or to sell or use within the United States, a product which is made outside the country by a process patented in the United States 35 U.S.C. § 271(g) (1991). This provision gives extraterritorial effect to U.S. patents on processes.

51. The Patent Act explicitly acknowledges two species of patent "fair use." Section 271(e)(1) authorizes pharmaceutical laboratories to use patented substances (provided they do not result from genetic manipulation techniques) for the purpose of performing experiments and obtaining data in order to provide the FDA with the necessary information for the approval of a new drug. 35 U.S.C. § 271(e)(1) (1988). The new drug may be distributed only after the patent expires. *Id.* at § 271(e)(2). Section 272 makes it lawful to use patented inventions in any vessel, aircraft, or vehicle entering the United States temporarily or accidentally. 35 U.S.C. § 272 (1988). This section embodies the language of Article 5 of the Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, 25 Stat. 1372, T.S. No. 379, *as revised by* Act of Stockholm, July 14, 1967, 21 U.S.T. 1629, T.I.A.S. No. 1583.

In addition to these two statutorily recognized fair uses, the unauthorized use of patented inventions for experimental purposes is generally considered a "fair use," under both U.S. case law and foreign patent statutes. *See, e.g.*, British Patents Act of 1977, Section 60/5; French Patent Law of 1968, as amended in 1978, Section 29; German Patent Law of 1980, Section 11; Japan Patent Law of 1959, as amended in 1978, Section 69; *Kaz Mfg. Co. v. Cheesebrough-Pond's, Inc.*, 211 F. Supp. 815, 818 (S.D.N.Y. 1962), *aff'd* 317 F.2d 679 (2d Cir. 1963). But the experimental use exception in the United States is narrowly defined. *See, e.g.*, *Roche Products v. Bolar Chem. Co.*, 733 F.2d 858 (Fed. Cir. 1984) (unlicensed experiments, where carried out one year before a patent expired, not merely for amusement or strictly philosophical inquiry, but with a view to adapting the patented invention to the experimenter's business as soon as the patent expired, constitute infringement).

considerably longer than that provided for patented inventions or designs.⁵² Because most computer programs and screen graphics cannot meet the federal patent law requirement of non-obviousness, federal copyright law currently provides the main bulwark of protection in the United States for publicly distributed computer programs.

Other bodies of intellectual property law offer supplemental protection. The federal and state law protecting product features, such as screen graphics, as trademarks provides potentially indefinite protection, but is limited, as federal copyright law is, to protecting "non-functional" features of the product.⁵³ The scope of protection under trademark law is even narrower than that provided under copyright law. Trademark law merely prevents others from using the same or a similar feature in such a way as to create a likelihood of confusion with (or under the statutory law of at least some states a likelihood of "dilution" of the impact of) a distinctive trademark.⁵⁴ Various "collateral uses" of another's mark, such as use in non-deceptive comparative advertising, are considered "fair uses" of the mark.⁵⁵

The federal statute protecting semiconductor chip designs embodied in a semiconductor chip product against unauthorized reproduction provides a ten-year term of protection for such designs.⁵⁶ However, the Chip Act contains a provision explicitly permitting reverse engineering of semiconductor chips.⁵⁷

52. The copyright term for works in general is the life of the author plus fifty years. 17 U.S.C. § 302(a) (1988). For anonymous and pseudonymous works or works made for hire, the copyright term is seventy-five years from the year of its first publication, or one hundred years from its creation, whichever occurs first. 17 U.S.C. § 302(c) (1988). The term for utility patents is seventeen years, and the term for design patents is fourteen years. 35 U.S.C. §§ 154, 173 (1988) (utility and design, respectively).

53. See, e.g., *In re Morton-Norwich Products*, 671 F.2d 1332, 1336 (C.C.P.A. 1982). For a discussion of this limitation in federal copyright law, see *infra* notes 63-66, 70-71, 207-214 and accompanying text.

54. See 2 THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION, §§ 23.01, 24.14 (3d ed. 1992).

55. Federal and state trademark law also recognizes a "fair use" defense for use of a descriptive term in its primary meaning. In some circumstances, a junior user has the "qualified right" to the use of a personal name. And, to some extent, a rebottler or repacker may "collaterally" use a trademark with the goal of keeping the public informed. See 1 & 2 MCCARTHY, *supra* note 54, §§ 11.17, 13.03, 25.08.

56. 17 U.S.C. § 904 (1988).

57. 17 U.S.C. § 906 (1988). For an illustration of the difference between reverse engineering of a semiconductor chip and reverse engineering of a computer program see *Atari Games Corp. v. Nintendo of Am.*, 975 F.2d 832, 836, (Fed Cir. 1992), where the court of appeals notes that Atari first tried to analyze Nintendo's lockout program by monitoring the communication between the "master" semiconductor chip in the console and the "slave" chip located in the game cartridge. *Id.* at 836. This is an example of reverse analysis of a computer program. Atari next tried to analyze the chips themselves by chemically peeling away layers of the chip to allow microscopic examination of the object code embedded therein. This is an example of reverse engineering of a

Cutting across the federal law of patents, copyrights and trademarks is a final limitation: the doctrine of misuse. Where one "misuses" one's patent, copyright, or trademark⁵⁸—that is, exercises one's federal rights in a manner that conflicts with the goals of the statute creating that right, or has an anti-competitive effect within the meaning of federal antitrust law—protection is denied.

Because federal copyright law provides the most significant protection for publicly distributed computer programs, the precise scope of that protection and the effect it has on the legality of reverse engineering warrants separate and more detailed examination.

C. Computer Program Protection Under United States Copyright Law

Although federal copyright protection "subsists" from the moment a work of authorship is fixed in tangible form, copyright protection for computer programs is necessary primarily to prevent publicly distributed, machine-language (object-code) versions of computer programs from being reproduced without authorization of the copyright owner.⁵⁹ The source code version of the computer program, as we have seen, can be, and usually is, protected as a trade secret. Thus, source code has no direct need for the additional protection provided by the 1976 Copyright Act. The Act, however, does play a potentially critical role in

semiconductor chip design. The latter process does not reverse engineer the embedded program, however, because it does not translate the embedded object code into source code. *Id.* To successfully reverse engineer the embedded program, Atari ultimately found it necessary to make false statements to the Copyright Office in order to obtain a copy of the source code for Nintendo's program.

The district court in *Sega Enterprises Ltd. v. Accolade, Inc.*, 785 F. Supp. 1392 (N.D. Cal. 1992) confused reverse engineering of a chip with reverse engineering of the computer program embedded therein. ("Accolade could have 'peeled' the microchips as set forth in § 906 . . . or programmed in a 'clean room,' but instead chose to disassemble, reproduce and enhance SEL's software."). *Id.*; cf. *Atari Games Corp. v. Nintendo of Am.*, 18 U.S.P.Q. 1935 (1991) (if Atari had proceeded with its analysis of "peeled" Nintendo chips as allowed by § 906, and not used the copy wrongfully obtained from the Copyright Office, it would not have infringed Nintendo's copyright).

For a discussion of semiconductor chip protection and reverse engineering, see *infra* Part IV(C)(2).

58. For patent misuse, see, e.g., *Brulotte v. Thys Co.*, 379 U.S. 29, 33 (1964), *Dawson Chemical Co. v. Rohm & Haas Co.*, 998 U.S. 176 (1980); *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 492 (1942); *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917). For copyright misuse, see, e.g., *Lasercomb Am. v. Reynolds*, 911 F.2d 970, 973-74 (4th Cir. 1990); *M. Witmark & Sons v. Jensen*, 80 F. Supp. 843 (D. Minn. 1968), *aff'd per curiam*, 177 F.2d 515 (8th Cir. 1969). For trademark misuse, see, e.g., *Anti-Monopoly, Inc. v. General Mills Fun Group*, 611 F.2d 296 (9th Cir. 1979). For a more detailed discussion of the misuse defense, see *infra* Part IV(C)(3)(a).

59. See *supra* note 35.

the effort by program developers to prevent reverse engineering of computer programs.

Section 106 of the Copyright Act grants a copyright owner the exclusive rights to reproduce and to prepare derivative works based on the copyrighted work.⁶⁰ Federal copyright law would thus appear to prohibit both the unauthorized adaptation of the object-code version of a program, and the unauthorized, even if indirect and not entirely literal, reproduction of the source code.⁶¹ Any attempt to decompile, disassemble or otherwise reverse engineer the object-code version of a program may thus violate federal copyright law.

However, both the subject matter protected under § 102(a) of the 1976 Copyright Act and the exclusive rights granted under § 106 of the Act are subject to limitations. Section 102(b) specifies that copyright protection does not extend to any "idea, procedure, process, system, method or operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in the work."⁶² This is known as the "idea/expression dichotomy."⁶³

A corollary of the idea/expression dichotomy is the "merger doctrine." The merger doctrine states that if there is only one way, or a limited number of ways, of expressing an idea, then the idea and its expression are said to have merged. Copyright protection is unavailable for the expression which has merged with the idea.⁶⁴

60. Section 106 states that:

Subject to sections 107 through 120, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following:

- (1) to reproduce the copyrighted work in copies or phonorecords;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; and
- (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly.

17 U.S.C. § 106 (1988). For a discussion of two provisions of the Act that arguably limit the exclusive rights as applied to computer programs, see *infra* Part IV(C) (§ 107), and Part IV(D) (§ 117).

61. See generally Laurie, *supra* note 12, at 1; Grogan, *supra* note 12, at 1; Committee Report, *supra* note 19.

62. 17 U.S.C. §102(b) (1988).

63. See generally MELVILLE B. NIMMER, 1 NIMMER ON COPYRIGHT § 2.03[D] (1992).

64. See Computer Assoc. Int'l v. Altai, Inc., 982 F.2d 693, 707-708 (2d Cir. 1992), (citing Concrete Mach. Co. v. Classic Lawn Ornaments, 843 F.2d 600, 606 (1st Cir. 1988)); Herbert Rosenthal Jewelry Corp. v. Kalpakian, 446 F.2d 738, 742 (9th Cir. 1971); Morissey v. Procter & Gamble Co., 379 F.2d 675, 678-79 (1st Cir. 1967); Lotus Dev. Corp. v. Paperback

Analogous to the idea/expression dichotomy is the fact/expression dichotomy, which severely limits the scope of federal copyright protection under § 106 for factual works.⁶⁵ Moreover, if otherwise protectible expression is inseparable from the facts, ideas or utilitarian functions embodied in the expression, copyright protection is completely unavailable. These long-standing principles not only delimit the subject matter and scope of the exclusive rights protected by the Copyright Act, but also distinguish federal copyright protection from patent protection for computer programs.⁶⁶

The case law applying the Copyright Act to computer programs can be divided into two generations, corresponding to §§ 102 and 106. The first generation was concerned with whether all forms of computer programs were copyrightable subject matter, while the second generation has attempted to define the scope of the exclusive rights held by the owner of a computer-program copyright.

1. FIRST GENERATION CASES: COMPUTER PROGRAMS AS COPYRIGHTABLE SUBJECT MATTER

During the first generation of cases concerned with copyright protection for computer programs, a number of commentators argued against granting copyright protection to publicly distributed, machine-readable versions of a computer program.⁶⁷ They argued that providing

Software Int'l, 740 F. Supp. 37, 66 (D. Mass. 1990); *Manufacturers Technologies v. Cams, Inc.*, 706 F. Supp. 984, 995-99 (D. Conn. 1989).

65. *Feist Publications v. Rural Telephone Service Co.*, 111 S. Ct. 1282 (1991) ("This Court has long recognized that the fact/expression dichotomy limits severely the scope of protection in fact-based works."); *Sega Enterprises Ltd. v. Accolade, Inc.*, 1993 U.S. App. LEXIS 78, *39-40 ("To the extent that a work is functional or factual, it may be copied. . . . Works of fiction receive greater protection than works that have strong factual elements . . . or works that have strong functional elements, such as accounting textbooks.") (citing *Baker v. Selden*, 101 U.S. 99, 104 (1879)).

66. *Sega*, 1993 U.S. App. LEXIS 78, at *48. ("In order to enjoy a lawful monopoly over the idea or functional principle underlying a work, the creator of the work must satisfy the more stringent standards imposed by the patent laws."); *Atari*, 975 F.2d at 839 ("[P]atent and copyright laws protect distinct aspects of a computer program . . . Title 35 protects the process or method performed by a computer program; Title 17 protects the expression of that process or method.").

Cf. § 101 of the 1976 Copyright Act, which states that pictorial, graphic or sculptural works, listed as copyrightable subject matter in section 102(a) of the Act, "include works of artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspect are of concern," and that the design of a useful article "shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic or sculptural features that can be identified separably from, and are capable of existing independently of the utilitarian aspects of the article." 17 U.S.C. 101 (1988).

67. For a general discussion of the two generations of computer program copyright cases and the differing views of commentators over both generations of cases, compare Anthony L. Clapes et. al., *Silicon Epics and Binary Bards: Determining the Proper Scope of*

such protection without requiring that the source code be published would subvert one of the traditional, constitutionally-based, norms of federal copyright law: namely, that bringing new ideas into the public domain is the *quid pro quo* the public receives in exchange for the limited monopoly right the author receives to protect his or her expression of ideas.⁶⁸

Before the advent of computer programs, publicly distributed copyrighted works necessarily communicated the entirety of the ideas in the work. In the case of computer programs, however, "it is possible both to publish a work and keep it secret, and keeping it secret is part of the way the commercial value of the work is maintained."⁶⁹

A further problem posed by computer programs is that the object-code version of a computer program is utilitarian in a more fundamental sense than is virtually any previous class of copyrightable work. Unlike a factual work, a book of instructions, or even a human-readable source-code version of a computer program, a machine-readable, object-code version of a program does not instruct a human being about how a task might be performed. Rather, in conjunction with computer hardware, it performs the task itself.⁷⁰ The principal utility of a machine-readable version of a computer program springs not from the information it conveys to human beings, but from the information it conveys to a machine. Historically, the only federal protection available for works of this sort had been patent protection.⁷¹

Nevertheless, the courts in the first generation of computer copyright cases rejected the argument that object code should be denied copyright protection.⁷² In the second generation of software copyright cases, however, the courts have been more divided over the appropriate scope of protection under § 106 of the Copyright Act. The specific point of contention has been whether and how far copyright protection should extend beyond the literal code to the structure, sequence and organization or other non-literal elements of a program.⁷³

Copyright Protection for Computer Programs, 34 U.C.L.A. L. REV. 1493 (1987) (favoring broad copyright protection for computer programs), with Peter S. Menell, *An Analysis of the Scope of Copyright Protection for Application Programs*, 41 STAN. L. REV. 1045 (1989) and Dennis S. Karjala, *Copyright, Computer Software, and the New Protectionism*, 28 JURIMETRICS J. 33 (1987) (opposing broad copyright protection for computer programs). See also John T. Soma, et al., *A Proposed Legal Advisor's Roadmap for Software Developers*, 68 DENV. U. L. REV. 191, 198-205 (1991) (describing three generations of computer copyright cases).

68. See Pamela Samuelson, *CONTU Revisited: The Case Against Copyright Protection for Computer Programs in Machine-Readable Form*, 1984 DUKE L.J. 663, 705-06.

69. *Id.* at 710.

70. *Id.* at 727.

71. See *id.* at 735.

72. See cases cited *supra* note 35.

73. *Compare Whelan Assoc. v. Jaslow Dental Lab.*, 797 F.2d 1222, 1236 (3d Cir. 1986), *cert. denied* 479 U.S. 1031 (1987) (holding that the purpose or function of a utilitarian work

2. SECOND GENERATION CASES: THE SCOPE OF EXCLUSIVE RIGHTS TO COMPUTER PROGRAMS

The second generation of cases, like the first, has its roots in the idea/expression dichotomy. On the one hand, the courts have long recognized that copyright protection "cannot be limited literally to the text, else a plagiarist would escape by immaterial variations."⁷⁴ On the other hand, it is equally clear that copyright law does not prohibit the use of ideas contained in a copyrighted work, but only the copying of protected expression.⁷⁵ Drawing the line between protected expression and unprotected ideas depends in part on whether the copyrighted work is a factual/utilitarian work, in which case non-literal elements of a work are more likely to be classified as unprotected ideas, or a non-factual, imaginative work, in which case more leeway is allowed for classifying non-literal elements as a part of the author's original expression.⁷⁶ Computer programs are difficult to classify because their creation arguably involves a blend of utilitarian and imaginative elements.⁷⁷

would be the work's idea, and everything that is not necessary to that purpose or function would be part of the expression of the idea), *with* Computer Assoc. Int'l, v. Altai, Inc., 982 F.2d 693, 705-12 (2d Cir. 1992) (rejecting Whelan's general formulation that a program's overall purpose equates with the program's idea as descriptively inadequate and adopting a three step, abstraction/filtration/comparison test for deciding cases claiming non-literal copying).

The secondary literature on this issue is voluminous. The sources cited and relied on in the *Altai* case alone, for example, include the following: Menell, *supra* note 67, at 1051-57 (1989); Steven R. Englund, Note, *Idea, Process, or Protected Expression?: Determining the Scope of Copyright Protection of the Structure of Computer Programs*, 88 MICH. L. REV. 866, 867-73 (1990); Thomas M. Gage, Note, *Whelan Associates v. Jaslow Dental Laboratories: Copyright Protection for Computer Software Structure—What's the Purpose?*, 1987 WIS. L. REV. 859, 860-61 (1987); Marc T. Kretschmer, Note, *Copyright Protection For Software Architecture: Just Say No!*, 1988 COLUM. BUS. L. REV. 823, 824-27 (1988); Peter G. Spivack, Comment, *Does Form Follow Function? The Idea/Expression Dichotomy In Copyright Protection of Computer Software*, 35 U.C.L.A. L. REV. 723, 729-31 (1988). See generally 3 NIMMER, *supra* note 63, § 13.03[F].

74. *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930), *quoted in* *Computer Assoc.*, 982 F.2d at 701. See generally Nimmer, *supra* note 63, §13.03[A][1].

75. See *Computer Assoc.*, 982 F.2d at 703 (citing *Baker v. Selden*, 101 U.S. 99 (1879); *Mazer v. Stein*, 347 U.S. 201, 217 (1954)).

76. *Feist Publications, v. Rural Tel. Serv. Co.*, 111 S. Ct. 1282 (1992).

77. The court in *Sega* stated:

Computer programs pose unique problems for the application of the "idea/expression distinction" that determines the extent of copyright protection. To the extent that there are many possible ways of accomplishing a given task or fulfilling a particular market demand, the programmer's choice of program structure and design may be highly creative and idiosyncratic. However, computer programs are in essence utilitarian articles—articles that accomplish tasks. As such, they contain many logical, structural and visual display elements that are dictated by the function to be performed, by considerations of efficiency, or by external factors such as compatibility requirements and industry demands. . . . Because of the hybrid nature of computer programs, there is no settled standard for what is protected expression and what is unprotected idea. . . .

Unlike the first generation of computer copyright cases, this second generation of cases has no direct bearing on the question of the permissibility of reverse engineering under the Copyright Act of 1976.⁷⁸ For even if copyright protection for computer programs were limited to prohibiting verbatim reproduction or very close paraphrasing of the program's actual code, as some commentators have argued it should be,⁷⁹ federal copyright law would still seem to prohibit reverse engineering. The whole point of reverse engineering, after all, is to produce a human-readable adaptation of the object code and a virtual reproduction of the original source-code version of the program. Thus, both the indirect reproduction of the source code and the adaptation of the object code may violate the copyright owner's exclusive right, contained in § 106 of the Copyright Act, unless some other provisions of the 1976 Act permit such adaptation and reproduction.

Just as § 102(b) explicitly limits the subject matter protected under § 102(a) of the 1976 Copyright Act, however, so a number of provisions of the 1976 Act limit the scope of the exclusive rights enumerated in § 106.⁸⁰ Two of these provisions arguably permit at least some forms of reverse engineering. First, § 107 permits the "fair use" of another's copyrighted work. Under this section, all forms of reverse engineering, including decompilation and disassembly, may be viewed as a fair means of obtaining access to the unprotected ideas contained in a publicly distributed computer program.⁸¹ Second, § 117(1) permits copying or adapting a computer program as an "essential step" in the utilization of the program in conjunction with a machine.⁸² Provided that the copy is used in no other manner, reverse engineering techniques that take place entirely within the computer may be viewed under this section as a specifically permitted means of utilizing the computer program.⁸³ Each of these provisions of United States copyright law has a counterpart in the recently promulgated European Community Directive on the Legal Protection of Computer Programs.

1993 U.S. App. LEXIS 78, at *40-42.

78. The first generation of cases had a direct bearing on the permissibility of reverse engineering because, if a publicly distributed object code were left altogether unprotected by copyright, as some commentators contended it should be, see *supra* note 67, there would be no legal constraint on decompiling or disassembling it, though the results of decompilation or disassembly might be found to constitute an infringing copy or adaption of the original source-code version of the program. As we shall see, *infra* text following note 230, the second generation of copyright cases may have an indirect bearing on the reverse engineering question.

79. See *e.g.*, Menell, *supra* note 67.

80. See *supra* note 60 for the text of § 106, which states that the exclusive rights specified in § 106 are subject to §§ 107-120 on the Copyright Act.

81. See *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255 (5th Cir. 1988).

82. *Id.* at 261. For the text of § 117(1), see *infra* note 240.

83. *Id.*

IV. THE STATUS OF REVERSE ENGINEERING UNDER UNITED STATES COPYRIGHT LAW AND THE EUROPEAN COMMUNITY DIRECTIVE

A. The Atari, Sega, and Vault Decisions

In *Atari Games Corp. v. Nintendo of America*⁸⁴ and *Sega Enterprises, Ltd. v. Accolade, Inc.*,⁸⁵ two federal courts of appeals for the first time held that § 107 of the Copyright Act permits an individual who is in rightful possession of a copy of a computer program to engage in reverse engineering.⁸⁶ The courts held that such a party may undertake necessary efforts, including disassembly or decompilation of the program, to gain an understanding of the unprotected functional elements of the program, such as the ideas, processes or methods of operation contained in the program, at least where there is a legitimate reason for doing so and no other means of access to the unprotected elements exists.⁸⁷

An earlier, and widely criticized, court of appeals decision, *Vault Corp. v. Quaid Software Ltd.*,⁸⁸ likewise held that loading a copyrighted program into a computer for the purpose of reverse engineering by means other than disassembly or decompilation constituted an essential step in the utilization of the computer program in conjunction with a machine and was thus permitted under § 117 of the 1976 Copyright Act.⁸⁹

In both *Atari* and *Sega*, a game cartridge producer sought to reverse engineer a "lockout" program, used by a leading producer of home video game systems, that was designed to prevent the system's game console from accepting unauthorized game cartridges.⁹⁰ The courts held that reverse engineering was valid for the purpose of creating game cartridges that would be compatible with consoles produced by another company.

Atari had attempted to analyze and replicate Nintendo's "10NES" security system by monitoring the communication between patented computer chips located in the Nintendo console and authorized game cartridges.⁹¹ The effort failed.⁹² Atari next tried to analyze the chips

84. 975 F.2d 832 (Fed. Cir. 1992).

85. 1993 U.S. App. LEXIS 78 (9th Cir. 1993).

86. *Atari*, 975 F.2d at 843-44; *Sega*, 1993 U.S. App. LEXIS 78, at *52-53.

87. *Atari*, 975 F.2d at 843-44; *Sega*, 1993 U.S. App. LEXIS 78, at *52-53.

88. 847 F.2d 255 (5th Cir. 1988). For criticisms of the *Vault* decision, see Part IV(D)(4).

89. *Id.* at 270.

90. *Atari*, 975 F.2d at 836; *Sega*, 1993 U.S. App. LEXIS 78, at *3. For *Sega's* and Nintendo's justifications for using a lockout device, see *infra* note 193.

91. *Atari Games Corp. v. Nintendo of Am.*, 18 U.S.P.Q. 1935, 1936 (1991) ("The security system consists of a patented computer chip located in both the [game console] and in authorized game packs."); *Atari*, 975 F.2d at 836 ("Atari could not break the 10NES program code by monitoring the communication between the master and slave chips.").

92. *Atari*, 975 F.2d at 836.

themselves by chemically peeling layers from Nintendo's chips, microscopically examining them, transcribing the object code of Nintendo's lockout program into a handwritten list of ones and zeros, and then keying this transcribed copy of the program into a computer in an attempt to disassemble it.⁹³ Failing again, Atari entered into a licensing agreement with Nintendo that authorized Atari to market compatible game cartridges to Nintendo console owners.⁹⁴

Subsequently, Atari's attorney made misrepresentations to the Copyright Office in order to obtain a copy of the registered source code for Nintendo's 10NES lockout program.⁹⁵ This source-code version of the program, in turn, facilitated a second round of reverse engineering that ultimately enabled Atari to write its own "Rabbit" program to unlock the Nintendo console.⁹⁶

Atari then breached its licensing agreement and sued Nintendo for antitrust violations, unfair competition and an unspecified claim of patent infringement.⁹⁷ Nintendo counterclaimed for, among other things, copyright infringement.⁹⁸ Finding it likely that Nintendo would succeed in establishing its copyright infringement claim, the district court preliminarily enjoined Atari from further exploiting either Nintendo's lockout program or using Atari's own "Rabbit" program.⁹⁹ The court of appeals in *Atari* agreed with the district court that Nintendo was likely to succeed on its claim of copyright infringement, and held that Atari's own "unclean" hands barred any defense of copyright misuse.¹⁰⁰ However, the court of appeals held that Atari's initial, unsuccessful reverse engineering efforts, untainted by the purloined copy and necessary to

93. *Atari*, 975 F.2d at 836. Chemically peeling the chip constituted reverse engineering of the semiconductor chip as permitted by section 906 of the Semiconductor Chip Protection Act, 17 U.S.C. § 906 (1988), but did not amount to reverse engineering of the computer program, which remained in object-code form. For a discussion of the difference between reverse engineering of semiconductor chips and computer programs, see *supra* note 57.

94. *Atari*, 975 F.2d at 836.

95. *Id.* at 837. Specifically, the attorney claimed that the copy was needed for litigation. The court in *Atari* ruled that Atari had no reasonable apprehension of litigation when it obtained the copy of Nintendo's program from the Copyright Office, and that Atari used the copy thus obtained to facilitate its reverse engineering of Nintendo's program. *Id.* at 836, 841. For the Copyright Office rules that the attorney violated, see *supra* note 31.

96. *Id.* at 836. For a discussion of the Copyright Office regulations that were violated, see *infra* notes 204-206 and accompanying text.

97. *Id.* at 837. Although Atari's patent infringement claim was not discussed in the court of appeal's opinion, the existence of the patent claim gave the court of appeals for the Federal Circuit exclusive jurisdiction to review the trial court decision. See 28 U.S.C §§ 1292, 1295, 1338 (1988).

98. *Id.* at 835, 837.

99. *Id.* at 837.

100. *Id.* at 847.

understanding the Nintendo program, constituted a fair use of Nintendo's lockout program.¹⁰¹

In contrast to Atari's reverse engineering efforts, Accolade's first round of reverse engineering did not focus on the lockout program that Sega ultimately installed in its "Genesis III" console. Instead, Accolade wired a decompiler into an original "Genesis" console to retrieve object code and generate printouts of source code for the purpose of discovering the interface specifications for the console.¹⁰² This decompilation enabled Accolade to create and adapt its own games for use on that console.¹⁰³

Meanwhile, Sega developed a new "Genesis III" console, which included a lockout device.¹⁰⁴ Accolade learned of the impending release of the "Genesis III" console in the United States and discovered at a consumer electronics show prior to the release of that console that its "Genesis"-compatible game cartridges would not operate on "Genesis III."¹⁰⁵ Accolade then initiated a second round of reverse engineering, this time focusing on a small segment of code of unidentifiable function found in the "power-up" sequence of every Sega game.¹⁰⁶ Accolade added the segment as a standard header file for all of its "Genesis"-compatible games, and as Accolade had suspected, the segment provided the "key" that unlocked the "Genesis III" console.¹⁰⁷ Unbeknownst to Accolade, however, the segment also prompted a visual display that indicated that the inserted cartridge was produced by or under license from Sega.¹⁰⁸

Accordingly, Sega filed suit against Accolade, claiming trademark infringement and false designation of origin, in violation of §§ 32(1) and 43(a) of the Lanham Act.¹⁰⁹ Sega later amended its complaint to include a claim of copyright infringement for Accolade's successful reverse engineering of the lockout device for Sega's game cartridge programs.¹¹⁰ Although the district court rejected Accolade's functionality defense to

101. *Id.* 843.

102. *Sega*, 1992 U.S. App. LEXIS 78, at *4-7.

103. *Id.*

104. *Id.* at *8.

105. *Id.*

106. *Id.* at *9.

107. *Id.* at *9-10. The file contained approximately twenty to twenty-five bytes of data. *Id.* at 9. The court noted that Accolade's games contain a total of 500,000 to 1,500,000 bytes. The court did not indicate how many bytes of data were contained in Sega's lockout or game programs. However, in a footnote added in its amended opinion, the court noted that Sega's "key" appears to be functional and is of such de minimis length that it was probably unprotected under the words and short phrases doctrine spelled out in the Copyright Office's regulations, 37 C.F.R. § 202.1(a); *Sega*, 1993 U.S. App. LEXIS 78, at *41 n.7.

108. *Sega*, 1993 U.S. App. LEXIS 78, at *10.

109. *Id.* at *11.

110. *Id.*

Sega's claim of trademark infringement and its fair use defense to Sega's copyright infringement claim,¹¹¹ the court of appeals reversed and held for Accolade on both counts.¹¹²

In contrast to the lockout programs that were reverse engineered in *Atari* and *Sega*, the program reverse engineered in *Vault* was a copy-protection program that Vault included on otherwise blank "PROLOK" computer diskettes.¹¹³ The copy-protection program was designed to prevent purchasers of programs recorded on a "PROLOK" diskette from making unauthorized copies of the recorded program for distribution to others.¹¹⁴ Quaid analyzed the operation of the "PROLOK" diskette using "Disk Explorer" and "IBM Debug," two products sold on the open market.¹¹⁵ Although Quaid did at one point disassemble the "PROLOK" program, the product developed by this means was subsequently discontinued. Quaid then developed a program which allowed it to analyze the functions of various programs without disassembling or decompiling them.¹¹⁶ Using this program, Quaid developed a diskette called "CopyWrite," containing a feature called "RAMKEY," which could unlock the "PROLOK" protection device and facilitate the creation of a fully functional copy of a program recorded on a "PROLOK diskette." Both the district court and Court of Appeals rejected Vault's claim that Quaid's program infringed Vault's copyright on its copy protection program and contributed to Quaid's customers' infringement of copyright on the programs of Vault's customers.¹¹⁷

B. A Comparison of *Atari*, *Sega*, and *Vault* with the European Community Directive

The court of appeals decisions in *Atari*, *Sega* and *Vault* appear to have had the collective effect of harmonizing United States copyright law with the recent European Community Directive on the Legal Protection of Computer Programs.¹¹⁸ Article 5(3) of the EC Directive specifies that:

The person having a right to use a copy of a computer program shall be entitled, without the authorization of the [copy]rightholder, to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of

111. 785 F. Supp. at 1399-1400.

112. 1993 U.S. App. LEXIS 78, at *67-68. See also *Brief Amicus Curiae of Eleven Copyright Law Professors in Sega Enterprises Ltd. v. Accolade, Inc.*, 33 JURIMETRICS J. 147 (1992).

113. See *id.* at 256.

114. *Id.*

115. *Vault Corp. v. Quaid Software Ltd.*, 655 F. Supp. 750, 755, *aff'd* 847 F.2d 255, 270 (5th Cir. 1988).

116. *Id.*

117. *Id.*

118. EC Directive, *supra* note 3.

the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do.¹¹⁹

This provision, by allowing the reverse analysis of a computer program while using it in conjunction with a computer, appears to create a right equivalent to the one recognized in *Vault* as emanating from § 117 of the U.S. Copyright Act, to engage in reverse analysis "as an essential step in the utilization of a program."

In addition to Article 5(3), the EC Directive contains a specific provision governing the permissibility of decompilation or disassembly. Article 6 of the EC Directive specifies that:

The authorization of the [copy]rightholder shall not be required where reproduction of the code and translation of its form . . . are indispensable to obtain the information necessary to achieve the interoperability of an independently created computer program with other programs, provided that the following conditions have been met:

(a) these acts are performed by the licensee or by another person having a right to use a copy of a program, or on their behalf by a person authorized to do so;

(b) the information necessary to achieve interoperability has not previously been readily available to the persons referred to in subparagraph (a);

(c) these acts are confined to the parts of the original program which are necessary to achieve interoperability.¹²⁰

119. *Id.* See generally Thomas Dreier, *The Council Directive of 14 May 1991 on the Legal Protection of Computer Programs*, 9 EUR. INTELL. PROP. REP. 319 (1991); Vinje, *supra* note 15.

120. EC Directive, *supra* note 3. Articles 5 and 6 must be read in conjunction with Article 4, which enumerates the "restricted acts" (i.e., the exclusive rights) of the copyrightholder of a computer program. The text of Article 4 is as follows:

Article 4

Restricted Acts

Subject to the provisions of Articles 5 and 6, the exclusive rights of the rightholder within the meaning of Article 2, shall include the right to do or to authorize: . . .

(a) the permanent or temporary reproduction of a computer program by any means and in any form, in part or in whole. Insofar as loading, displaying, running, transmission or storage of the computer program necessitate such reproduction, such acts shall be subject to authorization by the rightholder;

(b) the translation, adaptation, arrangement and any other alteration of a computer program and the reproduction of the results thereof, without prejudice to the rights of the person who alters the program;

(c) any form of distribution to the public, including the rental, of the original computer program or of copies thereof. The first sale in the Community of a copy of a program by the rightholder or with his consent shall exhaust the distribution right within the Community of that copy, with the exception of the right to control further rental of the program or a copy thereof.

Article 6 thus creates a right to decompile or disassemble a computer program where it is necessary to achieve interoperability with another program. This provision appears to create a right equivalent to the one recognized in *Atari* and *Sega* as fair use under § 107, to reverse engineer a computer program in order to defeat a lockout device.

The following subsections will examine the precise scope of the reverse engineering privilege under §§ 107 and 117 as spelled out in the *Atari*, *Sega* and *Vault* cases, and will compare these cases with the reverse engineering provisions contained in the EC Directive.

C. Reverse Engineering as a Fair Use under § 107

The first provision of the 1976 Copyright Act applicable to reverse engineering of computer programs is § 107, which provides that "the fair use of a copyrighted work, including such use by reproduction in copies . . . for purposes such as . . . teaching . . . scholarship or research, is not an infringement of copyright."¹²¹ Section 107 goes on to enumerate four non-exclusive factors that courts may consider in determining whether a particular use is a fair use. These factors are:

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.¹²²

*Atari*¹²³ and *Sega*¹²⁴ were the first court of appeals decisions to apply these four factors in a case specifically involving reverse engineering of

121. The full text of section 107 is as follows:

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use, if such finding is made upon consideration of all the above factors.

17 U.S.C. § 107 (1988 and supp. 1993).

122. 17 U.S.C. § 107 (1988).

123. 975 F.2d 832 (Fed. Cir. 1992).

124. 977 F.2d 1510 (9th Cir. 1992), *amended*, 1993 U.S. App. LEXIS 78.

computer programs. At least two prior district court decisions, however, seem to have assumed that reverse engineering is or might be a fair use of a copyrighted program, just as the district courts in *Atari* and *Sega* assumed or specifically held that reverse engineering of a computer program was not a fair use.

1. PRIOR DISTRICT COURT CASE LAW

In *E.F. Johnson Co. v. Uniden Corp. of America*,¹²⁵ the court's finding of infringement was based on the verbatim reproduction of substantial sections of the plaintiff's code, as well as other indications of substantial similarity between plaintiff's and defendant's programs.¹²⁶ The court, however, stated by way of footnote dictum that:

The mere fact that defendant's engineers dumped, flow charted and analyzed plaintiff's code does not, in and of itself, establish pirating. As both parties' witnesses admitted, dumping and analyzing competitors' codes is a standard practice in the industry. Had Uniden contented itself with surveying the general outline of the EFJ program, thereafter converting the scheme into detailed code through its own imagination, creativity, and independent thought, a claim of infringement would not have arisen. . . While defendant may have permissibly dumped, flow charted and analyzed plaintiff's code, it could not permissibly copy it.¹²⁷

Conversely, in *NEC Corp. v. Intel Corp.*,¹²⁸ the court found no infringement where the creator of two of NEC's microcodes testified that although he had disassembled two of Intel's microcodes, he did not undertake to copy them.¹²⁹ The court stated that, while the creator of NEC's microcodes might have made reference to the Intel microcodes, this activity did not result in "slavish copying."¹³⁰

The district court in *Atari*, on the other hand, had held that Atari was not free to appropriate Nintendo's specific codes used for "locking" the Nintendo game console to prevent all but Nintendo-authorized game cartridges from being played on the console.¹³¹ In so holding, the court acknowledged the footnote dictum in *E.F. Johnson Co.*, but read it as giving approval only to "surveying the general outline of an existing program."¹³² The court went on to hold that intermediate copying (i.e., decompilation or disassembly) of a program in the course of reverse engineering would constitute direct infringement, and that Atari's final

125. 623 F. Supp. 1485 (D. Minn. 1985).

126. *Id.* at 1494 (verbatim copying), 1493-98 (substantial similarity).

127. *Id.* at 1501 n.17.

128. 10 U.S.P.Q.2d 1177 (N.D. Cal 1989).

129. *Id.* at 1184.

130. *Id.* at 1187.

131. *Atari*, 18 U.S.P.Q.2d at 1935.

132. *Id.* at 1939 (quoting *E.F. Johnson*, 623 F. Supp. at 1501).

program incorporating Nintendo's codes to enable Atari game cartridges to be played on the Nintendo game console was an infringing derivative work (i.e., adaptation).¹³³

Likewise, the district court in *Sega* held that if the process of reverse engineering entails the duplication of the copyrighted work and the recasting or transformation of the object code into a form more intelligible to humans, it may infringe upon the copyright owner's exclusive rights.¹³⁴ The district court found that Accolade infringed Sega's copyright when it reverse engineered Sega's game cartridges and copied code that was required to unlock the "Genesis III" console.¹³⁵ The court distinguished *NEC Corp. v. Intel Corp.* and *E.F. Johnson Co. v. Uniden Corp. of America*, by pointing out that neither case specifically addressed the issue of intermediate copying, and that the footnote dictum in the latter case stated only that dumping and analyzing of competitors' codes would not, in itself, establish piracy.¹³⁶ The court further noted that if Congress had intended to create an exception for intermediate copying, it would have provided for it as it did in the Semiconductor Chip Protection Act.¹³⁷

2. THE RELEVANCE OF THE SEMICONDUCTOR CHIP PROTECTION ACT

Four years after the Computer Software Copyright Act of 1980¹³⁸ amended the 1976 Copyright Act to make computer programs explicitly copyrightable,¹³⁹ Congress created a *sui generis* body of federal intellectual property law to protect semiconductor chip designs.¹⁴⁰ Although the Semiconductor Chip Protection Act of 1984¹⁴¹ makes it an infringement to

133. *Id.*

134. *Sega*, 785 F. Supp. at 1396.

135. *Id.* at 1400.

136. *Id.* at 1397.

137. *Id.* at 1398.

138. Pub. L. No. 96-517, 94 Stat. 3028 (Dec. 12, 1980) (codified at 17 U.S.C. §§ 101, 117 (1988)).

139. This amendment added a definition of "computer program" to section 101 of the 1976 Act and revised section 117. In the original section 117 of the Copyright Act of 1976, Congress specifically declined to adopt a position on the copyrightability of computer programs, deferring a decision on the question until the previously created National Commission on New Uses of Technology (CONTU) issued a final report. Final Report of the National Commission on New Technological Uses of Copyrighted Works (July 31, 1978)[hereinafter CONTU Final Report]. The Computer Software Copyright Act of 1980 essentially adopted the recommendations of CONTU. See generally Pamela Samuelson, *CONTU Revisited: The Case Against Copyright Protection for Computer Programs in Machine-Readable Form*, 1984 DUKE L.J. 663, 694 (1984).

140. See STERN, *supra* note 41, § 1.4 (1986). See also Charles R. McManis, *International Protection for Semiconductor Chip Designs and the Standard of Judicial Review of Presidential Proclamations Issued Pursuant to the Semiconductor Chip Protection Act of 1984.*, 22 GEO. WASH. J. INT'L L. & ECON. 31 (1988).

141. Semiconductor Chip Protection Act of 1984, 17 U.S.C. §§901 *et. seq.* (1988).

reproduce a chip design or to import or distribute a semiconductor chip product embodying the design, § 906(a) of the Act expressly states that:

it is not an infringement of the exclusive rights of the owner of a mask work for—

(1) a person to reproduce the mask work solely for the purpose of teaching, analyzing, or evaluating the concepts or techniques embodied in the mask work or the circuitry, logic flow, or organization of components used in the mask work; or

(2) a person who performs the analysis or evaluation described in paragraph (1) to incorporate the results of such conduct in an original mask work which is made to be distributed.¹⁴²

The legislative history of the Chip Act states that it is an established industry custom in the United States to photograph chips produced by competitors in order to design similar, hopefully improved, chips.¹⁴³ The custom is deemed fair as long as "substantial analysis and study," rather than simple plagiarism, occurs, because it produces multiple sources for a single chip and promotes competition in the industry as a whole.¹⁴⁴

It could be argued that because § 906(a) of the Chip Act, explicitly permits reproduction of semiconductor chip designs for analysis, § 107 of the Copyright Act may be interpreted as implicitly permitting the intermediate copying of computer programs by analogy. The problem with this argument is that the opposite conclusion is equally plausible, and was in fact precisely the argument adopted by the district court in the *Sega* case. The *Sega* court stated that, had Congress intended to create a fair use exception for intermediate copying of computer programs, "it would have provided for it as it did in the Semiconductor Chip Protection Act. . . ."¹⁴⁵

The legislative history of the Chip Act further reveals that Congress initially considered amending the 1976 Copyright Act to provide copyright protection for semiconductor chip designs. The legislative history accompanying the earliest of the chip-design protection proposals contained conflicting views on whether reverse engineering of a chip design would fall within the § 107 fair use privilege.¹⁴⁶ Some legislators were concerned that defining reverse engineering of a chip design as fair use might encourage a more expansive interpretation of fair use as applied to literary works, such as computer programs.¹⁴⁷ Thus, Congress

142. 17 U.S.C. § 906(a) (1988).

143. See H.R. Rep. No. 781, 98th Cong., 2d Sess., reprinted in 5 U.S.C.C.A.N. 5750, 5771 (1984) [hereinafter Chip Act Legislative History]. For an assertion that a similar reverse engineering custom exists in the software industry, see *infra* note 163.

144. *Id.* For the distinction between reverse engineering of semiconductor chip designs and reverse engineering of computer programs, see *supra* note 57.

145. *Sega*, 785 F. Supp. at 1398.

146. Chip Act Legislative History, *supra* note 143, at 5758.

147. *Id.* at 5777.

considered creating an express reverse-engineering right, independent of § 107, for semiconductor chip designs.¹⁴⁸

Eventually, Congress altogether abandoned the effort to extend copyright protection to semiconductor chip designs—not because of any concern that to grant such protection might lead to an expansive interpretation of § 107's fair use privilege to permit reverse engineering of computer programs, as the district court in *Sega* erroneously suggested,¹⁴⁹ but, because it believed that semiconductor chips were intrinsically utilitarian articles that were beyond the scope of the Copyright Act.¹⁵⁰ Rather, Congress opted for a *sui generis* form of protection that contained an express reverse engineering privilege identical to the one originally proposed as an amendment to the 1976 Copyright Act. The Chip Act accordingly omitted any mention of an exclusive right to prepare adaptations of semiconductor chip designs,¹⁵¹ and disclaimed any intention to affect the scope of copyright protection for computer programs.¹⁵²

By contrast, the 1980 amendment to the Copyright Act included neither an analogous reverse-engineering provision nor eliminated the copyright holder's exclusive right to make adaptations of computer programs. Rather, Congress amended § 117 of the 1976 Copyright Act to include an explicit, limited right of owners of copies of copyrighted computer programs to reproduce or adapt the programs (1) as an essential step in the utilization of a computer program in conjunction with a machine, and (2) in order to make archival copies of the program.¹⁵³

These differences between the Semiconductor Chip Act and the amended 1976 Copyright Act suggest that courts should not construe § 107 to include a blanket reverse-engineering privilege. On the other hand, just because the 1976 Copyright Act contains no explicit reverse engineering privilege, and § 117 of the Act explicitly permits

148. *Id.* at 5759.

149. *Sega*, 785 F. Supp. at 1398.

150. *Sega*, 977 F.2d at 1521 (citing Chip Act Legislative History, *supra* note 143, at 5757-59).

151. Section 905 of the Chip Act states that the owner of a "mask work" (i.e., a chip design) has the exclusive rights to do and to authorize any of the following:

- (1) to reproduce the mask work by optical, electronic, or any other means;
- (2) to import or distribute a semiconductor chip product in which the mask work is embodied; and
- (3) to induce or knowingly to cause another person to do any of the acts described in paragraphs (1) and (2).

17 U.S.C. § 905 (1988). To compare § 905 with the exclusive rights granted under § 106 of the 1976 Copyright Act, 17 U.S.C. § 106 (1988), see *supra* note 60.

152. See 17 U.S.C. § 912(a) (1988).

153. See 17 U.S.C. 117 (1988).

reproduction or adaptation of a copyrighted computer program in only two limited circumstances, it does not follow that all other unauthorized uses of a computer program will necessarily constitute an infringement. Both the language and the legislative history of the 1976 Copyright Act indicate that some uses other than those set forth in §§ 108-120¹⁵⁴ may nevertheless fall within § 107's more general fair use privilege. Moreover, as the court of appeals in *Atari* pointed out, the legislative history of § 107 specifically states that courts should interpret the fair use exception to accommodate new technological innovations.¹⁵⁵

In summary, the most that can be said of the differences between the 1976 Copyright Act, as amended in 1980, and the Semiconductor Chip Act of 1984 is that Congress intended to do exactly what it did in these two Acts. Congress explicitly permitted the reverse engineering of semiconductor chip designs, while subjecting reverse engineering of computer programs to the four-factor test set out in § 107, or, in the alternative, to the requirements set out in § 117 for the two limited uses explicitly allowed by that section.

3. THE FOUR-FACTOR TEST: THE COMMENTATORS AND THE ATARI AND SEGA DECISIONS

Atari and *Sega* were the first cases that explicitly applied § 107's four-factor test to allow particular instances of reverse engineering. However, a number of commentators, as well as the federal district court in *Sega* itself, had previously applied § 107's four factors to determine the legality of reverse engineering and arrived at a different conclusion. As early as 1985, William Patry, the commentator principally cited by the *Sega* district court, concluded that:

A quick examination of typical reverse engineering under the statutory four fair use factors . . . indicates that fair use is not available. The nature and purpose of the use is entirely commercial; the copyrighted source code is an unpublished work subject to a narrow scope of fair use; the entire work is copied; and since the use is commercial, potential harm to the market for the original is presumed.¹⁵⁶

More recently, the Committee on Computer Law, organized by the Association of the Bar of the City of New York, issued a report entitled "Reverse Engineering and Intellectual Property Law"¹⁵⁷ (hereinafter the

154. 17 U.S.C. §§ 108-20 (1988). These sections contain a number of "safe-haven" provisions spelling out clearly permissible uses that would otherwise violate §106. Among these is §117. If uses that do not fall within these safe haven provisions could not constitute fair use, section 107 would have no function.

155. *Atari*, 975 F.2d at 843.

156. WILLIAM F. PATRY, *THE FAIR USE PRIVILEGE IN COPYRIGHT LAW* 401 (1985).

157. See generally Committee Report, *supra* note 19.

"Committee Report"). In the report, the Committee more thoroughly analyzed examples of reverse engineering to determine whether they were fair use within the meaning of § 107. The Committee concluded that "it is difficult to say categorically whether copies created through decompilation in any of our examples are 'fair use'..."¹⁵⁸ Instead, the Committee tried to indicate what considerations should be weighed by a court making such a determination.

In the same year, a second report emerged as a result of the "LaST Frontier Conference On Copyright Protection of Computer Software."¹⁵⁹ This report concluded that

making a small number of copies for the sole purpose of studying a copyrighted program for possible use of its unprotected elements, should be considered a necessary step in allowable examination or study and should, therefore, be deemed not to infringe the copyright under the fair use provisions of the Copyright Act."¹⁶⁰

Specifically, the Conference Report concluded: 1) that "although the eventual use is commercial, the copying is effected for the socially desirable research and development of a competing product," 2) that the copyrighted work is in a "form that cannot be examined except through a taking that would otherwise constitute infringement," 3) that although the entire work is copied, the Supreme Court has held that using a video recorder to copy an entire copyrighted television broadcast can be a fair use; and 4) that the limited use in question does not itself have any material effect on either the market for or value of the copyrighted work and that even though a non-infringing competing work may result from the reverse engineering and adversely affect the value of the original work, it is not then the copy that is competing.¹⁶¹

Shortly after the *Atari* and *Sega* cases were decided, Professor Arthur Miller, a distinguished professor of intellectual property law at Harvard University, and a former member of the commission which recommended the amendments to the Copyright Act making it explicitly applicable to computer programs, published an article highly critical of the decisions in *Atari* and *Sega*.¹⁶² In this article, Professor Miller

158. *Id.* at 139.

159. See generally *LaST Frontier Conference Report on Copyright Protection of Computer Software, Conference Report*, 30 JURIMETRICS J. 15 (1989) [hereinafter Conference Report].

160. *Id.* at 24-25. A number of these same academics filed an amicus brief in *Sega*, arguing for the position the courts of appeals eventually adopted. See *Brief Amicus Curiae of Eleven Copyright Law Professors in Sega Enterprises Ltd. v. Accolade, Inc.*, 33 JURIMETRICS J. 147 (1992).

161. Conference Report, *supra* note 159, at 24-25.

162 Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU?*, 106 HARV. L. REV. 977 (1993). For a critique of Professor Miller's arguments, see *infra* notes 192, 203, 214, 227-28, 230 and 238.

essentially reiterates the arguments of earlier courts and commentators who would hold that decompilation and disassembly do not constitute a fair use of copyrighted works.

The views of the foregoing commentators represent but one facet of a larger ongoing—and occasionally and vituperative¹⁶³—second generation (see *supra* Part III(C)(2)) debate over the appropriate scope of copyright protection for computer programs. Aside from the court of appeals decisions in *Atari* and *Sega*, the Committee Report provides the most extensive and balanced discussion of § 107's four-factor test for whether reverse engineering is fair use. However, the Committee Report comes to conclusions that differ significantly from the opinions in *Atari* and *Sega*, as well as the EC Directive. The following subsections compare the Committee Report, as well as the views of other courts and commentators, with the *Atari* and *Sega* decisions and the EC Directive in order to illuminate the full range of factors that should be considered by courts in applying § 107's four-factor test to reverse engineering of computer programs.

a) The First Factor: The Purpose and Character of the Use

The language of § 107(1) indicates that in determining the purpose and character of the use of the copyrighted work, courts should specifically consider whether the use is of a commercial nature or is for nonprofit, educational purposes.¹⁶⁴ The district court in *Sega* concluded that Accolade's reverse engineering was presumptively unlawful because it was undertaken for financial gain and was aimed at the creation of a competitive product that would adversely affect the value of the copyrighted work.¹⁶⁵

Similarly, the Committee Report pointed out that commercial use is explicitly mentioned in § 107.¹⁶⁶ The Committee Report stated that "[e]very commercial use of copyrighted material is presumptively . . .

163. See, e.g., Clapes, *supra* note 67, at 1501:

The vitality of the software industry could be imperiled by a drastic limitation of the scope of copyright protection available to authors of computer programs. Yet, largely on the basis of misapprehensions and ignorance, movements to do exactly that are gathering adherents in this country and abroad.

Anthony L. Clapes is identified as Senior Corporate Counsel of the IBM Corporation. *But Cf.* Johnson-Laird, *supra* note 13, at 354:

Reverse engineering is practiced by all programmers, even those that work for those companies such as IBM, Apple, Ashton-Tate, and Microsoft, who wish to outlaw reverse engineering.

164. 17 U.S.C. § 107(1) (1988).

165. *Sega*, 785 F. Supp. at 1398.

166. Committee Report, *supra* note 19, at 139.

unfair."¹⁶⁷ It noted that § 107 lists "teaching, scholarship, and research" as examples of activities in which a finding of fair use is most appropriate.¹⁶⁸ The Committee concluded that the use of decompilation to develop a competing program, or to facilitate the making of infringing copies of the original program, would weigh against a finding of fair use.¹⁶⁹ On the other hand, the Committee pointed out that the fair use doctrine nevertheless has been applied in commercial contexts, and that commercial use does not preclude a finding of fair use.¹⁷⁰

The Committee's examination of the first factor, however, fails to discuss the immediate purpose served by decompilation or disassembly, namely, to develop a limited number of human-readable copies of the program in order to study its structure, sequence, and organization. Whether the ultimate purpose is commercial or non-commercial, the immediate purpose of reverse engineering is to gain access to unprotected ideas.¹⁷¹

The district court in *Sega* rejected this characterization of the purpose of reverse engineering, stating that it "misconceives the role of both Section 102(b) and Section 107 of the Copyright Act and does violence to the term 'access.'"¹⁷² The court stated that "the emphasis on appropriating the idea mistakes the role of § 102(b), which denies protection *ab initio* to ideas but which is not designed to form an independent basis for the appropriation of protectible expression under the cloak of § 107."¹⁷³

This criticism misstates the issue. The fact that § 102(b) may not have been designed to form an independent basis for the appropriation of expression under § 107 does not undercut the argument that the four factor test of § 107 itself provides an adequate basis for determining the fairness of appropriating copyrighted expression in order to gain access to the unprotected ideas that remain inaccessible even after a program is published.

Nor does it refute the user's claimed right of access to a work's ideas or unprotectible expression to say, as the district court in *Sega* does, that the "public's need for access to the copyrighted work is fully satisfied by the copyright owner's marketing of the original." Access to a copyrighted computer program does not necessarily provide access to the unprotectible ideas that it contains, unless one assumes that the only

167. *Id.* (quoting *Sony Corp. of Am. v. Universal City Studios*, 464 U.S. 417, 449 (1984)).

168. *Id.*

169. *Id.* at 140.

170. *Id.*

171. For a more complete discussion of the "nature" of computer programs, see *infra* Part IV(C)(3)(b), discussing the second factor in the four-factor test.

172. 785 F. Supp. at 1398, (quoting PATRY, *supra* note 156, at 401).

173. 785 F. Supp. at 1398.

unprotected ideas in a computer program are those functions that are apparent in the normal use of the program. This conception of a computer's unprotected ideas is essentially that adopted in *Whelan Associates v. Jaslow Dental Laboratory*, the first court of appeals decision in the second generation of computer copyright cases.¹⁷⁴ However a second court of appeals decision, *Computer Associates International v. Altai, Inc.*, rejects *Whelan's* formulation as descriptively inadequate.¹⁷⁵ As noted by the Committee Report in its discussion of the second fair use factor, prohibiting decompilation could give the copyright owner "a monopoly over the ideas, as well as the expression in the copyrighted work,"¹⁷⁶ thus defeating the policy objective of improving and refining ideas contained in computer programs.

Also unconvincing is the *Sega* district court's assertion that a competitor who reverse engineers a copyrighted computer program is "not at all interested in increasing that access. . . his only purpose is to get the public to purchase his work rather than the original."¹⁷⁷ This assertion simply fails to recognize the reverse engineer's right, as a member of the public, to have access to the work's ideas. Nor is it true as the *Atari* and *Sega* cases illustrate, that the purpose of a competitor who reverse engineers a copyrighted computer program is merely to get the public to purchase his work rather than the original. In both *Atari* and *Sega*, the defendant's purpose was to make its game cartridges compatible with its competitor's consoles. As the court of appeals in *Sega* took pains to point out, there was no basis in the record for assuming that Accolade's game cartridges would significantly affect the market for *Sega's* game cartridges, since a consumer "might easily purchase both."¹⁷⁸ Even if the market were affected, however, the fairness of Accolade's use of the product of its reverse engineering should turn on a separate four-factor inquiry into the fairness of that use.¹⁷⁹

The courts of appeals in both *Atari* and *Sega* recognized that the immediate purpose motivating reverse engineering of computer programs should be at least as important as its ultimate, commercial purpose. The court in *Atari* held that § 107 of the Copyright Act "permits an individual in rightful possession of a copy of a work to undertake necessary efforts to understand the work's ideas, processes, and methods of operation." The court also noted that the reason § 107 exempts from copyright protection reproductions for criticism, comment, or research is

174. *Whelan Assoc. v. Jaslow Dental Lab.*, 797 F.2d 1222 (3d Cir. 1986), discussed at text accompanying *infra* note 232.

175. *Computer Assoc.*, 982 F.2d 693, also discussed at text accompanying *infra* note 231.

176. Committee Report, *supra* note 19, at 140.

177. *Sega*, 785 F. Supp. at 1398 (quoting PATRY, *supra* note 156 at 401).

178. *Sega*, 1993 U.S. App. LEXIS at 78, *38.

179. For such an inquiry, see *infra* notes 222-23, 229-30 and accompanying text.

because "these activities permit public understanding and dissemination of the ideas, processes, and methods of operation in a work."¹⁸⁰

Likewise, the court in *Sega* stated that the use at issue "was an intermediate one only and thus any commercial 'exploitation' was indirect and derivative."¹⁸¹ The court went on to note that:

although Accolade's ultimate purpose was the release of Genesis-compatible games for sale, its direct purpose in copying Sega's code, and thus its direct use of the copyrighted material, was simply to study the functional requirements for Genesis compatibility so that it could modify existing games and make them usable with the Genesis console.¹⁸²

The court in *Sega* also stated that Accolade's reverse engineering "led to an increase in the number of independently designed video game programs offered for use with the Genesis console."¹⁸³ The court concluded that it is "precisely this growth in creative expression, based on the dissemination of other creative works and the unprotected ideas contained in those works, that the Copyright Act was intended to promote."¹⁸⁴ The foregoing observation emphasizes that, irrespective of the reverse engineer's "purpose," a court's determination of the "character" of the use under the first fair use factor should turn on whether the reverse engineering is productive in that it leads to the creation of additional works of authorship.

(1) The Relevance of the Copyright Misuse Defenses

Although offering a fuller discussion of the first fair use factor than the commentators did, the courts of appeals in *Atari* and *Sega* nevertheless failed to identify explicitly one key aspect of the purpose motivating the reverse engineering involved in those two cases. Both *Atari* and *Accolade* were attempting to defeat lockout devices by Nintendo and Sega, the employment of which may have constituted copyright misuse. Ironically although *Atari* and *Accolade* unsuccessfully raised other claims of

180. *Atari*, 975 F.2d at 843.

181. *Sega*, 1993 U.S. App. LEXIS 78, at *33.

182. *Id.* at *34.

183. *Sega*, 1993 U.S. App. LEXIS 78.

184. *Sega*, 1993 U.S. App. LEXIS 78 at *36, (citing *Feist*, 111 S. Ct. 1282 (1991)). Although in *Sony Corp. of Am. v. Universal City Studios*, 464 U.S. 417, 449 (1984), duplication of the entire copyrighted work was for a non-commercial purpose, thus weighing more clearly in favor of a fair use finding, the use was also a "non-productive" use, in the sense that it did not lead to the production of additional works of authorship. While the Court in *Sony* rejected the argument that a non-productive use could not be considered a fair use, and later in *Harper & Row v. Nation Enterprises*, 471 U.S. 539, 555 (1985), rejected the argument that the particular productive use of an unpublished work was a fair use, it seemed to concede the relevance of the productivity of a use when it stated in that "a productive use is merely one factor in a fair use analysis." 471 U.S. 539, 555, 561 (1985).

copyright misuse on the part of Nintendo and Sega, neither appears to have claimed that the lockout device constituted copyright misuse.¹⁸⁵

In considering the misuse claims raised in *Atari*, the court of appeals recognized that several other courts of appeals had previously entertained defenses of copyright misuse, analogizing from the well-established patent misuse defense. The court noted that although only one decision had actually sustained the defense, the United States Supreme Court had previously given at least tacit approval of it.¹⁸⁶

185. Atari had alleged the existence in Nintendo's licensing agreements of a "tie-out" provision that conditioned the license of its lockout program on the licensee's agreement not to produce games for any other home video system for two years after the first sale of any Nintendo-compatible game. *Atari*, 975 F.2d at 832, 84. Accolade's misuse defense was based on unspecified tying allegations. *Sega*, 785 F. Supp. at 1399.

186. 975 F.2d at 846 (citing, inter alia, *United States v. Loew's, Inc.*, 371 U.S. 38 (1962); *Lasercomb Am. v. Reynolds*, 911 F.2d 970 (4th Cir. 1990)). *Loew's* was said to have given tacit approval to the copyright misuse defense, and *Lasercomb* specifically sustained such a defense. *Lasercomb* was the owner of a CAD/CAM computer program and had licensed some copies to Holiday Steel, a manufacturer of steel rule dies. *Lasercomb*, 911 F.2d at 971. The licensee, with the help of Reynolds, a computer programmer, created and sold a program which was almost entirely a copy of *Lasercomb's* licensed software. *Id.* *Lasercomb* sued the programmer (and his employees as well) on grounds of copyright infringement. *Id.* at 972. Defendants did not deny they had copied plaintiff's software, but alleged that *Lasercomb* had misused its copyright by including in its licensing agreement two clauses in which the licensee agrees not to compete with the licensor. *Id.* at 972-73. The provisions read as follows:

D. Licensee agrees during the term of this Agreement that it will not permit or suffer its directors, officers and employees, directly or indirectly, to write, develop, produce or sell computer assisted die making software. E. Licensee agrees during the term of this Agreement and for one (1) year after the termination of this Agreement, that it will not write, develop, produce or sell or assist others in the writing, developing, producing or selling computer assisted die making software, directly or indirectly without *Lasercomb's* prior written consent. Any such activity undertaken without *Lasercomb's* prior written consent shall nullify any warranties or agreements of *Lasercomb* set forth herein.

Id. at 973.

The term of the agreement was 99 years, possibly longer than the term of the copyright itself. *Id.* The court in *Lasercomb* upheld the defendant's copyright misuse defense, concluding that "a misuse of copyright defense is inherent in the law of copyright just as a misuse of patent defense is inherent in patent law," and that even though the copyright owner's conduct may not reach the level of antitrust violation, the clauses were still in conflict with the goals of copyright law. *Id.* at 973. In *Lasercomb*, the court was clearly more concerned with promoting the goals of copyright law than with finding an antitrust violation. Indeed, the anticompetitive effects of the agreement seem almost irrelevant to the court's finding of misuse. Holiday Steel was not a CAD/CAM software producer, therefore the agreement would not restrain existing competition. Furthermore, having no experience in producing and marketing software, Holiday did not appear as a threatening potential competitor either to *Lasercomb* or to the rest of the market. The tie-out clauses would not result in higher prices either for CAD/CAM programs or for steel dies. Likewise, reduction in the output of either was not to be expected. The anticompetitive effect of the clauses was a temporary barrier to the entry of an insignificant competitor.

However, the court concluded that, in the absence of statutory entitlement, the copyright misuse defense is only an equitable doctrine that is unavailable to a party that does not have "clean hands."¹⁸⁷ Because Atari had misled the Copyright Office in order to obtain a copy of Nintendo's registered program, it was ineligible to invoke the defense.¹⁸⁸

For a summary of the defense of patent misuse, see 5 DONALD S. CHISUM, PATENTS § 19.04 (1993) and ERNEST B. LIPSCOMB III, WALKER ON PATENTS, § 28.32-.36 (1984, Cum. Supp. 1992). The concept of patent misuse involves the interplay of two elements: the inherent rights to the invention covered by the patent (basically the rights to exclude others from making, using, and selling the invention) and the requirement that competition beyond the scope of the patent rights not be hindered by the patentee seeking artificially to increase its revenue. The test to detect misuse, therefore, includes two sequential steps. First, courts must assess whether the patentee is actually enforcing (or otherwise exercising) its rights. The patentee may be entitled to engage in conduct which, in the absence of a patent, would constitute an antitrust violation -- e.g., fixing prices at which a licensee will sell the licensed product. When the patentee acts beyond the scope of the patent -- e.g., attempts to enforce an invalid patent -- there is technically no misuse as such, though some courts characterize it as such, because no existing patent right is being invoked. Second, when the patentee is acting within the scope of the patent, the court must assess whether the patent's practices have nevertheless impaired competition outside the scope of its patent rights (even though perhaps not to the point of violating the antitrust laws) and thus tampered with the patent's capacity to be used as a meter to measure accurately the invention's economic value. This theory, in a less elaborate manner, has been recently stated by the Court of Appeals for the Federal Circuit, in *Mallinckrodt, Inc. v. Medipark, Inc.*, 976 F.2d 700, 703 (Fed. Cir. 1992) ("The concept of patent misuse arose to restrain practices that did not in themselves violate any law, but that drew anticompetitive strength from the patent right, and thus were deemed to be contrary to public policy."). For an application of this test, see *infra* note 191.

187. *Atari*, 975 F.2d at 846.

188. *Id.* Even had Atari's hands been clean, its tie-out allegation, see *supra* note 185, would have been unsuccessful if the restrictive clause merely involved the licensed rights. Although as a matter of law, licensors may not prohibit licensees from dealing with competing goods, they may restrain the disposition by licensees of the products embodying the licensed software. Cf. *Bela Seating Co. v. Poloron Prod.*, 438 F.2d 733 (7th Cir. 1971, cert. denied, 403 U.S. 922 (1971)). In that case, Bela Seating and two patent licensees had entered into cross-licensing agreements which included the clause that they would manufacture "table arm chairs embodying the invention . . . but not of substantially identical design." *Id.* at 738-39. The court held that such a restriction was not misuse because "[a] licensor may restrict the licensee's manufacture of the patented item to a specific use or design. . . . [T]he restrictions in the Bela agreements are limited to the manufacture of chairs covered by the claims of the patent in suit." *Id.* at 739. Likewise, Nintendo's restrictive clause could be construed as covering only video games which embodied its copyrighted software, i.e., the lockout device. However, it is clear that Nintendo's purpose was much broader. In order to become a Nintendo licensee, Atari would be prohibited from supplying games of its own creation for other home video systems for two years. See *supra* note 185. Tie-outs are subject to the same rule of reason approach and to the same required findings of actual market power as a tie-in. See *infra* note 190. If market power were found, however, it appears that it might be very difficult for Nintendo to show a good business justification for the tie-out provision, since the clause would prohibit Atari from supplying games for other home video systems--which did not require the use (hence, the license) of the lockout program. See generally Donald A. Gregory & James J. Trussell, *Tie-Outs -- Misuse of U.S. Patents*, 14 EUR. INTEL. PROP. REP. 317 (1992).

In *Sega*, the district court said only that Accolade's misuse defense was based upon antitrust tying allegations, which the court ordered stricken from Accolade's counterclaim.¹⁸⁹ The court concluded that "[n]o antitrust violation is alleged, nor is there proof of fraud or other clear violation of a legal duty. . . . Thus, Accolade has failed to establish a copyright misuse defense."¹⁹⁰

189. *Sega*, 785 F. Supp. at 1399.

190. *Id.* The basis for Accolade's tying allegation is not clear. Apparently, Accolade was attempting to claim that by using the lockout device, Sega intended to tie the sale of Sega-compatible cartridges (the tied product) to the sale of Sega's consoles (the tying product). Sega required those, such as Accolade, who wished to create Sega-compatible games, to agree to make Sega the exclusive manufacturer of all games that they produced. *Sega*, 1993 U.S. App. LEXIS 78, at *4. The problem with the tying theory, however, is that Sega does not have monopoly power in the game console market. Nintendo, after all, offers a competing console. Tying is a specific antitrust violation with specific elements. Clayton Act § 3, 15 U.S.C. §14 (1991). First, it requires the tying of two separate products. Second, competition must be substantially lessened or there must be a tendency to create a monopoly with respect to the tied product. Third, the seller must have market power over the tying product. See PHILLIP E. AREEDA, 9 ANTITRUST LAW § 1702 (1991) (stating five conditions for an illegal tie-in: (1) two products, (2) a tie between them, (3) substantial economic power over tying product by suppliers, (4) anticompetitive effort over (5) a not insubstantial volume of commerce. Apparently, Sega did wish to remain the sole manufacturer of Sega-compatible cartridges. As Sega's customers would be locked-in to Sega consoles, Sega could then dominate cartridge market. The first and second elements thus might be present. Sega's requirement that those, such as Accolade, who wished to create Sega-compatible games, must agree to make Sega the exclusive manufacturer of all games they produced, moreover, could restrain interbrand competition in the cartridge market. *Sega*, 1993 U.S. App. LEXIS 78, at *4. Nevertheless, copyright (by analogy with the current understanding of patents) does not automatically give rise to monopoly power over the copyrighted products (i.e. the lockout device in the console and cartridge). Cf. 35 U.S.C. § 271(d)(5) (added by Pub. L. No. 100-703 § 201, 102 Stat. 4676, (1988), stating that no patent owner shall be denied relief or deemed guilty of misuse by reason of having conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product unless in view of the circumstances that patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned). Thus, the defendant in a copyright misuse case must give evidence of the copyright owner's market power over the tying product. Most probably, Accolade's allegation was rejected because this evidence was not supplied.

Under the so-called 'Jerrold rule,' *United States v. Jerrold Elec. Corp.*, 187 F. Supp. 545, 555-58 (E.D. Pa. 1960), *reh'g denied*, 365 U.S. 890 (1961), tying may be permissible if there is a sufficient business justification. This rule of reason approach was brought into the Patent Act by the 1988 Amendment, 35 U.S.C. § 271(d)(5), which requires courts to take a "view of the circumstances" of the license. Sega might have an acceptable justification because it could well allege that the exclusive dealership was aimed at keeping uniform quality standards in the manufacture of game cartridges as well as the rendering of technical assistance to consumers.

However, in both *Atari* and *Sega*, the defendants failed to raise the only antitrust argument that plausibly arises from the facts—namely, a Sherman Act § 2 violation—an actual or attempted monopolization of the cartridge market. 15 U.S.C.A. §2 (1991). In effect, inasmuch as the video game systems accept only compatible cartridges, the relevant market in both cases would be strictly limited to compatible cartridges. A cartridge for the "Genesis" console does not compete with a cartridge for a "Nintendo" console, as

Although the court of appeals in *Sega* made no explicit reference to copyright misuse, it nevertheless seems to have implicitly recognized (but not in its discussion of the first fair use factor) that Accolade had a plausible copyright misuse defense.¹⁹¹ Had Atari's own hands been "cleaner," it appears that it too would have had such a defense.

consumers cannot shift from one system to another, unless they also buy the other basic console. Therefore, Sega and Nintendo had the power to raise prices of cartridges provided they do not reach a level at which buyers would be induced to shift the console they use. Once the relevant market is defined in this manner, it follows that Sega and Nintendo, by concealing the codes and invoking copyright protection, were engaged in practices aimed at barring the entry of competitors into the cartridge market. See *Digidyne Corp. v. Data Gen. Corp.*, 734 F.2d 1336 (9th Cir. 1984).

Digidyne is a typical tying case. Data General manufactured a computer system, consisting of a CPU and a copyrighted operating system, called RDOS. *Id.* at 1338. Digidyne produced CPUs that could only operate with RDOS because they emulated Data General's CPUs. *Id.* Data General refused to license RDOS for anyone who did not buy Data General's CPU. *Id.* In assessing Data General's market power, the court followed the now overruled theory that copyrights, by definition, afford monopoly power. *Id.* at 1341-42. But, equally importantly, the court acknowledged that "many of defendant's customers were *locked in* to the use of RDOS." *Id.* at 1342. Data General sold CPUs to equipment manufacturers who created a complete computer system for resale. These manufacturers designed application software, which could not run without Data General's operating system, RDOS. *Id.* The conversion of the application software so that it could operate with a system other than RDOS was out of the question as it was not economically viable. From these facts the court concluded: "Defendant's operating system has been shown to be unique as a matter of law and distinctively attractive as a matter of fact. Defendant's initial leverage is magnified by the lock-in." *Id.* at 1342, 1343. Even though it is no longer good law to equate an intellectual property right with market power for purposes of establishing a Sherman Act § 1 tying violation, *Digidyne* remains a landmark case to the extent that it has acknowledged that the "locking-in" of customers may dramatically circumscribe the relevant market for a product to the product itself, for purposes of determining whether a Sherman Act § 2 violation has occurred.

Likewise, in both *Sega* and *Atari*, there is a product (the consoles) "locking in" buyers and a market over which the copyright owners intended to acquire monopoly power (the cartridge market). Thus, Sega and Nintendo might be deemed to have engaged in practices (namely, the enforcement of copyrights) aiming at maintaining monopoly power over the compatible-cartridge market. Even in the event monopoly power was not found, however, Sega and Nintendo nevertheless might be deemed misusers, as both were admittedly acting within the scope of their copyright (although in *Sega*, the court of appeals was not sure of that, see *infra* note 223) in a manner that, through the barrier their lockout devices created to the entry of competitors into the cartridge market, allowed them to raise prices.

191. *Sega*, 1993 U.S. App. LEXIS 78, at *51. The court said:

[T]he fact that computer programs are distributed for public use in object code form often precludes public access to the ideas and functional concepts contained in those programs, and thus confers on the copyright owner a de facto monopoly over those ideas and functional concepts. That result defeats the fundamental purpose of the Copyright Act. . . .

Id. Therefore, the court found in *Sega's* use of its copyright the two elements that, combined, indicate the presence of misuse: a conflict with the statutory goals and an anticompetitive effect. The most controversial aspect of the misuse doctrine does not reside in its definition but, rather, in the fact that it can be raised as an affirmative defense even though the defendant has not been damaged by the misusing practice. See, e.g.,

By creating lockout devices, Nintendo and Sega were arguably attempting to maintain a monopoly on the market for video game cartridges compatible with their respective game consoles.¹⁹² Because game cartridges compatible with the console of one of these two giants in the field of video entertainment systems were not compatible with the console produced by the other, Nintendo and Sega each had the power by virtue of their ability to lock out competitors' game cartridges, to raise the price of cartridges, provided only that prices not reach a level that would induce owners of Nintendo or Sega "Genesis" consoles to purchase the competing console.¹⁹³ By concealing the codes that unlock their consoles and invoking copyright protection for these codes, Nintendo and Sega unequivocally engaged in practices aimed at barring the entry of competitors into their respective cartridge markets.

Significantly, while discussing the fourth fair use factor, the court of appeals in *Sega* remarked that

an attempt to monopolize the market by making it impossible for others to compete runs counter to the statutory purpose of promoting creative expression and cannot constitute a strong equitable basis for resisting the invocation of the fair use doctrine.¹⁹⁴

This remark offers support for the conclusion that, not only was the purpose and character of Accolade's use a fair one, but Sega's use of the lockout device constituted a misuse of its copyright.

(2) The Relevance of the Trademark Misuse Defense

Although the court of appeals did not explicitly recognize a copyright misuse defense, it did hold that Sega designed its computer program in such a way as to misuse its trademark.¹⁹⁵ The same security system that locked the Sega Genesis console also triggered a visual display, once the console was unlocked, which read "PRODUCED BY OR

Morton Salt Co. v. C.S. Suppiger Co., 314 U.S. 488 (1942). In *Atari* and *Sega*, however, the defendants were both being adversely affected by the lockout devices.

192 Professor Miller, *supra* note 162, at 1019-20, claims that there is "no principled basis for the Ninth Circuit's definition of the relevant market in which monopoly control was to be prevented as the market for Sega cartridges. . . ." But see the discussion, *supra* note 190, of *Digidyne Corp. v. Data Gen. Corp.*, 734 F.2d 1336 (9th Cir. 1984), which provides just such a principled basis for the definition of the relevant market.

193 For a more extended discussion of this point, see *supra* note 190. Thereason Sega gave for developing the lockout device was concern over the rise of software and hardware piracy in Asia. Counterfeiters had discovered how to blank out the screen display of its trademark before selling pirated games as their own. 1993 U.S. App. LEXIS 78 at *7. The lockout device also gives the console producer the ability to exercise quality control over games that can be played on the console. However, as long as there is no confusion about the source of the game cartridge, its quality is of no legitimate concern to the console producer unless the cartridge could cause damage to the console.

194. *Sega*, 1993 U.S. App. LEXIS 78, at *38.

195 *Id.* at *53-55.

UNDER LICENSE FROM SEGA ENTERPRISES LTD.”¹⁹⁶ The codes that Accolade reverse engineered from Sega’s game cartridges and included in its own game cartridges caused this misleading message to be displayed when Accolade’s game cartridges were inserted into Genesis III consoles.¹⁹⁷ Creating such a risk of confusion, the court said, might be sufficient to constitute trademark misuse. Additionally, the court held that a trademark is misused if it serves to limit competition in the manufacture and sales of a product.¹⁹⁸

In sum, the foregoing discussion suggests that a particularly compelling reason for finding reverse engineering to be a fair use exists when the program is itself being misused by its developer.

b) The Second Factor : The Nature of the Copyrighted Work

In examining the second factor, the Committee Report belatedly acknowledged that,

unlike a book, whose ideas can be discovered by reading it, the nature of a computer program distributed only in object code is such that the ideas embodied in it largely cannot be studied and understood by humans without decompilation.¹⁹⁹

As we have seen, the Committee notes that prohibiting decompilation could defeat an important societal interest in learning from and improving on ideas contained in computer programs, “thereby giving the copyright owner a monopoly over the ideas, as well as the expression in the copyrighted work.”²⁰⁰ Thus, the Committee concludes that this factor generally weighs strongly in favor of a finding of fair use. However, if this is true, it would appear that the first factor should also weigh more strongly in favor of a finding of fair use than the Committee recognizes,²⁰¹ since the immediate purpose served by decompiling or disassembling a computer program is precisely to gain access to, learn from, and perhaps improve on the ideas contained in the computer program.

The courts of appeals in *Atari* and *Sega* also recognized that a computer program’s “nature” is unique. As the court in *Sega* pointed out, although the “unprotected aspects of most functional works are readily accessible to the human eye . . . humans often cannot gain access to the unprotected ideas and functional concepts contained in object code

196 *Id.* at *8.

197 *Id.* at *10.

198. *Id.* at *59.

199. Committee Report, *supra* note 19, at 140. For a discussion of the Committee’s failure to recognize that this characteristic of computer programs also plays a role in determining the purpose of the reverse engineering, see *supra* text accompanying note 171.

200. *Id.*

201. See *supra* note 171 and accompanying text.

without disassembling that code—i.e. making copies.”²⁰² Consequently, the court of appeals in *Atari* reasoned that “when the nature of a work requires intermediate copying to understand the ideas and processes in a copyrighted work, that nature supports a fair use for intermediate copying.”²⁰³

What neither the *Atari* court nor the *Sega* court pointed out is that the Copyright Office itself contributes to what these courts identify as the unique nature of computer programs. First, as the facts of the *Atari* case indicate, Copyright Office regulations limit the circumstances in which works deposited in connection with registration can be reproduced.²⁰⁴ In addition, certain other Copyright Office regulations, clearly authorized by the 1976 Act but adopted by the Copyright Office with little apparent consideration of the underlying policy consequences, permit those registering computer programs with the Copyright Office to deposit only identifying portions of the source code version of the program, or even only the object code.²⁰⁵ These Copyright Office regulations in effect create

202. *Sega*, 1993 U.S. App. LEXIS 78, at *44.

203. *Atari*, 975 F.2d at 843. Professor Miller protests that “[a]lthough it is true that the scope of protection given to different types of literary works may vary, they are all treated alike—absent statutory direction to do otherwise—under identical copyright principles, and the exclusive right to make intermediate copies is accorded to all copyright holders, as *Sega* itself recognized.” Miller, *supra* note 163, at 1022 (citing *Sega*, 977 F.2d 1510, 1518-19). However, courts are directed by the language of § 107(2) to consider the “nature” of the copyrighted work, which presumably means not only those aspects of its nature that it has in common with all other types of copyrighted works, but also those aspects of its nature that are unique.

204. *Id.* at 836. The court in *Atari* ruled that Atari had no reasonable apprehension of litigation when it obtained the copy of Nintendo’s program from the Copyright Office, and that Atari used the copy thus obtained to facilitate its reverse engineering of Nintendo’s program. *Id.* It was this use of the unauthorized copy of Nintendo’s program that the court found to constitute copyright infringement.

205. See *supra* notes 31-33 for a discussion of the regulations contained in C.F.R. § 202.20(c)(2)(vi)(vii) (1992). The Register of Copyrights is specifically authorized by section 408 of the 1976 Copyright Act to require or permit, for particular classes of works, the deposit of identifying material instead of copies or phonorecords. Pursuant to this authority, the Register adopted regulations in 1979 which permit the deposit of identifying material (in lieu of the statutory deposit) for secure tests and computer programs. See generally 3 MILGRIM, *supra* note 19, App. B18-5. These rules were subsequently amended a number of times. See, e.g., 54 Fed. Reg. 13,173 (1989) (for notice of the Copyright Office’s most recent amendment of its rule); see also 51 Fed. Reg. 34667 (1986) (where the Copyright Office summarized the results of its original rulemaking proceeding). The Copyright Office set forth the policy basis for the rule as follows:

On May 23, 1983, the Copyright Office published a Notice of Inquiry in the Federal Register requesting public comments on the deposit of material containing trade secrets. (48 FR 22951) . . .

The Copyright Office received a total of 41 responses from the notice of inquiry. The vast majority of the responses were from members of the computer industry and the overwhelming sentiment was in favor of establishing special deposit procedures to mitigate the alleged uncertainties

associated with depositing in a public office, material containing trade secrets.

A number of comments addressed public policy issues concerning the establishment of special deposit provisions. Several of the comments expressed the view that trade secret protection and copyright advance similar societal goals, and therefore it is completely consistent to modify the deposit requirement in a way that would preserve trade secret protection fully. The Association of American Publishers argued that the deposit requirement was not intended to delineate the scope of a copyright claim through public disclosure, citing the Register's authority to determine the nature of deposited material under section 408(c)(1) and *National Conference of Bar Examiners v. Multistate Legal Studies*, 692 F.2d 478 (7th Cir. 1982), concerning deposit of secure tests. Only two comments argued in favor of a deposit that fully discloses and copyrightable content of registered material. One asserted that public disclosure through deposit was intended as a trade-off for receiving copyright protection, and the other argued that owners of intellectual property should elect either copyright protection or trade secret protection.

On the basis of the comments received, the Copyright Office has concluded that a case has not been made for establishment of a broad deposit exemption covering all material which could conceivably contain trade secrets. Of the submitted comments, only one came from outside of the computer industry. That comment came from a manufacturer of spare parts who argued that public inspection should be restricted on deposits of technical drawings and specifications.

On narrower grounds, however, the Copyright Office finds that particular problems of the computer industry do merit special attention. Many in the computer industry are concerned that the availability of registered computer programs for public inspection in the Copyright Office gravely jeopardizes trade secret protection. While no court has directly addressed the issue, it is clear that computer programs are valuable intellectual property whose owners are rightfully concerned about adequate protection for their works . . .

Frequently mentioned among the submitted comments was the proposal that the Copyright Office merely restrict public access to deposits of computer programs and other material containing trade secrets. The Copyright Office has concluded that such an approach would clearly violate section 705(b) mandating public inspection of deposits retained by the Copyright Office. As a result, this proposal has not been adopted.

Id.

In *National Conference of Bar Examiners v. Multistate Legal Studies*, 692 F.2d 478 (7th Cir. 1982), the court explicitly held that the Register of Copyrights has authority to promulgate the regulations requiring the Copyright Office to return the deposit of a secure test, such as the Multistate Bar Examination, and retain only such portions, description, or the like so as to constitute a sufficient archival record of the deposit. *Id.* at 486-87. The regulation thus promulgated was found neither to be inconsistent with the requirement in section 704(d) of the Copyright Act that the Register maintain the "entire deposit" of unpublished works during the term of copyright, nor to defeat the purpose of the registration provision, nor to undermine the constitutional requirement that federal copyright law "[p]romote the progress of Science and useful Arts." *Id.* In so holding, the court concluded that the statutory scheme of the Copyright Act, when viewed as a whole, negates the notion that the deposit provisions are for the purpose of public disclosure. *Id.*

Even granting all of the foregoing, however, one may question whether the Register of Copyrights has authority to promulgate regulations that, in effect, affirmatively provide

a federal form of trade secret protection for computer programs, but seem inconsistent with the underlying policies of the Copyright Act, and thus may be in excess of the Copyright Office's statutory authority.²⁰⁶ Ironically, the promulgation of these regulations strengthens the argument of users that no alternative means exist for obtaining access to a computer program's unprotected ideas.

An additional aspect of the nature of computer programs, not mentioned by the Committee Report, but buttressing its general conclusion that this factor weighs in favor of a finding of fair use, is that computer programs may be regarded, wholly or in part, as utilitarian or factual works. Long before the fair use exception was codified in § 107, the Supreme Court in *Baker v. Selden*²⁰⁷ suggested that works having strong functional elements, such as accounting textbooks, were not entitled to the same degree of protection as non-factual works. The Court also suggested that some particularly utilitarian elements of a work, such as blank accounting forms, may not be entitled to copyright protection at all.²⁰⁸

More recently, in *Harper & Row, Publishers v. Nation Enterprises*,²⁰⁹ the Supreme Court explicitly recognized, in applying the second factor of § 107's fair use test to an unpublished²¹⁰ historical narrative or autobiography, that copyright law "generally recognizes a greater need to disseminate factual works than works of fiction or fantasy."²¹¹ Likewise, in *Feist Publications v. Rural Telephone Service Co.*, the Court noted that works that are merely compilations of fact are copyrightable, but copyright protection for such a work is "thin."²¹²

The court of appeals in *Sega* recognized that computer programs pose unique problems because while there may be many ways for a computer programmer to accomplish a given task or fulfill a particular

federal trade secret protection for the source-code version of computer programs that are being publicly distributed in object-code form. As we will see in Part V, these regulations, like state law efforts to enforce contractual restrictions on reverse engineering of publicly distributed programs, may conflict with the preemptive policies of federal copyright and, particularly, federal patent law. The dual nature of computer programs makes them distinguishable from the secure tests involved in the National Conference of Bar Examiners case. The Copyright Office regulations, moreover, make it more difficult, rather than easier, for the public to ascertain the uncopyrightable ideas contained in the publicly distributed versions of computer programs.

206 See *supra* note 205.

207 101 U.S. 99, 1104 (1879)

208. *Id.* at 99.

209. 471 U.S. 539, 555 (1985).

210 The scope of fair use is generally narrower with respect to unpublished works. *Id.* at 551-54.

211. *Id.* at 563 (citing Gorman, *Fact or Fancy? The Implications for Copyright*, 29 J. COPYRIGHT SOC'Y 560, 561 (1982)).

212. *Feist*, 111 S. Ct. 1282, 1289 (1992).

market demand, making the programmer's choice of program structure and design highly creative and idiosyncratic, computer programs are nevertheless essentially utilitarian articles that accomplish particular tasks.²¹³ Computer programs thus contain many logical, structural, and visual display elements that are dictated by function, efficiency, and external factors, such as compatibility requirements and industry demands.²¹⁴

One further aspect of a computer program's particular nature must be noted. The Supreme Court in *Harper & Row* recognized that whether a work is published or unpublished is also a relevant aspect of its nature, and that the scope of fair use is narrower with respect to unpublished works. In that very statement, of course, the Court seems to have conceded that the fair use doctrine applies to unpublished works.²¹⁵ But nothing in *Harper & Row* indicated how the Court would deal with a work such as a computer program, which can be both published (in its object-code form) and unpublished (in its source-code form). The court in *Sega*, on the other hand, specifically noted that in one of its earlier decisions, *Lewis Galoob Toys v. Nintendo of America*, it had affirmed a district court holding that computer game cartridges that are held out to the public for sale are published works for purposes of copyright.²¹⁶

c) The Third Factor : The Amount and Substantiality of the Portion of the Copyrighted Work Used

Regarding the third factor, courts and commentators agree that the results of decompilation are likely to be both quantitatively and qualitatively "substantial" in relation to the copyrighted work as a whole.²¹⁷ This is because disassembly or decompilation usually entails

213 *Sega*, 1993 U.S. App. LEXIS 78, at *40.

214. *Id.* Professor Miller loses sight of this critical aspect of a computer program's nature when he protests that the effect of the *Sega* decision is that popular computer systems will "lose" their copyright protection "merely because their popularity denominates them 'standards,' a proposition that would not be taken seriously if the copyrighted works were Steinbeck's *Grapes of Wrath*, Hemingway's *The Sun Also Rises*, or Miller's *Death of a Salesman*." Miller, *supra* note 162, at 1020. A common error of those advocating broad protection for computer programs and a ban on decompilation and disassembly is that they analogize the scope of copyright protection for computer programs (utilitarian works) to the scope of protection accorded to fictional (i.e., not utilitarian) literary works.

215. *Harper & Row*, 471 U.S. at 551-54. Section 107 of the Copyright Act was amended in 1992 to make explicit that unpublished works were subject to fair use. Act of Oct. 24, 1992, Pub. L. No. 102-492, 106 Stat. 3145 (1992). For the amended text of § 107, see note 121. The legislative history of the amendment indicates that it was not intended to affect the treatment of decompilation under the Copyright Act. See 137 CONG. REC. S.5648 (May 9, 1991).

216. *Sega*, 1993 U.S. App. LEXIS at 78, *48 n.9 (citing *Lewis Galoob Toys v. Nintendo of Am.*, 964 F.2d 965 (9th Cir. 1992)).

217 Committee Report, *supra* note 19, at 140.

making a nearly complete copy or adaptation of a program.²¹⁸ However, the Committee Report states that even complete verbatim copies may be non-infringing.²¹⁹ The Report noted that in *Sony Corporation v. Universal Studios*, the Supreme Court held that the videotaping of entire copyrighted television broadcasts for later home viewing was a fair use.²²⁰ In that case, the purpose of the use was more determinative of its fairness than the amount of copyrighted expression used. Even though the use of the copyrighted work in *Sony* was non-productive, it was also for a non-commercial purpose, which weighed heavily in favor of a finding of fair use.²²¹

Where one who reverse engineers a computer program uses portions of protected expression from the decompiled work in the production of a competing work, the fairness of that use should turn on a separate determination of the amount and substantiality of the protected expression used in relation to the copyrighted work as a whole. Admittedly, as the court of appeals in *Atari* stated, "[f]air use to discern a work's ideas . . . does not justify extensive efforts to profit from replicating protected expression."²²² As the facts of the *Atari* and *Sega* cases illustrate, however, the amount of protected expression ultimately used, when the purpose of the reverse engineering is simply to discover codes that will unlock a game console, is likely to be minimal.²²³ Even if

218. *Id.*

219. *Id.* (citing *Sony Corp. of Am. v. Universal City Studios*, 464 U.S. 417, 449 (1984)).

220. *Id.*

221. The Court specifically recognized that the duplication in *Sony* was a "non-productive" use, in the sense that it did not lead to the production of additional works of authorship. In *Harper & Row*, however, the court stated that "a productive use is merely one factor in a fair use analysis." *Harper & Row*, 471 U.S. at 561 (1985).

222. 975 F.2d at 843.

223. The *Sega* amended opinion added a footnote rejecting *Sega's* belated suggestion that *Accolade's* use of the code which "unlocks" the Genesis III console is an unfair use of copyrighted expression. Said the court: "*Sega's* key appears to be functional. It consists merely of 20 bytes of initialization code plus the letters S-E-G-A. There is no showing that there is a multitude of different ways to unlock the Genesis III console." In addition, the court noted, "*Sega's* security code is of such *de minimis* length that it is probably unprotected under the words and short phrases doctrine." 1993 U.S. App. LEXIS 78, at *47 n.7. In other words, even considered separately and its functionality put aside, *Sega's* security code might be entirely quoted, regardless of the fair use defense.

The court distinguished the *Atari* case as having found that Nintendo's 10NES program generated an arbitrary data stream "Key" that unlocked the Nintendo console. *Id.* As the court of appeals in *Atari* made clear, the data stream did indeed do more than unlock the Nintendo console, and *Atari's* "Rabbit" program created by virtue of *Atari's* illicit reverse engineering of the Nintendo lockout program, generated an identical data stream, and thus borrowed more protectible expression than was necessary to perform the unlocking function. *Atari*, 975 F.2d at 839. What the court of appeals in *Atari* failed to address, however, was *Atari's* argument that, in copying what it did, *Atari* was simply planning ahead for the possibility that future Nintendo machines might be programmed to reject cartridges lacking these portions of the 10NES program and that it was entitled to copy

the code used may be considered a qualitatively substantial, albeit quantitatively small part of the decompiled program, it is substantial precisely because of the utilitarian function that it plays and is thus arguably unprotectible expression.

d) The Fourth Factor: The Effect on the Potential Market for or Value of the Copyrighted Work

In considering the fourth factor, the Committee Report cites the Supreme Court's opinion in *Harper & Row* for the proposition that market impact is "the single most important element of fair use."²²⁴ The Committee concludes without further analysis that this factor would not support a claim of fair use if the "effect of the use is the creation of a competing program."²²⁵ The Committee merely cites the legislative history of the Copyright Act for the proposition that "a use which supplants any part of the normal market for a copyrighted work would ordinarily be considered an infringement."²²⁶ Unfortunately, the Committee's examination of this final, and most important factor is the most superficial part of its fair use analysis. The Committee fails to acknowledge that the copyrighted work exists in two different forms, each with its own particular potential market or value.

Decompiling the object-code version of a computer program generally has no direct effect on the potential market for the program in object-code form, because the decompiled version of the program cannot be used to operate a computer.²²⁷ The only direct market effect of decompilation is on the potential market for the source-code version of the program. Yet, much of the value of the source-code version of the program comes, not from the manner in which it is expressed, but from the fact that the source code, and the uncopyrightable ideas or functional expression that it contains, can be kept secret, even after the object-code version of the program is publicly distributed.²²⁸

more extensively from a copyrighted work so as to preempt future efforts by Nintendo to recognize and reject its unauthorized cartridges.

224. Committee Report, *supra* note 19 at 141, (quoting *Harper & Row v. Nation Enterprises*, 471 U.S. 539, 566 (1985)).

225. *Id.*

226. *Id.* at 141 (quoting S. Rep. No. 94-473, 94th Cong., 1st Sess. 65 (1975)).

227. See Johnson-Laird, *supra* note 13, at 343. The commentator points out that there is a great difference between the act of disassembling or decompiling and the act of creating a new program. *Id.* at 348. Moreover, contrary to what is generally believed (see, e.g., Miller, *supra* note 162, at 1026, who describes decompilation as a "relatively simple procedure") it is not that simple to generate a new, competitive program upon the information obtained from the disassembling. "[I]t takes more time to reverse engineer an entire program than to design a clone from scratch," the commentator adds. *Id.* at 348.

228. See *supra* notes 11-12 and accompanying text. Professor Miller, *supra* note 162, at 1026, sees the risk that trade secrets embedded in computer programs would be impaired in value as a reason not to recognize decompilation as a fair use. However, federal

The fairness of reverse engineering should not be confused with the fairness of the ultimate uses made of the product of the reverse engineering or with the potential effects of such uses on the market for the publicly distributed program. And yet, the Committee Report seems to make precisely this mistake when it concludes that the fourth factor of § 107's fair use test would not support a finding of fair use where "the effect of the use is the creation of a competing program."²²⁹ This view fails to distinguish between creating a competing program that uses copyrighted expression contained in the copyrighted program, and creating a competing program that merely accomplishes the same function or uses unprotected ideas found in the copyrighted program. While the former situation would raise a legitimate fair use issue, the latter would not. Copyright protection extends only to an author's expression and not to the ideas expressed. The fair user "may make significant use of prior work, so long as he does not bodily appropriate the expression of another."²³⁰

copyright law provides only a narrow form of trade secret protection for *unpublished* works. For published works, copyright protection does not and cannot protect trade secrets embedded in the work, but only protects expression. Likewise, state trade secret law provides no protection against reverse engineering of publicly distributed works. Finally, federal patent protection is available for patentable utilitarian features of computer programs, and specifies that all other utilitarian features of publicly distributed articles are to remain unprotected. See *infra* Part V(D).

229. In applying the four-factor test of section 107, the Conference Report, *supra* note 159, came to much the same conclusion as does this article, particularly with respect to the fourth factor. The report points out that the aim of § 107(4) is to assess the effect that the use of the copies can have on the market of the copyrighted work. *Id.* at 24-25. Therefore, the statute is not concerned with the effect that an otherwise noninfringing work (the new program, albeit a competing one) derived from the reverse engineered copy can have on the market of the original computer program.

230. *Hoehling v. Universal City Studios*, 618 F.2d 972, 980 (2d Cir. 1980). Professor Miller appears to make the converse mistake when he states that one reason for prohibiting decompilation and disassembly is "[b]ecause the traces of copying can be disguised." Miller, *supra* note 162 at 1027. But "disguised copying" may not be impermissible copying of expression at all, but merely the use of the ideas expressed. The fairness of the initial copying (i.e., decompilation or disassembly), and the fairness of the subsequent use of the product of the reverse engineering, must each be determined on its own merits.

The larger difficulty with the argument of Professor Miller, *Id.* at 1013-32, and others who advocate broad copyright protection for computer programs with little, if any, decompilation or disassembly permitted, is that they deal with the scope of computer program copyright protection in isolation from other forms of legal protection. Because utilitarian features of computer programs are potentially patentable, federal patent law arguably takes primacy over copyright law in protecting patentable utilitarian features of a computer program and in declaring that all other utilitarian features of publicly distributed articles are to remain unprotected and subject to reverse engineering. See *infra* Part V(B)(2). If a user cannot get access to the utilitarian features of a computer program in order to incorporate those features into new computer programs, the latter policy of federal patent law is defeated.

It is at this point that the second generation of copyright cases concerned with the scope of protection available for computer programs becomes critical to the question of the permissibility of reverse engineering. For the broader the scope of protection for non-literal elements of a program, the narrower the universe of ideas available to others. Conversely, if the scope of protection is narrow, the universe of unprotected ideas is much broader.

It is in this connection that the court of appeals in *Sega* cites with approval the recent decision of the Court of Appeals for the Second Circuit in *Computer Associates Int'l, v. Altai, Inc.*²³¹ *Computer Associates* held that a computer's ultimate function or purpose is the composite result of interacting subroutines, each of which may represent its own idea, and may contain purely utilitarian elements that can only be expressed in a limited number of ways. As we have seen, the court in *Computer Associates* found that the formulation in *Whelan Associates v. Jaslow Dental Laboratory*²³² which holds that the idea or function of a computer program is the idea of the program as a whole, was descriptively inadequate.²³³ If *Altai*, rather than *Whelan*, comes to represent the culmination of the second generation of computer program copyright cases, the universe of unprotected ideas, to which reverse engineering could provide access, will be substantial.

4. ATARI, ACCOLADE AND THE EUROPEAN COMMUNITY DIRECTIVE

In *Atari* and *Sega*, there were particularly compelling reasons for finding that reverse engineering designed to defeat a lockout device constitutes a fair use of a computer program, namely, to defeat another's misuse of its copyrighted work.²³⁴ Reverse engineering to defeat a

The core of Professor Miller's argument is that, if decompilation and disassembly are permitted, and the "creativity and success by those in the position of *Sega* are to be penalized, not rewarded, later comers to the console market—or, indeed, any creative individual who might be unfortunate enough to create a 'standard' product or feature—will be discouraged from providing that public benefit initially." Miller, *supra* note 162, at 1020. Contrary to Professor Miller's apparent assumption, there are at least two other types of incentives available to reward later comers—one provided by federal patent law for sufficiently innovative products or features, and the other provided by the very competitive process fostered by the federal antitrust laws that enabled Nintendo and *Sega* to enjoy such widespread commercial success.

231. 982 F.2d 693 (2d Cir. 1992).

232. 797 F.2d 1222 (3d Cir. 1986).

233. *Id.*

234. For a discussion of copyright and trademark misuse, see *supra* notes 185-98 and accompanying text. See generally Johnson-Laird, *supra* note 13. The commentator states that reverse engineering others' software programs is a standard of the industry even among those software producers which have strongly supported a ban on decompiling and disassembling source codes. *Id.* at 354.

lockout device, however, is itself but a particular species of the more general effort to achieve interoperability—precisely the purpose of which Article 6 of the European Community Directive speaks in recognizing a specific right to decompile or disassemble another's copyrighted computer program. Thus, analysis of the fairness of other examples of reverse engineering for the purpose of achieving interoperability should yield essentially the same results as were reached in *Atari* and *Sega*, aside from the copyright misuse aspect of those cases. As Article 6 of the EC Directive makes clear, the principal focus of such an analysis should be on whether reverse engineering is "indispensable to obtain the information necessary to achieve the interoperability of an independently created program." If this requirement is met, decompilation or disassembly will be fair use under § 107 of the Copyright Act.

It will be noted that Article 6 of the EC Directive specifically permits decompilation or disassembly "to obtain the information necessary to achieve the interoperability of an independently created computer program *with other programs*."²³⁵ The legislative history of the EC Directive makes clear that the foregoing italicized phrase, which has been described as having "engendered more controversy than anything else in the EC Directive," was settled upon in preference to alternative language which would have permitted decompilation solely to achieve interoperability with the "decompiled" or "original" program.²³⁶ The purpose of the language change was to make it clear that Article 6 permitted decompilation for the purpose of developing a competing work.²³⁷

Atari and *Sega* do not explicitly address whether § 107 of the Copyright Act would permit reverse engineering for the ultimate purpose of creating a competitive product.²³⁸ However, the language of the

235. EC Directive, *supra* note 3 (emphasis added).

236. Thomas Dreier, *The Council Directive of 14 May 1991 on the Legal Protection of Computer Programs*, 9 EUR. INTELL. PROP. REV. 319 (1991). This commentator quotes from the Communication of the Council's Common Position to the European Parliament:

Decompilation is permitted by Article 6 to the extent necessary to ensure the interoperability of an independently created computer program. Such a program may connect to the program subject to decompilation. Alternatively, it may compete with the decompiled program and in such circumstances will not necessarily connect to it. SEC 87 final—SYN 183, 18 January 1991, paragraph 4.7.

Id. at 315 n.57. *But see* Johnson-Laird, *supra* note 13, at 331 (contending that the EC Directive outlawed reverse engineering for the purposes of producing a competitive program).

237 Vinje, *supra* note 15, at 5: "Rather than permitting decompilation only for purposes of achieving the interoperability of an independently created program 'with the original program,' the provision adopted... permitted the achievement of interoperability 'with other programs'" (emphasis in original).

238. In *Sega*, there is some language suggesting by way of dictum the court's approval of reverse engineering aimed at developing a competitive product: "In any event, an attempt to monopolize the market by making it impossible for others to compete runs

EC Directive, the reasoning in *Atari* and *Sega*, and the foregoing critique of the Committee Report all suggest that the § 107 privilege to reverse engineer computer programs may not be limited to instances in which the purpose of the reverse engineering is to achieve interoperability with the program being reverse engineered. The fairness of reverse engineering for the purpose of developing a competing program, of course, should turn not only on whether the reverse engineering itself is indispensable, but on whether and how much copyrightable expression is used in the competing program.

On the other hand, future cases may construe *Atari* and *Sega* as having held only that reverse engineering is fair when it is attempting to defeat the kind of copyright misuse that lockout devices represent.²³⁹ Given the continuing uncertainty as to the exact parameters of the fair-use privilege to reverse engineer computer programs in the United States, it is appropriate to examine § 117, the other relevant provision of the 1976 Copyright Act that has been applied to permit reverse engineering of computer programs.

D. Section 117: Limitations on Exclusive Rights in Computer Programs

Section 117 of the amended 1976 Copyright Act states that:

Notwithstanding the provisions of section 106, it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or an adaptation of that computer program provided:

- (1) that such new copy or adaption is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner, or
- (2) that such new copy or adaption is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.²⁴⁰

counter to the statutory purpose of promoting creative expression. . . ." *Sega*, 1993 U.S. App. LEXIS 78, at *53-55 (emphasis added). *But see* Miller, *supra* note 162, at 1015, who claims that "[a]s articulated in *Sega*, fair use permits decompilation only by someone who merely seeks to create a product that is complementary to, and not a substitute for, an existing work. . . ."

239 *Cf. supra* note 238, where Professor Miller claims that *Sega* would only permit decompilation for the purpose of creating a complementary work.

240. The complete text of section 117 is as follows:

Notwithstanding the provisions of section 106, it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:

- (1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner, or

Congress enacted § 117 almost exactly in the form recommended by the National Commission on New Technological Uses of Copyrighted Works (CONTU).²⁴¹ The only modification was that the holder of the right was changed from a "rightful possessor" to the "owner" of a copy of the computer program.²⁴² According to the CONTU report, a "rightful possessor" was to include not only a purchaser but also a lessee or licensee of a copy of a computer program.²⁴³ Because the 1980 Act's legislative history merely states that the Act "embodies the recommendations of [CONTU] with respect to clarifying the law of copyright of computer software,"²⁴⁴ the courts have tended to treat the Final Report of CONTU as legislative history.²⁴⁵

1 THE CONTU REPORT AND CONGRESSIONAL MODIFICATION OF CONTU'S PROPOSED § 117

In its report, CONTU stated that, "[b]ecause the placement of a work into a computer is the preparation of a copy, the law should provide that persons in rightful possession of copies of programs be able to use them freely without fear of exposure to copyright liability."²⁴⁶ Although in the vast majority of cases, "creators, lessors, licensors, and vendors of copies of programs intend that they be used by their customers," CONTU anticipated situations "in which the copyright owner might desire, for good reason, or none at all, to force a lawful owner or possessor of a copy to stop using a particular program."²⁴⁷ To prevent this from happening, CONTU designed § 117 to provide a rightful possessor of a program "with a legal right to copy it to that extent which will permit its use by

(2) that such new copy or adaptation is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.

Any exact copies prepared in accordance with the provisions of this section may be leased, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale, or other transfer of all rights in the program. Adaptations so prepared may be transferred only with the authorization of the copyright owner.

17 U.S.C. § 117 (1988).

241. 2 NIMMER, *supra* note 63, § 8.08 n.9.

242. *Id.*

243. CONTU Final Report, *supra* note 139, at 31-32 (referring to "creators, lessors, licensors and vendors of copies of programs" and comparing the section 117 rights of "rightful possessors" with the section 109(a) rights of owners of authorized copies of a copyrighted work.).

244. H.R. Rep. No. 1307, 96th Cong., 2d Sess., pt. 1, at 23 (1980), *reprinted in* 1980 U.S.C.C.A.N. 6460, 6482.

245. *See, e.g.,* Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 261 (5th Cir. 1988).

246. CONTU Final Report, *supra* note 139, at 31.

247. *Id.* at 31.

that possessor."²⁴⁸ Additionally, CONTU thought that a rightful possessor of a copy of a program should have the right "to load it into a computer and to prepare archival copies of it to guard against destruction or damage by mechanical or electrical failure."²⁴⁹

CONTU also proposed a limited right of adaptation, recognizing that

[b]ecause of a lack of complete standardization among programming languages and hardware in the computer industry, one who rightfully acquires a copy of a program frequently cannot use it without adapting it to that limited extent which will allow its use in the possessor's computer.²⁵⁰

Thus, § 117 was intended to provide "a right to make those changes necessary to enable the use for which [the program] was both sold and purchased."²⁵¹ CONTU gave two examples of permissible adaptation: "The conversion of a program from one higher level language to another to facilitate use," and "the right to add features to the program that were not present at the time of rightful acquisition."²⁵²

To protect the interests of the copyright owner, CONTU specified that exact copies made pursuant to § 117 were to be leased, sold or otherwise transferred only in connection with the transfer "of all rights in the program, thus creating a new rightful possessor and destroying that status as regards the seller."²⁵³ Adaptations, by contrast, were purely for the personal use of party making the adaptation and could not be transferred without the permission of the copyright owner. Analogizing such adaptations to marginal note-taking in a book, CONTU stated that although both involve the creation of a derivative work, unless the reader or user "tries to copy and vend that work, the copyright owner is unlikely to be very concerned."²⁵⁴ Copyright owners having a different view "could, of course, make such desires a contractual matter."²⁵⁵

This last remark appears merely to refer to a copyright owner's right to contractually prohibit adaptations of the copyrighted work. However, some commentators have argued that CONTU meant to give copyright owners the right to contractually extinguish all of the rights that CONTU's proposed § 117 would give to rightful possessors of a copy of a program.²⁵⁶ If so, CONTU chose singularly poor wording for the

248. *Id.*

249. *Id.*

250. *Id.* at 32.

251. *Id.*

252. *Id.*

253. *Id.* at 31.

254. *Id.* at 33.

255. *Id.*

256. *See, e.g., infra* notes 284-85 and accompanying text.

proposed § 117, which would have created a potential trap for contract drafters. As the CONTU report made clear, a "rightful possessor" was to include not only a purchaser, but also a lessee or licensee of a copy of a computer program.²⁵⁷ Had § 117 been worded so as to permit all rightful possessors to make or authorize the making of another copy or an adaptation of the program, then it could have been argued that those rights could not be contractually extinguished unless the contract stated in the clearest possible terms that possession of the copy of the program being transferred would be rightful only so long as no copies or adaptations of the program were made. Even then, the courts might have construed the statutory rights of a "rightful possessor" to preempt enforcement of such a contract.²⁵⁸

Without explaining its motivation, Congress, in the 1980 amendments, changed the holder of § 117 rights from a "rightful possessor" to the "owner" of a copy of the computer program. Congress apparently intended by this change to allow copyright holders to contractually modify the rights enumerated in § 117 merely by retaining ownership of copies of a computer program and transferring possession of those copies by means of a lease or license restricting the uses to which the copies could be put.

2. SHRINK-WRAP LICENSES AND OTHER CONTRACTUAL RESTRICTIONS ON REVERSE ENGINEERING OF COMPUTER PROGRAMS

The importance of the change in the wording of § 117 has not been lost on the software industry. Developers of mass-distributed software now commonly print extensive contractual terms on software packaging and specify that removal of the wrapping by the user constitutes acceptance of those terms.²⁵⁹ These so-called "shrink-wrap" licenses often

257. CONTU Report, *supra* note 139, at 31-32.

258. *See id*

259 Among the terms most commonly included in these so-called "shrink-wrap," "box-top" or "tear-open" licenses or contracts are: 1) clauses specifying that the software proprietor retains title to the software or diskette and that the user is merely a bailee or lessee rather than the owner; 2) clauses prohibiting the rental of the software; 3) clauses limiting the use of the computer program to a single computer; 4) clauses disclaiming implied warranties or merchantability or fitness for a particular purpose; and 5) clauses prohibiting any modification or disassembly of the computer program or its incorporation into any other program. *See generally* BENDER, *supra* note 1, § 4A.02[4]; Richard Stern, *Shrink-wrap Licenses of Mass Marketed Software: Enforceable Contracts or Whistling in the Dark?* 11 RUTGERS COMPUTER & TECH. L.J. 82 (1985).

At least one of the concerns that shrink-wrap licenses have attempted to address has recently been the subject of federal legislation. The Computer Software Rental Amendments Act of 1990, Pub. L. No. 101-650, 104 Stat. 5128 (1990) amends section 109 of the 1976 Copyright Act so as to prohibit, until expiration of the amendment on October 1, 1997, the unauthorized rental, lease or lending of software for a direct or indirect

contain clauses prohibiting any modification or disassembly of the computer program or its incorporation into any other program.²⁶⁰ The terms may also specify that the software proprietor retains title to the software or diskette and that the user is merely a bailee or lessee rather than the owner.²⁶¹

Although several courts and commentators have questioned whether shrink-wrap agreements constitute enforceable contracts,²⁶² software developers continue to rely on them to deter reverse engineering. In an effort to buttress the enforceability of such provisions, software developers have persuaded two state legislatures, in Louisiana and Illinois, to enact statutes specifically providing that if certain conditions are met these shrink-wrap licenses are valid contracts.

The Louisiana and Illinois Software License Enforcement Acts²⁶³ specify that any person who acquires computer software will be conclusively deemed to have accepted and agreed to all terms of a license agreement for the software if a written notice of such terms is affixed to or packaged with the software in such a way as to be conspicuous upon casual examination, readily understandable, and clear in stating that use of the software or opening of the package will constitute acceptance of the license terms and that unused and unopened software may be returned for a full refund. The statutes also state that the terms deemed accepted in such cases can include any or all of the following: (1) Retention by the licensor of title to the copy of the software; (2) prohibitions or limitations on copying software or using copies made; (3) prohibitions or limitations on adapting the software in any way, including limitations on translating, reverse engineering, decompiling, or disassembling the software; (4) prohibitions or limitations on further transfers, rental or other disposition of the software or copies of same.²⁶⁴

However, reliance on shrink-wrap licenses as a way of limiting a user's rights under § 117 of the Copyright Act was called into question by the first court of appeals decision to consider § 117.

commercial purpose. This amendment in effect limits the application of the "first sale" doctrine embodied in section 109, which ordinarily limits the exclusive distribution right of a copyright owner to the first sale of a copyrighted work, while permitting the owner of an authorized copy to sell or otherwise dispose of that particular copy. The rationale for eliminating software rentals as a permissible method of disposing of a lawfully obtained copy of a copyrighted work is that such rentals, like phonorecord rentals, which section 109 also excepts from the first sale doctrine, are primarily designed to permit unauthorized copying of the rented work. H.R. Rep. 735, 101st Cong., 2d Sess. 7-10 (1990), reprinted in 1990 U.S. C.C.A.N. 6935, 6938-41.

260. See 2 BENDER, *supra*, note 1, § 4A.02[4]; Richard Stern, *supra* note 259.

261. *Id.*

262. See *infra* notes 279-80-and accompanying text, and note 313.

263. LA. REV. STAT. ANN. § 51:1961-66 (West 1987); Ill. Pub. Act 84-901, eff. July 1, 1986.

264. LA. REV. STAT. ANN. § 51:1961-66 (West 1987).

3. THE VAULT DECISION

*Vault Corporation v. Quaid Software Limited*²⁶⁵ held that the Louisiana Software License Enforcement Act was preempted by federal copyright law. In addition, the court held that a routine used to defeat a copy-protection program was non-infringing.²⁶⁶

In *Vault*, the Court of Appeals for the Fifth Circuit affirmed a lower court holding that a feature of Quaid's "CopyWrite" diskette, called "RAMKEY," (which was developed, as it will be recalled, by loading Vault's copy-protected "PROLOK" diskette into a computer for analysis, and which, as developed, unlocked the "PROLOK" copy-protection program) neither directly infringed the copyright of the "PROLOK" copy-protection program nor contributed to "CopyWrite" users' infringement of the copy-protection program or programs placed on "PROLOK" diskettes by Vault's customers.²⁶⁷ The "RAMKEY" feature of Quaid's "CopyWrite" program was said to enable purchasers of programs on "PROLOK"-protected diskettes to make archival copies, as authorized by § 117(2), that would protect them not only against mechanical or electrical failure but also against physical destruction of the "PROLOK"-protected diskette itself.²⁶⁸

The court of appeals also upheld the lower court's rejection of a claim that Quaid breached a "shrink-wrap" license agreement that accompanied the "PROLOK" diskettes. The lower court had reasoned that because the license agreement was a contract of adhesion, it was enforceable only if the Louisiana Software License Enforcement Act was valid and enforceable. The lower court held that because the Louisiana Act "touches upon an area" of federal copyright law, its provisions were preempted and Vault's license was unenforceable.²⁶⁹

A purchaser of a program on a "PROLOK" diskette could apparently make an archival copy of the program on another disk, but Vault's copy-protection device prevents a computer from reading the copy of the program unless the original "PROLOK" diskette is also in one of the computer's disk drives. The Court of Appeals went on to explain that:

The fact that a fully functional copy of a program cannot be made from a PROLOK diskette prevents purchasers from buying a single copy and making unauthorized copies for distribution to others. . . . Quaid's product . . . unlocks the PROLOK protective device and facilitates the creation of a fully functional copy of a program placed

265. 847 F.2d 255 (5th Cir. 1988).

266. *Id.* at 270.

267. *Vault*, 847 F.2d 255 (5th Cir. 1988). For a description of the reverse engineering employed by Quaid, see notes 113-17 and accompanying text.

268. *Id.* at 264.

269. *Id.*

on a PROLOK diskette. The process is performed simply by copying the contents of the PROLOK diskette onto the CopyWrite diskette which can then be used to run the software program without the original PROLOK diskette in a computer disk drive. RAMKEY interacts with Vault's program to make it appear to the computer that the CopyWrite diskette contains the required "fingerprint," thereby making the computer function as if the original PROLOK diskette is in its disk drive.²⁷⁰

The court of appeals found no direct infringement in Quaid's reverse engineering of Vault's program because Quaid's act of loading a PROLOK diskette into its own computer memory for the purpose of analysis was "an essential step in the utilization of the computer program in conjunction with a machine," pursuant to § 117(1).²⁷¹ The program could be analyzed on the computer alone, and thus no decompilation, with its resulting "hard" (i.e. paper) copy of the program, was necessary.²⁷² The court declined to limit the qualifying phrase of § 117(1), requiring that the copy made by loading the program into the computer be "used in no other manner," to permit the user to load a program only for the purpose intended by its developer.²⁷³

Nor did the court find that Quaid's two versions of its "RAMKEY" feature constituted infringing derivative works based on Vault's program. The court held that to constitute a derivative work, "the infringing work must incorporate in some form a portion of the copyrighted work," and "must be substantially similar to the copyrighted work."²⁷⁴ Although one version of "RAMKEY" contained approximately 30 characters of source code copied from Vault's program, the court concluded that the copying was not significant and that in any event, the two versions of "RAMKEY" were not substantially similar to Vault's program. The court distinguished the cases on which Vault relied as involving derivative works that performed substantially the same function as the copyrighted work, whereas Quaid's programs performed an opposing function. The court also rejected Vault's contention that Quaid's program could be a derivative work if it altered the operation of Vault's copyrighted work.²⁷⁵ The case on which Vault relied, noted the court, merely held that the sale of a program that sped up the operation of another program constituted

270. *Id.* at 256-57.

271. *Id.* at 261. For the text of section 117(1), see *supra* note 240.

272. *Vault*, 847 F.2d. at 261.

273. *Id.*

274. 847 F.2d at 267, (citing *Litchfield v. Spielberg*, 736 F.2d 1352, 1357 (9th Cir. 1984), *cert. denied*, 470 U.S. 1052 (1985)).

275. 847 F.2d at 268 (distinguishing *Whelan Assoc. v. Jaslow Lab.*, 797 F.2d 1222, 1244 (3d Cir. 1986) and *Midway Mfg. Co. v. Artic Int'l*, 704 F.2d 1009 (7th Cir. 1983), *cert. denied*, 464 U.S. 823).

contributory infringement because the sped up programs were themselves derivative works.²⁷⁶

The court found no contributory infringement by Quaid because the Supreme Court's decision in *Sony Corporation of America v. Universal City Studios* limits contributory infringement to cases where the material or device involved is not capable of substantial non-infringing uses,²⁷⁷ and the "RAMKEY" feature of the "CopyWrite" program enabled purchasers of programs on "PROLOK"-protected diskettes to make archival copies, as authorized by § 117(2), that would protect them not only against mechanical or electrical failure (which could be avoided by copying a "PROLOK"-protected diskette on another diskette for use with the original "PROLOK"-protected diskette), but also against physical destruction of the "PROLOK"-protected diskette itself.²⁷⁸

Finally, the court of appeals held that the provision in the Louisiana Software License Enforcement Act permitting a software producer to prohibit decompilation or disassembly of a copy of its computer program "conflicts with the rights of computer program owners under § 117 and thus clearly 'touches upon an area' of federal copyright law."²⁷⁹ For that reason, the provision was preempted by federal law.²⁸⁰ This rendered the restriction in Vault's license agreement against reverse engineering unenforceable.

4. CRITICISMS OF THE VAULT DECISION

The *Vault* decision has been criticized as being a "rogue elephant" among those construing § 117.²⁸¹ There are four stated criticisms of the case. The first is that it ignored the fact that § 117 grants rights only to an "owner" of a copy of a computer program, whereas Quaid was merely a licensee.²⁸² As the leading critic of the *Vault* decision put it, the court

held that a statute dealing with licenses was preempted (and that Vault's license was therefore unenforceable) because it conflicted with a federal statute granting certain rights to owners. Thus, it cannot be said that the court moved Quaid into the category of § 117 owners because Vault's license was unenforceable; on the contrary, the license was unenforceable because the court treated Quaid as an

276. 847 F.2d at 268 (distinguishing *Midway*, 704 F.2d at 1013-14).

277. *Sony*, 464 U.S. 417, 447-55 (1984).

278. 847 F.2d at 264.

279. *Vault*, 847 F.2d at 270, (citing *Sears, Roebuck & Co. v. Stiffel*, 376 U.S. 225, 229 (1964)("[w]hen state law touches upon the area of [patent or copyright statutes], it is 'familiar doctrine' that the federal policy 'may not be set at naught, or its benefits denied' by the state law.")).

280. *Id.*

281. John M. Conley & Vance.T. Brown, *Revisiting § 117 of the Copyright Act: An Economic Approach*, *COMPUTER LAW.*, Nov. 1990, at 1, 9.

282. *Id.* at 5.

owner. The only plausible inference is that the court simply ignored the distinction between owners and licensees. In so doing, it created ammunition for the argument that not only shrink-wrap licenses but all "rightful possessors" of software—the words of the statute as drafted by CONTU—are entitled to the benefits of § 117.²⁸³

The court's decision thus flew in the face of Congress's apparent intent in changing the words from a "rightful possessor" to "the owner" of a copy of computer software.

The second criticism of *Vault* is that it nullified one of CONTU's own premises—that copyright owners desiring more protection than was available under § 117 "could, of course, make such desires a contractual matter."²⁸⁴ The *Vault* decision would arguably preempt any contract that restricted reverse analysis and not just shrink-wrap licenses. Although the court in *Vault* merely held that the shrink-wrap licenses authorized by the Louisiana License Act were preempted because they contained restrictions more onerous than those of § 117, the same could be said of any contract, whether a shrink-wrap license or not, insofar as it restricts the uses of computer programs that § 117 would permit. Indeed, one subsequent federal trial court, following *Vault's* lead, may have held just exactly that.²⁸⁵

The third criticism of *Vault* is that the court should have construed the phrase "essential step in the utilization of a computer" as permitting the copying of a computer program only for the purpose intended by the copyright holder.²⁸⁶ The court's conclusion that there is no language suggesting that the copy that § 117 permits to be made in loading a program into a computer must be employed for a purpose intended by the copyright owner, is "clearly at odds with the purpose of the section as stated by CONTU."²⁸⁷ The CONTU report itself states that inclusion of an adaptation right in § 117 was designed to provide "a right to make those changes necessary to enable the use for which [the program] was both sold and purchased."²⁸⁸

The fourth criticism of *Vault* is with respect to its holding that Quaid was not liable for contributory infringement because its program had a substantial non-infringing use in enabling the users of "PROLOK"

283. *Id.*

284. *Id.* (citing CONTU Final Report, *supra* note 139, at 14). *But see supra* text accompanying notes 256-58.

285. *See Foresight Resources Corp. v. Pfortmiller*, 719 F. Supp. 1006 (D. Kan. 1989). The court in *Pfortmiller* merely stated that a licensing agreement accompanied the plaintiff's program, without specifying whether it was a shrink wrap license or not. *Id.* at 1010. For further discussion of copyright and patent preemption of shrink wrap licenses, see *infra* Part V.

286. Conley & Brown, *supra* note 281, at 5, 9.

287. *Id.*

288. CONTU Final Report, *supra* note 139, at 31.

diskettes to make archival copies.²⁸⁹ As we have seen, a purchaser of a program on a "PROLOK" diskette could make an archival copy as long as the original "PROLOK" diskette was also in one of the computer's disk drives.²⁹⁰ In contrast to previous district court opinions,²⁹¹ the court in *Vault* concluded that § 117(2) authorizes an owner of a copy of a computer program "to make an archival copy of that program in order to guard against all types of risks, including physical and human mishap as well as mechanical or electrical failure," and dismissed CONTU's reference to "mechanical or electrical failure" as "illustrative only, and not exclusive."²⁹² However, unlike mechanical or electrical failure, the risk of physical destruction is in no way unique to computer programs, and it is clear in other copyright contexts that the purchaser of a copy of a copyrighted work, such as a book, is not privileged to make a backup copy to guard against the risk of physical destruction, at least so long as additional copies of the book are available on the open market.²⁹³

Given these criticisms of the *Vault* decision, it is not surprising that the court of appeals in *Sega* declined to find that Accolade's reverse engineering was authorized by § 117.²⁹⁴ The *Sega* court concluded that Accolade's disassembly of the object code of Sega's program, conversion of the program into source code, and printouts and photocopies of the source code version went far beyond the uses contemplated by CONTU and authorized by § 117.²⁹⁵ Thus, the court found it unnecessary to decide whether § 117 permits a program to be used only as intended by the copyright owner, as *Sega* claimed, or permits the type of reverse analysis employed by *Quaid* in the *Vault* case.

As compelling as the foregoing criticisms of the *Vault* decision are, the recent *Atari* and *Sega* decisions suggest two further questions that the *Vault* court should have addressed: 1) Whether, irrespective of § 117, *Quaid* could have defended its reverse engineering as a fair use under § 107, just as the defendants in *Atari* and *Sega* succeeded in doing; and 2) whether the Louisiana Software License Enforcement Act could be said to

289. *Conley & Brown, supra note 281, at 5-6.*

290. See text following note 269, *supra*.

291. *Micro-Sparc, Inc. v. Amtype Corp.*, 592 F. Supp. 33, 35-36 (D. Mass. 1984); *Atari, Inc. v. JS&A Group*, 597 F. Supp. 5, 9 (N.D. Ill. 1983).

292. 847 F.2d at 266-67.

293. See, e.g., section 108(c) of the Copyright Act of 1976, which gives certain libraries and archives a right to reproduce a copy of a published work "solely for the purpose of replacement of a copy . . . that is damaged, deteriorating, lost, or stolen, if the library or archives has, after a reasonable effort, determined that an unused replacement cannot be obtained at a fair price." 17 U.S.C. § 108(c) (1988).

294. *Sega*, 1993 U.S. App. LEXIS 78, at *28. The *Sega* court concluded that Accolade's reverse engineering of *Sega*'s object code went far beyond the uses contemplated by CONTU and authorized by section 117. *Id.* The court thus found it unnecessary to decide the exact scope of section 117. *Id.* at *26 n.6.

295. *Id.* at *26.

conflict with and thus be preempted by § 107's fair use privilege. The first question will be discussed in the remainder of this section while the second question will be discussed in Part V.

With respect to the first question, the immediate purpose of Quaid's reverse engineering, as in *Atari* and *Sega*, was to gain access to the unprotected ideas and functional expression contained in the reverse engineered program. The ultimate purpose of Quaid's reverse engineering, however, was to produce a program that would defeat Vault's "PROLOK" program, whose particular "nature" was to prevent copying. Unlike the lockout devices in *Atari* and *Sega*, Vault's copy protection program was consistent with the goals of the Copyright Act, and was not a misuse. Thus, Quaid's ultimate purpose in reverse engineering Vault's program would undercut, rather than strengthen, any fair use defense.

Specifically, the product of Quaid's reverse engineering, namely, the "Copywrite" disk with its "RAMKEY" feature, could easily be said to contribute to others' infringement of Vault's "PROLOK" program. First, Vault's copy-protection program, as well as Vault's customers' programs, had to be copied onto the "Copywrite" diskette in order for the "RAMKEY" feature to work.²⁹⁶ This copy of the copy-protection program, unlike the copy made when the "PROLOK" diskette was loaded into the computer for reverse analysis, could not be characterized under § 117 as an essential step in the utilization of the "PROLOK" copy protection program in conjunction with a machine. Rather, the copy is produced as an essential step in the utilization of the "RAMKEY" feature of the "Copywrite" program, and thus constituted an infringing copy of the "PROLOK" program. Second, the argument that there was a "substantial non-infringing use" in assisting users of "PROLOK"-protected programs to make archival copies of Vault's customers' programs is less persuasive when we consider that the "RAMKEY" feature was not the only means available to avoid the risks caused by mechanical or electrical failure.²⁹⁷ Nor, as we have seen, could "RAMKEY" legitimately be used to avoid the risk of physical damage to "PROLOK"-protected programs.²⁹⁸ The "RAMKEY" feature had no apparent use other than to contribute to users' infringement of "PROLOK"-protected computer programs—a use which was highly likely, in turn, to diminish the market value of the "PROLOK" program.²⁹⁹

296. *Vault*, 847 F.2d at 261.

297. See text following note 269, *supra*, and text accompanying note 291, *supra*.

298. See text accompanying *supra* note 293.

299. A connection may well exist between the general use of "CopyWrite" by pirates and the loss of "PROLOK's" economic value. Although VCR's made by Sony did not destroy the economic value of broadcast movies, see *supra* notes 217-21 and accompanying

The ultimate unfairness of Quaid's conduct, however, flows not from the reverse engineering itself, but from the use made of the results of that reverse engineering. It is the purpose and character of the ultimate use, analyzed in accordance with § 107 of the Copyright Act, that make Quaid an infringer of Vault's program. Thus, notwithstanding the misguided result in *Vault*, the court's conclusion that reverse analysis that does not involve decompilation is not an infringement may have been correct.

As the discussion up to this point makes clear, although some uses of the product of reverse engineering of publicly distributed computer programs (such as defeating copy protection, as in *Vault*) may be unfair under § 107, other uses of the product of reverse engineering (such as defeating lockout devices, achieving interoperability generally, or even developing a competing program) may nevertheless be fair. Reverse analysis would appear to be permitted under § 107 whether or not it is permitted under § 117.³⁰⁰ Any effort to enforce a contract purporting to limit the more general § 107 privilege to engage in decompilation of a publicly distributed computer program may constitute copyright misuse on the part of the copyright owner,³⁰¹ and, in any event, as will be seen in the next part of this article, is probably preempted by federal copyright and/or federal patent law.

text, "CopyWrite" and similar programs may be the determinant cause for the discontinuance in the use of protected diskettes by software producers.

300 *But see infra* note 341-43 and accompanying text, suggesting that § 117 could be interpreted to permit reverse analysis as a per se fair use, without any need to consider the § 107 four-factor test.

Professor Miller, *supra* note 162, argues that, to the contrary, the "circumscribed freedom that section 117 gives the program acquirer to make a copy or adaptation for internal use certainly carries with it the negative implication that the statute's permission does not extend to commercial competitors, whose copying and adaptation is not 'an essential step' in their own 'utilization' of the program." Miller, *supra* note 162, at 1023. This argument, however, fails to recognize that § 117 is merely a "safe-haven" provision that carries no negative implication at all for the interpretation of § 107. If uses not falling within § 117, or any of the other safe-haven provisions contained in §§ 108-116 and 118-20, could not be fair uses, then § 107 would have no function. *See generally* note 154 *supra* and accompanying text.

Professor Miller also argues that "Congress's enactment of the Semiconductor Chip Protection Act, just four years after the 1980 Software Amendments, arguably reveals something about its views regarding fair use and reverse engineering." Miller, *supra* note 162, at 1023-24. For a refutation of Professor Miller's attempt to draw a negative implication from the Chip Act and its explicit reverse engineering privilege, see Part IV(C)(2), *infra*.

301. For a discussion of copyright misuse and how the doctrine applies to contracts that violate the policy of federal patent or copyright law, or to contracts that have an anticompetitive effect in violation of federal antitrust law, see *supra* notes 185-86, 188 and accompanying text.

V. COPYRIGHT AND PATENT PREEMPTION OF RESTRICTIONS ON REVERSE ENGINEERING

A. Copyright Preemption

An appropriate place to begin a discussion of copyright preemption is to identify yet another criticism of the *Vault* decision, this one having to do with its copyright preemption analysis. Not only did the *Vault* court incorrectly find a conflict between the Louisiana Act and § 117 of the Copyright Act, but also, in applying the preemption test stated in *Sears, Roebuck & Co. v. Stiffel*³⁰² and its companion case, *Compco Corp. v. Day-Brite Lighting*³⁰³ (generally referred to collectively as the *Sears-Compco* cases), the court simply ignored the statutory preemption provision contained in § 301 of the 1976 Copyright Act.

Section 301(a) of the Act states that on or after the effective date of the Act,

all . . . rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106 in works of authorship that are fixed in a tangible medium of expression and come within the subject matter of copyright as specified by sections 102 and 103 . . . are governed exclusively by this title.³⁰⁴

Section 301(b) goes on to state that nothing in the Copyright Act annuls or limits any rights or remedies under the common law or statutes of any State with respect to "activities violating . . . rights that are not equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106 . . ."³⁰⁵ Thus, the question is whether state statutory and contractual protections against reverse engineering fall within the scope of rights specified by § 106. An earlier version of § 301(b) contained a list of state law rights that were not considered equivalent to those specified in § 106. One such example was "breaches of contract."³⁰⁶ Although the clause was later deleted because of concerns over one of the other examples,³⁰⁷ the earlier version of § 301(b) nevertheless seems to have manifested a legislative intent not to preempt the state law of contracts.

Given the inclusion of § 301 in the Copyright Act, it could be argued that this express statutory preemption test, rather than the test quoted in *Sears-Compco*, should have been applied in *Vault*. The *Sears-Compco* cases,

302. 376 U.S. 225 (1964).

303. 376 U.S. 234 (1964).

304. 17 U.S.C. § 301(a) (1988).

305. 17 U.S.C. § 301(b) (1988).

306. S. 22, 94th Cong., 2d Sess. § 301(b)(3) (1976).

307. See 122 Cong. Rec. H10910 (daily ed. Sept. 22, 1976) (revealing a concern by the Justice Department that a state law right of "misappropriation" as one which survives preemption would be a mistake).

after all, were specifically concerned with the preemptive effect of federal patent law which, unlike the Copyright Act of 1976, contains no express statutory preemption provision. The test applied in *Sears-Compco* is arguably simply a rule for determining whether, in the absence of an express federal statutory preemption provision, state law nevertheless conflicts with federal law and is thus preempted by virtue of the Supremacy Clause of the United States Constitution.³⁰⁸

Of course, the inclusion of an express statutory preemption provision in the 1976 Copyright Act does not necessarily preclude a finding of preemption under the implied Supremacy Clause test articulated in *Sears-Compco*. A court could conceivably find that state law, although not expressly preempted by § 301(a), nevertheless "touches upon an area" governed by the Act, and does so in a such a way that federal policy "is set at naught, or its benefits denied."³⁰⁹ Such a conclusion, however, would require some explanation of the relationship between § 301(a) and the *Sears-Compco* preemption test. The court in *Vault* simply failed to provide such an explanation.

The legislative history makes clear that the primary purpose of § 301 was to preempt the common-law copyright protection for unpublished works, which coexisted with the federal statutory copyright protection for published works prior to the enactment of the 1976 Copyright Act.³¹⁰ The legislative history also states, however, that "[a]s long as a work fits within one of the general subject matter categories of §§ 102 and 103, [§ 301(a)] prevents States from protecting it even if it fails to achieve Federal statutory copyright protection."³¹¹ This remark suggests that § 301(a) itself might preempt any effort to provide contractual protection against reverse engineering of a publicly distributed computer program, where the program would fail to achieve federal copyright protection against such reverse engineering because of the fair use provisions of § 107. The problem with this conclusion is that contractual restrictions against reverse engineering are not "equivalent" to any of the exclusive rights contained in § 106. However, shrink-wrap licenses, which restrict virtually the entire public from reverse engineering publicly distributed computer programs, arguably do provide protection that is equivalent to copyright.

In any event, the legislative history also states that the purpose of § 301(b) "is to make clear, consistent with the 1964 Supreme Court decisions [in

308. U.S. Const. Art. VI.

309. See *supra* note 279.

310. See H.R. Rep. 94-1476, 94th Cong. 2d Sess. 129-131, reprinted in 5 U.S.C.C.A.N. 5745-5747 (1976). Since the effective date of the 1976 Act, federal copyright protection has subsisted from the moment a work was fixed in tangible form; common-law copyright protection is simultaneously preempted. *Id.*

311. *Id.* at 5747.

the *Sears-Compco* cases], that preemption does not extend to causes of action or subject matter outside the scope of the revised Federal copyright statute"³¹² [emphasis added]. This statement provides authority for applying the *Sears-Compco* preemption test to state shrink-wrap licensing laws and other contractual restrictions on reverse engineering, even if § 301 itself does not preempt such provisions.

Although no court has yet ruled on whether § 107 would preempt enforcement of contracts restricting reverse engineering of computer programs, the Court of Appeals for the Second Circuit in *Wright v. Warner Books*³¹³ addressed the preemptive effect of § 107 with respect to contractual restrictions on the right to make use of unpublished letters. The court in *Wright* refused to construe a restrictive agreement in such a way as to prohibit a biographer from using manuscripts in a university archive for scholarly purposes (in the case at bar, for the writing of a biography of the author, Richard Wright). Purely as a matter of contract construction, the court said: "It defies common sense to construe this agreement as giving scholars access to manuscripts with one hand but then prohibiting them from using the manuscripts in any meaningful way with the other."³¹⁴ But the court went on: "To read [the restrictions agreed upon] as absolutely forbidding any quotation, no matter how limited or appropriate, would severely inhibit proper, lawful scholarly use and place an arbitrary power in the hands of the copyright owner going far beyond the protection provided by law."³¹⁵ This latter remark strongly suggests that the court would preempt enforcement of a contract that attempted to restrict § 107's fair use privilege.

Preemption by federal copyright law of contracts prohibiting reverse engineering appears consistent with the European Community Directive on the Legal Protection of Computer Programs. The EC Directive makes it clear that the right to reverse engineer copyrighted

312. *Id.*

313. *Wright*, 953 F.2d 731 (2d Cir. 1991). See generally L. RAY PATTERSON & STANLEY W. LINDBERG, *THE NATURE OF COPYRIGHT - A LAW OF USERS' RIGHTS* 220 (1991):

A common practice of the producers of computer programs has been to distribute them with shrink-wrapped "licenses." These self-proclaimed licenses purport to bind the purchaser (upon opening the package) to the copyright owner's terms - which invariably restrict the use the purchaser may make of the work. Such licenses are almost surely against public policy as unilateral attempts to override public law with private law in an adhesion contract. *One can be sure that to the extent the provisions of such licenses preclude the fair use of the work, they have no legal effect, although their in terrorem effect may be substantial.* In our opinion, users would be well within their rights to ignore such unlawful terms and to comply instead with the law of fair use. [emphasis supplied].

314. 953 F.2d at 740.

315. *Id.*

software, which is guaranteed by Articles 5(3) and 6, may not be withdrawn by contractual provisions. According to Article 9(1), any contractual provision contrary to these articles is void.³¹⁶

B. Patent Preemption of State Law and Primacy over Copyright Law

A final criticism of the *Vault* decision is that in applying the *Sears-Compro* rule, the court neglected a number of Supreme Court preemption decisions in which the Court refused to find preemption because it gave deference to state contract and trade secret law. However, as this section will indicate, the most recent Supreme Court patent preemption decision, *Bonito Boats, Inc. v. Thunder Craft Boats*,³¹⁷ supports the *Vault* decision with respect to preemption of the Louisiana shrink-wrap licensing law.

316. EC Directive, *supra* note 3. The full text of Article 9(1) is as follows:

Article 9

Continued application of other legal provisions

1. The provisions of this Directive shall be without prejudice to any other legal provisions such as those concerning patent rights, trade-marks, unfair competition, trade secrets, protection of semi-conductor products or the law of contract. Any contractual provisions contrary to Article 6 or to the exceptions provided for in Article 5(2) and (3) shall be null and void.

Note that Article 9(1) conspicuously excepts from its rule against enforcement of contracts contrary to the rights created in Articles 5(2) (creation of a backup copy) and (3) (reverse analysis) and Article 6 (decompilation and disassembly), any contract that is contrary to Article 5(1). Article 5 states that:

Article 5

Exceptions to the restricted acts

1. In the absence of specific contractual provisions, the acts referred to in Article 4(a) and (b) shall not require authorization by the rightholder where they are necessary for the use of the computer program by the lawful acquirer in accordance with its intended purpose, including for error correction.

2. The making of a back-up copy by a person having a right to use the computer program may not be prevented by contract insofar as it is necessary for that use.

3. The person having a right to use a copy of a computer program shall be entitled, without the authorization of the rightholder, to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do.

Id. Article 5(1), for example, would allow a copyright owner to contractually restrict the right of a user to load a program into a computer when the program could thereafter be used at a number of terminals.

317. 489 U.S. 141 (1989).

In *Bonito Boats*, the Supreme Court unanimously held that a Florida statute,³¹⁸ which prohibited the unauthorized use of a direct molding process to duplicate manufactured boat hulls, conflicted with federal patent law and was thus invalid under the Supremacy Clause. In the course of its opinion, the Court reviewed and reaffirmed its holding in the *Sears-Compco* cases, but also reaffirmed intervening decisions that refused to preempt various aspects of state trade secret and contract law.

In *Sears-Compco*, the Court had held that because of the federal patent laws, a state may not, through its unfair competition laws, prohibit the copying of an unpatented and uncopyrighted article. In both *Sears* and *Compco*, litigants had sought to enjoin the copying of publicly distributed articles whose patents had been declared invalid.³¹⁹ The Court concluded that to forbid copying would interfere with the federal policy of allowing free copying of whatever the federal patent and copyright laws leave in the public domain.³²⁰

Likewise, in *Brulotte v. Thys Company*,³²¹ the Court held that a patentee's use of a royalty agreement that projects the obligation to pay royalties beyond the expiration date of the patent is unlawful *per se*.³²² The Court concluded that if such a device were available to patentees, the free market visualized for the post-expiration period would be subject to monopoly influences.³²³ Similarly, in *Lear, Inc. v. Adkins*,³²⁴ the Court held that a patent licensee who establishes that the patent is invalid need not pay royalties accrued subsequent to the issuance of the patent.³²⁵ Both of these cases stood for the proposition that contracts which attempt to provide protection unavailable under federal patent law are preempted.

In *Kewanee Oil Co. v. Bicron Corporation*,³²⁶ the Court held that because state trade secret law has long co-existed with federal patent law and does not undermine federal patent policy, even where protection is sought for trade secrets that are clearly patentable, there is no conflict requiring preemption.³²⁷ Although not mentioned in *Kewanee Oil*, it is noteworthy that the patent statute itself, in specifying that applications

318. FLA. STAT. § 559.94(2) (1987), makes it unlawful "for any person to use the direct molding process to duplicate for the purpose of sale any manufactured vessel hull or component part of a vessel made by another without the written permission of that other person."

319. *Sears*, 376 U.S. 225 (1964); *Compco*, 376 U.S. 234 (1964).

320. *Sears*, 376 U.S. at 232. This federal policy is found in both the patent and copyright clause of the U.S. Constitution and the implementing legislation.

321. 379 U.S. 29 (1964).

322. *Id.* at 32.

323. *Id.* at 32-33.

324. 395 U.S. 653 (1969).

325. *Id.* at 674.

326. *Kewanee Oil Corp. v. Bicron Corp.*, 416 U.S. 470 (1974).

327. *Id.* at 493.

for patents are to be kept confidential until a patent issues, embodies a policy of co-existence with state trade secret law.³²⁸ In *Kewanee Oil*, the Court reasoned that the danger of interference with federal patent law was remote, because state trade secret law provides far weaker protection than patent law, as the public at large remains free to discover and exploit the trade secret through reverse engineering of products in the public domain.³²⁹

Likewise, in *Aronson v. Quick Point Pencil Co.*,³³⁰ the Court held that preemption did not preclude enforcement of a contract to pay reduced royalties to a patent applicant after a denial of the patent application.³³¹ The Court concluded that enforcement of the royalty agreement was consistent with its decision in *Brulotte v. Thys Company*, because the reduced royalty being challenged, far from being negotiated "with the leverage" of a patent, rested on the contingency that no patent would issue within five years.³³² A concurring opinion in *Aronson* added that nothing in *Brulotte* would justify preventing a patent applicant/licensor from entering into a contract whose term does not end if the application fails.³³³

Notwithstanding its pragmatic approach in *Kewanee* and *Aronson* to state trade secret and contract law, the Court in *Bonito Boats* reaffirmed *Sears-Compco*, at the heart of which, the Court said, "is the conclusion that the efficient operation of the federal patent system depends upon substantially free trade in publicly known, unpatented design and utilitarian conceptions."³³⁴ Although the Court admitted that its decisions since *Sears* "have taken a decidedly less rigid view of the scope of federal preemption under the patent laws,"³³⁵ it went on to state its belief "that the *Sears* Court correctly concluded that the States may not offer patent-like protection to intellectual creations which would otherwise remain unprotected as a matter of federal law."³³⁶

The Court in *Bonito Boats* stated:

In essence, the Florida law prohibits the entire public from engaging in a form of reverse engineering of a product in the public domain. This is clearly one of the rights vested in the federal patent holder, but has never been a part of state protection under the law of unfair competition or trade secrets.³³⁷

328. *Id.* at 485, (citing 35 U.S.C. §122).

329. 416 U.S. at 489-90.

330. 440 U.S. 257 (1979).

331. *Id.* at 264-65.

332. *Id.*

333. *Id.* at 267.

334. *Bonito Boats*, 489 U.S. at 156.

335. *Id.*

336. *Id.*

337. *Id.* at 160.

The Court went on to reiterate what it had noted in *Kewanee Oil*, that "the competitive reality of reverse engineering may act as a spur to the inventor, creating an incentive to develop inventions which meet the rigorous requirements of patentability."³³⁸

As we will see, the Supreme Court's decision in *Bonito Boats* may bear upon two separate aspects of the question of the legitimacy of reverse engineering.

1. PATENT PREEMPTION OF STATE SHRINK-WRAP LICENSING LEGISLATION

First, the *Bonito Boats* decision strongly suggests that federal patent law is an alternative to federal copyright law for preempting both state legislation and judicial cases that uphold the enforceability of "shrink-wrap" licenses, where the licenses prohibit virtually the entire public from reverse engineering a publicly distributed computer program. Although the *Vault* decision may have given erroneous reasons for why the Louisiana statute was preempted by federal copyright law, it did not address the question whether the Louisiana Act might be preempted by federal patent law. Some commentators, even before the *Bonito Boats* decision, concluded that federal patent law would indeed preempt such legislation.³³⁹

If shrink-wrap license provisions prohibiting reverse engineering are unenforceable because of the preemptive effect of federal copyright or patent law, then many current "rightful possessors" of copies of mass-marketed computer programs would perforce become *de facto* "owners."³⁴⁰ In the absence of the shrink-wrap provisions, owners would be free of any contractual limitations on their right under § 117 of the Copyright Act to load the programs into their computers, to adapt them as necessary for use on their computers, and to make archival copies. Courts could also consider some of the other statutory issues that the *Vault* decision raised concerning the permissibility, under § 117, of reverse analysis of a program after a lawfully obtained copy is loaded

338. *Id.* (quoting *Kewanee*, 416 U.S. at 489-90).

339. See Steven W. Lundberg & John P. Sumner, *Patent Preemption of Shrink-Wrap Prohibitions on Reverse Engineering*, COMPUTER LAW., Apr. 1987, at 9; D.C. Toedt, *Bonito Boats and the Primacy of the Patent System—Are There Implications for Software Copyrights?* COMPUTER LAW., Apr. 1987, at 12; D.C. Toedt, *Bonito Boats Follow-Up: Free Competition Public Interests vs. The Substantial Similarity Test—Does the Legislative History Actually Support Nonliteral Software Copyright Protection?*, COMPUTER LAW., July 1989, at 14.; Arthur J. Levine, *Comment on Bonito Boats Follow-up: The Supreme Court's Likely Rejection of Nonliteral Software Copyright Protection*, COMPUTER LAW., July 1989, at 29. But see Allen R. Grogan, *Bonito Boats and Whelan: A Simple Contrast Between Patent and Copyright Protection*, COMPUTER LAW., July 1989, at 33; E. Gabriel Perle et al, *Bonito Boats Redux*, COMPUTER LAW., Feb. 1990, at 1.

340 For a discussion of the significance of these two terms, see *supra* Parts IV(D)(1)(2).

into a computer. At least where reverse engineering can be accomplished entirely within the computer, as in *Vault*,³⁴¹ it could be argued that the act of loading the program into the computer is indeed an "essential step"³⁴² in using the computer program. If this construction of § 117 is adopted, reverse analysis not involving decompilation or disassembly would thus be fair *per se*, without any need to consider the indispensability of the reverse engineering under § 107's four factor test, although the fairness of the use to which the product of that reverse engineering is put would still be subject to a § 107 fair use analysis. Such an interpretation of § 117 would be consistent with Article 5(3) of the European Community Directive.³⁴³

2. PATENT LAW PRIMACY OVER COPYRIGHT LAW

The *Bonito Boats* decision may have a second, and more far-reaching effect on the reverse engineering question. Some commentators have suggested that the decision "may shed (perhaps no more than a glimmer of) light on the Court's view of the relationship, not just between [federal] patent law and state law, but also between patent and copyright law as they affect computer software."³⁴⁴ This is because "[t]he patent system is traditionally thought of as (what may be described as) 'preempting' copyright law in certain areas, just as it preempts state law in some respects."³⁴⁵ Although the primacy of patent law over copyright "is usually discussed in terms of statutory construction," because patent and copyright law are co-equal bodies of federal law, nevertheless, "analyzing that primacy as a species of preemption can provide a useful perspective."³⁴⁶ That perspective is legitimate, commentators argue, because "the Copyright Act contains its own self-'preempting' provision: the statute [in § 102(b)] provides that copyright does not extend to any method of operation, process, or procedure, among other things."³⁴⁷

Thus far, the principal conclusion of the commentators offering the foregoing view is that it "may call into question the vitality of the *Whelan* line of cases holding that the structure, sequence and organization of computer software—i.e., important functional characteristics of the

341. See 2 NIMMER, *supra* note 63, § 8.08 at 8-107, noting that under section 117 "it is only a copy made by the very act of inputting a program into a computer which is privileged." *Id.* Any subsequent retrieval of the work from the computer in a tangible form, such as a printout, "clearly would constitute an infringing 'copy'" under both the 1909 Copyright Act and the 1976 Act. *Id.* at 8-111.

342. 17 U.S.C. § 117 (1988).

343. For the text of Article 5(3), see *supra* note 316.

344. D.C. Toedt, *Bonito Boats and the Primacy of the Patent System—Are There Implications for Software Copyrights?* COMPUTER LAW., Jan. 1989, at 12, 12.

345. *Id.* at 13.

346. *Id.*

347. *Id.* at 12.

software—are protectible by copyright.”³⁴⁸ The question raised by this line of cases, as we have seen, has an important, albeit indirect, bearing on the reverse engineering question, in that narrowing the scope of copyright protection for computer programs strengthens the justifications for reverse engineering as a necessary means for obtaining access to the broad universe of unprotected ideas.

But *Bonito Boats* may have an even more direct bearing on the reverse engineering question. The case also buttresses the conclusions of the courts in *Atari*, *Sega* and *Vault*—namely that reverse engineering of a publicly distributed program is a fair use under § 107, and that a person who loads a program into a computer in accordance with § 117 may thereafter subject the program to reverse analysis.

The argument for patent preemption of state law and patent primacy over federal copyright law gains strength from the increasing recognition in the United States that computer programs may indeed be the subject of patent protection. Before 1981, the patentability of computer programs was in considerable doubt. In that year the Supreme Court made clear in its decision in *Diamond v. Diehr* that “a claim drawn to subject matter otherwise statutory [i.e., patentable] does not become non-statutory simply because it uses a mathematical formula, computer program or digital computer.”³⁴⁹ The Court held that a claim containing a mathematical formula used in a computer program must be viewed as a whole, and patent protection will issue if the overall function of the formula is to “transform or reduce an article to a different state or thing.”³⁵⁰ This language generally confirms earlier decisions of the Court of Customs and Patent Appeals (CCPA) holding that the application of a formula either to physical elements (in apparatus claims) or to process steps (in process claims) was sufficient to establish the validity of a patent claim,³⁵¹ although the specific holding in *Diehr* merely identified the physical transformation of an article as the touchstone of validity for a claim containing a mathematical formula.³⁵²

Subsequent decisions by lower courts have held that computer programs are proper subject matter for patent protection. Several post-*Diehr* decisions by the CCPA are of particular relevance. *In re Taner*,³⁵³ for example, held that a method for converting electrical signals, by a process that includes a mathematical formula, is patentable subject matter.³⁵⁴ *In re*

348. *Id.*

349. *Diamond*, 450 U.S. 175, 181 (1981).

350. *Id.* at 193.

351. *Id.*

352. *See, e.g., In re Walter*, 618 F.2d 758, 767 (C.C.P.A. 1980).

353. 681 F.2d 787 (C.C.P.A. 1982).

354. *See, e.g., BENDER, supra*, note 1, § 3A.03[2], at 3A-38 (1991).

*Pardo*³⁵⁵ upheld claims for a method and apparatus for controlling the internal operations of a computer so as to convert it from a sequential processor to one not dependent upon the order in which it receives program instructions.³⁵⁶ A federal trial court decision, *Paine, Webber v. Merrill Lynch*,³⁵⁷ upheld a patent for a computer program dealing with cash management, stating that it claimed a "methodology to effectuate a highly efficient business system" rather than a mere mathematical formula.³⁵⁸ Finally, the court of appeals for the federal circuit has upheld the validity of computer-program-related claims.³⁵⁹

As the foregoing cases illustrate, and a recent survey confirms, the Patent and Trademark Office is in fact issuing "pure" software patents in significant numbers.³⁶⁰ The survey defines pure software patents as "patents which specifically disclose and claim software technology without referring to hardware, other than a computer and typical peripheral devices."³⁶¹ These patents can be divided into two general types—inventions related to business methods and those related to computer/user interfaces.³⁶² The survey concludes that:

[T]he Patent Office is now issuing a large number of patents for computer programs operating on computers in a wide variety of applications. Many of these patents are "pure" software patents which indicates that the Patent Office is now willing to grant patents for novel and non-obvious computer programs operating on conventional, off-the-shelf computer hardware.³⁶³

The Patent Office and the federal courts now face what may be thought of as a second generation of computer software patent cases, in which the concern will shift to the novelty and non-obviousness requirements as applied to computer programs, and the degree of disclosure required of the actual source code of a program.

The first paragraph of § 112 of the federal patent laws contains three disclosure requirements for a patent specification: 1) a written description of the invention; 2) a disclosure of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most

355. 684 F.2d 912 (C.C.P.A. 1982).

356. *Id.* at 913, 917.

357. 564 F. Supp. 1358 (D. Del. 1983).

358. *Id.* at 1368.

359. *In re Iwahashi*, 888 F.2d 1370 (Fed. Cir. 1989).

360. Proprietary Rights Committee, Computer Law Section, State Bar of Michigan, *Survey of United States Software Patents Issued From July 1987 Through December 1987*, reprinted in BENDER, *supra* note 1, Chap. 3A, App. 3A[4] (1991).

361. *Id.*, BENDER, *supra* note 1, *Id.*, at App. 3A-102.

362. *Id.* at § 3A.07[3].

363. See *Survey of U.S. Business Software Patents: Post-Diehr Through December 1990*, State Bar of Michigan, 56th Annual Meeting, reprinted in 1 BENDER, *supra* note 1, App. 3A[6].

closely connected, to make and use the invention (the enabling disclosure); and 3) a disclosure of the best mode contemplated by the inventor for carrying out the invention.³⁶⁴

A recent review of the cases dealing with what level of disclosure of software related inventions is necessary to satisfy these disclosure requirements concludes that non-disclosure of computer codes in a patent application is not a *per se* violation of either the enablement or best mode requirements of § 112, and that the application need only disclose sufficient information to ensure that a person of ordinary skill in the art could practice the invention without undue experimentation and could routinely write the best mode program.³⁶⁵ This same article also concludes, however, that maintaining the computer code as a trade secret could give rise to an inference that the disclosure is inadequate, and that where computer code is not disclosed, objective evidence in the form of expert testimony and affidavits may be necessary to withstand a § 112 challenge to the adequacy of disclosure.³⁶⁶ These disclosure requirements, it will be noted, stand in marked contrast with the Copyright Office regulations enabling those registering the source code version of a computer program to register only identifying portions of the program and, under some circumstances, to block out portions of the source code containing trade secret material.

As we have seen, the existence of these regulations contributes in a material way to the § 107 fair use argument that the nature of computer programs is such that reverse engineering is the only way to gain access to the work's uncopyrighted ideas. Even if the copyright office regulations are found not to be inconsistent with the fair use provisions of the Copyright Act, their validity should be contingent upon the existence of a broad fair use privilege on the part of rightful possessors of publicly distributed object-code versions of a computer program to reverse engineer the program. Otherwise, the regulations would undermine what the Supreme Court in *Bonito Boats* described as the heart of its earlier decisions in *Sears-Compco* and *Kewanee Oil*—the conclusion that the

364. 35 U.S.C. § 112 (1988).

365. Compare Steven T. Naumann, *Compliance with 35 U.S.C. § 112 for Inventions Containing Computer Software: Is Disclosure of the Computer Code Required?*, 4 SOFTWARE L.J. 443 (1991) (the commentator says that the lack of disclosure is not a *per se* violation of § 112, provided a person of ordinary skill in the art would have been able to practice and routinely write the program), with David Bender & Anthony R. Barkume, *Disclosure Requirements for Software-Related Patents*, COMPUTER LAW., Oct. 1992, at 1 (the commentators conclude that a detailed description of the program, including its source code, is necessary). Only a "person skilled in the art" can solve this conflict of opinions. Where such a person is enabled to rewrite the program notwithstanding the fact that the source code is not entirely described, there is no need for further disclosure. See U.S. Patent and Trademark Office, *Patentable Subject Matter—Mathematical Algorithms on Computer Programs*, Manual of Patent Examining Procedures § 2106.01 (1981).

366. Naumann, *supra* note 365.

efficient operation of the federal patent system depends upon substantially free trade in publicly known, unpatented design and utilitarian conceptions. As the Court in *Bonito Boats* said, the competitive reality of reverse engineering is not only in keeping with that objective, but may act as a spur to the inventor, creating an incentive to develop inventions which meet the rigorous requirements of patentability.

ARTICLE

CASTING CALL AT FOREST LAWN: THE DIGITAL RESURRECTION OF DECEASED ENTERTAINERS - A 21ST CENTURY CHALLENGE FOR INTELLECTUAL PROPERTY LAW

JOSEPH J. BEARD †

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"Actors who died 50 years ago will be starring next to contemporary actors."— *Steve Williams, Industrial Light & Magic*¹

"If it be not now, yet it will come—the readiness is all." — *Hamlet*²

I. INTRODUCTION

Forest Lawn has been a mecca for Tinsel-town tourists and film fans for more than a half century now. It is the last resting place of many Hollywood luminaries: Bogart, Gable, Harlow, Tracy, Chaney—to name but a few. Befitting its eternal purpose, Forest Lawn is kept evergreen. So too, the memory of these deceased stars is kept evergreen by the endless re-runs of their films on broadcast television, cable, and videocassette, as well as by occasional theatrical tributes. But the images and sounds we witness are frozen in time: "Here's looking at you kid"; "Frankly my dear"; and Chaney's Quasimodo silently tolling the bells of Notre Dame. And while we may never tire of seeing Rick's poignant farewell to Ilsa or Rhett's indifference to Scarlett as he disappears into the mist, one might wish for Bogart to "pick up the pieces" in post-war Casablanca or for Gable and Leigh to be cast in *Scarlett* rather than the actor and actress who will ultimately bear the thankless burden of critical comparison. Until now such possibilities were mere wishful thinking. In fact, little more than a decade ago this writer opined that "Even the biblical magic of M.G.M. cannot recall the actor who has 'stepped beyond

1. Richard Corliss, *They Put the ILM in Film*, TIME, Apr. 13, 1992, at 68-69.

2. WILLIAM SHAKESPEARE, HAMLET, PRINCE OF DENMARK, Act 5, Scene 2.

the footlights."³ But now it appears that emerging technology, such as that which brought to life the liquid-metal cyborg, T-1000, in *Terminator 2: Judgment Day*,⁴ may be the key to the "resurrection" of long dead performers to, in the words of Steve Williams, "star next to contemporary actors."⁵ Computer graphics that have brought magic to such films as *Terminator 2*, *Backdraft*,⁶ and *The Abyss*⁷ may yet give us Tracy, Bergman, Olivier, and the Barrymores acting with the stars of today (and ultimately the stars of all the tomorrows).

The public has already become accustomed to viewing films featuring actors, long dead, "acting" with now-living performers. Witness Carl Reiner's *Dead Men Don't Wear Plaid*,⁸ Woody Allen's *Zelig*,⁹ and Natalie Cole's "Unforgettable" Grammy-winning duet with her late father Nat "King" Cole.¹⁰ Coca Cola scored an advertising coup with its "dead celebrity" ad featuring Elton John performing to an appreciative audience that included Humphrey Bogart, James Cagney, and Louis Armstrong.¹¹ The overwhelming success of the ad led to a sequel starring Paula Abdul with Cary Grant, Groucho Marx, and a younger version of the still very vital Gene Kelly. As clever as these various "quick and the dead" films are, they rely on the performance of the deceased actor

3. Joseph J. Beard, *The Sale, Rental, and Reproduction of Motion Picture Videocassettes: Piracy or Privilege?*, 15 NEW ENG. L. REV. 435, 455 (1980).

4. (Carolco 1991).

5. Corliss, *supra* note 1.

6. (Universal 1991).

7. (20th Century 1990).

8. (Universal 1982). This 1982 black and white film starring Steve Martin is a send-up of the film noir private eye classics of the 1940's. Clips of films starring Humphrey Bogart, Alan Ladd, Charles Laughton, and others were creatively spliced with scenes and dialog of Steve Martin and other live actors. Writing credits went to Carl Reiner, Steve Martin, and George Gipe. Gipe will be remembered as the author of "Nearer to the Dust," the pro-author/publisher monograph published by Williams & Wilkins at the time they were suing the U.S. Government for copying W & W's medical journals. *The Williams & Wilkins Co. v. United States*, 172 U.S.P.Q. 670 (Ct. Cl. 1972), *rev'd*, 487 F.2d 1345 (Ct. Cl. 1973), *aff'd by an equally divided court*, 420 U.S. 376 (1975).

9. (Orion Pictures 1983). This 1983 film, written and directed by Woody Allen and starring Allen and Mia Farrow, wove film clips of such long dead celebrities as Fanny Brice, Billy Rose, Tom Mix, and Charlie Chaplin into scenes in the film about Leonard Zelig (Allen), the human chameleon. The technical elements integrating Allen and the vintage film clips were undertaken by R. Greenberg Associates.

10. NATALIE COLE, *Unforgettable*, on UNFORGETTABLE (Elektra Entertainment. 1991).

11. The two ads are a result of the creative genius of Lintas: New York, the ad agency that has handled the Diet Coke account since its introduction in 1982, and the technical genius of R. Greenberg Associates. The first ad, "Night Club," relied on isolating images by rotoscoping film clips of Bogart in ALL THROUGH THE NIGHT, Armstrong in HIGH SOCIETY, and Cagney in PUBLIC ENEMY and THE ROARING TWENTIES. These images were then "computer stitched into the contemporary nightclub scene." Michael Quinn, *Ghosts in the Commercial*, TIME, Dec. 23, 1991, at 56.

exactly as originally filmed.¹² These works depend either on carefully juxtaposing clips of the deceased performers with film of the now-living performer(s), as in *Dead Men Don't Wear Plaid* and "Unforgettable," or on extracting the deceased actor's image from existing film and stitching the image into the new film, as in the Coke ads, a process known as rotoscoping. Just as the "block book" served as a crude precursor of the printing press, today's technology serves as a forerunner to a technology that promises virtual resurrection. Reanimation technology promises to put fresh dialogue into the mouth of the deceased performer and to bring new physical activity to the actor; the images of the late actor will no longer be frozen in time. But this new technology also promises something else—new challenges to intellectual property and entertainment law.

How soon will this Lazarusian technology be upon us? In the immortal words of Rick Blaine, "Maybe not today, maybe not tomorrow, but soon . . ." ¹³ In fact, this embryonic technology has already been graphically, and rather dramatically, demonstrated. In May 1987, the pioneering film *Rendez-vous à Montréal* premiered at the Canadian Engineering Centennial Convention.¹⁴ The seven minute film starred Marilyn Monroe and Humphrey Bogart, in truth, a computer-generated synthetic Marilyn and Humphrey. To be sure, the images were not cinematographic replicas of the stars, but were an attempt to "portray these great stars emotionally—to reconstitute Marilyn's and Humphrey's personalities as most people know them."¹⁵ The film was dramatic evidence of on-going attempts to create realistic, computer-generated, synthetic actors. Today, researchers in computer graphics are addressing such problems as facial modeling,¹⁶ skin texture and hair modeling,¹⁷

12. Actually, there was a slight change to the Cagney image; he grew a bit taller so as not to be overshadowed by the live actress sitting next to him. *Id.*

13. CASABLANCA (Warner Brothers 1942).

14. (Nadia M. Thalmann & Daniel Thalmann 1987). For a description of the technology employed in creating Marilyn and Bogie see Nadia Magnenat-Thalmann & Daniel Thalmann, *The Direction of Synthetic Actors in the Film Rendez-vous à Montréal*, IEEE COMPUTER GRAPHICS & APPLICATIONS, Dec. 1987, at 9.

15. *Id.* at 10.

16. See André LeBlanc et al., *Sculpting with the "Ball and Mouse Metaphor"*, in 20 SIGGRAPH COURSE NOTES 30 (1991); Arghyro Paouri et al., *Creating Realistic Three-Dimensional Human Shape Characters for Computer-Generated Films* in COMPUTER ANIMATION '91 89 (Nadia M. Thalmann & Daniel Thalmann eds., 1991); Demetri Terzopoulos & Keith Waters, *Physically-based Facial Modelling, Analysis, and Animation*, 1 J. VISUALIZATION & COMPUTER ANIMATION 73 (1990), reprinted in 20 SIGGRAPH COURSE NOTES 67 (1991); Demetri Terzopoulos & Keith Waters, *Techniques for Realistic Facial Modeling and Animation*, in COMPUTER ANIMATION '91, *supra*, at 59. [hereinafter *Techniques for Realistic Facial Modeling*].

17. See André LeBlanc et al., *Rendering Hair Using Pixel Blending and Shadow Buffers*, 2 J. VISUALIZATION & COMPUTER ANIMATION 92 (1991), reprinted in 20 SIGGRAPH COURSE NOTES

emotion generation and synchronization with speech,¹⁸ motion synthesis,¹⁹ and voice synthesis.²⁰ While these research activities have been undertaken for a variety of reasons, not necessarily for the particular purpose of creating synthetic replicas of deceased actors, the results will be applied to reanimation. However, to achieve a quality of computer-generated synthetic image, voice, and emotional range that is indistinguishable from that of performances of the actor filmed during his lifetime is a goal perhaps not achievable in the near term. It may, in fact, be sometime early in the next century before the goal becomes a reality. But prognostication is a risky business, and I am reminded of the words of the late Professor J.C.R. Licklider of M.I.T.: "People tend to overestimate what can be done in one year and to underestimate what can be done in five or ten years."²¹

96 (1991); Monique Nahas et al., *Registered 3D - Texture Imaging*, in *COMPUTER ANIMATION '90 81* (Nadia M. Thalmann & Daniel Thalmann eds., 1990).

18. See Prem Kalra et al., *Simulation of Facial Muscle Actions Based on Rational Free Form Deformations*, in *11 COMPUTER GRAPHICS FORUM C-59* (1992); Prem Kalra et al., *SMILE: A Multilayered Facial Animation System*, in *MODELING IN COMPUTER GRAPHICS 189* (Tosiyasu L. Kunii ed., 1991) [hereinafter *SMILE*]; Nadia Magnenat-Thalmann & Daniel Thalmann, *Complex Models for Animating Synthetic Actors*, *IEEE COMPUTER GRAPHICS & APPLICATIONS*, Sept. 1991, at 32; Catherine Pelachaud et al., *Communication and Coarticulation in Facial Animation*, in *20 SIGGRAPH COURSE NOTES 236* (1991); Steven Pieper et al., *Interactive Graphics for Plastic Surgery: A Task-Level Analysis and Implementation* in *PROC. 1992 SYMP. ON INTERACTIVE 3D GRAPHICS 127* (1992); see also, Keith Waters, *A Muscle Model for Animating Three-Dimensional Facial Expression*, *COMPUTER GRAPHICS*, July 17, 1987, at 17.

19. See Laurent Bezault et al., *An Interactive Tool for the Design of Human Free-Walking Trajectories*, in *17 SIGGRAPH COURSE NOTES 181* (1992); Ronan Boulic et al., *A Global Human Walking Model with Real-Time Kinematic Personification*, *6 VISUAL COMPUTER 344* (1990); Gary Monheit & Norman I. Badler, *A Kinematic Model of the Human Spine and Torso*, in *IEEE COMPUTER GRAPHICS & APPLICATIONS*, Mar. 1991, at 29; Cary B. Phillips & Norman I. Badler, *Interactive Behaviors for Bipedal Articulated Figures*, *COMPUTER GRAPHICS*, July 1991, at 359; Olivier Renault et al., *A Vision-based Approach to Behavioural Animation*, *20 SIGGRAPH COURSE NOTES 287* (1991); David Zeltzer, *Human Figure Modeling for Virtual Environment Applications*, *IEEE INT'L WORKSHOP ON ROBOT AND HUM. COMM.*, (1992); David Zeltzer & Michael B. Johnson, *Motor Planning: An Architecture for Specifying and Controlling the Behavior of Virtual Actors*, *2 J. VISUALIZATION AND COMPUTER ANIMATION*, 74 (1991).

20. See JONATHAN ALLEN, ET AL., *FROM TEXT TO SPEECH: THE MITALK SYSTEM* (1987); J.N. HOLMES, *SPEECH SYNTHESIS AND RECOGNITION* (1987); R. LINGGARD, *ELECTRONIC SYNTHESIS OF SPEECH* (1985); NELSON MORGAN, *TALKING CHIPS* (1984); DOUGLAS O'SHAUGNESSY, *SPEECH COMMUNICATION: HUMAN AND MACHINE*, (1990); E.J. YANNAKOUDAKIS & P.J. HUTTON, *SPEECH SYNTHESIS AND RECOGNITION SYSTEMS* (1987); Yousif A. El-Iman & Karima Banat, *Text-to-Speech Conversion on a Personal Computer*, *IEEE MICRO*, Aug. 1990, at 62; Dennis H. Klatt & Laura C. Klatt, *Analysis, Synthesis, and Perception of Voice Quality Variations Among Female and Male Talkers*, *87 J. ACOUSTIC SOC'Y AM.* 820 (1990); Michael H. O'Malley, *Text-to-Speech Conversion Technology*, *COMPUTER*, Aug. 1990, at 17; Carl.R. Strathmeyer, *Voice in Computing: An Overview of Available Technologies*, *COMPUTER*, Aug. 1990, at 10; Roberta Wiener, *Computerized Speech: A Study of its Effect on Learning*, *18 TECHNOLOGICAL HORIZONS EDUC. J.* 100 (1991).

21. J.C.R. LICKLIDER, *LIBRARIES OF THE FUTURE 17* (1965) (quoting an unspecified source).

Whatever the difficulty in predicting exactly when this technology will reach maturity, its inevitability can be predicted with confidence. There is another prediction that can be made with equal confidence: The legal system will have to respond to concerns—some proprietary and others of propriety—created by reanimation. In the past, the legal system has reacted to, rather than anticipated, innovation; witness the introduction of the motion picture,²² television,²³ cable,²⁴ VCR,²⁵ and the pre-recorded videocassette.²⁶ Hamlet's observation about the certainty of death, "the readiness is all,"²⁷ is advice that might well be heeded with respect to reanimation. It is not too soon to begin a discussion of the legal issues raised by reanimation. While these issues may not be ripe for *resolution*, they are certainly ripe for *reflection*.

It is the purpose of this article to stimulate discussion of the legal issues involved in reanimation. The issues may be divided into those related to the *creation* of the synthetic replica of the deceased actor, and those related to its *exploitation*. With respect to *creation*, the focus will be on copyright. To create a realistic replica of the deceased actor, the reanimator will require reference works. Where these works enjoy copyright protection, issues arise as to whether, and to what extent, the reanimator may use these reference works without license. The discussion of copyright in Part II of this article will analyze the protectable versus unprotectable elements of reference works and

22. When motion pictures appeared, so did law suits by play owners. See *Stodart v. Mutual Film Corp.*, 249 F. 507 (S.D.N.Y. 1917), *aff'd*, 249 F. 513 (2d Cir. 1918); *O'Neill v. General Film Co.*, 152 N.Y.S. 599 (N.Y. Sup. Ct. 1915), *modified*, 171 A.D. 854 (N.Y. App. Div. 1916).

23. When television began in earnest after World War II, old films, particularly Westerns, found new life, and actors sued for a piece of the pie. See *Republic Pictures Corp. v. Rogers* 213 F.2d 662 (9th Cir. 1954), *cert. denied*, 348 U.S. 858; *Autry v. Republic Prods.*, 213 F.2d 667 (9th Cir. 1954), *cert. denied*, 348 U.S. 858.

24. The introduction of cable produced a clash with broadcast T.V. See *Telepromptor Corp. v. Columbia Broadcasting Sys.*, 415 U.S. 394 (1974); *Fortnightly Corp. v. United Artists Television*, 392 U.S. 390 (1968).

25. When the public discovered that video cassette recorder/players could be used to tape off-air, the motion picture owners sued the VCR manufacturer. See *Sony Corp. of Am. v. Universal City Studios*, 464 U.S. 417 (1984).

26. When the pre-recorded motion picture videocassettes led to unlicensed mini-theaters, the motion picture industry reacted. See *Columbia Pictures Indus. v. Aveco, Inc.*, 800 F.2d 59 (3d Cir. 1986); *Columbia Pictures Indus. v. Redd Horne, Inc.*, 749 F.2d 154 (3d Cir. 1984). The owners of music copyrights were quick to react when pre-recorded videocassettes were released containing their songs on the soundtracks. See *Cohen v. Paramount Pictures Corp.*, 845 F.2d 851 (9th Cir. 1988); *Bourne v. Walt Disney*, No. 91-0344 LLS, 1992 U.S. Dist. LEXIS 11731 (S.D.N.Y. Aug. 6, 1992) (*Bourne II*); No. 91-0344 LLS, 1992 U.S. Dist. LEXIS 9853 (S.D.N.Y. July 1, 1992) (*Bourne I*), *rev'd*, 976 F.2d 99 (2d Cir. 1992).

27. SHAKESPEARE, *supra* note 2.

consider whether interim copying is an infringement. It will also consider the efficacy of a fair use defense.

The issue of *exploitation* of the synthetic replica may be subdivided into proprietary and "moral rights" questions. The exploitation of the synthetic replica raises questions as to who, if anyone, should have a proprietary interest in the replica. Part III addresses the issue of whether the reanimator should be afforded copyright protection for the computer-generated replica, either as a computer program or possibly as an audio-visual work. Part IV address another aspect of the proprietary question, whether reanimation should be subject to the post-mortem right of publicity. Because the post-mortem right of publicity is still in its infancy, the question does not, as will be shown, admit of an easy answer. Part V addresses the proprietary concerns of trademark owners and licensees, with respect to unlicensed exploitation of synthetic celebrities.

Beyond the purely economic concerns raised by reanimation are concerns about the effect reanimation will have on the memory of the late actor. Presumably, the public as well as the actor's family will be concerned about potential abuse of persona made possible by reanimation technology. If the quality of the synthetic replica is poor, or if the reanimated actor is cast in roles inconsistent with or even antithetical to his image, the public memory or reputation of the actor may be damaged. Part VI of this article examines the effectiveness with which current laws deal with the "moral rights" problem and will suggest changes to existing law to more effectively deal with the issue.

II. CREATION OF THE SYNTHETIC REPLICA - THE COPYRIGHT ISSUE

A. Scope of the Issue

To create cyborgs or, as Williams suggests, to create "actors who have never been born"²⁸ is wholly within the imagination of the animators, constrained only by available technology; computer animators are not fettered by any pre-conceived notions of the public as to what this computer-animated cyborg or actor must look or sound like. To create a wholly imaginary synthetic human likely will not require reference to copyrighted works. For that matter, a synthetic image of a currently living human probably will not raise copyright issues, at least where the person in question willingly serves as the model for his synthetic

28. Corliss, *supra* note 1.

counterpart.²⁹ But the creation of a synthetic counterpart to a deceased actor is another matter. The reanimator who hopes to resurrect a Paul Muni or a Bette Davis is bound by the public's perception of how that actor looked and sounded, as well as other intangibles that distinguished that actor. The public memory is kept ever fresh by reruns of existing films and sound recordings. To be faithful to the memory of the deceased actor, the reanimator must replicate what the public perceives to be the persona of the actor. It is how the reanimator goes about accomplishing the goal of verisimilitude that raises the copyright issue.

To create the synthetic replica of a deceased actor, it will be necessary to reconstruct the actor's static characteristics such as height, weight, chest measurement, facial and hair features, and the actor's dynamic characteristics including mannerisms, gait, voice, and emotional range. One's physiognomy and other physical attributes are not copyrightable,³⁰ nor, for that matter, is one's voice.³¹ Were the actor alive, the reanimator would be "free to copy the original," in the oft-repeated pronouncement of Justice Holmes in *Bleistein v. Donaldson Lithographing Co.*³² But the actor is not alive to be "copied" and therein lies the problem. Although one could speculate that reanimation technology will be developed that in no way would implicate existing works featuring the deceased actor, such as a still photo, motion picture, or sound recording, it seems improbable that a reanimator could recreate a Paul Muni or Bette Davis without reference to existing works.

As will be discussed, torso and limb dimensions can be digitally replicated without using pre-existing visual works for more than general observation. However, to create a three-dimensional digital model of a deceased actor's head and facial features with current video-imaging technology will require reference to existing still photos and/or motion picture frames. Re-creation of the actor's voice will require reference to sound recordings or sound tracks of motion pictures.³³ Synthesizing the

29. If a living actor were synthesized without his permission using data extracted from films, photographs and sound recordings, the actor would have a right of privacy/publicity claim in virtually every jurisdiction. See *RESTATEMENT (SECOND) OF TORTS* § 652C (1977).

30. "Courts treat the [human] model's appearance as unprotected subject matter." Paul Goldstein, II *COPYRIGHT PRINCIPLES, LAW & PRACTICE* 66 (1989). Note that an individual's appearance and voice are not totally without legal protection, for the rights of privacy and publicity and allied rights give the individual a degree of control over these elements of the persona. See *infra* part IV B.

31. "A voice is not copyrightable. The sounds are not 'fixed.'" *Midler v. Ford Motor Co.*, 849 F.2d 460, 462 (9th Cir. 1988), *cert. denied*, 112 S.Ct. 1513 (1992).

32. 188 U.S. 239, 249 (1903).

33. It is likely that impressionists may be employed in early re-animation films, but, at some point, computer synthesis should become a reality. Whether the late actor's voice is replicated by a human mimic or by a computer model of the actor's voice, reference to

actor's emotional range, including voice, will require reference to motion picture *performance*, not mere *display*. To the extent that the reanimator relies on photographs or motion pictures in the public domain,³⁴ or is either the owner of the copyright or a licensee authorized to make use of the work for reanimation purposes, copyright is not an issue. But where the reanimator chooses to rely on a presently copyrighted work to aid in the reconstruction of the deceased actor and does not, or is unable to, acquire a license from the copyright owner, the reanimator will have to demonstrate either that his reanimation in no way implicates any of the rights of a copyright owner or that his use is privileged under the "fair use" rubric. The best strategy of the reanimator would be to demonstrate that no right of the copyright owner has been invaded, thus avoiding a problematic fair use defense.

The owner of a copyright is granted the exclusive right of reproduction,³⁵ distribution,³⁶ public performance,³⁷ and display of the work,³⁸ as well as the right to create a derivative work incorporating in whole or in part the underlying copyrighted work.³⁹ If the reanimator does not exploit any of these rights in recreating the deceased actor, then no infringement can be successfully claimed. Each of these rights will be examined in the context of possible exploitation by the reanimator.

B. Reproduction Rights

1. *STATIC VISUAL SYNTHESIS: THE PHYSIOGNOMY AND OTHER DIMENSIONAL CHARACTERISTICS*

Audiences use only two senses when receiving the information contained in a motion picture—sight and sound. Holographic images, smell, taste, and even tactile sensation may eventually become part of film entertainment, but that is left to discussion on another day. Though filmed only in two dimensions, the actor is three-dimensional. While the reanimator need only recreate the actor visually in two dimensions in any single frame of a motion picture, he will want to avoid the labor-intensive techniques of cel by cel animation and will opt to create a three-dimensional, programmable computer model of the actor. In order to

sound recordings or film soundtrack recorded during the lifetime of the actor seems unavoidable.

34. Even if the film is in the public domain, post-mortem right of publicity issues lurk. See discussion *infra* part IV.

35. 17 U.S.C. § 106(1) (1988).

36. *Id.* § 106(3).

37. *Id.* § 106(4).

38. *Id.* § 106(5).

39. *Id.* § 106(2).

recreate a three-dimensional computer model of the actor, the reanimator will study pictures, either stills or frames from motion pictures, of different perspectives of the actor. For example, in creating a synthetic Elvis, the computer animators began "by buying two books about Elvis' life with several photographs."⁴⁰

A number of current video-imaging techniques, all involving photographic reference material, may be used to recreate the physiognomy of the deceased actor. One technique, photogrammetry, compares common points in two photographs taken at different angles in order to calculate a three-dimensional coordinate of the point.⁴¹ Another technique involves sculpting a bust of the late actor in a physical medium such as clay by referencing various photographs of the actor. The three-dimensional bust is then gridded and a computer input device optically scans the physical model to create a three-dimensional digital model in the computer.⁴² The third method involves direct computer sculpting where the animator studies the photographs and "sculpts" the computer model using two computer input devices: a six-degree of freedom interactive input device for spatially orienting the digital "bust" and a two-degree of freedom input device to do the sculpting.⁴³ Each of these techniques will be analyzed in a copyright context.

Beginning with *Burrow-Giles Lithographic Co. v. Sarony*,⁴⁴ photographs of human subjects have been protected by copyright. Copying of a copyrighted photograph, whether by lithographic reproduction,⁴⁵ a similarly posed photograph,⁴⁶ a sketch,⁴⁷ or sculpture,⁴⁸ has been held to infringe the copyright. But copyright protection extends only to the copyrightable elements of the photograph. The human subject itself is not copyrightable.⁴⁹

40. Paouri et al., *supra* note 16, at 94.

41. For a discussion of photogrammetry, see *id.* See also ISAAC KERLOW & JUDSON ROSEBUSH, *COMPUTER GRAPHICS FOR DESIGNERS & ARTISTS* 152, 158, 162, 163 (1986).

42. See Paouri et al., *supra* note 16 at 90

43. See *id.* at 93; LeBlanc *supra* note 16.

44. 111 U.S. 53 (1884).

45. *Id.*

46. *Gross v. Seligman*, 212 F. 930, 931-32 (2d Cir. 1914).

47. *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130 (S.D.N.Y. 1968) (but for a fair use defense, sketches copied from frames of the Zapruder film of President Kennedy's assassination would have been an infringement.)

48. *Rogers v. Koons*, 960 F.2d 301, 307 (2d Cir. 1992), *cert. denied*, 113 S.Ct. 365.

49. In *Remco Indus., Inc. v. Goldberger Doll Mfg. Co.*, 141 U.S.P.Q. 898, 899 (E.D.N.Y. 1964), the court enjoined the defendant not only from copying the plaintiff's copyrighted dolls depicting the Beatles, but further enjoined copying the *original*, the actual features of the Beatles. Professor Nimmer criticized the injunction as it related to copying the *original*: "[Copying the original] might constitute an invasion of privacy or of a right of publicity of the Beatles themselves, but can hardly amount to an infringement of plaintiff's copyright."

So what, then, is it that is protectable? In Sarony's photograph of Oscar Wilde, it was "posing the said Oscar Wilde in front of the camera, selecting and arranging the costume, draperies, and other various accessories in said photograph arranging the subject so as to present graceful outlines, arranging and disposing the light and shade, [and] suggesting and evoking the desired expression."⁵⁰ In a photograph of a nude model,⁵¹ it was "the pose, light and shade."⁵² And Zapruder's historically significant film of President Kennedy's assassination was protectable because "Zapruder selected the kind of camera (movies not snapshot), the kind of film (color), the kind of lens (telephoto), the area in which the pictures were taken, the time they were to be taken, and (after testing several sites) the spot on which the camera would be operated."⁵³ As long as the animator does not appropriate any of the protectable elements of the photographs or motion picture frames, or if, at least, there is no substantial similarity with respect to *protected* elements of the reference works, there is no infringement.

As long as the reanimator uses photogrammetric techniques, he is not attempting to replicate the costuming, pose, lighting, shade, or other protectable elements; rather he is acting much as an anthropologist with a set of calipers, measuring the dimensions of the subject. By comparing identical points on the surface of the actor's face as portrayed in two photographs taken at different angles, the reanimator is able, with the aid of the computer, to establish a three-dimensional coordinate of the point. He can also establish three-dimensional coordinates of the other points which make up the surface of the subject's face and head. If nothing more than these reference points are used, then it would be stretching to suggest that a protectable element of the photographs had been appropriated since the pose as such was not copied nor would costume, light, shade, or other elements be appropriated. The most that could be said is that the respective *angles* of the reference photos were used in the calculation of the three-dimensional coordinates of a particular point on the surface of the actor's face.

If, however, the photographs *as a whole* are input through an optical scanning device to facilitate the three-dimensional modeling, then the issue of copying arises. In its Final Report, the National Commission on New Technological Uses of Copyrighted Works stated, "The 1976 Act,

MELVILLE B. NIMMER & DAVID N. NIMMER, 2 NIMMER ON COPYRIGHT § 8.01[C] n. 34, at 8-18 (1992) (hereinafter "Nimmer"). Given Justice Holmes' now-hoary maxim that one is "free to copy the original," Nimmer's observation is clearly the correct exposition of the law.

50. *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53,60 (1884).

51. *Gross v. Seligman*, 212 F. 930 (2d Cir. 1914).

52. *Id.* at 931.

53. *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 143 (S.D.N.Y. 1968).

without change, makes it clear that the placement of any copyrighted work into a computer is the preparation of a copy."⁵⁴ The enactment of the "Computer Software Act of 1980",⁵⁵ according to Professor Nimmer, made it "clear that computer input constitutes the making of a 'copy.'"⁵⁶

The courts in three cases have held that inputting data into a computer is copying.⁵⁷ It might be argued, however, that not every *input* of data is necessarily a *copy*.⁵⁸ In *Rand McNally & Co. v. Fleet Management Systems*, *West Publishing v. Mead Data Central*, and *Bellsouth Advertising and Publishing Corp. v. Donnelly Information Publishing*, the data that was input was retained in memory on a long term and not merely transient basis; the data could be "perceived, reproduced or otherwise communicated"⁵⁹ by the defendant's computer software/hardware; and finally, the *data output* was substantially similar to the *data input*.⁶⁰ Before concluding that the input of data to a computer is the preparation of a copy, three questions need to be addressed. Was the data in computer memory

54. FINAL REPORT OF THE NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS 12 (JULY 31, 1978).

55. Pub. L. No. 96-517, 94 Stat. 3015, 3028 (December 12, 1980).

56. 2 NIMMER, *supra* note 49, § 8.08, at 8-105 & n.4.

57. *Bellsouth Advertising & Pub. Corp. v. Donnelly Inf. Publishing*, 933 F.2d 952, 958 (11th Cir. 1991), *opinion vacated*, 977 F.2d 1435 (11th Cir. 1992); *West Publishing Co. v. Mead Data Central*, 799 F.2d 1219, 1227 (8th Cir. 1986), *cert. denied*, 479 U.S. 1070 (1987); *Rand McNally & Co. v. Fleet Management Systems*, 600 F. Supp. 933, 943 (N.D. Ill. 1984).

58. In the context of this discussion, I distinguish between the input of data as opposed to the input of the computer programs (software) that operate on data. Decisions dealing with software copying include *Tandy Corp. v. Personal Micro Computers*, 524 F. Supp. 171 (N.D. Cal. 1981); *Bly v. Banbury Books* 638 F. Supp. 983 (E.D. Pa. 1986).

59. 17 U.S.C. § 101 (1988) ("copies").

60. In *Rand McNally*, 600 F. Supp. at 943, mileage data taken from plaintiff's "Standard Highway Mileage Guide" were input by defendant into a computer data base, albeit in a rearranged format. The data input was "fixed" in that it was stored in digital form and sold in a computerized format. Although the data was rearranged, there was substantial similarity in gross between the input, the plaintiff's data, and the output, defendant's "Compu. Guide." Finally, the computer data in the "Compu. Guide" could be perceived with the aid of a machine.

In *West Publishing*, 799 F.2d 1219, 1227 (8th Cir. 1986), Mead Data Central (MDC) planned to include West's National Reporter system pagination in LEXIS, MDC's computer-assisted, on-line research service. This feature, called "star-pagination" would provide "jump-cites" to the West Reporter System. The data input would be permanently stored in LEXIS. The output data would be identical to the input data, *i.e.*, the pagination. And the data would be output on a video screen and/or printer.

In *Bellsouth*, 933 F.2d 952, 958 (11th Cir. 1991), the court found that the work was "fixed" because it was stored on magnetic tape. And, although the arrangement of the defendant's sales lead sheets was different from the plaintiff's phone directory, the court held that the lead sheets had nonetheless appropriated the coordination of informational components derived from the plaintiff's work and that the appropriation was substantial, *i.e.*, the output was substantially similar to the input. Finally, the infringing data stored in the computer could be read on a computer monitor screen and was ultimately output in hard copy.

"fixed"?⁶¹ Was the output substantially similar to the input?⁶² Finally, was the data, once input, perceivable with the aid of a machine or device?⁶³ The input of the entire picture necessarily implicates an *appropriation* of the copyrighted elements of the photographs as well as the unprotected elements. But, it does not follow that such an *appropriation* is a *copying*.

First, to constitute a copy, the copy must be "fixed." To be "fixed" the copy must be "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated, for a period of more than *transitory duration*."⁶⁴ As Nimmer suggests,

the reproduction right is not infringed even if the defendant embodies the plaintiff's work in a material object, unless such embodiment is of more than transitory duration. In order to constitute an infringing copy or phonorecord, the embodiment of the plaintiff's work must be not only tangible (a 'material object'); it must also be of *some permanence*.⁶⁵

The question is what time lapse must occur before a fixation is held to have *some permanence*, to be more than a *transitory time*.

In *Mura v. Columbia Broadcasting System*,⁶⁶ the court held that in the *live* broadcast of the *Captain Kangaroo* program, "The evanescent reproduction of a hand puppet on a television screen or on the projected kinescope recording of it is so different in nature from the copyrighted hand puppet that. . . it is not a copy."⁶⁷ In reaching its conclusion the court observed, "After 1/15,000 of a second plus the time for the phosphor decay, which is measured in milliseconds, the image disappears and nothing is left."⁶⁸ If the input of the photographs is but for a transient period, then the photographs would not be fixed and hence no copy of the protectable elements could be said to have been made although admittedly the non-infringing three-dimensional points would be fixed. However, if the computer analysis requires that the photographs be stored in memory for more than a transient period, then there is a fixation of the photographs, albeit in digital format, and the digital images stored in the computer are not merely substantially similar to, but identical to, the copyrighted photographs. Presumably, however, once the computer completes its three-dimensional analysis, the digital

61. 17 U.S.C. § 101 (1988) (emphasis added) ("fixed").

62. See *supra* note 60.

63. See *supra* note 60.

64. 17 U.S.C. § 101.

65. 2 NIMMER, *supra* note 49, § 8.02(B)(2) (emphasis added).

66. 245 F. Supp. 587, 590 (S.D.N.Y. 1965).

67. *Id.* at 590; see also H.R. REP. NO. 1476, 94th Cong., 2d Sess., at 62 (1976) ("the showing of images on a screen or tube would not be a violation of [reproduction rights]").

68. *Mura*, 245 F. Supp. at 589.

copies of the photographs will be erased from memory and all that will remain is the three-dimensional model of the actor's face and head. Does the fact that the ultimate permanent fixation does not contain protectable elements of the reference photographs and is not, therefore, itself an infringement of the reference photographs immunize the *interim* fixation of those very photographs? In *Walker v. University Books, Inc.*,⁶⁹ the court rejected an interim use defense: "[T]he fact that an allegedly infringing copy of a protected work may itself be only an inchoate representation of some final product to be marketed commercially does not in itself negate the possibility of infringement."⁷⁰ Similarly, in *Walt Disney Productions v. Filmation Associates*,⁷¹ and *Sega Enterprises Ltd. v. Accolade, Inc.*,⁷² the courts rejected a "transitory step" argument of the defendants. However, other case law suggests that as long as the *final product* is not substantially similar to the reference work, interim copying is irrelevant.

In *Walker v. Time-Life Films*,⁷³ the district court refused to consider the plaintiff's request to compare earlier scripts of defendant's screenplay to plaintiff's book to establish substantial similarity. The court stated that it would "consider[] the works as they were presented to the public."⁷⁴ On appeal, the Second Circuit stated: "[S]ince we conclude as a matter of law that, even assuming borrowing or copying, no substantial similarity exists between the protectable portions of the *final versions* of the works, any error in exclusion of the early drafts was harmless."⁷⁵ And in a Ninth Circuit case, *See v. Durang*,⁷⁶ the court stated: "The only discovery plaintiff suggests is the production of early drafts of defendant's play on the theory they might reflect copying from plaintiff's play that was disguised or deleted in later drafts. Copying deleted or so disguised as to be unrecognizable is not copying."⁷⁷ The decisions in *Time-Life Films* and *See* might be interpreted as standing for the proposition that interim

69. 602 F.2d 859 (9th Cir. 1979). Plaintiff Helen Walker was the author of "I Ching Cards" which are designed to aid in the instruction of an ancient Chinese method of fortune telling.

70. *Id.* at 864.

71. 628 F. Supp. 871 (C.D. Cal. 1986).

72. 977 F.2d 1510 (9th Cir. 1992). However, the Ninth Circuit ultimately concluded that the interim copying was a fair use. See *infra* notes 133-154 and accompanying text.

73. 615 F. Supp. 430, 434-35 (S.D.N.Y. 1985), *aff'd*, 784 F.2d 44 (2d. Cir. 1986), cert. denied, 476 U.S. 1159. Plaintiff, Thomas Walker, was the author of "Fort Apache," a non-fictional account of his experiences as a policeman.

74. *Id.* at 434.

75. *Walker*, 784 F.2d at 52 (emphasis added).

76. 711 F.2d 141 (9th Cir. 1983). In *Sega*, the court acknowledged that certain types of interim copying might be lawful. 977 F.2d at 1526.

77. *Id.* at 142.

copying is not actionable if the final product is not itself substantially similar to the reference work.⁷⁸

Assuming that the final product of the reanimator is not substantially similar to the reference work, with respect to the *protectable* elements, the question of whether the interim, computer-stored copy of a reference photograph is an infringement will depend on whether courts adopt the reasoning of *Sega* or the reasoning of *Time-Life Films*. It is likely that long before reanimation of deceased actors becomes a reality, courts will have addressed the "interim copy" issue with respect to the computer manipulation of still photos to create photographic "output" that to the lay observer is not substantially similar to the "input."⁷⁹ Presumably, the courts' analysis of whether a photographic output that is not substantially similar in the eyes of the average observer to the input is nonetheless an infringement will provide guidance to reanimators.

However, one aspect of the interim fixation issue may distinguish the reanimation issue from the mere computer manipulation of still photographs. Presumably, the reason still photos are being digitally manipulated is that the "manipulator" desires that the photographic output of the manipulation contain some elements of the original photograph; otherwise, why use it in the first instance? But in the

78. The thoughts of Justice Kaplan, written at the time he was the Royal Professor of Law at Harvard, illuminate the interim copying issue, even though his words were not directed to that particular issue:

So inured have we become to the extension of the monopoly to a large range of so-called derivative works, that we no longer sense the oddity of accepting such an enlargement of copyright while yet intoning the abacadabra of 'idea' and 'expression' It is not a breach of the copyright of a poem to try to capture its essence in glass sculpture, as artists in that medium recently sought to do. This would be about as free of legal consequences as Hemingway's allegation that he copied his writing style from Cézanne's paintings. Getting to more plausible cases, while a motion picture may be a mere replica of a copyrighted play, and thereby infringe, plays commonly are much altered, and novels even more so, as they are transmuted into motion pictures. It is often thought necessary to make drastic changes of dialogue, action, and other elements in order to keep the picture faithful to the original. But if it is a matter of nice artistic judgment how much change is needed to attain 'sameness' in the new medium, we can anticipate difficulties in deciding what is infringement. It is surely wrong to assume that what Hollywood is content to call a dramatization or screen treatment of a novel or play would necessarily be an infringing copy if not licensed. *The fundamental that 'use' is not the same thing as 'infringement,' that use short of infringement is to be encouraged,* is relevant to these transformation cases.

BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT 56-57 (1967) (emphasis added). The italicized phrase was quoted with approval in *Fortnightly Corp. v. United Artists Television*, 392 U.S. 390, 393 n.8 (1968).

79. The issue of computer manipulation of photographs has been a topic of discussion. See, e.g., Brad Bonnin, *Copyrights & Wrongs*, PUBLISH, Apr. 1990, at 77.

construction of a three-dimensional model of an actor, there is no desire to incorporate the reference photographs in the final product, only a need to acquire dimensional data.

Once the dimensional calculations are made, the digitally stored reference photograph can be wiped from memory. The mere fact that a copy is destroyed does not of itself expurgate an infringement.⁸⁰ But, to be a copy there must be a fixation from which the work can be perceived, reproduced or otherwise communicated, either directly or with the aid of a machine or device.⁸¹

Eventually, the reanimator will be able to develop a computer program that will accept a digital input from an optical scan of the reference photographs and automatically calculate the three-dimensional points from a comparison of the digital data, without the need for any interaction with the reanimator, and therefore without the need to visually display the reference photos. If the software is structured such that any output of the digitally-stored photographs is a proscribed command, and if the digitally stored photographs are automatically wiped from memory after the three-dimensional calculations are made, an argument might be made that the fixation is not, in a definitional sense, a "copy" because the fixation will not be perceivable when the software prohibits such a possibility,

In addition to digitally recreating the actor's physiognomy, it is also necessary to replicate in digital form the actor's torso and limbs. This can be done by making a body cast of a person whose dimensions are similar to that of the late actor, gridding the plaster casting, optically scanning the gridded casting and feeding the digitalized data into the computer⁸². Another method is to place a grid on the person's body directly, as was done in *Terminator 2*, and then to scan the person. Finally, taking a page from *Frankenstein*, digitally stored body parts can be borrowed from other synthetic actors and reshaped appropriately (this approach was used in creating a synthetic Elvis in which Marilyn's legs and arms and Bogie's hands and ears were used).⁸³ Although some reference to existing photographs or motion picture frames will be necessary, it does not appear that serious copyright issues arise.

80. A work is "reproduced" if its embodiment in tangible form can be perceived for a period of more than transitory duration. H.R. Rep. No. 1476, *supra* note 67, at 62. So, unless the destruction were to take place before the transitory period elapsed, the infringement would be a *fait accompli*.

81. 17 U.S.C. § 101 (1988).

82. It is also possible to do a *face* cast of a person with features similar to the late actor, grid the casting, optically scan the gridded casting, and input the scan data into the computer. Once the data from the face mask is input, the data points can then be adjusted to more exactly replicate the features of the late actor.

83. Paouri et al., *supra* note 16, at 94-95.

As previously stated, the physiognomy and other physical attributes of an actor are not protected by copyright. If the reanimator's task was limited to the reproduction of a computer-stored, digital "sculpture" of the late actor, his reference to existing works would be only to obtain the physical dimensions of the actor such as height, length of forearm, size and shape of ears, and spacing and shape of eyes. The extraction of such non-copyrightable elements from copyrighted works may not constitute an infringement of the reproduction right, as discussed above. However, the reanimator seeks to do more than merely pose the actor like one of the whitened, human statues in the Wallace Circus in *Bleistein*. The reanimator seeks to resurrect the actor to *act*.

2. DYNAMIC VISUAL SYNTHESIS: EMOTION, VOICE-IMAGE SYNCHRONIZATION AND LOCOMOTION

Acting involves doing, or at least realistically simulating, the full range of human activity. The synthetic actor must appear to do what a living actor would be required to do in the same role, both visually and vocally. A great deal of research is being devoted to the dynamic aspects of the synthetic actor, from such purely physical activities as walking⁸⁴ and grasping objects,⁸⁵ to the more sophisticated aspects of acting such as emotion synthesis and voice-expression synchopy.⁸⁶

Activities such as walking, running, grasping, and hitting can be synthesized today by employing techniques which require a human "stand-in" to perform the necessary activities. One technique utilizes a grid which is painted on the person and a digital-video camera to record the data for use in the computer-animation process. Another technique involves the use of a body suit with built-in sensors that detect the relative position of various body components such as spine, hand, and arm. The sensed data is then input into the computer. Eventually researchers will develop the ability to create realistic synthetic actors capable of motion without the use of a human stand-in. None of these activities particularly implicate copyright. Where copyright becomes a potential issue is in the "customizing" of the computer-stored image to reflect the idiosyncrasies of a particular deceased actor. To discern the peculiar gait of an actor, such as the "rolling" walk of a John Wayne, or particular mannerisms, such as the hand gesture of a Jack Benny, would require study of film of the actor. If the reanimator simply studies the film in order to "fine-tune" the computer model to more accurately reflect the peculiar dynamics of the deceased actor, it would require

84. See Boulic et al., *supra* note 19.

85. See Jean-Paul Gourret et al., *Simulation of Object and Human Skin Deformations in a Grasping Task*, COMPUTER GRAPHICS, July 1989, at 21.

86. SMILE, *supra* note 18.

extraordinary lego-semantic gymnastics to suggest that something protectable in the motion picture was appropriated. An idiosyncrasy in and of itself is not copyrightable. Were the actor alive, he certainly could not be deprived of walking in a particular way or gesturing in a certain manner simply because he had once done so in a motion picture still protected by copyright. His idiosyncrasies are part of the tools of his trade, to be employed more than once, not unlike the author who reuses a main character in subsequent novels.⁸⁷ Thus, if all that is appropriated from a study of the reference motion pictures are the dynamics of an actor's idiosyncrasies, there is no infringement.

In Western drama, the most significant "acting" involves facial animation and verbalization. While emotional state may be signaled by gesture or body language, the face is the truest mirror of emotion. Also, facial expression and head movement may serve as a substitute for words: the nod of the head, the quizzical arch of eyebrow, the sneer of contempt. The muscles that animate the face are common to all humans: the occipito frontalis that raises the eyebrow, the zygomaticus major that raises the corner of the mouth, and the orbicularis that purses the mouth. These muscles are employed in reflecting emotions common to all humankind such as anger, disgust, fear, happiness, sadness, and surprise.⁸⁸ Research into emotion synthesis and the problems of lip-phoneme⁸⁹ synchronization, as well as other aspects of facial expression, is underway in a number of institutions.⁹⁰ Eventually, synthetic actors will be created that will be capable of realistic *generic* facial expression and emotional response. Because the muscles that animate the face are common to all humans and because emotions such as anger and surprise are common to all humankind, a generic model provides a general solution to facial animation. Paradoxically, however, an individual's uniqueness is particularly evident in that person's face. Thus the reanimator will need to create a synthetic actor capable not merely of *generic* emotional response but rather one that reflects a particular deceased actor's facial expression and emotional response. To capture the anger of a Lee J. Cobb, the haughty sneer of a Charles Laughton, the derring-do smile of an Errol Flynn, or the sultry look of a Marlene Dietrich requires more than a generic solution.

87. See *Warner Bros. Pictures v. Columbia Broadcasting Sys.*, 216 F.2d 945 (9th Cir. 1954), *cert. denied*, 348 U.S. 971 (1955) ("Sam Spade").

88. See P. EKMAN & W. FRIESEN, *FACIAL ACTION CODING SYSTEMS* (1978).

89. See *SMILE*, *supra* note 18.

90. For example, M.I.T., University of Pennsylvania, University of Montreal, University of Toronto, University of Geneva, University of Paris, and the Swiss Federal Institute of Technology, to name but a few.

Emotion has been defined as "the evolution of the human face over time: it is a sequence of expressions with various durations and intensities."⁹¹ Still photos will yield information on a particular expression, such as surprise or fear. But individual still photos do not reflect the fourth dimension, time. Motion pictures capture time by the linear distance a particular frame is from the initial frame. So, it is to motion pictures that the reanimator must refer to capture emotion and other facial animation. If—and this may be a big "if"—the reanimator is able to modify generic emotional synthesis and other aspects of facial animation to reflect the nuances of a particular reanimated actor by simply studying a performance of the film,⁹² then the reproduction of these facial movements in the dynamic modeling does not copy the reference film, unless an actor's filmed facial movements are copyrightable elements per se, even though these dynamic characteristics are fixed in computer memory and even though they are capable of being perceived, reproduced, or otherwise communicated.

It is possible that future algorithms will be developed whereby a film can be optically scanned to "recognize" emotional and other facial animation which can be input to the computer to create the dynamic model of the late actor.⁹³ This approach raises potential copyright issues. The ability to portray emotions is part of an actor's stock in trade. Clearly, the actor who displays anger in one film cannot be precluded by copyright law from displaying that same anger in another film—copyright law is not so all encompassing.⁹⁴ That said, the *expression* in the film is comprised, in part, of the emotional responses of the actors. Thus, the issue becomes whether an actor's emotional response in a particular film is separable from the expression of the film or whether it is

91. *SMILE*, *supra* note 18.

92. Performance rights and re-animation are discussed in Performance Rights, part II E.

93. See, e.g., *Techniques for Realistic Facial Modeling*, *supra* note 16.

94. One might liken the actor to an artist. As was said in *Franklin Mint Corp. v. National Wildlife Art Exchange*,

[There is a] tendency of some painters to return to certain basic themes time and time again. Winslow Homer's schoolboys, Monet's facade of Rouen Cathedral, and Bingham's flatboat characters were cited. Franklin Mint relied upon these examples of 'variations on a theme' as appropriate examples of the freedom which must be extended to artists to utilize basic subject matter more than once. National vigorously objects to the use of such a concept as being contrary to the theory of copyright. We do not find the phrase objectionable, however, because a 'variation' probably is not a copy and if a 'theme' is equated with an 'idea,' it may not be monopolized. We conceive of 'variation on a theme,' therefore, as another way of saying that an 'idea' may not be copyrighted and only its 'expression' may be protected.

575 F.2d 62, 66 (3d Cir. 1978), *cert. denied*, 439 U.S. 880:

inextricably linked with that expression. The question seems almost metaphysical. But, if this Gordian copyright knot can be cut by technology and means can be developed whereby the physical manifestations of emotion, the movement of an eyebrow or the motion of the lips and eyes, can be extracted from the film as it is optically scanned without appropriating, at the same time, the *expression* of the film, then no infringement will have occurred. However, it should be noted that if the emotion synthesis techniques should require computer input of a sequence of motion picture frames in order to create the dynamic model of the actor, copyright clearly would be an issue. The copyright analysis of the digital input to synthesize the static characteristics of the actor is equally applicable to the digital input to synthesize facial animation.

3. VOICE SYNTHESIS

Despite extensive research in voice synthesis and various current voice synthesis applications, faithful voice synthesis of a particular individual is a remote goal. Early reanimation films likely will use an impressionist to supply the voice for the video image of the deceased actor. Eventually technology that can be used to identify a particular voice should be able to replicate that voice. Whether the voice is provided by an impressionist or by a computer model of the late actor's voice, reference to sound recordings and motion picture sound tracks containing the late actor's voice will be necessary. First, the human voice as such is not copyrightable.⁹⁵ Therefore, replicating a human voice in and of itself would not implicate copyright. However, the sound recordings and motion picture sound tracks containing the voice of the actor may well be protected by copyright. The sounds contained in a sound recording are protected only against exact duplication; they are not protected against mere imitation.⁹⁶ On the other hand, motion picture sound tracks are protected not only against exact duplication but imitation and simulation as well.⁹⁷ Thus, an impressionist's imitation or a computer simulation would in no way violate the copyright in a sound recording whereas there is such a *possibility* with respect to a film sound track. However, I would suggest that the apparent distinction between the scope of protection of a sound recording contained in a phonorecord

95. See *Midler v. Ford Motor Company*, 849 F.2d 460, 462 (9th Cir. 1988), *cert. denied*, 112 S.Ct. 1513 (1992).

96. 17 U.S.C. § 114(b) (1988). "Mere imitation of a recorded performance would not constitute a copyright infringement even where one performer deliberately sets out to simulate another's performance as exactly as possible." H.R. Rep. No. 1476, *supra* note 67, at 106.

97. "[A] copyrighted work would be infringed by reproducing it in whole or in any substantial part, and by duplicating it exactly or by imitation or simulation." H.R. Rep. No. 1476, *supra* note 67, at 61.

and the scope of protection of a sound track is more illusory than real where reanimation is involved. The typical phonorecord and copy of a motion picture sound track both contain: the sounds themselves and the expression, musical or verbal, that these sounds represent. The phonorecord that contains a sound recording also contains the work, literary or musical, that the sound recording communicates to the auditory senses. The copy of a film sound track also contains sounds and the literary or musical work communicated by these sounds. The impressionist who listens to a phonorecord or the copy of the soundtrack of a film is performing the work(s) involved but does not reproduce it (them) simply by listening. Clearly, imitating the *sounds* heard in the sound recording is not an infringement of the sound recording copyright but that does not answer the question of whether the imitation is an infringement of the copyright in the underlying work contained in a phonorecord: I would suggest that in determining whether an impressionist is infringing depends less on whether he listened to a sound recording or listened to a sound track than on whether he took protectable expression from the literary or musical work contained in the phonorecord or film. Copyright Office regulations state that “[w]ords and short phrases such as names, titles and slogans” are not subject to copyright.⁹⁸ On occasion, phrases have been given protection,⁹⁹ but it “is inconceivable that anyone could copyright a single word or a commonly used short phrase”¹⁰⁰ The impressionist’s desire is to replicate the way the deceased actor pronounced phonemes and the words constructed from them. But a phoneme is not an original expression, nor is a word, nor for that matter are most short phrases *original*, unless they contain a high degree of creativity.¹⁰¹ Assuming the reanimator is

98. 37 C.F.R. § 202.1(a) (1991).

99. See *Universal City Studios v. Kamar Indus.*, 217 U.S.P.Q. 1162 (S.D. Tex. 1982); *Dawn Assocs. v. Links*, 203 U.S.P.Q. 831 (N.D. Ill. 1978); *American Greetings Corp. v. Kleinfab Corp.*, 400 F. Supp. 228 (S.D.N.Y. 1975).

100. *Signo Trading Int’l Ltd. v. Gordon*, 535 F. Supp. 362, 365 (N.D. Cal. 1981); see also *Warner Bros. v. American Broadcasting Co.*, 720 F.2d 231 (2d Cir. 1983); *Alberto-Culver Co. v. Andrea Dumon, Inc.*, 466 F.2d 705 (7th Cir. 1972); *Stratchborneo v. Arc Music Corp.*, 357 F.Supp. 1393 (S.D.N.Y. 1973). But, where the word or phrase is an imaginary invented word, protection *may* possibly be granted. See *Life Music Inc. v. Wonderland Music Co.*, 241 F. Supp. 653 (S.D.N.Y. 1965) (“*SUPERCALIFRAGILISTICXPALIDOJUS*” versus “*SUPERCALIFRAGILISTICXPALIDOCIOUS*”). In *Life Music*, the court refused to issue a preliminary injunction because the word was known and used by members of the public for many years prior to the date when the plaintiff published their song. The court did state, “[o]f course, even if defendant copied only ‘the word,’ they conceivably might still be liable for infringement.” *Id.* at 656. See also, *Heim v. Universal Pictures Co.*, 154 F.2d 480, 487 n.8 (2d Cir. 1946) (“There may be wrongful copying, though small quantitatively; so if someone were to copy the words . . . ‘Twas brillig and the slithy toves.’”).

creating new speeches, perhaps with words never spoken by the actor during his lifetime,¹⁰² the reanimator will not have copied the expression of the work contained in the phonorecord or film but at most individual words or common phrases. There is, however, one troubling aspect of the foregoing analysis that is raised by the digital sampling issue and that is: Is there a direct correlation between the quantum of sound appropriated and the quantum of expression appropriated?

Digital sampling has been a topic well ventilated, not only in scholarly works,¹⁰³ but in the press as well.¹⁰⁴ The sounds in a sound recording are protected against unlicensed reproduction by the Copyright Act. There is no question that at some level of copying, the appropriation would be held to be substantially similar to the original. The question that remains to be answered is what quantum falls just short of being substantial. In the only case to be fully litigated, *Grand Upright Music Ltd. v. Warner Brothers Records*.¹⁰⁵ (the "BIZ MARKIE" case), the court enjoined the appropriation of three words—"Alone again (naturally)"—and the accompanying notes. Were three words and the music accompanying the words to be the threshold of substantial similarity, the test for substantial similarity with respect to sound recordings would not be significantly more stringent than the test for infringement with respect to other types of works. But, there are those who believe that using even one isolated sound may be an infringement of the sound recording reproduction right.¹⁰⁶ In theory there should be no distinction between the quantum of sound that would be an infringement if appropriated from a motion picture sound track and one appropriated from a sound recording,

101. "Unless it is 'especially unique or qualitatively important, there is no basis for inferring copying' of a 'small common phrase.'" 3 NIMMER, *supra* note 49, § 13.03[a], at 13-53 n. 115, citing Stratchborneo, 357 F. Supp. 1393.

102. SMILE, *supra* note 18.

103. See, e.g., Gregory Albright, *Digital Sound Sampling and The Copyright Act of 1976: Are Isolated Sounds Protected?*, 38 COPYRIGHT L. SYMP. (ASCAP) 47 (1992); Aaron Keyt, Comment, *An Improved Framework for Music Plagiarism Litigation*, 76 CAL. L. REV. 421 (1988); Bruce McGiverin, Note, *Digital Sound Sampling, Copyright and Publicity: Protecting Against the Electronic Appropriation of Sounds*, 87 COLUM. L. REV. 1723 (1987); Thomas C. Moglovkin, Note, *Original Digital: No More Free Samples*, 64 S. CAL. L. REV. 135 (1990); Note, *A New Spin On Music Sampling: A Case For Fair Pay*, 105 HARV. L. REV. 726 (1992).

104. E.g., David Goldberg & Robert Bernstein, *Music Copyrights and the New Technologies*, N.Y.L.J., Jan. 15, 1988, at 1; Judith Greenberg Finell, *A Musicologist Discusses Disguised Infringement*, N.Y.L.J., May 29, 1992, at 5; Michael Miller, *High-Tech Alteration of Sights and Sounds Divides the Arts World*, WALL ST. J., Sept. 1, 1987, at 1; Stan Soocher, *License to Sample*, NAT'L L. J., Feb. 13, 1989, at 1; Robert Sugarman & Joseph Salvo, *Sampling Litigation In the Limelight*, N.Y.L.J., Mar. 16, 1992, at 1; Robert Sugarman & Joseph Salvo, *Sampling Gives Law a New Mix; Whose Rights?*, NAT'L L. J., Nov. 11, 1991, at 21; Kevin Zimmerman, *Old Is New Again in World of Sampling*, VARIETY, Aug. 1, 1990, at 69.

105. 780 F. Supp. 182 (S.D. N.Y. 1991).

106. See, e.g., Albright, *supra* note 103.

although, the focus of digital sampling claims has been on music sound recordings. And in theory, it should not matter that the sound, rather than being a musical one, such as a trumpet note, a drum beat, or a high C by Pavarotti,¹⁰⁷ is one phoneme in a series of phonemes comprising a word spoken by an actor. If the above logic is adopted, not only could one not take Rhatt's "Frankly, my dear" from the soundtrack of *Gone With The Wind*,¹⁰⁸ but one could not take "Frankly" or even the first phoneme "f" of "Frankly". If this is to be the interpretation of sound protection, then one potential method of voice synthesis would probably die aborning. Although it may well not be an effective method of voice synthesis, one procedure might be to build a catalogue of phonemes for a particular actor using existing sound recordings and soundtracks. This system may be impractical because phonemes depend in part on the character of the phoneme preceding and following a given phoneme. But if such a system were to be pursued, digital sampling law may prove a barrier to unlicensed phoneme reproduction. Putting aside the phoneme copying issue, does the single-sound theory create a problem where there is no direct copying but merely imitation or simulation? Of course, with respect to a sound recording, imitation or simulation of the sounds is not an infringement; as previously discussed, the only infringement that could conceivably occur in relation to a sound recording would be with respect to the underlying musical or literary work that is fixed in the phonorecord simultaneously with the sound recording and which the sound recording makes audible. However, imitation or simulation can be an infringement of the sound track of a motion picture. Assuming, for the moment, that a phoneme which is *duplicated* from a sound recording or a sound track is an infringement of the reproduction right, should it follow that the *imitation* or *simulation* of a phoneme or even a word from a film soundtrack should also be an infringement? I believe the answer is no.

The rationale for protecting an isolated sound against reproduction is that it is unique to the artist and perhaps even unique to one particular performance of the artist, be it a trumpet note of a Miles Davis or the high C of a Pavarotti. To the extent the trumpet note or high C can be imitated or synthetically created, as opposed to reproduced, it is not unique. Protection against imitation, and even synthesis, is better left to the right of publicity, if it is to be protected at all. The sound recording provision was aimed principally at outright piracy; it filled a gap in the law where, theretofore, relying solely on a compulsory mechanical license for the song, pirates were free to reproduce the sounds contained in a music

107. "Most would agree that Pavarotti's performance of even a single note embodies a sufficient modicum of creativity." *Id.* at 66.

108. (MGM 1939).

phonorecord. It is arguably a distortion of the intent of the copyright law, which requires some *de minimis* threshold of originality, and of the rationale for the enactment of the sound recording provision itself to say that *copyright* law should hold that the appropriation of a single sound is an infringement.¹⁰⁹ But to go further and to hold that *copyright* law should prohibit the imitation or electronic synthesis of a sound, where that sound is connected with, and makes audible, but a part of one word, would be to render meaningless the concept of *originality*. It would elevate the importance of the sense of hearing to a state far more grandiose than the sense of sight: no single word, not even a short common phrase is copyrightable simply because it is in *printed* form. Even if courts protect single sounds against duplication, they will not, or at least should not, protect single sounds against imitation or synthesis.

C. Derivative Work Rights

In order to generate a "three-dimensional" model of a deceased actor, I have assumed, for purposes of copyright analysis, that it would be necessary to refer to copyrighted two-dimensional pictures — still photographs or, more likely, individual frames from one or more motion pictures. One might conclude that the ultimate computer-stored, three-dimensional model is *derived* from the various two-dimensional still photo and motion picture frames. But, that conclusion does not necessarily result in the three-dimensional model being a *derivative work* in the copyright sense of that term. Section 101 of the Copyright Act defines a "derivative work" as "a work *based upon* one or more *preexisting works* . . ."¹¹⁰ Nimmer has suggested that "the term derivative work in a technical sense does not refer to all works which borrow in any degree from pre-existing works. A work is not derivative unless it has *substantially copied* from a prior work."¹¹¹ He goes on to state, "If that which is borrowed consists merely of ideas and not the expression of ideas, then although the work may have in part been derived from prior works, it is not a derivative work."¹¹² What this suggests is that if what is appropriated from a copyrighted work is an uncopyrightable element, then there is no *substantial copying* in a copyright sense. The physical features of a deceased actor are akin to ideas in that neither are copyrightable. Thus, the reanimator will argue that in creating the three-

109. "[I]nfringement takes place whenever all or any *substantial portion of the actual sounds* that go to make up a copyrighted sound recording are reproduced in phonorecords by repressing, transcribing, recapturing off the air, or any other method . . ." H.R. Rep. No. 1476, *supra* note 67, at 106 (emphasis added).

110. 17 U.S.C. § 101 (1988) (emphasis added) ("derivative work")

111. 1 NIMMER, *supra* note 49, § 3.01, at 3-3.

112. *Id.* (footnotes omitted).

dimensional computer model he has not copied a protectable element of the copyright owner's work. If the reanimator has not violated the reproduction right in creating the three-dimensional model, as discussed above, then perforce, he will not have violated the adaptation right. Furthermore, even if interim copying were found, there would still not be an infringement of the derivative work right if the protectable elements of the interim copying were not incorporated into the final computer model of the actor. However, if a court were to conclude that, in producing the three-dimensional computer model of the deceased actor, the reanimator infringed the copyright in the works of others, it would be no defense that the reanimator had created a three-dimensional work, albeit in digital format, and that the copyrighted works were two-dimensional.¹¹³

D. Distribution Rights

Little need be said with respect to the distribution rights provided by the Copyright Act.¹¹⁴ The reanimated actor is being created to act in films that will be sold or rented. But, if the reanimated actor is not substantially similar to *protectable* elements of the photographs, motion pictures and sound recordings used as reference works, then no distribution rights in the reference photographs, motion pictures and sound recordings would have been infringed by the distribution of the reanimator's film. It should be noted that, even if interim copying has been found, as discussed in "Reproduction Rights," above, it would still not be an infringement of the distribution right as long as the protectable elements of the interim copying were not incorporated into the final computer model of the actor.

E. Performance Rights

Regardless of the specific details of how the digital resurrection of deceased performers will be accomplished, it is likely that the reanimator will make reference to existing motion pictures and sound recordings featuring the actor in question. However, in his reference to a copyrighted motion picture or sound recording, the reanimator must not violate § 106(4) of the Copyright Act, the public performance right. Absent a license, the reanimator must avoid publicly performing the reference motion picture or sound recording. To "perform" a motion picture is "to show its images in any sequence or to make the sounds

113. See *Fleischer Studios v. Ralph A. Freundlich, Inc.*, 73 F.2d 276, 278 (2d Cir. 1934), *cert. denied*, 294 U.S. 717 (1935); *King Features Syndicate v. Fleischer*, 299 F. 533, 538 (2d Cir. 1924).

114. 17 U.S.C. § 106(3) (1988).

accompanying it audible."¹¹⁵ Thus if the reanimator does not show the images in some sequence, he has not *performed* the motion picture although he may be said to have *displayed* a particular frame, an issue discussed below. Even if the reanimator performs a motion picture or a sound recording, he will not be in violation of § 106(4) if the performance is not *public* but, rather, *private*. To perform a motion picture or sound recording "publicly" is "to perform . . . at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered."¹¹⁶ Presumably the performance would be on the business premises of the reanimator and only employees involved in the reanimation would be present at the performance. Obviously, proprietary concerns would dictate that the premises of the reanimator would be a place not open to the public. More troublesome is the second leg of the public performance test: "any place where a substantial number of persons outside of a normal circle of friends is gathered."¹¹⁷ In its interpretation of "substantial number," the House Committee on the Judiciary stated that "Routine meetings of businesses . . . would be excluded because they do not represent the gathering of a 'substantial number of persons.'"¹¹⁸ Thus, *performance* on the business premises of the reanimator, witnessed only by employees of the reanimator, would not be public, and thus would not violate § 106(4) of the Copyright Act. It may well be that in order to analyze a motion picture or sound recording for purposes of constructing the three-dimensional computer model of the deceased actor, it will be necessary to input the motion picture or sound recording in digital format into a computer. Would the input into the computer be itself a performance, public or otherwise? Nimmer believes that "the mere act of input into a computer or other retrieval system would not appear to be a performance."¹¹⁹ Even if Nimmer is wrong, and computer input is held a performance, as long as the input is not *public*, there is still no violation of § 106(4). Of course, the question of whether the input is a copy must be addressed.¹²⁰ In any event, it does not appear that the reanimator need concern himself with respect to the public performance issue.

115. *Id.* § 101 ("perform"). For example, a re-animator might "perform" a motion picture by projecting a segment of it, frame-by-frame, onto a gridded screen to measure incremental upper and lower lip displacement of a Marilyn Monroe smile in order to create parameters for the MM software.

116. *Id.* § 101.

117. *Id.*

118. H.R. Rep. No. 1476, *supra* note 67, at 64.

119. 2 NIMMER, *supra* note 49, § 8.14[b], at 8-168.

120. See *supra* part II B (Reproduction Rights).

The above discussion has focused on the performance of a motion picture or sound recording during the reanimation process itself. Once the computer model of the deceased actor has been constructed, the actor will be utilized in one or more motion pictures that are intended for public performance. The mere fact the "same" actor appears in a post-mortem film as appeared in a film produced with that actor when alive would not in and of itself lead to a conclusion of substantial similarity. First of all, the actor is not a copyrightable element. To hold that he were would lead to the obviously absurd conclusion that once an actor appeared in one film, the actor could appear in no subsequent film without license from the copyright owner of the first film.¹²¹ The test of substantial similarity would have to be based on criteria other than the identity of the actor.

F. Display Rights

Section 106 of the Copyright Act grants to the copyright owner the right of public display.¹²² The right is severely circumscribed by the fact that the lawful owner of a particular copy has the privilege to publicly display his copy.¹²³ To "display" a work is to "show a copy of it, either directly or by means of a film, slide, television image, or any other device or process."¹²⁴ With respect to motion pictures one must distinguish between a showing that amounts to a *display* and a showing that amounts to a *performance*. A use of a motion picture by a reanimator that constitutes a "performance" is discussed in "Performance Rights" above. The discussion in this section will be limited to the "display" of still photographs and motion pictures. If the reanimator is the owner of a particular copy of a still photo or a motion picture, he has a right to publicly display the work (though with respect to the motion picture he has no right to publicly perform it, *i.e.*, to show the frames in some sequence). And of course, absent a contractual restriction, the reanimator has a right to privately display the work, even if he was a mere lessee of an authorized copy. Assuming that the reanimator owns the particular copy of the photograph or motion picture, he need not concern himself as to whether his display, though limited to company personnel, is public or

121. For example, in *Gross v. Seligman*, the court did not hold that the photographer could not use the same model that he had previously used, only that he could not use the identical pose. "Of course when the first picture has been produced and copyrighted every other artist is entirely free to form his own conception of the Grace of Youth . . . and to avail of the *same* young woman's services . . ." 212 F. 930, 931 (2d Cir. 1914) (emphasis added).

122. 17 U.S.C. § 106(5).

123. *Id.* § 109(c).

124. *Id.* § 101 ("display").

not (a concern that must be addressed if a motion picture is performed). Thus, in analyzing a photograph or a frame from a motion picture, the reanimator violates no right of the owner of the copyright in the photograph or the motion picture when the reanimator displays the work. Of course, if the reanimator inputs the display into a computer for analysis, the "Reproduction Rights" discussed above, are in issue.

G. Fair Use

If the computer model of the deceased actor does not itself contain any elements copied from the reference works that are substantially similar to protected elements of the various reference photographs, motion pictures or sound recordings, then mere exploitation by the reanimator of the computer model will not infringe any of the rights of the owners of copyright in the reference works. However, if in creating the final computer model, the reanimator inputs reference works into the computer in order to extract the static and dynamic characteristics of the late actor, the interim copying issue arises. In "Reproduction Rights," I addressed the various factors to be considered in determining whether an input into a computer is a copy, and I also discussed the two divergent judicial views on whether interim copying is or is not an infringement. If a court finds that the input is a copy, and if that court rejects the "interim copy" reasoning of *Time-Life Films*¹²⁵ in favor of that of *Sega*,¹²⁶ the reanimator will be liable for copyright infringement unless he successfully raises a fair use defense. While fair use determinations are not limited to the four factors enumerated in Section 107 of the Copyright Act, "[n]evertheless, the Section 107 factors do offer some guidelines in the determination of fair use . . ."¹²⁷

The fair use analysis is germane to two stages of reanimation. The first stage involves the research and development that precedes commercial exploitation; the second stage is the actual commercial exploitation of reanimation.

Two of the fair use factors will remain unchanged as reanimation moves from the research stage to commercial exploitation. With respect

125. See *supra* notes 73-79 and accompanying text.

126. See *supra* notes 72-79 and accompanying text.

127. 3 NIMMER, *supra* note 49, § 13.05[A], at 13-102.43. The four factors specifically addressed in 17 U.S.C. §107 are:

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.

to "the nature of the copyrighted work,"¹²⁸ the reference works — photographs, motion pictures, and sound recordings — are themselves likely created for commercial exploitation and typically not for non-profit purposes. With respect to "the amount and substantiality of the portion used in relation to the copyrighted work as a whole,"¹²⁹ the amount appropriated may vary from an entire work, such as a single still photograph, to relatively small segments, such as several frames from a two-hour film; but the amount appropriated with respect to any given reference work is not likely to vary substantially between the R & D stage and full commercial exploitation. It is in "the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes"¹³⁰ and "the effect of the use upon the potential market for or value of the copyrighted work"¹³¹ that a sharp distinction can be drawn between the R & D stage and the commercial exploitation stage.

During the R & D stage, the reanimator will take the position that the use of the copyrighted reference work is for "research," and at least as conducted in universities, non-profit. The position taken by the reanimator will be reminiscent of the arguments put forth during the 1960s with respect to experiments in the computer storage and retrieval of large scale databases.¹³² The reanimator will also argue that at the R & D stage, reanimation would have no immediate or near-term effect upon the market for the copyrighted reference works. During the R & D stage of reanimation, I believe that researchers, or at least university researchers, will be able to rely on factors 1 and 4 of fair use to establish that the interim copying is not an infringement.

There is no question that reanimation will be exploited commercially, either by the reanimator producing his own films or by leasing the synthetic actor to other film producers (not unlike the loan-outs during the halcyon days of the Hollywood studio system). At the stage of commercial exploitation, the reanimator can no longer claim non-profit purposes under factor 1, and in fact, is faced with the pronouncement of the U.S. Supreme Court that "every commercial use of copyrighted material is presumptively an unfair exploitation of the

128. 17 U.S.C. § 107(2).

129. *Id.* § 107(3).

130. *Id.* § 107(1).

131. *Id.* § 107(4).

132. See Joseph J. Beard, *Cybera: The Age of Information*, 19 COPYRIGHT L. SYMP. (ASCAP) 117, 135-136 (1971); Julius Marke, *Copyright Revisited*, 42 WILSON LIB. BULL. 35, 39 (1967). At the time the author wrote this article, he was technical assistant to the Director of Project INTREX (Information Transfer Experiments) at M.I.T. Project INTREX was one of the first experiments in the storage and retrieval of large scale databases.

monopoly privilege that belongs to the owner of the copyright."¹³³ However, as observed by the Ninth Circuit in *Sega v. Accolade*,¹³⁴ "the presumption of unfairness that arises in such cases can be rebutted by the characteristics of a particular commercial use."¹³⁵ In *Sega*, the Ninth Circuit noted that in that case "the use at issue was an intermediate one only and thus any commercial 'exploitation' was *indirect* or derivative."¹³⁶ The same could be said of the reanimator's interim copying; it was done to extract unprotected data only, arguably an *indirect* use.

In *Sega*, the court also emphasized that *Accolade* had no other alternatives available.¹³⁷ With respect to reference films, the same may be true for the reanimator. For the late actor who made but few films, (e.g., James Dean), or for an entity that owns the copyright to a large catalog of films, (e.g., Ted Turner, who owns the MGM library), the ability to preclude the use of such indispensable reference films would confer an unwarranted monopoly. This monopoly would allow the copyright holder to control not only traditional exploitation of the films, as provided in Title 17, but to control reanimation — which is contemplated by neither Congress nor, more importantly, the Constitution. Furthermore, the copyright owner might choose not to reanimate the actor on the theory that he can gain more revenue from the few films made by the late actor, films which may well be "cult classics," as long as no reanimation takes place, than he might gain from the combined revenue of the reanimation films and the old, but now no longer exclusive, films. Thus, as to reference films, and perhaps even as to photographs and sound recordings, the unavailability of a license should be a factor. Finally, in *Sega*, the Ninth Circuit emphasized public benefit considerations:

Public benefit need not be direct or tangible, but may arise because the challenged use serves a public interest In the case before us, *Accolade's* identification of the functional requirements for Genesis compatibility has led to an increase in the number of independently designed video game programs offered for use with the Genesis console. It is precisely this growth in creative expression, based on the dissemination of other creative works and the unprotected ideas contained in those works, that the Copyright Act was intended to promote The fact that Genesis-compatible video games are not scholarly works, but works offered for sale on the market, does not alter our judgment in this regard.¹³⁸

133. *Sony Corp. v. Universal City Studios*, 464 U.S. 417, 451 (1984).

134. 977 F.2d 1510 (9th Cir. 1992).

135. *Id.* at 1522.

136. *Id.* (emphasis added).

137. *Id.* at 1531-1532.

138. *Id.* at 1523.

The public benefit considerations which weighed in favor of Accolade as to factor 1 seem equally applicable to the reanimation. Thus, while it might be a close call, I would suggest that factor 1 would be found in favor of the commercial reanimator.

Factor 2, as applied to the reference works as a whole, is not likely to favor the reanimator, since unlike for the computer program in *Sega*,¹³⁹ there is little difficulty in finding a distinction between the idea and the expression in the typical reference photograph, film or sound recording. Thus, it is unlikely that factor 2 will be of any assistance to the reanimator's claim of fair use. But there remains to be considered factor 3, "the amount and substantiality of the portion used in relation to the copyrighted work as a whole,"¹⁴⁰ and factor 4, "the effect of the use upon the potential market for or value of the copyrighted work."¹⁴¹ The analysis of "the amount and substantiality of the portion used in relation to the copyrighted work as a whole" has primarily focused on the *quantity* of the portion of the work appropriated and/or the *quality* of the portion of the work appropriated.¹⁴² If the reanimator can establish that he did not input the entire reference work, a position perhaps more readily taken with a motion picture than a photograph, he could conceivably demonstrate that he has not appropriated so much by way of quantity or quality that factor 3 should be weighed against him rather than in his favor.¹⁴³ However that may be, I believe there should be a third measure of the appropriation — a *temporal* measure.

In *Knickerbocker Toy Co. v. Azrak-Hamway Intern.*,¹⁴⁴ defendant employed a "blister card,"¹⁴⁵ using an illustration of the plaintiff's toy car "Wrist Racer," as a sample to position its art work. The use of the blister

139. "The second statutory factor, the nature of the copyrighted work, reflects the fact that not all copyrighted works are entitled to the same level of protection Works of fiction receive greater protection than works that have strong factual elements, such as historical or biographical works. . . . Because of the hybrid nature of computer programs, there is no settled standard for identifying what is protected expression and what is unprotected idea in a case involving the alleged infringement of a copyright in computer software."

Id. at 1524.

140. 17 U.S.C. § 107(3).

141. *Id.* § 107(4)

142. For a discussion of the amount and substantiality of the portion appropriated see 3 NIMMER, *supra* note 49, § 13.05 [A][3], at 13-102.59.

143. It may well be that, because many photographs of an actor are available, the amount of data copied from any particular photograph, or film for that matter, would either be *de minimis* or at least an amount of such little magnitude and quality that Fair Use factor (3) would clearly favor the re-animator.

144. 668 F.2d 699 (2d Cir. 1982).

145. *Id.* at 701 n. 1 ("A 'blister' card is a cardboard display card on which is printed promotional copy and illustrations of the product. The card is treated to accept a plastic 'blister' in which the product itself is contained for sale at retail.").

card was limited: "a totally different illustration would be used for the production run of the card."¹⁴⁶ The court concurred with the finding of the trial judge that "[the blister card] was only an office copy which was never used."¹⁴⁷ The court held that this interim use fell "squarely within the maxim of *de minimis non curat lex*."¹⁴⁸ In *Knickerbocker*, there was a fixation in a material object, and there was an interim use, but the interim copy was not used in the final product, not unlike the procedure followed by the reanimator. It may be that less use was made of the photograph of the toy car in positioning the art work in *Knickerbocker* than might be made of a reference work in the creation of a three-dimensional computer model of a deceased actor. But, if *Knickerbocker* suggests that "[a] commercial use may be of such limited duration . . . as to justify holding for the defendant under the principle of *de minimis non curat lex*,"¹⁴⁹ perhaps that notion can be extrapolated to "times" that just exceed *de minimis*.

Let me suggest a time continuum that is marked at one end by that use which just exceeds being transient and that is marked at the other end by a copy that is permanent. The *Knickerbocker* case suggests that where the duration of use is so short and the ultimate product does not contain protectable elements of the work "copied," it is not even an issue of fair use; it is an issue with which the court does not even want to concern itself. I would suggest there is *some* duration of fixation which exceeds *de minimis* that would be a "fair use" as measured by time, so long as the copied elements did not appear in the final product. In developing reanimation technology, researchers who find it necessary to make an interim copy would be well-advised to keep the storage in computer memory to the absolute minimum necessary to accomplish data extraction from the reference works (and of course, to limit the quantity or quality copied, if feasible). Finally, as the Ninth Circuit observed in *Sega*, "The fact that an entire work was copied does not, however, preclude a finding a [sic] fair use . . . In fact, where the ultimate (as opposed to direct) use is as limited as it was here, the factor is of very little weight."¹⁵⁰ In reanimation, the ultimate use of the reference work is not merely limited, it is free of any protectable elements of the reference

146. *Id.* at 702. Most art directors make extensive use of what is called in the Agencies "swipe art." This consists usually of photos and illustrations ripped out of books and magazines and which are cut up (or not) to compose ideas. These dummy ads are used internally to discuss and develop concepts, and to illustrate the idea graphically. Naturally, when the time comes to actually make the shot, the talent, props and location are original.

147. *Id.* at 702.

148. *Id.* at 703.

149. 3 NIMMER, *supra* note 49, § 13.05[A], at 13-102.49 n. 25.3.

150. 977 F.2d at 1526.

works. If the temporal measure of copying is adopted the use might pass muster under factor 3 or, if not, the factor may be given little weight for the reason suggested in *Sega*.

Finally, one must consider whether factor 4 favors the copyright owner or the reanimator. Is there a *potential* for economic harm to the owner of the reference works? With respect to photographs, the fact that a synthetic Charles Laughton appears in a film would not appear to diminish the market for photographs of the genuine article, *i.e.*, Charles Laughton himself. Nor is it likely that the market for sound recordings made by the late actor¹⁵¹ will in any way be diminished by the fact the synthetic Charles Laughton speaks in a post-mortem film. If there is to be any *significant* adverse effect to reference works, one would think it would be the competition between films starring the synthetic actor and films starring the flesh-and-blood actor during his lifetime. But, if the synthetic actor is in no way substantially similar to the protectable elements of the reference motion picture, then, even if "he" were to contain protectable elements from other films or from photographs or sound recordings, that would be irrelevant to the litigation at hand. To say otherwise would be to conclude that there is a "collective" copyright for works that are not in a "collective work."¹⁵² Therefore, the issue is: does the exploitation of a work that does not contain protectable elements of a reference work but which was created by use of the reference work create a factor 4 problem?

With respect to factor 4 of fair use, Nimmer has opined:

It is only the impact of the use of defendant's work on material which is protected by plaintiff's copyright which need be considered under the factor. Thus, a court need not take into account the adverse impact on the potential market for plaintiff's work by reason of defendant having copied from plaintiff's non-copyrightable factual material.¹⁵³

The synthetic star may prove to be competition for films starring the late actor himself. But, presuming that all that was appropriated from the

151. Laughton, in fact, made several sound recordings including a reading, *Mr. Pickwick's Christmas* (Decca Records 1944).

152. 17 U.S.C. § 101 (1988) ("collective work"). But see *In re Hart*, 83 N.Y.S. 2d 635, 639 (N.Y. Surr. Ct. 1948), where the court suggested that a song writer had *calvacade* rights: "while the assignee of . . . a copyright has interests in the individual composition assigned which must be respected there still remains in the original composer a residual right to forbid or to control the *combined* use of his compositions." *Id.* (emphasis added). Nimmer, in characterizing *Hart* as a "rather startling decision," commented: "This decision, which appears to lack both judicial ancestry and offspring, may have been a somewhat distorted attempt to apply the recognized principle that a grant of small performing rights does not divest the grantor of grand (or dramatic) performing rights in a given musical work." 3 NIMMER, *supra* note 49, § 10.10 [D], 10-90.

153. 3 NIMMER, *supra* note 49, § 13.05 [A], at 13-102.60 n. 34.

reference work was the static and dynamic characteristics of the late actor, which are unprotected as facts, then, assuming Nimmer's position is correct — and I believe that it is — it would appear that no adverse market consequences can be traced to the exploitation of the synthetic actor. Such adverse market consequences, as are present, would be irrelevant to the factor 4 analysis. In *Sega*, the Ninth Circuit, while observing that copying that effectively usurped the market for the copyrighted work by supplanting that work was not a fair use, went on to state, "the same consequences do not . . . attach to a use which simply enables the copier to enter the market for works of the same type as the copied work."¹⁵⁴ This language seems particularly appropriate with respect to the reanimator. Factor 4 is, I believe, clearly in the reanimator's favor.

While perhaps a close call, factor 1 might be found to favor the reanimator. Factor 2 will not favor the reanimator. Depending in part upon the quantity or quality of the portion of the reference work copied and in part on whether a court would agree to entertain a "temporal" criteria in evaluating factor 3, this factor might be found to favor the user. Factor 4 is clearly in the user's favor. The user might also point out that his use is "productive,"¹⁵⁵ rather than "non-productive,"¹⁵⁶ as the "distinction between 'productive' and 'non-productive' uses may be helpful in calibrating the balance"¹⁵⁷ between the interests of the owner and the user. Thus, one might draw the conclusion that even if interim copying would otherwise be an infringement, the reanimator may well be successful in raising a fair use defense.

While the reanimator may be successful in establishing a fair use, he will obviously be better off if he is able to avoid interim copying or, if copying is unavoidable, to limit the duration of the fixation to a time period that a court might find *de minimis*, as in *Knickerbocker*.

154. 977 F.2d at 1523.

155. A "productive" use is one in which "the copier himself is engaged in creating a work of authorship whereby he adds his own original contribution to that which is copied." 3 NIMMER, *supra* note 49, § 13.05[A], at 13-102.45.

156. See *Russell v. Price*, 612 F.2d 1123, 1127-28 (9th Cir. 1979), *cert. denied*, 466 U.S. 952 (1980) ("[W]hatever place sympathy for the position of creators of derivative works might properly have under the 1909 Copyright Act, the defendants here can take advantage of none, having contributed nothing to the production of the film 'Pygmalion.'").

157. *Sony Corp. v. Universal City Studios*, 464 U.S. 417, 455 n. 40 (1984).

III. COPYRIGHT/TRADE SECRET PROTECTION FOR THE REANIMATED ACTOR

A. Introduction

It is obvious that the creation of a realistic, dynamic replica of a deceased actor will require the expenditure of a great deal of time and money. Will anyone undertake the effort, if some type of protection against unlicensed copying is not available? In Part IV of this article, I discuss the possibility that reanimation is, or at least should be, subject to a post-mortem right of publicity. If reanimation is subject to a post-mortem right of publicity, and if the reanimator is given an *exclusive* license to create and exploit a computer-generated replica of the late actor, that will provide protection against unlicensed exploitation of the reanimation by third parties. But, if the term of the post-mortem right of publicity is of relatively short duration, then the protection of the reanimated actor based on that exclusive license will be equally brief. And one must consider the possibility that the owner of the post-mortem right of publicity might grant only a *non-exclusive* license to the reanimator, whatever the term of the post-mortem right of publicity might be. There is also the possibility that a particular jurisdiction might not have a post-mortem right of publicity, or that even if it did, the right might not encompass reanimation. Finally, one must consider the fact that many elements of the software are likely to be independent of the particular actor being reanimated and to have generic applicability, and therefore would not be subject to a post-mortem right of publicity at all. Thus, one may well conclude that the reanimator requires proprietary protection beyond that which might arise under an exclusive post-mortem right of publicity license. It is likely that the reanimator will look to copyright law and possibly trade secret law for protection of the reanimated actor.

B. Copyright Protection

1. ELIGIBILITY

Federal copyright extends to *original* works of authorship.¹⁵⁸ But "*original*, as the term is used in copyright, means only that the work was independently created by the author and that it possesses at least some *minimal* degree of creativity [and that] requisite level of creativity is extremely low."¹⁵⁹ When one considers the various activities an actor

158. 17 U.S.C. § 102 (1988).

159. *Feist Publications v. Rural Tel. Serv. Co.*, 111 S. Ct. 1282, 1287 (1991).

might be called upon to undertake in a film, it becomes quickly apparent that the computer software that must replicate what the actor did in life will be quite sophisticated. The program must be able to animate the actor to walk, run, sit, point, shake hands, cross his legs, and so on. The synthetic actor must be able to speak in a voice that mimics that of the late actor; the actor's lips must be synchronized to the phonemes that comprise the words being spoken; eye movement must be coordinated with the words spoken. The actor must be capable of the full range of facial expression that reflects fear, surprise, happiness, and so on. With the test in *Feist Publications v. Rural Telephone Service Co.*¹⁶⁰ as a yardstick, it seems beyond peradventure that the reanimation software, including the database of the actor's static/dynamic characteristics, will be copyrightable, as will be the audio-visual output of the software — the reanimated actor. However, while the reanimation software and audio-visual output are sure to be copyrightable, the ultimate question is what will be the *scope* of that protection, *i.e.*, how "thin" will the protection be?

2. SCOPE OF PROTECTION

I shall begin this part of the discussion by echoing the caveat of the Second Circuit in *Computer Associates International v. Altai, Inc.*:¹⁶¹ "We are cognizant that computer technology is a dynamic field which can outpace judicial decision making."¹⁶² Computer technology can easily outpace law review articles as well. A discussion of the scope of protection is problematic because the technology of creating synthetic humans is in an embryonic stage of development, and because the federal courts have not adopted a common analytical approach to the scope of software protection.

A review of human modeling, animation and rendering literature¹⁶³ reveals that a variety of techniques are being evaluated with respect to the creation and animation of synthetic human actors. The creators of "Rendez-vous à Montréal" have proposed classifying animation techniques according to a hierarchy of motion control methods ("MCMs"): (1) geometric, (2) physical and (3) behavioral.¹⁶⁴ Geometric techniques were the earliest approach to animation control using successive joint angles to define motion. More sophisticated is the dynamic approach relying on such parameters as mass, moment of inertia and stiffness. The intent of behavioral motion control is to take into

160. *Id.*

161. 982 F.2d 693 (2d Cir. 1992).

162. *Id.* at 706.

163. See *supra* notes 12-16 and accompanying text.

164. ANIMATION OF SYNTHETIC ACTORS AND 3D INTERACTION 28 (Nadia Magnenat-Thalmann & Daniel Thalmann eds., 1991).

account the fact that “[m]echanics-based motions are too regular, because they do not take into account the personality of the [actor].”¹⁶⁵ Of particular importance in creating a realistic replica of a deceased actor is facial modeling; various facial animation methods are currently under study, including parametized models, muscle models for facial expressions, and abstract muscle action procedures.¹⁶⁶ Also under study are such matters as “object grasping,” hair rendering and clothing modeling.¹⁶⁷ What is unclear at this juncture is whether one particular approach will ultimately be adopted as the optimum technique for creating a realistic, synthetic human, or whether alternative techniques will compete on more or less equal terms. Presumably, alternate technical approaches to the creation and animation of synthetic actors would lead to somewhat different software structures. One might expect that, with respect to any one particular technical solution to animation, competing software implementing that approach would have certain characteristics in common and that other technical approaches would result in competing software with other general characteristics.¹⁶⁸ To some degree, one might anticipate that, because the end goal is the creation of a realistic replica of a human, the software structures will have some common characteristics at higher levels of abstraction,¹⁶⁹ regardless of the particular technical approach taken to achieve the goal. The above generalizations must then be examined in light of existing judicial approaches to the issue of scope of protection.

It is axiomatic that copyright does not protect an idea but only the expression of that idea. The axiom is easy to state. It is the application of the axiom that is problematic, particularly to computer software.

At the highest level of abstraction, one might state that the idea, or purpose, of reanimation software is to produce a realistic, dynamic,

165. *Id.* at 18.

166. *See supra* note 16 and accompanying text.

167. *See supra* note 17 and accompanying text.

168. Interview with Dr. Nadia Magnenat-Thalmann, Director, MIRALab Group, University of Geneva, and Dr. Daniel Thalmann, Director Computer Graphics Lab, Swiss Federal Institute of Technology, Lausanne, in Philadelphia, Pa. (March 13, 1993).

169. This Article uses the term ‘level of abstraction’ as defined in *Computer Associates. v. Altai, Inc.*:

As applied to computer programs, the abstractions test will comprise the first step in the examination for substantial similarity. Initially, in a manner that resembles reverse engineering on a theoretical plane, a court should dissect the allegedly copied program’s structure and isolate each level of abstraction contained within it. This process begins with the code and ends with an articulation of the program’s ultimate function. Along the way, it is necessary essentially to retrace and map each of the designer’s steps—in the opposite order in which they were taken during the program’s creation.

982 F.2d 693, 707 (2d Cir. 1992).

audio-visual model of a particular actor. In *Whelan Associates v. Jaslow Dental Laboratory*¹⁷⁰ the Third Circuit concluded:

[T]he line between idea and expression may be drawn with reference to the end sought to be achieved by the work in question. In other words, *the purpose or function of a utilitarian work would be the work's idea, and everything that is not necessary to that purpose or function would be part of the expression of the idea* Where there are various means of achieving the desired purpose, then the particular means chosen is not necessary to the purpose; hence, there is expression, not idea¹⁷¹

The court in its analysis focused on the structure, sequence, and organization¹⁷²(SSO) in determining whether there was an infringement. In the context of reanimation, one might speculate that whatever technological approach one might take to reanimation, the idea is common to all techniques. But, as between techniques, the SSO might well be different. However, within a given technological approach, one might anticipate that the SSOs would be similar at least at the higher levels of abstraction. The Second Circuit has interpreted *Whelan* as assuming that a computer program has only one idea and that everything else in the program must therefore be protectable expression.¹⁷³ However, in fairness to the Third Circuit, the *Whelan* opinion, in dicta, acknowledged the possibility that an *idea* may not only encompass the purpose but also a particular way of accomplishing that purpose:

We do not mean to imply that the idea or purpose behind *every* utilitarian or functional work will be precisely what it accomplishes, and that structure and organization will therefore always be part of the expression of such works. The idea or purpose behind a utilitarian work may be to accomplish a certain function *in a certain way . . .* and the structure or function of a program might be essential to that task.¹⁷⁴

Thus, even in the Third Circuit, a particular technique for accomplishing the ultimate purpose of the software might be considered part of the idea; if so, to the extent the SSO reflects the technique, it would be considered part of the idea also. However, even if the Third Circuit were to hold, when squarely faced with the issue, that a particular methodology for accomplishing animation is part of the idea, the scope of copyright protection would still be very significant, since under that Circuit's doctrine, everything else would be expression.

170. 797 F.2d 1222 (3d Cir. 1986), *cert. denied*, 479 U.S. 1031 (1987).

171. *Id.* at 1236.

172. *Id.* at 1224.

173. *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 705 (2d Cir. 1992).

174. 797 F.2d at 1238 (emphasis in original).

At the other extreme is the approach the Second Circuit took in *Computer Associates International v. Altai, Inc.*¹⁷⁵ In *Computer Associates*, the court engaged in a three-step process: abstraction, filtration, and comparison. In *Computer Associates*, the court analyzed the software at various levels of abstraction beginning with the object code and ending with an articulation of the program's ultimate function. Once the various levels of abstraction have been determined, the protectable expression is "filtered" from the unprotected. The unprotected portion at a particular level of expression might be deemed so because it is the idea, or is dictated by considerations of efficiency so as to be necessarily incidental to that idea, required by factors external to the program itself (analogized to "scènes à faire") or is in the public domain.¹⁷⁶ Since efficiency would be the goal of any programmer, to treat efficiency as equivalent to an idea under the merger doctrine is clearly a disincentive to a creative programmer though a boon to a competitor (and perhaps, the most dramatic evidence that the Second Circuit approach is too restrictive). Also included as an external factor are the demands of the industry being served. It is likely that reanimated actors will be "directed" from some type of console. Since it is unlikely that the console will be customized to a particular reanimation supplier, the supplier will have to ensure compatibility of his software, including command menus, with the console. In addition, there must also be compatibility with the film producer's software for integrating the reanimated actor into a digitized version of the live action filming. To the extent a reanimator's software is structured to meet these compatibility demands, the software is not protectable expression, at least not in the Second Circuit. One consideration labeled under "External Factors," "widely accepted programming practices within the computer industry,"¹⁷⁷ seems somewhat redundant to the last factor, "elements taken from the public domain,"¹⁷⁸ which includes programming that "if not standard . . . [is] then commonplace in the industry."¹⁷⁹ Following this rigorous — if not

175. 982 F.2d 693.

176. *Id.* at 707.

177. *Id.* at 710.

178. *Id.*

179. *Id.* (quoting *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465, 1473 (9th Cir. 1991), *cert. denied*, 113 S. Ct. 198 (1992)). Changing practices in software engineering may significantly affect the similarity of outcomes from all circuits, and make the decisions more predictable. Specifically, "object-oriented" software engineering uses prepackaged data structures, bundled with the code needed to manipulate them ("objects"), and encourages the construction of programs from these building blocks. By representing abstract concepts with appropriate objects, programmers will be able to control how the abstractions test is applied to their code. However, as libraries of objects become more available, the amount of program material filtered may increase too. For an introduction to these concepts, see BRAD J. COX, OBJECT-ORIENTED PROGRAMMING (1987). For a look at

draconian — filtration, the court engaged in a comparison of the defendant's work to the protected "golden nugget" components of the plaintiff's work. As *Whelan* has been criticized for being overly protective of the first-comer, *Computer Associates* has been criticized as not providing adequate protection to a creator.¹⁸⁰

The Ninth Circuit, home of the extrinsic/intrinsic approach first enunciated in *Sid & Marty Krofft Television Productions v. McDonalds Corp.*,¹⁸¹ has reformulated the *extrinsic* test "to perpetuate 'analytic dissection' as a tool for comparing not only ideas but also expression."¹⁸² The Ninth Circuit also now apparently applies analytic dissection at the *intrinsic* stage: "Analytic dissection is relevant not only to the copying element of a copyright infringement claim, but also to the claim's ownership element Thus, where two works are found to be similar without regard to the scope of the copyright in the plaintiff's work . . . the source of the similarity must be identified and a determination made as to whether this source is covered by plaintiff's copyright."¹⁸³ While the Second Circuit *first* filters protected from unprotected and *then* compares similarities, it appears that the Ninth Circuit would *first* compare and *then* filter.¹⁸⁴ Whether the Second Circuit or Ninth Circuit approach is less protective of the plaintiff is not clear.¹⁸⁵ Perhaps one can take the Third

future trends, see BRUCE SHRIVER & PETER WEGNER, RESEARCH DIRECTIONS IN OBJECT-ORIENTED PROGRAMMING (1987).

180. *Gates Rubber Co. v. Bando American*, 798 F.Supp. 1499, 1513 (D. Colo. 1992). The Second Circuit, in *Computer Associates*, acknowledged the narrow scope of protection its analysis provides: "If the test we have outlined results in narrowing the scope of protection, as we expect it will, that result flows from applying, in accordance with Congressional intent, long-standing principles of copyright law to computer programs." 982 F.2d at 712.

181. 562 F.2d 1157 (9th Cir. 1977).

182. *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465, 1475 (9th Cir. 1991), *cert. denied*, 113 S. Ct. 198 (1992).

183. *Id.* at 1476.

184. The court stated:

The Defendants urged this Court to undertake the "sifting" process *before* the substantial similarity test is performed. The Court rejects such an approach on the grounds that it has the real potential to eviscerate the application of the prevailing substantial similarity test as defined by *Whelan* and its progeny, and in return offers little in the way of establishing any more workable alternative.

Any sifting or dissecting of protectable from unprotectable elements before the two-step test is applied (or other considerations associated with this test) would be wholly inconsistent with case law authorities. (emphasis in original).

Gates Rubber, 798 F. Supp. 1499, 1516-17.

185. Where there is a substantial degree of similarity of expression between the two works in question and where the plaintiff's work is rich in expressive content, infringement is likely to be found under either the Second or Ninth Circuit analytical approach. Where the degree of similarity between the two works is low and the plaintiff's

and Second Circuits as representing the polar positions with the other circuits falling somewhere along the continuum of scope of protection. While the First Circuit has not provided guidance as specific as that of the Second, Third, and Ninth Circuits, the district court opinion in *Lotus Development Corp. v. Borland International*¹⁸⁶ is an insightful decision, in its discussion of the idea/expression dichotomy in the context of deciding where in the hierarchy of the program structure the infrastructure ceases to be idea and becomes expression.¹⁸⁷ While the *Borland* court concluded

work contains "threadbare" expression, infringement is not likely to be found under either the Second or Ninth Circuit approach. However, where comparability is low but plaintiff's expressive content is high or where comparability is high but plaintiff's expression is slight, it is unclear whether the Ninth Circuit approach might produce a result different from that of the Second Circuit.

186. 799 F.Supp. 203 (D. Mass. 1992).

187. The court stated:

FIRST, in making the determination of "copyrightability," the decisionmaker must focus upon alternatives that counsel may suggest, or the court may conceive, along the scale from the most generalized conception to the most particularized, and choose some formulation, some conception of the "idea," "system," "process," "procedure," or "method" -- for the purpose of distinguishing between the idea, system, process, procedure, or method and its expression.

One may describe a number of conceptions of the 1-2-3 user interface. A non-exclusive list, commencing with the most abstract and moving toward the particular, includes:

- (1) Lotus 1-2-3 is an electronic spreadsheet.
- (2) It is a menu-driven electronic spreadsheet.
- (3) Its user interface involves a system of menus, each menu consisting of less than a dozen commands, arranged hierarchically, forming a tree in which the main menu is the root/trunk of the tree and submenus branch off from higher menus, each submenu being linked to a higher menu by operation of a command.
- (4) Its user interface involves a system of menus, each menu consisting of less than a dozen commands, arranged hierarchically, forming a tree in which the main menu is the root/trunk of the tree and submenus branch off from higher menus, each submenu being linked to a higher menu by operation of a command, so that all the specific spreadsheet operations available in Lotus 1-2-3 are accessible through the paths of the menu command hierarchy.
- (5) Finally, one may conceive of the interface as that precise set of menu commands selected by Lotus, arranged hierarchically precisely as they appear in 1-2-3. Under this conception, the interface comprises the menu of commands "Worksheet," "Range," "Copy," "Move," "File," "Print," "Graph," "Data," "System," and "Quit," linked by operation of the command "Worksheet" to the menu of commands "Global," "Insert," "Delete," "Column," "Erase," "Titles," "Windows," "Status," and "Page," etc. (The completion of this proposed statement of the

that the rulings made were substantively compatible with, though different in methodology from, the Second Circuit decision in *Computer Associates*, the analytical approach taken in *Borland* is somewhere on the aforementioned continuum; less protective than the Third Circuit in *Whelan* but somewhat more protective than the Second Circuit in *Computer Associates*.

Hopefully, the circuits will reach some uniformity or the Supreme Court or Congress will impose guidelines to insure homogeneity among the circuits before those who create synthetic actors reach the stage of commercial exploitation. While it may be some time before the circuits do come to some common understanding of how to determine scope of protection, there are aspects of reanimation programming that will clearly warrant protection, and strong protection at that. While much of the software will be devoted to paradigmatic solutions to such problems as walking, speaking, smiling or grasping, some activities of the reanimator will be very subjective, varying to the same degree as where two portrait artists might interpret the same human model differently. No two animators in modifying the parameters that are implicated in a smile, or a frown, are likely to do so in an identical manner. Because realism is, to a degree, in the eye of the beholder, two animators each independently

"idea," listing all of the more than 400 commands for which "etc." stands, would require several dozen more lines of text.)

Borland argues that the appropriate conception of the "idea" of the 1-2-3 interface is the fifth option. If that were the case, of course, there would be no elements of expression in the menu commands and menu command hierarchy and therefore no copyrightable aspects in them.

....

To select, at the opposite extreme, the very abstract statement of the idea of 1-2-3 as "an electronic spreadsheet" would be to draw an inappropriately abstract boundary between idea and expression. Thus, I concur in a fundamental principle of the *Computer Associates* opinion and reject the contrary proposition in *Whelan*.

Arguably, my Opinion in the *Paperback* decision, where no sharper focus was essential to the outcome, is consistent with accepting a conception of the idea that falls between the second and third formulations above. See *Paperback*, 740 F.Supp. at 67 (electronic spreadsheet having "menu structure"). In any event, I now explicitly recognize that for decision of the issues now before me the selection of functional operations that the spreadsheet performs must be considered part of the idea of the program. Copyrightability depends on expression distinct from the selection of the set of spreadsheet operations that can be performed.

I conclude that an appropriate conception of the "idea" or "system" of the 1-2-3 interface is the fourth of the five alternative conceptions stated above.

Id. at 216-17.

creating a synthetic Marilyn Monroe are likely to have somewhat different perceptions of what a "realistic" replica is.¹⁸⁸ It is this subjectivity that is likely to be given broad protection, whether one espouses the position currently held by the Third Circuit or the Second Circuit.

As discussed in "Trade Secret Protection," below, commercial exploitation, at least initially, will be limited to licensing use in film productions. Thus, the audio-visual output of the reanimation will be available to potential reanimation competition only to the extent the reanimated actor appears in a film. Assuming such films are generally available on pre-recorded videocassettes, a competitor might analyze segments of the film in which the reanimated actor appears in order to acquire such personalized parameters as lip displacement of the synthetic actor during a smile. While I have suggested in Part II of this article that the features and emotional range of the late actor himself are facts, and therefore, not subject to copyright protection, I would also suggest that the characteristics of the reanimated actor are not themselves facts but rather the subjective decision of the reanimator as to what is "realistic," in short, not facts but expression, much as the work of a sculptor or painter is expression. If my conclusion is correct, then any copying of the features, emotions, etc., of the synthetic actor by a competitor would be a copyright infringement unless protected by a fair use defense.

3. FAIR USE

From the perspective of the unlicensed user, the concept of fair use is a boon. From the creator's perspective, it is a diminution of the scope of the protection of his work. Thus, in evaluating the scope of protection, the reanimator must not only consider how much of the infrastructure of his reanimation program is unprotectable either because it is the idea rather than the expression, or because the merger doctrine is applicable or because it is equivalent to a *scènes à faire* or is in the public domain, he must also consider the negative impact of the fair use defense on the scope of protection.

If a court, regardless of the analytical scheme it employs, finds a competitor's unlicensed use of a reanimator's software and/or audio-visual output to be a substantially similar copy, the competitor will be liable for copyright infringement unless shielded by a fair use defense. In Part II of this article, I discussed the fair use defense as it related to a reanimator's unlicensed use of copyrighted reference works containing

188. In the conversation with the Thalmanns, *supra* note 168, Dr. Nadia Magnenat-Thalman remarked that two research associates from different national backgrounds had different perceptions about realistic hair rendering.

the image and/or voice of the late actor. In concluding that the reanimator might be successful in raising a fair use defense, I suggested that factor 1¹⁸⁹ of the fair use defense might be found to favor the reanimator as might factor 3.¹⁹⁰ I also suggested that factor 4¹⁹¹ would clearly favor the reanimator. While in Part II I concluded that the reanimator might be successful in raising a fair use defense, I do not believe that the competitor who utilizes the reanimator's work will have success with a fair use defense, because factors 1 and 4, which might have favored the reanimator, as discussed above, will not favor the reanimator's competitor.

The competitor's use of the reanimator's work clearly will be for commercial purposes and "every commercial use of copyrighted material is presumptively an unfair exploitation. . . ." ¹⁹² While that presumption might be rebutted by evidence that the "commercial 'exploitation' was *indirect* or derivative," ¹⁹³ as I argued might be true of the reanimator's copying, the copying by the reanimator's competitor might be said to be *direct*. Thus, factor 1 would likely be found not to favor the competitor. And even if factor 3 might prove to be no more or less favorable to the competitor than to the reanimator, factor 4, which I argued clearly favored the reanimator, would not, I would argue with equal force, favor the competitor who copies the reanimator. What distinguishes the application of factor 4 is that the reanimator will not compete as directly with the creators of reference works as would the copyist who would compete head-to-head with the reanimator using the reanimator's own material. Finally, whereas the original reanimator use might be considered a "productive" one, ¹⁹⁴ the competitor's exploitation of the reanimator's work would be "non-productive." ¹⁹⁵ Thus, I conclude that the competition will not be persuasive in arguing a fair use defense.

C. Trade Secret Protection

Although the Second Circuit in *Computer Associates v. Altai Inc.* ¹⁹⁶ found no copyright infringement by the defendant, it ordered the

189. 17 U.S.C. § 107(1) (1988) ("the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes").

190. *Id.* § 107(3) ("the amount and substantiality of the portion used in relation to the copyrighted work as a whole").

191. *Id.* § 107(4) ("the effect of the use upon the potential market for or value of the copyrighted work").

192. *Sony Corp. v. Universal City Studios*, 464 U.S. 417, 451 (1914).

193. *Sega v. Accolade*, 977 F.2d 1510, 1522 (9th Cir. 1992).

194. *See supra* note 155.

195. *See supra* note 156.

196. 982 F.2d 693 (2d Cir. 1992).

district court to consider the plaintiff's trade secret claims. According to one litigator, "Most, if not all intellectual property cases today contain a trade secret allegation."¹⁹⁷ Trade secret claims are not merely of *tactical* value, they are of *strategic* value. The Second Circuit in *Computer Associates*, underscored the significance of a trade secret claim:

Precisely because trade secret doctrine protects the discovery of ideas, processes, and systems which are explicitly precluded from coverage under copyright law, courts and commentators alike consider it a necessary and integral part of the intellectual property protection extended to computer programs.¹⁹⁸

It is likely that the commercial exploitation of reanimation will evolve much like the film industry itself. The film industry, for most of its existence, did not sell its product but merely licensed exhibition of its product. It is only since the advent of the V.C.R. that the film industry has sold its product on a large scale, in the form of pre-recorded videocassettes. It is likely that, in the early years of commercial exploitation of reanimation software, reanimators will license the software for exploitation by producers of films.¹⁹⁹ While the end product of the software -- the audio visual image of the reanimated actor -- may be sold as part of the film in which he appears, the software itself will not be publicly distributed. The licensing contracts can be drafted with trade secret provisions. Such trade secret provisions should provide a degree of protection against unlicensed copying of even uncopyrightable elements of the software. It must be admitted that to the extent the audio-visual output of the software, *i.e.*, the synthetic actor, as incorporated in a particular film, reveals the software structure, trade secret protection is lost. While it is pure speculation at this point, I would suggest that it is not highly probable that much of what might be secret, but uncopyrightable,²⁰⁰ in the software would be divulged by the publicly distributed film.

Eventually, commercial reanimation exploitation may be expanded from the mere licensing to a relative handful of motion picture producers to the sale of reanimation software to the mass market, much as videocassettes and game cartridges are sold today. "Arm-chair" producers, equipped with cam-corder, personal computer and

197. Victoria Slind, *More Trade Secret Wars.*, NAT'L L.J., Mar. 22, 1993, at 1, 34.

198. 982 F.2d at 717.

199. While, it is not yet clear as to how re-animation software might be exploited, it is possible that there may be a bifurcation of the product into a database unique to a particular re-animated actor, licensed by one entity, and animation software suitable for use with any animation database, licensed by another entity.

200. In the discussion of copyright protection, I have suggested that dimensional data that might be extracted from a viewing of a motion picture featuring the re-animated actor would be protected expression.

reanimation software, will be able to create their own films in which they co-star with Humphrey or Marilyn. When reanimation software is available at the retail level, it is likely trade secret protection will be of slim comfort, leaving only copyright, and possibly post-mortem right of publicity, as a means of protecting reanimation software.

IV. POST-MORTEM RIGHT OF PUBLICITY

A. Introduction

The use of a deceased actor in a post-mortem film raises questions with respect to possible post-mortem — or, it is as more commonly called, descendible — rights of publicity. The history of the right of publicity, and its sibling the right of privacy, has been well documented, beginning with the Warren and Brandeis article in the 1890 *Harvard Law Review*,²⁰¹ and will not be repeated here. While virtually all states have some type of right of privacy laws,²⁰² and while there is a wealth of commentary on the rights of privacy and publicity, the right of publicity is still in search of a separate identity. Is the right a personal right, terminating at death as some jurisdictions have held,²⁰³ or is it a property right, fully assignable and devisable at death, as some other jurisdictions have concluded?²⁰⁴ To the laws of which jurisdiction will a particular forum look when determining the existence and terms of a post-mortem right of publicity — its own or that of some other jurisdiction? And finally, do such post-mortem rights as do exist apply at all to the post-mortem exploitation of deceased actors in motion pictures? By the time the digital resurrection of deceased actors becomes a *marketable* reality, the right of publicity, and more particularly for our purposes, the post-mortem right of publicity, will in all probability, be more fully developed. However that may be, it is still instructive to consider the current state of the post-mortem right. But, regardless of the outcome of the analysis of the existing state of the post-mortem right of publicity, the question that must ultimately be asked is: “*Should* the reanimation of a deceased actor in a motion picture

201. Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193 (1890).

202. Only Minnesota appears not to recognize a cause of action for invasion of privacy. *Stubbs v. North Memorial Medical Ctr.*, 448 N.W.2d 78 (Minn. Ct. App. 1990).

203. *E.g.*, *Maritote v. Desilu Productions*, 345 F.2d 418 (7th Cir. 1965), *cert. denied* 382 U.S. 883 (Illinois); *Reeves v. United Artists*, 572 F. Supp. 1231 (N.D. Ohio 1983), *aff'd*, 765 F.2d 79 (1985).

204. *E.g.*, *Martin Luther King, Jr., Center for Social Change v. American Heritage Prods.*, 296 S.E.2d 697 (1982) (Georgia); *Elvis Presley v. Russen*, 513 F. Supp. 1339 (D.N.J. 1981).

be subject to the post-mortem right of publicity?" The answer to that question is deferred for the moment.

While most of the states have some type of privacy/publicity laws, statutory or common law, only a relative few states, so far, have specifically addressed the post-mortem right of publicity. Nine states have passed post-mortem right of publicity statutes: California,²⁰⁵ Florida,²⁰⁶ Kentucky,²⁰⁷ Nebraska,²⁰⁸ Nevada,²⁰⁹ Oklahoma,²¹⁰ Tennessee,²¹¹ Texas²¹² and Virginia.²¹³ The law of four states has been expressly interpreted, either in state or federal court, to include a common law post-mortem right of publicity: Arizona (if exploited during lifetime),²¹⁴ Georgia (whether exploited during lifetime or not),²¹⁵ New Jersey (if

205. CAL. CIV. CODE § 990 (West 1992). Earlier, in *Lugosi v. Universal Pictures*, 603 P.2d 425 (Cal. 1979), the California court buried the post-mortem right of publicity; however, with the enactment of § 990 by the California legislature, the post-mortem right of publicity, like Lugosi's legendary Dracula, rose from the grave.

206. FLA. STAT. ANN. § 540.08 (West 1988).

207. KY. REV. STAT. ANN. § 391.170 (Michie 1984).

208. NEB. REV. STAT. §§ 20-202, 20-208 (1983).

209. NEV. REV. STAT. § 598.980-988 (1989).

210. OKLA. STAT. ANN. tit. XII, § 1448 (West 1985).

211. Personal Rights Protection Act of 1984, TENN. CODE ANN. § 47-25-1101 to 1105 (1984). Tennessee was schizophrenic, deciding in favor of a descendible right of publicity in *Commerce Union Bank v. Coors*, 7 Media L. Rep. (BNA) 2204 (Tenn. Ct. App. 1981), *aff'd on other grounds*, No. 83-327-II (Tenn. Ct. App. June 20, 1987), and against it in *Lancaster v. Factors*, 9 Media L. Rep. (BNA) 1109 (Tenn. Ch. App. 1982), as did the Court of Appeals for the Sixth Circuit in *Memphis Development Foundation v. Factors Etc., Inc.*, 616 F.2d 956 (6th Cir.), *cert. denied*, 449 U.S. 953 (1980). Finally, the Tennessee legislature stepped in and resolved matters in favor of a post-mortem right of publicity. Not to be outdone by the Tennessee legislature, a Tennessee Court of Appeals held, in *Elvis Presley International Memorial Foundation v. Crowell*, 733 S.W.2d 89 (Tenn. Ct. App. 1987), that, contrary to the opinion of the Sixth Circuit, the right of publicity is descendible under the common law of Tennessee. The Tennessee court rejected the philosophy of the Sixth Circuit in favor of the reasoning of Georgia in *Martin Luther King, Jr.* Based on the decision of the Tennessee court in *Crowell*, the Sixth Circuit, in *Elvis Presley Enterprises v. Elvisly Yours, Inc.* 817 F.2d 104 (6th Cir. 1987) reversed the position it had taken in *Memphis Development*. The Tennessee court did not address the duration issue of the post-mortem right of publicity. The Tennessee post-mortem right of publicity statute would appear to permit perpetual protection of the post-mortem right.

212. TEX. PROP. CODE ANN. § 26.001 - .012 (West 1987).

213. VA. CODE ANN. § 8.01 - .40 (Michie 1984).

214. In Arizona, a federal district court appeared to conclude that, if there were a descendible right of publicity at all in that state, the person would have to have exploited his right of publicity in his name and personality "by assigning the right to use them to another" during his lifetime. *Sinkler v. Goldsmith*, 623 F. Supp. 727, 734 (D. Ariz. 1985).

215. *The Martin Luther King, Jr., Ctr. for Social Change v. American Heritage Prods.*, 296 S.E.2d 697 (Ga. 1982). The Georgia Supreme Court had no problem in finding that there was a common law right of publicity in that state and that it was descendible, a not surprising result given Georgia's early interest in protecting citizens with respect to privacy/publicity issues. See *Pavesich v. New England Life Ins. Co.*, 50 S.E. 68 (Ga. 1905).

exploited during lifetime),²¹⁶ and Utah (if exploited during lifetime).²¹⁷ Similarly, the law of four states includes the right of publicity as a property right from which one *might* infer, at least tentatively, that the right is descendible: Michigan,²¹⁸ Missouri,²¹⁹ Oregon²²⁰ and Wisconsin.²²¹

216. In *Estate of Presley v. Russen*, 513 F. Supp. 1339 (D.N.J. 1981), the federal district court concluded that New Jersey common law provided a *descendible* right of publicity. However, in *Gleason v. Hustler*, 7 MEDIA L. REP. (BNA) 2183 (D. N.J. 1981), the district court narrowed its interpretation of the New Jersey post-mortem right of publicity by conditioning it on "the decedent's own overt exploitation of his name or likeness, usually through an *inter vivos* transfer of his rights." *Id.* at 2185 (citations omitted). New Jersey courts had dealt early on with a person's rights in his name and features, in a case involving Thomas Edison. In *Edison v. Edison Polyform Mfg. Co.*, 67 A. 392 (N.J. Eq. 1907), the court stated "If a man's name be his own property . . . it is difficult to understand why the peculiar cast of one's features is not also one's property, and why its pecuniary value, if it has one, does not belong to its owner rather than to the person seeking to make an unauthorized use of it." *Id.* at 394.

217. In Utah, the federal district court in *Nature's Way Products v. Nature-Pharma, Inc.*, 736 F.Supp. 245 (D. Utah 1990), concluded that Utah would recognize a descendible common law right of publicity, where the right was exploited during the person's lifetime.

218. In *Carson v. Here's Johnny Portable Toilets*, 698 F.2d 831 (6th Cir. 1983), the Sixth Circuit found that Michigan had a common law right of publicity but in so doing quoted its own language in *Memphis Development*: "The famous have an exclusive legal right *during life* to control and profit from the commercial use of their name and personality." *Id.* at 835 (emphasis added) (quoting *Memphis Dev. Found. v. Factors Etc., Inc.*, 616 F.2d 956, 957 (6th Cir.), *cert. denied*, 449 U.S. 953 (1980)). While the *Carson* court did not have a post-mortem issue before it, the cited language leaves a question as to the status of post-mortem rights in Michigan. However, it should be noted that, at least with respect to Tennessee, the Sixth Circuit has abandoned its *Memphis Development* position. See *Elvis Presley Enters. v. Elvisly Yours, Inc.*, 817 F.2d 104 (6th Cir. 1987); *see also* 936 F.2d 889.

219. In *Cepeda v. Swift & Co.*, 415 F.2d 1205 (8th Cir. 1969), the Eighth Circuit, citing Missouri case law, stated that "plaintiff has a valuable *property right* in his name, photograph and image and that he may sell these *property rights*." *Id.* at 1206 (emphasis added) (citations omitted). Thus, Missouri may recognize a descendible right of publicity.

220. In *Rogers v. Grimaldi*, the Second Circuit, engaging "in the uncertain task of predicting what the New York courts would predict the Oregon courts would rule as to the contours of a right of publicity under Oregon law," 875 F.2d 994, 1002 (2d Cir. 1989), appeared to decide that Oregon has a right of publicity. *Id.* at 1004-05 (recognizing Oregon would limit right of publicity to "wholly unrelated" or "disguised commercial advertisement" uses of celebrity's name in a movie title and therefore denying relief). However, the opinion does not suggest whether the right is descendible in Oregon; in fact, the court suggested that in the absence of Oregon precedent, New York might presume a similarity with New York law and, New York had already decided *Stephano v. News Group Publications*, 474 N.E.2d 580 (N.Y. 1984), a decision which appeared to foreclose a descendible right of publicity in New York. *See infra* note 223 and accompanying text.

221. In *Hirsch v. S.C. Johnson & Son, Inc.*, 280 N.W.2d 129 (Wis. 1979), the Supreme Court of Wisconsin clearly established a common law right of publicity in Wisconsin that is a property right and not merely a personal right. Subsequent to *Hirsch*, Wisconsin enacted a Right of Privacy statute restricted to *living* persons similar to New York's Civil Rights Law §§ 50 and 51. While acknowledging that Elroy "Crazy Legs" Hirsch would have been protected under that statute *in futuro*, the court nonetheless found that the common law right of publicity already existed independently of the Right of Privacy Statute. Thus, *Hirsch* provides for a separate common law property right. Presumably Wisconsin would find the right to be descendible.

The law of four states appears to specifically preclude, as a matter of statute or common law, a post-mortem right of publicity: Illinois,²²² New York,²²³ Ohio²²⁴ and Pennsylvania.²²⁵

222. In *Maritote v. Desilu Productions*, 345 F.2d 418 (7th Cir.), *cert. denied*, 382 U.S. 883 (1965) (involving the T.V. dramatization of Al Capone's criminal activities), the Seventh Circuit concluded that there was no descendible right of publicity in Illinois.

223. New York *appeared* to be the leading state in the development of a common law fully-assignable (and presumably devisable) right of publicity separate from, and in addition to, the protection provided by New York Civil Rights Law sections 50 and 51. The decisions, beginning with the progenitor of the right of publicity, *Haelan Laboratories v. Topps Chewing Gum*, 202 F.2d 866 (2d Cir.1953), *cert. denied*, 346 U.S. 816, were mostly federal cases that, in the absence of New York authority, had to define New York's position on a common law right of publicity. See *Groucho Marx Prods. v. Day and Night Co.*, 523 F. Supp. 485 (S.D.N.Y. 1981), *rev'd on other grounds*, 689 F.2d 317 (2d Cir. 1982) (the Second Circuit ruled that California law, not New York law, applied); *Factors, Etc., Inc. v. Pro-Arts, Inc.*, 579 F.2d 215 (2d Cir. 1978), *cert. denied*, 440 U.S. 908 (1979); *Hicks v. Casablanca Records*; 464 F. Supp. 426 (S.D.N.Y. 1978); *Price v. Hal Roach Studios*, 400 F. Supp. 836 (S.D.N.Y. 1975) (deciding that the right of publicity was descendible).

In *Lombardo v. Doyle, Dane & Bernbach, Inc.*, 396 N.Y.S.2d 661 (N.Y. App. Div. 1977), a New York court found a right in Guy Lombardo's persona, distinguishable from the New York Civil Rights Law. Thus, most lawyers and commentators initially concluded that New York recognized a descendible common law right of publicity separate and apart from the Civil Rights Law. But the New York Court of Appeals dropped a bombshell in *Stephano v. News Group Publications*, 474 N.E.2d 580 (N.Y. 1984) "Since the 'right of publicity' is encompassed under the Civil Rights Law as an aspect of the right of privacy, which, as noted, is exclusively statutory in this State, the plaintiff cannot claim an independent common-law right of publicity." *Id.* at 584. In a footnote, the court observed, "In view of the fact that the plaintiff is asserting his own right of publicity we need not consider whether the statute would also control assignment, transfer or descent of publicity rights . . ." *Id.* at 584 n.2. (emphasis added)(citations omitted). Because the New York Civil Rights Law only prohibits the use of "the name, portrait or picture of any living person," it would appear that there is no descendible right of publicity in New York. N.Y. CIV. RIGHTS LAW § 50 (McKinney 1976) (emphasis added). In *Pirone v. MacMillan* the Second Circuit denied the heirs of Babe Ruth relief under sections 50 and 51 because "The right of privacy protection . . . is clearly limited to 'any living person.'" 894 F.2d 579, 585 (2d Cir. 1990). The court, in a footnote, commented that "The cryptic footnote 2 in the *Stephano* opinion . . . creates some grounds for uncertainty as to whether New York's statutory remedy preempts an heir's common law right of publicity claim, but we believe recognition of such a right will have to await either clarification from the Court of Appeals or action by the New York legislature, which has thus far declined to amend the statute to make a right of publicity descendible." *Id.* at 586 n.6. The New York legislature is currently considering Assembly Bill 681 and Senate Bill 285 which provide for a post-mortem right of publicity with a term of 50 years after death.

224. In *Reeves v. United Artists*, 572 F. Supp. 1231 (N.D. Ohio, 1983), *aff'd*, 765 F.2d 79 (6th Cir. 1985), the federal district court held that the right of publicity is not descendible in Ohio. The court reached its conclusion based on the Ohio Supreme Court's language in *Zacchini v. Scripps-Howard Broadcasting Co.*, 351 N.E.2d 454 (Ohio 1976), *rev'd on other grounds*, 433 U.S. 562 (1977), which the court in *Reeves* interpreted as rejecting the notion of the right of publicity as a property right. *Reeves*, 572 F.Supp. at 1235.

225. In *Sharman v. C. Schmidt & Sons*, 216 F. Supp. 401 (E.D. Pa. 1963), the federal district court held that Pennsylvania recognized a right of publicity, but said that the right of publicity is "a fledgling branch of the tort of invasion of privacy," which may suggest

The remaining states have neither had the issue before the court nor adopted statutes specifically dealing with post-mortem rights of publicity. With only a relative handful of states having addressed the post-mortem right of publicity issue, it is somewhat difficult to predict the eventual shape this legal theory will take. Furthermore, the problem of divining the evolution of this right is compounded by the fact that the states that have adopted such laws have not done so uniformly. The aspects of persona that are protected, the duration of protection, and the type of unlicensed uses of the celebrity persona that are prohibited vary, in some instances quite considerably. That said, it would nonetheless facilitate a consideration of the future contours of the post-mortem right of publicity to review its current state. The following analysis is divided into: (1) the types of rights protected, such as name, likeness, and voice; (2) duration of the rights; and (3) types of unlicensed uses that are proscribed.

B. Types of Rights Protected

1. VOICE

California,²²⁶ Nevada,²²⁷ Oklahoma,²²⁸ and Texas²²⁹ protect the name, signature, photograph, likeness and voice of the deceased celebrity. Florida,²³⁰ Nebraska,²³¹ Tennessee,²³² and Virginia²³³ protect the name, photograph, and likeness, but *omit* reference to signature (which might be subsumed in "name") and voice. Kentucky²³⁴ protects the name and likeness but *omits* reference to signature (which might be subsumed in "name"), photograph (which might be subsumed in "likeness"), and voice. Presumably, in those states omitting voice from the scope of protection there is no *statutory* protection in that regard. With respect to statutory rights of privacy/publicity, courts have strictly construed the applicable statutes with respect to "voice." The First Circuit, in *Lahr v. Adell Chemical Co.*,²³⁵ rejected the invitation to interpret the New York Civil Rights Laws, sections 50 and 51, "name, portrait or picture," as

that the right of publicity is a personal right rather than a property right and therefore not descendible. *Id.* at 407.

226. CAL. CIV. CODE § 990 (West 1992).

227. NEV. REV. STAT. § 598.984(1) (1989).

228. OKLA. STAT. ANN. tit. XII § 1448 (West 1985).

229. TEX. PROP. CODE ANN. § 26.002 (West 1987).

230. FLA. STAT. ANN. § 540.08(c) (West 1988).

231. NEB. REV. STAT. § 20-208 (1983).

232. TENN. CODE ANN. § 47-25-1105(a) (1984).

233. VA. CODE ANN. § 8.01-40 (Michie 1984).

234. KY. REV. STAT. ANN. § 391-170 (Michie 1984).

235. 300 F.2d 256 (1st Cir. 1962).

equating a vocal imitation to "name."²³⁶ The district court for the Southern District of New York likewise declined the invitation in *Tin Pan Apple v. Miller Brewing Co.*²³⁷ The Ninth Circuit, in *Midler v. Ford Motor Company*,²³⁸ another sound-alike case, stated that California Civil Code § 3344, the right of publicity statute, was of no aid to Midler. "The term 'likeness' refers to a visual image not a vocal imitation."²³⁹ However, it is not unreasonable to expect that states newly adopting a post-mortem right of publicity will include *voice* as well as the other attributes of persona. And it would also not be unreasonable to expect that Florida, Kentucky, Tennessee and Virginia will amend their respective statutes to include *voice*. However, even assuming that all jurisdictions include *voice*, would that provision apply to the reanimated "voice" of the deceased actor? Assuming that the reanimation will not use "sound bites" of the actor's voice recorded prior to the death of the actor, but will either use an impressionist or will analyze existing recordings to re-create a computer model of the late actor's voice, the end result will not be the actor's actual voice but either that of a human mimic or a computer-driven, electronically-generated imitation of the voice — in short, a sound-alike.

Although there has been relatively little sound-alike litigation, the few decisions that have been reported provide some useful insights. In *Lahr v. Adell Chemical Co.*,²⁴⁰ Bert Lahr, the "cowardly lion," was held to have sufficiently alleged a cause of action in unfair competition with respect to a "Lestoil" commercial featuring a cartoon duck with a voice provided by an actor who specialized in imitating the vocal sounds of Lahr. The court noted that Lahr had alleged that he had gained fame "because of his 'style of vocal comic delivery which, by reason of its distinctive and original combination of pitch, inflection, accent and comic sounds,' has caused him to become 'widely known and readily recognized . . . as a unique and extraordinary comic character.'"²⁴¹ The court observed that while it "might hesitate to say that an ordinary singer whose voice, deliberately or otherwise, sounded sufficiently like another to cause confusion was not free to do so . . . [Lahr had alleged]. . . a peculiar style and type of performance, unique in a far broader sense."²⁴²

236. *Id.* at 258.

237. 737 F. Supp. 826, 836-37 (S.D.N.Y. 1990) (noting that "the Civil Rights Law 'is to be strictly construed'" (citing *Lombardo v. Doyle, Dane & Bernbach*, 396 N.Y.S.2d 661 (N.Y. App. Div. 1977)).

238. 849 F.2d 460 (9th Cir. 1988).

239. *Id.* at 463. However as discussed *infra* note 243 and accompanying text, Midler was more successful with a common law property theory.

240. 300 F.2d 256 (1st Cir. 1962).

241. *Id.* at 257 (quoting the complaint).

242. *Id.* at 259.

In *Midler v. Ford Motor Company*,²⁴³ Bette Midler was held to have a cause of action for misappropriation of her common law property right in her singing voice. In *Midler* the court emphasized the uniqueness of Midler's voice:

We need not go so far as to hold that every imitation of a voice . . . is actionable. We hold only that when a distinctive voice of a professional singer is widely known and is deliberately imitated in order to sell a product, the sellers have appropriated what is not theirs²⁴⁴

Uniqueness of voice and style was also relevant in *Waits v. Frito-Lay, Inc.*,²⁴⁵ a sound-alike case involving an advertisement for Frito-Lay's new Salsa Rio Dorito Corn Chips. In *Tin Pan Apple v. Miller Brewing Co., Inc.*,²⁴⁶ a case involving a Miller Beer commercial featuring comedian Joe Piscopo, the plaintiffs alleged unfair competition, among other claims. The court, while deciding that sound-alikes were not governed by New York Civil Rights Law, sections 50 and 51, went on to state, "It does not follow that resemblances in sound between the Fat Boys' performances and the commercial are not probative of any issues in the case. Similarity of sound in combination with similarity of appearance may militate in favor of plaintiffs' other claims" ²⁴⁷ This decision provided less support for the rappers' claim to uniqueness than found in *Lahr, Midler*, and *Waits*.

Two other cases deserve mention. In *Sinatra v. Goodyear Tire & Rubber Co.*,²⁴⁸ Nancy Sinatra brought an unfair competition action based on the use of "a singer whose voice and style was deliberately intended to imitate the voice and style of the plaintiff" ²⁴⁹ It would appear the court was not as sure as Sinatra that her voice and style were unique: "One wonders whether her voice, and theatrical style, would have been identifiable if another song had been presented, and not 'her song'" ²⁵⁰ The court expanded on its evaluation of uniqueness: "[T]here was no readily identifiable accent (Maurice Chevalier), range, quality, (Lahr or Andy Devine), or pitch which would distinguish it to the

243. 849 F.2d 460 (9th Cir. 1988).

244. *Id.* at 463.

245. 978 F.2d 1093, 1102 (9th Cir. 1992), *cert. denied*, 113 S. Ct. 1047 (1993). In addition to his claim under California law, Waits was successful in his Lanham Act § 43(a) claim which was based on an unauthorized imitation of his distinctive voice in the advertisement.

246. 737 F.Supp. 826 (S.D.N.Y. 1990).

247. *Id.* at 838.

248. 435 F.2d 711 (9th Cir. 1970), *cert. denied*, 402 U.S. 906 (1971).

249. *Id.* at 712.

250. *Id.* at 716.

ordinary listener"²⁵¹ Contrasting *Midler* and *Sinatra*, one might conclude that uniqueness is a *sine qua non* of protection in sound-alike cases, at least in the Ninth Circuit.

More troublesome is *Booth v. Colgate-Palmolive Company*.²⁵² Actress Shirley Booth complained that a laundry detergent advertisement featuring a cartoon character named "Hazel" (Booth had starred in the situation comedy "Hazel" on television) used an imitation of her voice. Booth alleged property rights in her timing, inflection, tone and general performing style. The court did not address the uniqueness or lack thereof of Booth's voice, but decided against her unfair competition claim based on the *Sears* and *Compco* pre-emption theory,²⁵³ and on the fact that neither had Booth exploited her voice in connection with any product or service nor had her voice served a trademark function.²⁵⁴

Presuming that a court would interpret "voice" to mean only actual words spoken or sung by the actor during the actor's lifetime, a court would likely analogize the synthesized voice of the late actor to the "sound-alike" situation and therefore treat the sound-alike cases as at least instructive, if not precedential. The paucity of decisions makes it difficult to predict with certainty how courts will deal with the issue. But a tentative conclusion might be drawn from the language of *Lahr*, *Midler* and *Sinatra*: For a voice to be protected against imitation, whether by a human or by a synthesizer, it must be *distinctive* and not *ordinary*. Of course putting flesh on that skeleton may prove to be an awesome task. But, perhaps, a rough cut may be made by looking at actors who have historically been the subject of imitation²⁵⁵ (realizing that in part the imitation has involved mannerisms and not merely voice in many of the celebrity imitations): Gable, Bogart, Cagney, Wayne, Stewart, Hepburn, Streisand, Bette Davis, Mae West. In contrast, many other well respected actors have not been particularly the subject of impersonation: Muni, Tracy, William Powell, Lombard, Harlow. Obviously, whether a voice is sufficiently distinctive to warrant protection is a question not easily answered, *ad hoc*, and after the fact.

Assuming that a synthesized voice is that of an actor whose voice meets the "distinctiveness" threshold for granting protection against misappropriation, there remains the question of whether the exploitation

251. *Id.* at n.12.

252. 362 F. Supp. 343 (S.D.N.Y. 1973).

253. See *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225 (1964); *Compco Corp. v. Day-Brite Lighting*, 376 U.S. 234 (1964).

254. *Booth*, 362 F.Supp. at 349.

255. Voice-overs on commercials may also be instructive in attempting to establish criteria by which to measure distinctiveness, since the speaker is identified only by voice.

of the synthesized voice in a motion picture would be a misappropriation. That issue is addressed below in Part D.

2. LIKENESS

All of the states that have post-mortem statutes include "likeness" in the list of protected attributes. While arguably not a photograph of the deceased actor, the computer-generated image is, beyond peradventure, a "likeness." Look-alike cases lend support to this conclusion. Both *Onassis v. Christian Dior-New York*²⁵⁶ and *Tin Pan Apple v. Miller Brewing Co.*²⁵⁷ hold that look-alikes are within the ambit of the New York Civil Rights Law sections 50 and 51 proscription against the unlicensed use of "portrait or picture." And in *Ali v. Playgirl, Inc.*,²⁵⁸ a composite photo-drawing of the former world's heavyweight boxing champion which "represented something short of actuality—somewhere between representational art and a cartoon" was held to be a proscribed picture.²⁵⁹ And the 1913 case *Binns v. Vitagraph Co. of America*,²⁶⁰ a case that today might have been decided differently because of First Amendment considerations, is nonetheless instructive on the issue of likeness. In *Binns*, an actor was made up to look like the plaintiff, a hero in a ship disaster. The court stated:

A picture within the meaning of the statute. . . [the New York Civil Rights Law §§ 50 & 51]. . . is not, necessarily a photograph of the living person, but includes any representation of such person The defendant is in no position to say that the picture does not represent the plaintiff in that it was an actual picture of a person made up to look like and impersonate the plaintiff²⁶¹

In *Motschenbacher v. R. J. Reynolds Tobacco Co.*,²⁶² a race car driver was held to be identifiable despite the fact his features were not visible in a photo. He was held to be identifiable because he was sitting in a race car unique to him.²⁶³ It seems highly unlikely that a court would not find

256. 472 N.Y.S.2d 254, 259 (N.Y. Sup. Ct. 1984), *aff'd* 488 N.Y.S.2d 943 (N.Y. App. Div. 1985).

257. 737 F. Supp. 826, 836 (S.D.N.Y. 1990); *accord* *Allen v. National Video*, 610 F. Supp. 612 (S.D.N.Y. 1985).

258. 447 F. Supp. 723, 726 (S.D.N.Y. 1978).

259. *Onassis*, 472 N.Y.S.2d at 259.

260. 103 N.E. 1108 (N.Y. 1913).

261. *Id.* at 1110.

262. 498 F.2d 821, 827 (9th Cir. 1974).

263. In *White v. Samsung Electronics America*, 971 F.2d 1395, (9th Cir. 1992), *cert. denied* 113 S. Ct. 2443 (1993), game-show hostess Vanna White claimed that a robot dressed in a wig, gown, and jewelry posed next to a Wheel of Fortune game show set was a use of her "likeness" in violation of California Civil Code section 3344. The Ninth Circuit disagreed, but held that White had a common law publicity right in her "identity." *Id.* at 1399. *See also* *Carson v. Here's Johnny Portable Toilets*, 698 F.2d 831, 835 (6th Cir. 1983) (*Carson* held to have publicity rights in the introduction "Here's Johnny").

a computer-generated image to be a "likeness" of the deceased actor. However, there remains the question of whether the unlicensed use of that image is proscribed by the post-mortem right of publicity; that issue is addressed below at Part D.

C. Duration of Protection

Those states that have provided statutory post-mortem publicity rights have also provided, with the possible exception of Nebraska and Tennessee, that the right terminates at the expiration of a fixed period after the death of the celebrity. In Virginia, the post-mortem right of publicity terminates at the end of 20 years after the death of the celebrity. In Florida, the right terminates at the end of 40 years after the death of the celebrity. In California,²⁶⁴ Nevada,²⁶⁵ and Texas,²⁶⁶ the right terminates at the end of 50 years after the death of the celebrity. In Oklahoma, the right endures until the end of 100 years after the death of the celebrity.²⁶⁷ The Tennessee post-mortem statute, waggishly called the "Elvis Statute," provides protection for 10 years after the death of the celebrity and thereafter, without limit, provided only that the right is continuously exercised;²⁶⁸ presumably the right could be kept viable in perpetuity (or at least until the public finally asks "Elvis who?"). The Nebraska right of privacy statute provides that the right of action for an invasion of privacy shall not survive the death of the individual with the single exception of an action arising out of an exploitation of the person's name or likeness for advertising or commercial purposes.²⁶⁹ However, while Nebraska created a post-mortem right of publicity, it did not expressly state whether the right was of a finite duration.

Some states that have not enacted post-mortem statutes have nonetheless found that a descendible right of publicity existed at common law. Furthermore, some states that have enacted post-mortem statutes have also recognized the possibility that there were also common law rights of publicity and the descendibility of such rights. The problem is when, if ever, do common law post-mortem rights of publicity expire.

In response to a question certified by the Eleventh Circuit Court of Appeals, the Supreme Court of Georgia held that there was a common law right of publicity, distinct from the right of privacy, and that the right

264. CAL. CIV. CODE § 990(g) (West 1992).

265. NEV. REV. STAT. § 598.984(1) (1989).

266. TEX. PROP. CODE ANN. § 26.012(d) (West 1987).

267. OKLA. STAT. ANN. tit. XII § 1448(g) (West 1985).

268. TENN. CODE ANN. § 47-25-1104 (1984). For a discussion of the perpetual protection issue, see J. Graham Matherne, *Descendibility of Publicity Rights in Tennessee*, 53 TENN. L. REV. 753, 774-77 (1986).

269. NEB. REV. STAT. § 20-208 (1983).

of publicity was inheritable and devisable.²⁷⁰ However, the court did not reach the question, admittedly not asked by the Eleventh Circuit, whether the post-mortem right of publicity endured only for a finite time or perpetually, or to whom it descended. In applying New Jersey law to a Presley imitation, the federal district court for the district of New Jersey concluded that New Jersey recognized a common law right of publicity and that such right was descendible.²⁷¹ Like the *King* case in Georgia, the court in this "King" case did not address the issue of whether there were any time limits on this right, at least not directly.²⁷² The problem is further compounded by states that have not addressed the issue, either by case law or statute, of a post-mortem right of publicity.

In the absence of such guidance, a forum state *may* choose to assume that the law of the domiciliary state²⁷³ is like that of the forum state and one must also consider that Nevada's statute applies regardless of the last domicile of the celebrity.²⁷⁴ Finally, a state may focus on the fact the infringement complained of happened within its borders without ever addressing the domicile issue.²⁷⁵ *Schumann v. Loew's, Inc.*²⁷⁶ illustrates the type of multi-jurisdiction infringement that could face a reanimator. In *Schumann*, the great grandchildren of the composer, Robert Schumann, alleged that the motion picture *Song of Love* violated their rights and the rights of the deceased composer "under the laws of every country in the world."²⁷⁷ Happily for the defendant in *Schumann*, the court was able to find grounds to dismiss the various actions. But the case is a sharp reminder of the difficulties facing a reanimator if he must deal with a post-mortem right of publicity. As other commentators have suggested, a

270. *Martin Luther King, Jr., Ctr. for Social Change v. American Heritage Prods.*, 296 S.E.2d 697 (Ga. 1982).

271. *Estate of Presley v. Russen*, 513 F. Supp. 1339 (D.N.J. 1981).

272. In a footnote the court stated "Since we are not directly faced with the issue of whether there should be a durational limit on the right of publicity after it is inherited, we will not decide this question. However, the court suggests that a length of time should be set by the New Jersey State legislature. The Federal Copyright Act, 17 U.S.C. § 302, 305 provides guidelines which may be informative in this situation." *Id.* at 1355 n. 10.

273. *See Rogers v. Grimaldi*, 875 F.2d 994 (2d Cir. 1989). "We believe that New York courts would, as a matter of substantive interpretation, presume that the unsettled common law of another state would resemble New York's but that they would examine the law of the other jurisdiction and that of other states, as well as their own, in making an ultimate determination as to the likely future content of the other jurisdiction's law." *Id.* at 1003 (citations omitted).

274. NEV. REV. STAT. § 598.982 (1989). Nevada's Right of Publicity Statute provides that it applies to a "deceased person's name, voice, signature, photograph or likeness regardless of the person's domicile." *Id.* (emphasis added).

275. *See Estate of Presley v. Russen*, 513 F.Supp. 1339.

276. 135 N.Y.S.2d 361 (N.Y. Sup. Ct. 1954).

277. *Id.* at 364-65.

national law would go a long way toward reducing the complexity of the post-mortem right of publicity.²⁷⁸

D. Proscribed Post-Mortem Exploitation

Assuming for the moment that the computer-animated image of the late actor is a "likeness" and that the synthesized voice (or human imitation) is considered the voice of the late actor and further assuming that post-mortem right of publicity has not terminated, there remains the question of whether the unlicensed exploitation of a deceased actor in a post-mortem film is proscribed by *existing* post-mortem statutes and common law.

When California State Senator William Campbell first proposed a law governing post-mortem rights of publicity, the American Civil Liberties Union and other interested parties voiced concern about the chilling effect the bill might have on First Amendment rights.²⁷⁹ In response to those concerns the post-mortem right of publicity, as finally enacted, provides:

(n) This section shall not apply to the use of a deceased personality's name, voice, signature, photograph, or likeness, in any of the following instances:

(1) A play, book, magazine, newspaper, musical composition, *film*, radio or television program other than an advertisement . . .²⁸⁰

Oklahoma has adopted language virtually identical to that of California.²⁸¹ Texas excludes from the purview of its post-mortem right of publicity statute the use of a deceased individual's name, voice, signature, photograph, or likeness in "a play, book, *film*, radio program, or television program."²⁸² Nevada provides an exception in its post-mortem right of publicity statute if use of the decedent's name, voice, signature, photograph or likeness "is an attempt to portray, imitate, simulate or impersonate a person in a play, book, magazine article, newspaper article, musical composition, *film*, or a radio, television or other audio or visual program, except where the use is directly connected with commercial

278. See J. Stephen Bingham, Comment, *A Descendible Right of Publicity: Has the Time Finally Come for a National Standard?*, 17 PEPP. L. REV. 933 (1990); Eugene Saloman, Jr., Note, *The Right of Publicity Run Riot: The Case for a Federal Statute*, 60 S. CAL. L. REV. 1179 (1987).

279. See Stephen F. Rohde, *Dracula: Still Undead*, CAL. LAW., Apr. 1985, at 51, 54.

280. CAL. CIV. CODE § 990(n) (West 1992) (emphasis added). If one adopts the policy that re-animation should be governed by post-mortem rights of publicity, then states with statutes similar to California must amend the exclusion of film from the post-mortem statute so as to exclude from the exclusion "re-animation" or, as Sam Goldwyn once so colorfully put it: "Include me out."

281. OKLA. STAT. ANN. tit. XII § 1448 (N) (West 1985).

282. TEX. PROP. CODE ANN. § 26.012(a)(1) (West 1987) (emphasis added).

sponsorship."²⁸³ It is obvious that what the drafters of these exclusions had in mind was to prevent the post-mortem right of publicity from inhibiting stories about the celebrity himself, or stories in which the celebrity played some role in real life. It is very doubtful that anyone involved in the drafting of the exclusion to the various state statutes had contemplated the use of a deceased, albeit reanimated, actor to play a role in a post-mortem film, even the role of playing himself. Nonetheless, as currently drafted, the post-mortem statutes of California, Nevada, Oklahoma and Texas would appear to expressly permit the unlicensed use of a reanimated actor. Florida, Kentucky, Nebraska, Tennessee and Virginia do not have exclusions for media exploitation. Putting aside the media exclusions in California, Nevada, Oklahoma and Texas statutes, do the post-mortem statutes of those states otherwise apply to reanimation? Do the statutes of Florida, Kentucky, Nebraska, Tennessee and Virginia apply to reanimation? And finally, do common law post-mortem publicity rights, as currently exist, apply to reanimation?

The California post-mortem statute applies to use "in any manner, on or in products, merchandise, or goods, or for purposes of advertising or selling, or soliciting purchases of products, merchandise, goods or services."²⁸⁴ Florida prohibits unlicensed use "for purposes of trade or for any commercial or advertising purpose."²⁸⁵ Kentucky provides that no unlicensed use will be made "for commercial profit."²⁸⁶ Nebraska prohibits unlicensed use "for advertising or commercial purposes."²⁸⁷ Nevada's post-mortem statute governs "any commercial use."²⁸⁸ Oklahoma uses language identical to that of California.²⁸⁹ Tennessee's post-mortem statute covers use "as an item of commerce for purposes of advertising products, merchandise, goods, or services, or for purposes of fund raising, solicitation of donations, purchases of products, merchandise, goods or services."²⁹⁰ Texas states that there is a post-mortem property right in a person's "name, voice, signature, photograph, or likeness after the death of the individual,"²⁹¹ and then lists those uses that may be made of the property without permission,²⁹² presumably every other use would require a license. Virginia prohibits the unlicensed

283. NEV. REV. STAT. § 598.984 (2)(d) (1989) (emphasis added).

284. CAL. CIV. CODE § 990(a) (West 1992).

285. FLA. STAT. ANN. § 540.08 (West 1988).

286. KY. REV. STAT. ANN. § 391.170 (Michie 1984).

287. NEB. REV. STAT. § 20-202 (1983).

288. NEV. REV. STAT. § 598.982 (1989).

289. OKLA. STAT. ANN. tit. XII § 1448 (West 1985).

290. TENN. CODE ANN. § 47-25-1105 (1984).

291. TEX. PROP. CODE ANN. § 26.002 (West 1987).

292. *Id.* § 26.012.

use of a person's name, portrait or picture "for advertising purposes or for purposes of trade."²⁹³ The language of the statutes covers a spectrum from the very specific enumeration of California to the open-ended "for commercial profit" of Kentucky. It seems reasonably clear that unlicensed post-mortem advertising would be prohibited by all of the statutes.

Although advertising cases have dealt, to date, exclusively with living celebrities, the cases are instructive of the courts' philosophy with respect to advertising. One has only to look at *Carson*,²⁹⁴ *Coors*,²⁹⁵ *Lahr*,²⁹⁶ *Midler*,²⁹⁷ *Motschenbacher*,²⁹⁸ *Onassis*,²⁹⁹ and *Waits*³⁰⁰ to see that courts are very unsympathetic to the unlicensed advertiser. However, with respect to *trade* as opposed to *advertising*, the picture is not so clear. For purposes of licensing film for theatrical or television exhibition, the film itself might not be considered goods, but the sale of film in pre-recorded video-cassette format would clearly be considered a sale of goods.³⁰¹ But for that matter, copies of newspapers and magazines and books are likewise *goods*. And newspapers, magazines and books implicate First Amendment rights. So, the mere fact that a motion picture may be goods is not necessarily dispositive of the issue of whether a motion picture falls within the prohibitions of the various statutes and the various common law post-mortem rights of publicity. Case law to date may be instructive in determining the applicability of post-mortem statutes and common law to reanimation.

"Purposes of trade" may well be like obscenity: difficult to define, but recognized when seen.³⁰² Posters, even posters bearing legends, have been held to be for trade purposes.³⁰³ Not surprisingly, shaving gel has

293. VA. CODE ANN. § 8.01-40 (1984).

294. *Carson v. Here's Johnny Portable Toilets*, 698 F.2d 831 (6th Cir. 1983).

295. *Commerce Union Bank v. Coors*, 7 Media L. Rep. (BNA) 2204 (Tenn. Ch. App. 1981), *aff'd on other grounds*, No. 83-327-II (Tenn. Ct. App. June 20, 1987).

296. *Lahr v. Adell Chemical Co.*, 300 F.2d 256 (1st Cir. 1962).

297. *Midler v. Ford Motor Co.*, 849 F.2d 460 (9th Cir. 1988).

298. *Motschenbacher v. R. J. Reynolds Tobacco Co.* 498 F.2d 821 (9th Cir. 1974).

299. *Onassis v. Christian Dior-New York*, 472 N.Y.S.2d 254 (N.Y. Sup. Ct. 1984) *aff'd*, 488 N.Y.S.2d 943 (N.Y. App. Div. 1985).

300. *Waits v. Frito-Lay, Inc.*, 978 F.2d 1093 (9th Cir. 1992), *cert denied*, 113 S. Ct. 1047 (1993)..

301. In *United States v. Drebin*, 557 F.2d 1316, 1332 (9th Cir. 1977), *cert. denied*, 436 U.S. 904 (1978), the court held that copies of motion pictures are goods or merchandise for purposes of 18 U.S.C. § 2314.

302. *Beverly v. Choices Women's Med. Ctr.*, 532 N.Y.S.2d 400, 404 (N.Y. App. Div. 1988) ("The phrase 'for purposes of trade' is not susceptible to a ready definition.")

303. *Brinkley v. Casablancas*, 438 N.Y.S.2d 1004, 1008 (N.Y. App. Div. 1981); *see Factors Etc., Inc. v. Pro Arts, Inc.*, 579 F.2d 215 (2d Cir. 1978), *cert. denied*, 440 U.S. 908 (1979). The court in *Factors* held that a poster featuring a picture of Elvis Presley bearing the legend "IN MEMORY" was "not privileged as celebrating a newsworthy event." *Id.* at 222; *cf.*

been held to be for trade purposes,³⁰⁴ as have bubble gum cards,³⁰⁵ baseball regalia³⁰⁶ and plastic busts.³⁰⁷ But, where the exploitation complained of has been in the media, courts have been more reluctant to grant relief, lest free speech be chilled. Books³⁰⁸ and magazine articles³⁰⁹ about celebrities (even magazines of dubious communication value³¹⁰) have been insulated against right of publicity claims, because of First Amendment considerations. Motion pictures³¹¹ and plays³¹² about individuals in the public eye have also been shielded by the First Amendment.

However, where the media use is perceived to be of questionable communicative content, courts have found, or at least raised the issue of, the use being merely an advertisement or for purpose of trade.³¹³ In *Midler*, the court acknowledged that "[t]he First Amendment protects much of what the media do in the reproduction of likenesses or sounds."³¹⁴ The court went on to state that "[t]he purpose of the media's use of a person's identity is central. If the purpose is 'informative or cultural' the use is immune; 'if it serves no such function but merely exploits the individual portrayed, immunity will not be granted.'"³¹⁵ In *Grant v. Esquire, Inc.*,³¹⁶ the court suggested that if Esquire used Grant's picture "merely to attract attention" that use would be for purposes of

Paulsen v. Personality Posters, 299 N.Y.S.2d 501 (N.Y. Sup. Ct. 1968) (poster of comedian Pat Paulsen, a mock presidential candidate, held newsworthy).

304. *Hirsch v. S.C. Johnson & Son, Inc.*, 280 N.W.2d 129 (Wis. 1979).

305. *Haelen Laboratories v. Topps Chewing Gum*, 202 F.2d 866, 868 (2d Cir.), cert. denied, 346 U.S. 816 (1953).

306. *Cepeda v. Swift and Co.*, 415 F.2d 1205, 1207 (8th Cir. 1969).

307. *Martin Luther King, Jr., Ctr. for Social Change v. American Heritage Prods.*, 296 S.E.2d 697, 708 (Ga. 1982).

308. *Frosch v. Grosset & Dunlap, Inc.*, 427 N.Y.S.2d 828, 829 (N.Y. App. Div. 1980); *Rosemont Enters. v. Random House*, 294 N.Y.S.2d 122, 128-29 (N.Y. Sup. Ct. 1968), aff'd, 301 N.Y.S.2d 948 (N.Y. App. Div. 1969).

309. *Ann-Margret v. High Soc. Magazine*, 498 F. Supp. 401, 406 (S.D.N.Y. 1980); *Stephano v. News Group Publications*, 474 N.E.2d 580, 584-86 (N.Y. 1984).

310. *Ann-Margret*, 498 F. Supp. 401. The court, while upholding the First Amendment protection of "High Society Celebrity Skin," was moved to observe that "it is questionable whether any 'readers' of this magazine ever read it." *Id.* at 405 n.8.

311. See *Hicks v. Casablanca Records*, 464 F. Supp. 426, 433 (S.D.N.Y. 1978); *Donahue v. Warner Bros. Pictures Distrib. Corp.*, 272 P.2d 177 (Utah 1954).

312. See, e.g., *Joplin Enters. v. Allen*, No. C91-1035C (W.D. Wash. 1991).

313. See *Ali v. Playgirl, Inc.*, 447 F. Supp. 723, 727 (S.D.N.Y. 1978); *Grant v. Esquire*, 367 F. Supp. 876, 880, 881 (S.D.N.Y. 1973); *Eastwood v. Superior Court*, 198 Cal. Rptr. 342 (Cal. Ct. App. 1983).

314. *Midler v. Ford Motor Co.*, 849 F.2d 460, 462 (9th Cir. 1988), cert. denied, 112 S.Ct. 1513 (1992).

315. *Id.* (quoting Peter L. Felcher & Edward L. Rubin, *Privacy, Publicity and the Portrayal of Real People by the Media*, 88 YALE L.J. 1577, 1596 (1979)).

316. 367 F. Supp. 876.

trade.³¹⁷ In *Ali v. Playgirl, Inc.*,³¹⁸ the court held that a likeness of Ali "falling somewhere between representational art and cartoon"³¹⁹ was included in the magazine solely for purposes of trade because there was "no such informational or newsworthy dimension"³²⁰ to defendant's use. In *Eastwood v. Superior Court*,³²¹ the court held that the deliberate fictionalization of Eastwood's personality would constitute commercial exploitation.³²² The mere fact that a publisher or producer expected to make a profit from exploiting a story about a celebrity is not of itself enough to invoke a right of publicity claim.³²³ But *Grant, Ali* and *Eastwood* suggest that unless there is some protectable First Amendment expression such exploitation would be a violation of the right of publicity. How does all of this apply to reanimation?

The decisions in which courts have denied recovery for invasion of privacy or publicity rights because of overriding First Amendment concerns have involved books, articles or performances, live and on film, *about* the celebrity. Newspapers and biographers are free to write *about* a celebrity. Publishers are free, with some exceptions, to use photographs of the celebrity to illustrate a book or article *about* the celebrity. Film and stage producers are free to mount performances *about* the celebrity and to employ an actor that resembles the celebrity. But it takes no citation to declare that no writer could require a *living* celebrity to grant an interview or to pose for a picture. Nor could a producer require the celebrity to appear in a film or play about the celebrity simply because such appearance would enhance the realism of the production. The First Amendment does not supersede the Thirteenth Amendment.³²⁴ Celebrities have appeared in films as themselves on any number of occasions: Gene Krupa and Harry James in *The Benny Goodman Story*,³²⁵

317. *Id.* at 881.

318. 447 F. Supp. 723 (S.D.N.Y. 1978).

319. *Id.* at 727.

320. *Id.*

321. 149 Cal. App. 3d. 409 (1983).

322. *Id.* at 426.

323. *Ann-Margret v. High Soc. Magazine*, 498 F. Supp. 401, 406 (S.D.N.Y. 1980) ("[S]imple use in a magazine that is published and sold for profit does not constitute a use for advertising or trade sufficient to make out an actionable claim.")(citing *Oma v. Hillman Periodicals*, 118 N.Y.S.2d 720, 724 (N.Y. App. Div. 1953)); *accord Stephano v. News Group Publications*, 474 N.E.2d 580, 586 (N. Y. 1984).

324. "Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction." U.S. Const. amend. XIII § 1.

325. (Universal 1955).

Frances Langford in *The Glenn Miller Story*,³²⁶ and Monty Wooley in *Night and Day*,³²⁷ the film biography of Cole Porter.

Perhaps the most dramatic example of celebrity self-portrayal is the film *To Hell and Back*.³²⁸ Audie Murphy was the most decorated serviceman of WW II. For his extraordinary heroism he was given the nation's highest decoration, the Congressional Medal of Honor. Following the war, Murphy pursued an acting career, mostly starring in westerns. But in 1955 he portrayed himself in the autobiographical film, *To Hell and Back*. While anyone might have been free to write about or produce a film based on Murphy's World War II exploits, no one could have required Murphy to star in the film. Even if he contracted to play himself, as he in fact did, had he decided not to honor the contract no court would have issued an injunction requiring him to perform.³²⁹ At most, a negative injunction prohibiting him from performing for others would have been issued.³³⁰ Should the exploitation of a deceased actor be treated differently from the exploitation of an actor in life? Well, first of all, there is no Constitutional impediment to involuntary servitude with respect to a reanimated actor.³³¹ So, any proscription against unlicensed exploitation of a resurrected actor would have to be based on other considerations.

Employing the language of *Midler*, if the reanimation is "informative or cultural," then the use should be exempt from the post-mortem right of publicity. But if the use is merely "exploitive," or merely to attract attention, a different conclusion should be drawn. For instance, the unlicensed sale of T-shirts, posters, plaster busts and other products of little or no First Amendment value³³² is proscribed by many states. It is

326. (Universal 1953).

327. (Warner Bros. 1946).

328. (Universal 1955).

329. *Lumley v. Wagner*, 1 De G. M. & G. 604, 619 (Ch. 1852) ("It is true, I have not the means of compelling [Johanna Wagner] to sing . . .").

330. [B]ut she has no cause of complaint, if I compel her to abstain from the commission of an act which she has bound herself not to do . . ." *Id.* Of more recent vintage are *MCA Records v. Newton-John*, 90 Cal. App. 3d 18 (1979), and *King Records v. Brown*, 252 N.Y.S.2d 988, 992 (N.Y. App. Div. 1964).

331. See *Guyton v. Phillips*, 606 F.2d 248, 250 (9th Cir. 1979), *cert. denied*, 445 U.S. 916 (1980) ("[T]he definition of a 'person' for purposes of protection of constitutional rights is limited only to a living human being.").

332. In her concurring opinion in *Guglielmi v. Spelling-Goldberg Productions*, 603 P.2d 454, 457 (Cal. 1979) (en banc), Chief Justice Bird said, "[F]ilm is a 'significant medium for the communication of ideas.' Whether exhibited in theaters or on television, a film is a medium which is protected by the constitutional guarantees of free expression A film is presumptively protected . . . and will forfeit that protection only if it falls within 'narrowly limited classes.'" Chief Justice Bird went on to state "*Lugosi* involved the use of Bela Lugosi's likeness in connection with the sale of such *commercial products* 'as plastic toys, pencil sharpeners, soap products, target games, candy dispensers and beverage

easy to articulate such a litmus test, but what criteria or standards will be used to distinguish between the permitted and the proscribed? At one extreme might be situations where it is clear that the late star is being used only for exploitive purposes, purposes that had minimal communicative content, for example a brief cameo as a corpse on a slab. At the other end of the spectrum would be the reanimated actor appearing in his own, unfictionalized life story.

More difficult to assess are situations in which the reanimated actor is clearly serving a story-telling role. Perhaps the distinction drawn by Judge Mosk in his concurring opinion in *Lugosi v. Universal Pictures*,³³³ between actors simply playing a role, such as Gregory Peck as General MacArthur, George C. Scott as General Patton or Charlton Heston as Moses, and actors performing as themselves, or as characters of their own device, such as Groucho Marx, Red Skelton, Abbott and Costello, or Laurel and Hardy, would be useful in deciding this issue. In *Chaplin v. Amador*,³³⁴ Charlie Chaplin successfully enjoined the actor Charles Amador from appearing, under the name "Charlie Aplin," in the universally-recognized garb of the "Little Tramp" — the ill-fitting vest, tight fitting coat, and too-large pants and shoes. In *Price v. Worldvision Enterprises*,³³⁵ the defendant was enjoined from producing and distributing a television series entitled "Stan 'n' Ollie" in which actors Chuck McCann and Jim McGeorge, respectively would portray Oliver Hardy and Stanley Laurel. In *Estate of Presley v. Russen*,³³⁶ the court, while denying an injunction until the plaintiff made "a showing of immediate, irreparable harm to the commercial value of the right of publicity . . ."³³⁷ found that:

THE BIG EL SHOW. . . serves primarily to commercially exploit the likeness of Elvis Presley without contributing anything of substantial value to society. . . . [E]ntertainment that is merely a copy or imitation, even if skillfully and accurately carried out, does not really

stirring rods'. . . . These objects, unlike motion pictures, are not vehicles through which ideas and opinions are regularly disseminated." *Id.* at 463 (emphasis added) (footnote omitted) (citing *Lugosi v. Universal Pictures*, 603 P.2d 425 (Cal. 1979)).

333. 603 P.2d 425, 432-33 (Cal. 1979) (Mosk, J., concurring). While Judge Mosk's analysis focused on the rights an actor might have in his characterization, the distinction he drew between roles in which the actor's own identity disappears as he adopts the persona of the character (e.g., MacArthur, Patton, Moses) and those roles in which his identity either as himself or as his self-created character (Groucho, Red, Abbot & Costello) is useful in the analysis of whether a right of publicity should attach to a role in which the actor's identity is "masked" by the role and those in which he essentially plays himself.

334. 269 P. 544 (Cal. Dist. Ct. App. 1928).

335. 455 F. Supp. 252 (S.D.N.Y. 1978), *aff'd*, 603 F.2d 214 (2d Cir. 1979).

336. 513 F. Supp. 1339 (D.N.J. 1981).

337. *Id.* at 1379.

have its own creative component and does not have a significant value as pure entertainment.³³⁸

The federal district court for the Southern District of New York, in *Groucho Marx Productions, Inc. v. Day & Night Co.*,³³⁹ held that "the Marx Brothers fame arose as a direct result of their efforts to develop instantly recognizable and popular stage characters, *having no relation to their real personalities.*"³⁴⁰ The court went on to state, "the Marx Brothers exploited their rights of publicity in their *self-created characters* and therefore those rights are properly asserted here."³⁴¹ Thus, one might draw a distinction, for post-mortem publicity purposes, between the exploitation of a reanimated actor playing a role in which he assumes the personality of a real person or fictional character, on the one hand, and the situation in which the reanimated actor is used in the role of the self-created character exploited by the actor during his lifetime. Where the actor's goal is to persuade the audience that he is Moses or MacArthur or Lincoln, the persona of the actor himself is masked. In fact, his face may be altered, by a prosthetic device (e.g., Pacino in "The Godfather"), or by makeup such that he looks nothing like himself; one only has to recall the "Man of a Thousand Faces," Lon Chaney. Voices may be altered by, for example, an accent. In short, the goal of the actor is to make you forget that he is the actor named in the screen credits and to believe he is the person he is portraying. This would seem to be the antithesis of the notion of a right of "publicity." On the other hand, where the actor is simply playing "himself," or a character of his own creation, that is a different story. To paraphrase Gertrude Stein, "a Groucho is a Groucho is a Groucho." Thus, one might make a case for the proposition that the exploitation of a synthetic actor is not subject to the post-mortem right of publicity except where it is a "Groucho Marx" type of situation.

Predicting what courts would do if faced with reanimation *today* is fraught with uncertainty. Only a relatively few states have addressed the issue of a post-mortem right of publicity; none have specifically addressed reanimation. The states that have adopted a post-mortem right of publicity, legislatively or judicially, have not been uniform in the scope, duration and types of prohibited exploitation. And except, perhaps, to the extent *Price*,³⁴² *Russen*³⁴³ and *Day & Night Co.*,³⁴⁴ provide

338. *Id.* at 1359.

339. 523 F. Supp. 485 (S.D.N.Y. 1981), *rev'd on other grounds*, 689 F.2d 317 (2d Cir. 1982) (applying New York rather than California law).

340. *Id.* at 491 (emphasis added).

341. *Id.* at 492 (emphasis added).

342. *Price v. Worldvision Enters.*, 455 F. Supp. 252 (S.D.N.Y. 1978), *aff'd*, 603 F.2d 214 (2d Cir. 1979).

343. *Estate of Presley v. Russen*, 513 F. Supp. 1339 (D.N.J. 1981).

344. *Groucho Marx Prods., Inc. v. Day & Night Co.*, 689 F.2d 317 (2d Cir. 1982).

some insight into post-mortem imitation, there is no precedent to guide us at the moment. If one concludes that reanimation *should* be subject to a post-mortem right of publicity, then clearly, either there should be a federal post-mortem right of publicity, or the states must adopt a uniform post-mortem statute that is uniform in scope, duration and proscribed unlicensed exploitation. To do less would be to drastically impede this new technology. Of course, the threshold question is: should reanimation be subject at all to a post-mortem right of publicity, be it state or federal. The next section addresses that question.

E. Policy Considerations

Because reanimation technology is still in the embryonic stage, there is time to consider whether or not reanimation should be subject to a post-mortem right of publicity.

With respect to the public, the goal to be satisfied is the desire of that public to see technically high quality synthetic replicas of deceased performers in new motion pictures, presumably also starring living actors. I would define high quality by how faithful the replica is to the late actor, not only physically, but also in acting ability. The public will also desire that the reanimation of an actor occur during their own lifetime; this desire may be particularly true for the older members of the viewing public for whom nostalgia plays an increasingly important role (one has only to refer to the success of "oldie but goodie" record -- or today, C.D. -- sales for validation of that observation). Thus, long delays in the reanimation of deceased performers would not be in the public interest. It is likely that the public would desire that the roles assigned to the reanimated actor be consistent with the general image of the actor while alive. While innovative roles might be acceptable, it is doubtful that the public at large would desire to see the reanimated actor in roles totally incompatible with the late actor's image, even if some segments of society might desire this (*e.g.*, pornography). The public, obviously, is interested in paying as little as possible to see reanimation, without a sacrifice in the quality of the reanimation. If reanimation is not subject to a post-mortem right of publicity, the cost of creating the computer replica is reduced by the licensing fee saved. Presuming that the savings are passed onto the public, the public interest is served.

But a reduction in the cost of reanimation is not the most important consideration favoring an exclusion of reanimation from the ambit of the post-mortem right of publicity. One argument against including reanimation among the rights protected by a post-mortem right of publicity is that the owner of those rights might refuse to license the rights altogether or demand such unrealistic fees that no producer would be willing to buy. While it is true that the post-mortem right of publicity

will eventually terminate, throwing reanimation rights into the public domain, the public could be denied the right of enjoying a reanimation for 50 or 100 years, or perhaps even longer. This means that at least two generations of moviegoers could be deprived of seeing a reanimation, and these would likely be the generations who had an awareness of the actor while alive and who, therefore, might be the most keenly interested. The problem is further compounded if, in order to create the three-dimensional model, copyright permissions might be required. One might find a situation in which the copyright owner is willing, but the post-mortem rights owner is not, or vice-versa. This could lead to the type of undesirable result, from a public point of view, that occurred in *Chamberlain v. Feldman*.³⁴⁵ There, the defendant owned the original, unpublished manuscript (holographic and signed) of a Mark Twain work, *A Murder, A Mystery and A Marriage*, but the defendant was held to not own the copyright. The owners of the copyright were successful in barring publication of the work, thus denying the public the enjoyment of a "new" Mark Twain work.

The quality of the reanimation is important to the public. If reanimation is not subject to the post-mortem right of publicity, what effect might that have on the quality of the computer-generated replica? If reanimation is not protected by the right of publicity, will any reanimator undertake the expense of creating a three-dimensional model of a deceased actor, knowing that anyone else with the technology can do the same thing, and depending on how one views the copyrightability of the reanimated model, perhaps more cheaply. If reanimation is subject to the post-mortem right of publicity, a reanimator might be able to negotiate an exclusive license. That said, perhaps putting reanimation in the public domain, while depriving the heirs of economic benefits, will foster a healthy competition to produce the *best* in reanimation quality.

Arguments can be made that reanimation should be included within the rights protected by a post-mortem right of publicity. One argument is that the financial benefits of the actor's labors in life should, in death, go to his heirs. While the opinion in *Lugosi* may not have been a paradigm of clarity, the reasoning of Chief Justice Bird, in her dissent, as to who should enjoy the fruits of post-mortem rights is quite cogent:

[G]ranting protection after death provides an increased incentive for the investment of resources in one's profession, which may augment the value of one's right of publicity. If the right is descendible, the individual is able to transfer the benefits of his labor to his immediate successors and is assured that control over the exercise of the right can be vested in a suitable beneficiary. "There is no reason why, upon a celebrity's death, advertisers should receive a windfall

345. 89 N.E.2d 863 (N.Y. 1949).

in the form of freedom to use with impunity the name or likeness of the deceased celebrity who may have worked his or her entire life to attain celebrity status. The financial benefits of that labor should go to the celebrity's heirs"³⁴⁶

There is a second reason for extending post-mortem protection to reanimation. If post-mortem rights as to reanimation are in the public domain, not only are the heirs deprived of economic benefit, the actor *in his lifetime* will be deprived of income he might otherwise receive from an *inter vivos* transfer of post-mortem rights. This may be the most telling argument in favor of including reanimation in the post-mortem right of publicity. One must also consider that if reanimation is not included in the post-mortem right of publicity, the actor is deprived of the ability to contractually limit the types of roles in which his synthetic replica will appear.

There is one final consideration. What of the actor who does not want any commercial exploitation of his post-mortem celebrity status; should his wish be honored? If reanimation is subject to a post-mortem right of publicity, the actor could leave his post-mortem rights to a beneficiary, on the condition that the beneficiary would not exploit the rights. It should be noted that a bequest to an individual may not be truly effective, in that if the beneficiary were to ignore the condition of the bequest, the bequest could be terminated — which would result in the post-mortem rights going to statutory heirs who might themselves exploit the rights! Faced with the possibility of that prospect, the actor might leave the post-mortem rights to a testamentary trust with instructions that the rights were not to be exploited. In any event, a performer would be able to deny a reanimation to the public for the term of post-mortem protection, which might be for as much as 100 years. While the public would be deprived of the enjoyment of reanimation for the term of protection granted by the law of the domicile, such deprivation of public enjoyment is equally true with respect to the unpublished works of a deceased author who leaves his copyright to a testamentary trust with terms that the copyrights are not to be exploited.

I will leave it to the reader to judge whether the benefits of including reanimation in post-mortem rights of publicity — economic benefits to the actor or his heirs, incentives to create the three-dimensional model based on exclusive licenses, and the possibility of imposing contractual aesthetic considerations — outweigh the consequences — possible denial of reanimation for the term of post-mortem protection, and the loss of competition that might lead to a higher quality reanimation. If one concludes that reanimation should be subject to a

346. *Lugosi v. Universal Pictures*, 603 P.2d 425, 446 (Cal. 1979) (Bird, J., *dissenting*) (citations omitted).

post-mortem right of publicity, one must then consider the ramifications of that conclusion.

F. Ramifications of Post-Mortem Protection

If reanimated actors are subject to post-mortem rights of publicity, what are the ramifications? If reanimation is within the bundle of rights encompassed by the post-mortem right of publicity, actors and producers will ultimately realize that the post-mortem right is, to begin with, an asset of the actor while alive, and a property that can be transferred *inter vivos*. A review of existing post-mortem statutes demonstrate this truth.³⁴⁷ But for actors now dead, or those who die in the future without having transferred reanimation rights, the transfer of such rights will be done by the beneficiaries of the actor's will or the statutory heirs. Whether the transfer of reanimation rights is *inter vivos* or post-mortem, the contract is likely to include the types of roles in which the reanimated actor will appear, the duration of the transfer, and of course, the compensation.

One would suppose that the person who would be most concerned that the reanimation reflect credit on the actor would be the actor himself. If the transfer of reanimation rights is *inter vivos*, and presuming the actor has sufficient "box office" appeal, the actor could specify the types of roles and the billing that the synthetic actor would have, could enumerate the kinds of roles specifically proscribed, and could even specify the acceptable MPAA ratings (*e.g.*, NC 17, PG 13,). However, if the *inter vivos* transfer is done early in the actor's career, a time when presumably he is in a relatively disadvantageous bargaining position, the producer may dictate the terms of the transfer, including no limitations on the types of post-mortem exploitation of the reanimated actor. Even if an actor might otherwise have significant stature in the film community, he might be in a disadvantaged position, for example, because of serious medical problems known to the industry at large (*e.g.*, for a John Wayne or a Susan Hayward). If the transfer of reanimation rights is post-mortem, one would hope that the beneficiaries of the actor's post-mortem publicity rights would seek to extract the same restrictions on roles that the actor would. But there is no guarantee that they will — perhaps because of a lack of bargaining power, or, worse yet, because of a focus on the dollar, the post-mortem transfer of publicity rights might have little or no

347. See CAL. CIV. CODE § 990(c) (West 1993); FLA. STAT. ANN. § 540.08(1)(c) (West 1988); KY. REV. STAT. ANN. § 391.170(1) (Michie 1984); NEB. REV. STAT. § 20-208 (1943); NEV. REV. STAT. § 598.984(2) (1991); OKLA. STAT. ANN. tit. 21 § 839.1 (1983); TENN. CODE ANN. § 47-25-1103 (1984); TEX. PROP. CODE ANN. § 26.002 (West 1987); VA. CODE ANN. § 8.01-40 (Michie 1977).

restrictions on exploitation. If the actor is not able to obtain favorable terms in an *inter vivos* transfer of post-mortem rights, or if the actor does not make an *inter vivos* transfer, what laws will protect his memory and who will champion his cause? If this nation ultimately overcomes its apparent abhorrence of a codified moral rights law beyond the parsimonious recognition in the Copyright Act³⁴⁸ and the scattered state provisions,³⁴⁹ perhaps, as discussed in Part VI of this article, a federal moral rights act could be enacted — one that would protect not only the creators of works but the interpreters of works as well. Absent federal or state protection of performer's post-mortem moral rights, the Screen Actors Guild would be the next best hope. Once reanimation becomes an economic reality and not merely an exotic experiment, the Screen Actors' Guild could insist on terms on moral rights-type protection with respect to reanimation in agreements with producers.

Assuming that reanimation rights are the subject of the post-mortem right of publicity, what are they worth? Obviously, the more marketable an actor is during life, the more valuable reanimation rights would be. But the term of protection of such rights must also be considered. In California, a personal service contract can be for no more than seven years,³⁵⁰ and no one can force an actor under contract to play a particular role; at most, an actor can be suspended or terminated. But reanimation is not a "personal service," because the synthetic actor is not a *person*, he is a *property*; the producer will likely want the property for its full term, *e.g.*, in California, 50 years.³⁵¹ However, once protection of post-mortem rights terminates, anyone would be free, at least as far as the right of publicity is concerned, to exploit their own reanimated version of the late actor. Therefore, in valuing such rights, the term of protection must be taken into account. Though the issue is not totally free from doubt,³⁵² it is likely that the term of protection will be determined according to the law of the jurisdiction in which the actor was domiciled on the date of death.³⁵³ That term might be, under existing laws, as short as 10 years³⁵⁴

348. 17 U.S.C. § 106A (Supp. II 1991).

349. See CAL. CIV. CODE § 987 (West 1979); CONN. GEN. STAT. § 42-116s-116t (1988); LA. REV. STAT. ANN. §51:2151-2155 (West 1986); ME. REV. STAT. ANN. tit. 27, § 303 (1985); MASS. GEN. L. ch. 110, § 231-85S (1985); NEV. REV. STAT. § 598.970-76 (1989); N.J. REV. STAT. § 2A:24A (1986); N.M. STAT. ANN. § 13-4B-1-4B-2 (Michie 1987); N.Y. ARTS & CULT. AFF. LAW § 14.03 (McKinney 1983); PA. STAT. ANN. tit. 73, § 2101-05 (1992); R.I. GEN. LAWS § 5-62-4-5-62-6 (1987).

350. CAL. LAB. CODE § 2855 (West 1989).

351. CAL. CIV. CODE § 990 (4)(g) (West 1988).

352. See *supra* notes 273-275 and accompanying text.

353. See, *e.g.*, *Factors v. Pro Arts*, 652 F.2d 278 (2d Cir. 1981), *cert. denied*, 456 U.S. 927 (1982); see also Stanley Rothenberg et al., *Choice of Law in Sound-Alike Cases*, 14 ENT. L. REP. 3 (1993).

354. TENN. CODE ANN. § 47-25-1104(a) (1984).

or as long as forever.³⁵⁵ Where the transfer of post-mortem rights is *inter vivos*, the actor will have some state as domicile (although one might well have to consider an actor even though a U.S. citizen domiciled outside of the United States). But there is no guarantee that the actor will be domiciled in that state at death. Presumably, in an *inter vivos* transfer of post-mortem rights, the then-living actor would want a *quid quo pro* while alive, *i.e.*, cash. However, even if the reanimation contract stipulated that the actor would remain domiciled in a designated state, there is no guarantee that in fact, he would be so domiciled at death. The producer faces the risk that the actor might be domiciled at the time of his death in a jurisdiction with a relatively short term of protection. Faced with the uncertainty of the duration of post-mortem protection, the producer would likely demand that part of the payment for the *inter vivos* transfer of post-mortem rights be withheld until death, and that any payments due would be reduced if the post-mortem term of protection of the domicile at death were less than the term contemplated in the contract. However, even this type of "escrow" arrangement would not guarantee protection for a producer who gave "up front" partial payment, if the actor died domiciled in a jurisdiction that did not recognize a post-mortem right of publicity at all, unless that jurisdiction were willing to recognize the post-mortem right of publicity statute of the jurisdiction governing the *inter vivos* contract.

Part V of this article discusses the impact reanimation may have on those with trademark or other proprietary interests in the persona of the actor. Prudence dictates that any contract transferring reanimation rights take into account the interests of such third parties.

V. TRADEMARK AND RELATED RIGHTS

A. Introduction

Copyright and post-mortem rights of publicity are not the only rights of which the reanimator must be aware. Many celebrities lend their name to goods or services, perfumes, jewelry, "official" games, toys, even restaurant chains. The value of the celebrity trade or service mark, registered or common-law, is inextricably linked to the image and reputation of the celebrity. If that image is tarnished in some fashion, the assignees or licensees of that trademark might have cause to complain. Celebrities may lend their name and image, not by way of trade or service mark, but by way of product or service endorsements. Even in death, celebrity endorsements may continue to be valuable: witness the Coca

355. See *id.* § 47-25-1104(b).

Cola television ads featuring Bogart, Cagney, Armstrong, Groucho and Grant. As with celebrity trademarks, the effectiveness of celebrity endorsements might be undercut by activities inconsistent with the popular image of the celebrity. The reanimator must also be mindful of the interests of those who own the copyright in films starring the actor in life. In creating the synthetic, computer replica of a deceased star, the reanimator must be concerned about the quality of his efforts, *i.e.*, how faithful his synthetic replica is to the public's memory of the actor. He must equally consider the types of roles, including "billing" that he gives the reanimated actor. Should the quality of the synthetic actor be poor, or should the roles in which the reanimator places the synthetic replica be inconsistent with, or tarnish, the image of the late actor, the result may be injury to trademark or other proprietary interests in the celebrity's persona.

B. Trademark

Assuming that a celebrity's name or likeness has a "secondary" meaning, that name or likeness can be registered federally for use as a trademark with respect to the sale of goods, or as a service mark with respect to the sale of services.³⁵⁶ It may also operate as a common law mark,³⁵⁷ or perhaps as a state-only registered mark.³⁵⁸ Will the fact that a reanimator has resurrected a deceased actor, whose image or name happens to be a trade or service mark, violate that mark? With respect to listing the deceased actor's name in the credits, the name is used in its "primary sense," *i.e.*, in identifying the person, and not in its secondary sense, as a source of the product (*i.e.*, the film) which presumably will be the producer.³⁵⁹ "While the secondary use may be protected, the use of these words in their primary descriptive sense may not be."³⁶⁰ With

356. *E.g.*, *Five Platters, Inc. v. Purdie*, 419 F. Supp. 372 (D. Md. 1976); *In re Carson*, 197 U.S.P.Q. 554 (Trademark Trial & App. Bd. 1977).

357. *E.g.*, *Carson v. Here's Johnny Portable Toilets*, 698 F.2d 831 (6th Cir. 1983); *Allen v. National Video*, 610 F. Supp. 612 (S.D.N.Y. 1985); *Estate of Presley v. Russen*, 513 F. Supp. 1339 (D.N.J. 1981).

358. While state registration of a mark associated with an entertainer is possible, it is more likely the mark will be used interstate, at least if the entertainer is more than a local celebrity.

359. In *Pirone v. MacMillan*, 894 F.2d 579, 584 (2d Cir. 1990), the court stated, "The picture of [Babe] Ruth no more indicates origin than does the back cover's picture of Jackie Robinson. . . . [T]he photographs . . . indicate the contents of the calendar, not its source. The source of the publication is clearly indicated by the numerous, prominent references to MacMillan." *Id.*

360. *Id.* With respect to the right of publicity, Chief Justice Bird in her concurring opinion in *Guglielmi v. Spelling-Goldberg Productions*, 603 P.2d 454, 457 n. 6 (Cal. 1979), believed that the use of Valentino's name to advertise the made-for-television film "Legend of Valentino: A Romantic Fiction" did not constitute an infringement of

respect to the photographic images of the film, the fact that one pose may serve as a trademark does not preclude others from using differently posed photographs of the person serving as a trademark symbol.³⁶¹ In *Pirone v. MacMillan*³⁶² the court observed:

Unlike a stylized flying horse or similar picture marks, an individual's likeness is not a consistently represented fixed image—different photographs of the same person may be markedly dissimilar. Thus a photograph of a human being, unlike a portrait of a fanciful cartoon character, is not inherently “distinctive” in the trademark sense of tending to indicate origin. [citations omitted] Under some circumstances, a photograph of a person may be a valid trademark—if, for example, a particular photograph was consistently used on specific goods. Pirone, however, asserts rights in every photograph of Ruth.³⁶³

This sweeping contention resembles that rejected in *Estate of Presley v. Russen*.³⁶⁴ The estate of the entertainer Elvis Presley argued that his “image and likeness” was a valid mark. The District of New Jersey rejected the claim as too broad.³⁶⁵

Valentino's right of publicity. “While Valentino's name was allegedly used to advertise this particular film, this is not a case in which a celebrity's name is used to promote or endorse a collateral commercial product or is otherwise associated with a product or service in an advertisement.” *Id.* (citations omitted). Chief Justice Bird went on to state that the use of Valentino's name and likeness in advertisements for the film was:

merely an adjunct to the exhibition of the film. It was not alleged that the advertisements promoted anything but the film. Having established that any interest in financial gain in producing the film did not affect the constitutional stature of respondents' undertaking, it is of no moment that the advertisement may have increased the profitability of the film. It would be illogical to allow respondents to exhibit the film but effectively preclude any advance discussion or promotion of their lawful enterprise. Since the use of Valentino's name and likeness in the film was not an actionable infringement of Valentino's right of publicity, the use of his identity in advertisements for the film is similarly not actionable.

Id. at 462. In *Estate of Presley v. Russen*, 513 F. Supp. 1339, 1363, n. 31 (D.N.J. 1981), the court noted that “an Elvis Presley performance, itself, cannot be a service mark. As it has been noted, . . . a service mark must not be the service itself, but rather a designation of its source.” *Id.*

361. See *Estate of Presley*, 513 F.Supp. at 1339.

362. 894 F.2d 579 (2d Cir. 1990).

363. *Id.* at 583.

364. 513 F. Supp. 1339 (D.N.J. 1981)

365. *Id.* at 583. In *Estate of Presley*, the court stated:

The plaintiff asserts that the likeness and image of Elvis Presley serves as a service mark; however, the available evidence does not support such a broad position. Rather, the record only supports a conclusion that a picture or illustration of Elvis Presley dressed in one of his characteristic jumpsuits and holding a microphone in a singing pose is likely to be found to function as a service mark.

513 F. Supp. 1339, at 1363-64. *But cf.* *Prudhomme v. Procter & Gamble*, 800 F. Supp. 390 (E.D. La. 1992) (denial of motion to dismiss claim of Plaintiff, a well-known chef, that

Thus, the fact that the name, and perhaps even a likeness of the late actor is registered as a federal trade or service mark, or as a common law or state-registered mark, will not prevent the reanimator from listing the deceased actor's name in the credits—at least where it is clearly indicated that it is the synthetic version of the actor—or from producing a photo-play using visual images of the synthetic version of the actor. Presumably, it would not be an infringement if a frame of the motion picture captured an image identical to that of the trademark image, since the former is not being used in a secondary sense, but in a primary sense. But care must be taken, as discussed in Section C below, to avoid any confusion as to the identity of the actor, as when the portrayal is not by the late actor himself, but rather by a synthetic look-alike.

C. Lanham Act §43(A) & State Unfair Competition

Section 43(a) of the Lanham Act has "been held to apply to situations that would not qualify formally as trademark infringement, but that involve unfair competitive practices resulting in actual or potential deception."³⁶⁶ With respect to confusion over celebrity endorsements "'mark' means the celebrity's persona."³⁶⁷ There have been a number of decisions involving *ersatz* celebrity endorsements (not all for § 43(a) violations), including *Motschenbacher v. R. J. Reynolds Tobacco Co.*,³⁶⁸ *Carson v. Here's Johnny Portable Toilets*,³⁶⁹ *Onassis v. Christian-Dior-New York, Inc.*,³⁷⁰ *Allen v. National Video, Inc.*,³⁷¹ *Tin Pan Apple, Inc. v. Miller Brewing Co., Inc.*,³⁷² and *White v. Samsung Electronics America, Inc.*³⁷³ The elements of persona have ranged from the obvious look-alike cases³⁷⁴ to decisions involving the extensions of the persona — such as unique markings on a famous racing car associated with a celebrity driver,³⁷⁵ familiar introduction of a nighttime talk-show host ("Here's Johnny"),³⁷⁶ or the blond tresses, long gown, large jewels and familiar game board

his likeness had acquired a secondary meaning and therefore may be a protectable image under traditional trademark law).

366. *Allen v. National Video*, 610 F. Supp. 612, 625 (S.D.N.Y. 1985).

367. *White v. Samsung Electronics America*, 971 F.2d 1395, 1400 (9th Cir. 1992).

368. 498 F.2d 821 (9th Cir. 1974).

369. 698 F.2d 831 (6th Cir. 1983).

370. 472 N.Y.S.2d 254 (N.Y. Sup. Ct. 1984) *aff'd*, 488 N.Y.S.2d 943 (N.Y. App. Div. 1985).

371. 610 F. Supp. 612 (S.D.N.Y. 1985).

372. 737 F. Supp. 826 (S.D.N.Y. 1990).

373. 971 F.2d 1395 (9th Cir. 1992).

374. *See, e.g., Tin Pan Apple*, 737 F. Supp. 826; *Allen*, 610 F. Supp. 612; *Onassis*, 472 N.Y.S. 2d 254.

375. *See Motschenbacher*, 498 F.2d 821.

376. *See Carson*, 698 F. 2d 831.

associated with a game show hostess.³⁷⁷ While almost all of the litigation involving celebrities has concerned advertisements or trade purposes (*Motschenbacher*, *Carson*, *Onassis*, *Allen*, *Tin Pan Apple*, and *White*³⁷⁸), there have been a handful of cases dealing with the exploitation of the celebrity in a performance by look-alikes—*Price v. Worldvision Enterprises, Inc.*,³⁷⁹ *Estate of Presley v. Russen*,³⁸⁰ *Apple Corps, Ltd. v. Leber*.³⁸¹

Section 43(a) of the Lanham Act is "designed to afford broad protection against various forms of unfair competition and false advertising."³⁸² Since "as a general rule, the same facts which would support an action for. . . common law unfair competition. . . would support an action for unfair competitive practices under §43(a),"³⁸³ section 43(a) and state unfair competition are discussed together.

Does section 43(a) even apply to film credits and film advertising? The district court in *Smith v. Montoro*³⁸⁴ held that misidentification in film credits and film advertisements were "not the economic equivalent of palming off or misuse of trademarks or trade names."³⁸⁵ The district court also questioned the actor-plaintiff Smith's standing to sue "since the plaintiff [was] not in any sort of competition with the defendants."³⁸⁶ On appeal, the Ninth Circuit disagreed with the district court on both its conclusions. With respect to the applicability of § 43(a) to actor credits and film advertising, the Ninth Circuit stated:

In the film industry, a particular actor's performance, which may have received an award or other critical acclaim, may be the primary attraction for movie-goers. Some actors are said to have such drawing power at the box office that the appearance of their names on the theater marquee can almost guarantee financial success. Such big box office names are built, in part, through being prominently featured in popular films and by receiving appropriate recognition in film credits and advertising. Since actors' fees for pictures, and indeed, their ability to get any work at all, is often based on the drawing power their name may be expected to have at the box office, being accurately credited for films in which they have played would

377. See *White*, 971 F. 2d 1395.

378. *White*, 971 F. 2d 1395; *Carson*, 698 F.2d 831; *Motschenbacher*, 498 F.2d 821; *Tin Pan Apple*, 737 F. Supp. 826; *Allen*, 610 F. Supp. 612; *Onassis*, 472 N.Y.S. 2d 254.

379. 455 F. Supp. 252 (S.D.N.Y. 1978) (discussing *Laurel & Hardy*), *aff'd*, 603 F.2d 214 (2d Cir. 1979).

380. 513 F. Supp. 1339 (D.N.J. 1981) (discussing *Elvis Presley*).

381. 229 U.S.P.Q. 1015 (Cal. Super. 1986) (not officially published) (discussing "Beatlemania").

382. *John Wright, Inc. v. Casper Corp.*, 419 F. Supp. 292, 324-25 (E.D. Pa. 1976), *aff'd in part, rev'd in part sub nom. Donsco, Inc. v. Casper Corp.*, 587 F.2d 602 (3d Cir. 1978).

383. *Estate of Presley*, 513 F. Supp. at 1376.

384. 648 F.2d 602 (9th Cir. 1981).

385. *Id.* at 603 (quoting the district court).

386. *Id.*

seem to be of critical importance in enabling actors to sell their "services," i.e., their performances. We therefore find that appellant has stated a valid claim for relief under section 43(a) of the Lanham Act.³⁸⁷

As to standing, the Ninth Circuit held:

[I]t is clear that appellant, as one in the business of providing his talents for use in the creation of an entertainment product, is uniquely situated to complain of injury resulting from a film distributor's misidentification of appellant's contribution to the product. According to one commentator, the "dispositive question" as to a party's standing to maintain an action under section 43(a) is whether the party "has a reasonable interest to be protected against false advertising." [citations omitted] The vital interest of actors in receiving accurate credit for their work has already been described. Accordingly, we hold that appellant has standing to sue in federal court based on defendants' alleged violation of section 43(a).³⁸⁸

If the reanimator were to engage in express or implied "passing off," who would have standing to claim a Lanham Act violation? First, although a direct competitor would have standing to sue, "the plaintiff under section 43(a) need not be in actual competition with the alleged wrongdoer."³⁸⁹ As stated in *L'Aiglon Apparel Co. v. Lana Lobell, Inc.*,³⁹⁰ "Congress has defined a statutory civil wrong of false representations of goods in commerce and has given a broad class of suitors injured or likely to be injured by such wrong the right to relief in the federal courts."³⁹¹ Owners of films starring the late actor would clearly be in competition with the films starring the reanimated actor. Those with trademark rights in the late actor's name or likeness, for purposes other than films starring the actor, might not be in direct competition with the reanimator's films, but would appear to have an economic interest that might be harmed by express or implied passing off — particularly where the reanimator's film casts the "actor" in a role inconsistent with the late actor's screen image (e.g., John Wayne as a "wimp," Bette Davis as a "dimwit"). If the post-mortem right of publicity does not include reanimation, then the owners of the post-mortem right of publicity may have standing to sue for passing off as well.

387. *Id.* In *Dallas Cowboy Cheerleaders v. Pussycat Cinema*, 467 F. Supp. 366, 375 (S.D.N.Y.) *aff'd*, 604 F.2d 200 (2d Cir. 1979), the district court stated that "[i]t would appear obvious that Section 43(a) of the Lanham Act applies to a motion picture. A misuse of trademarks or service marks, and deception or confusion of the kind prohibited by the statute, may occur in connection with the title of a movie, its advertising or in the content of the movie itself."

388. *Smith*, 648 F.2d at 608.

389. *Id.* at 607.

390. 214 F.2d 649 (3d Cir. 1954).

391. *Id.* at 651.

Smith dealt with "express reverse palming off"; the film distributor had removed the actor's name from both the film credits and advertising material, and substituted the name of another actor, "Bob Spencer." In reanimation the issue will not be *express reverse passing off* but rather with *express passing off*. If the film credits simply were to list the synthetic actor as "Clark Gable," that would be a clear case of express palming off, *i.e.*, passing off the synthetic "Clark Gable" as the actual Clark Gable. To avoid express passing off, the reanimator will have to make clear in the credits that the actor appearing in the film is not Clark Gable but is a synthetic Clark Gable. With respect to advertising, the reanimator absolutely should not use photographs of the actual actor, *e.g.*, Clark Gable, since this would be an implied passing off.³⁹² But even where photos or likenesses of the synthetic actor are used, or where the actor's name is used in advertising, the reanimator should make it abundantly clear that the actor in the film is synthetic, and that others who would have standing to complain have "nothing to do with the project - whether that is accomplished through a bold and unequivocal disclaimer, the staging of the photograph, or the accompanying advertising copy."³⁹³

In addition to federal law, the reanimator must also consider state unfair competition law. As stated by McCarthy, "Liability [for unfair competition] can result from the buyer's likely confusion between two products or services based upon the total impact of all aspects of the parties' selling efforts."³⁹⁴ In *Chaplin v. Amador*³⁹⁵ the court enjoined Charles Amador from imitating Chaplin's character of his own devise, the "Little Tramp." In upholding the injunction against Amador's appearance as "Charlie Aplin," the court stated that "The right of action in such a case arises from the *fraudulent purpose and conduct of appellant and injury caused to the plaintiff thereby, and the deception to the public.*"³⁹⁶

In *Chaplin*, the defendant attempted to compete with Chaplin, deceptively — according to the court — by adopting identical garb and a very similar name. Because Chaplin was alive, the public might reasonably, albeit mistakenly, have believed that Charles Amador as "Charlie Aplin" was, in fact, Charles Chaplin in his well-known portrayal. Two things should be noted. First, Amador used a character created by the plaintiff, not merely an imitation of the unadorned

392. "'Implied passing off' occurs when a firm uses a picture or sample of its competitor's product, impliedly misrepresenting that its product is the competitor's product." J. THOMAS MCCARTHY, TRADEMARKS AND UNFAIR COMPETITION § 25.01, at 25-11 (1992).

393. *Allen v. National Video*, 610 F. Supp. 612, 630-31 (S.D.N.Y. 1985).

394. MCCARTHY, *supra* note 392, § 2.02, at 2-14.

395. 269 P. 544 (Cal. Dist. Ct. App. 1928).

396. *Id.* at 546.

plaintiff. Second, the plaintiff was alive at the time. As was suggested in "Post-mortem Right of Publicity" above, one might distinguish between an actor in a self-created character, *e.g.*, the "Little Tramp," and the actor who simply plays an assigned role. The Restatement of Torts § 711 provides that one who "markets goods with an unprivileged imitation of the physical appearance of another's goods is liable to the other for relief . . ." ³⁹⁷ Section 741 of the Restatement states that it is an unprivileged imitation if, in addition to other criteria, "the copied or imitated feature is nonfunctional, or, if it is functional, [the imitator] does not take reasonable steps to inform prospective purchasers that the goods which he markets are not those of another." ³⁹⁸ Where the actor adopts a particular garb or particular idiosyncrasies in creating the character — the mustache and leer of Groucho, fidgeting of an Ollie, or the garb of the "Little Tramp" — that might be analogized to non-functional features, the imitation would not be privileged. But where the actor simply takes on an assigned role, then his physiognomy, etc. might be analogized to functional features. In that case, the reanimator need only take steps sufficient to inform prospective purchasers that the goods (the synthetic actor) which he markets are not those of the other (the films showing the late actor). It should be reiterated that, unlike in *Chaplin*, in reanimation, the actor is dead and the competition is between films of the actor created in his lifetime and films showing his synthetic counterpart. In *Estate of Presley v. Russen*, ³⁹⁹ the court stated:

[E]ven assuming the similarity in shows should be considered, we are convinced that the doctrine of unfair competition was not designed to attach strict liability to a good faith and non-confusing imitation of an entertainment service, such as a concert by a famous performer like Presley, particularly where the original performer is no longer living. ⁴⁰⁰

The court went on to state that while the plaintiff had made a sufficient showing of the deceptive impact of the defendant's advertising and promotional materials, the plaintiff had "not made such a showing with respect to the nature or composition of the defendant's show, itself." ⁴⁰¹

One might conclude that the use of the synthetic actor itself is not unfair competition, and that a claim of unfair competition may be avoided merely by indicating, by an appropriate disclaimer, that the actor is synthetic and is not authorized, licensed or sponsored by any third

397. RESTATEMENT (FIRST) OF TORTS § 711 (1938).

398. *Id.* § 741.

399. 513 F. Supp. 1339 (D.N.J. 1981).

400. *Id.* at 1375 (emphasis added).

401. *Id.*

parties — including the owners of films in which the actor appeared in his lifetime.

D. Dilution

In creating the three-dimensional image of the deceased actor and in deciding the type of character and role the synthetic look-alike will play, the reanimator must be mindful of state anti-dilution statutes. In that regard, the reanimator must be equally mindful that anti-dilution statutes typically provide that the statute applies “notwithstanding the absence of competition between the parties or the absence of confusion as to the source of goods or services.”⁴⁰²

A significant number of states have anti-dilution statutes including the very important entertainment states of California,⁴⁰³ New York,⁴⁰⁴ and Tennessee.⁴⁰⁵ The dilution doctrine remains solely a state doctrine, having been omitted from the Trademark Law Revision Act of 1988. The reanimator may well ask what acts constitute “dilution”? One court has defined dilution as a use which causes a “gradual diminution in the mark’s distinctiveness, effectiveness and hence value. This kind of infringement corrodes the senior user’s interest in the trademark by blurring its product identification or by damaging positive associations that have attached to it.”⁴⁰⁶ One form of dilution is “tarnishment,” a use by the defendant of plaintiff’s mark “in an unwholesome or degrading context,”⁴⁰⁷ or “out-of-keeping with plaintiff’s high quality image.”⁴⁰⁸

402. This language which appears in most anti-dilution statutes is adopted from the Model State Trademark Act § 12.

403. CAL. BUS. & PROF. CODE § 14330 (West 1987).

404. N.Y. GEN. BUS. LAW § 368-D (1993).

405. TENN. CODE ANN. § 47-25-512 (1992). In addition 20 other states have adopted antidilution statutes based upon the Model State Trademark Act § 12. ALA. CODE § 8-12-17 (1992); ARK. CODE ANN § 4-71-113 (1991); CONN. GEN. STAT. ANN. § 35-11(C) (1987); DEL. CODE ANN. TIT. 6, § 3313 (Supp. 1992); FLA. STAT. § 495.151 (1988); GA. CODE ANN.. § 10-1-451 (1993); ID. CODE § 48-512 (1977); ILL. ANN. STAT. CH. 140 PARA. 22 (Smith-Hurd 1986); IOWA CODE ANN. § 548.11 (1987); LA. REV. STAT. ANN. § 51:223.1 (West 1984); ME. REV. STAT. ANN. TIT. 10, § 1530 (1980); MASS. GEN. LAWS ANN. CH. 110B, § 12 (West 1990); MO. ANN. § 417.061 (1990); MONT. CODE ANN. § 30-13-334 (1991); NEB. REV. STAT. § 87-122 (1987); N.H. REV. STAT. ANN. § 350-A:12 (1992); N.M. STAT. ANN. § 57-3-10 (Michie 1993); OR. REV. STAT. 647.107 (1987); PA. STAT. ANN. TIT. 54, § 1124 (1993); R. I. GEN. LAWS § 6-2-12 (1992); TEX. BUS. & COM. CODE ANN. § 16.29 (1992). The state of Washington provides injunctive relief to the owner of a famous mark if use by another causes dilution of the distinctive quality of the mark. WASH. REV. CODE ANN. § 19.77.160 (West 1993). Ohio appears to recognize an action for trademark dilution under its common law. See *Ameritech, Inc. v. American Information Technologies Corp.*, 811 F.2d 960, 965 (6th Cir. 1987), *Worthington Foods v. Kellogg Co.*, 732 F. Supp. 1417 (S.D. Ohio 1990).

406. *Ameritech, Inc. v. American Info. Technologies*, 811 F.2d 960, 965 (6th Cir. 1987).

407. 2 MCCARTHY, *supra* note 392, § 24.16, at 24-131.

408. *Id.* at 24-134.

Linking a trademark to illegal drugs⁴⁰⁹ or risqué⁴¹⁰ or pornographic⁴¹¹ activities has been held to be a dilution of rights, as have uses that dilute the prestige of the mark because of the nature of the other product.⁴¹²

Dilution arguments based on a "quality and prestige" argument⁴¹³ might be raised against a reanimator because the quality of the synthetic actor is poor. More likely, the issue will arise because of the role in which the reanimated actor is cast, particularly where the role is inconsistent or perhaps even antithetical to the image generally portrayed by the actor. The sensitivity to image is illustrated by this excerpt from a 1948 Roy Rogers/Republic Productions contract:

(a) He (Roy Rogers) shall not use or authorize or willingly permit the use of his name, likeness, or voice in connection with alcoholic beverages, tobacco, laxatives, deodorants, or articles of feminine use, or any other product with which, at the time of such use, authorization, or permission, it reasonably might be considered to be detrimental or prejudicial to associate artist or inconsistent with or harmful to his position as a motion picture star, particularly with reference to his youthful fan audience.

(b) In connection with publications (including so-called "comic" magazines), phonograph records, transcriptions and the like, artist shall, from and after the date of his contract, insert or cause to be inserted in all contracts and agreements appertaining thereto, a clause substantially as follows: "the artist shall not be depicted, described, shown or mentioned, in any form whatsoever, in the character of a villain, thief, or other despicable or derogatory character, or as consuming, dispensing, or handling alcoholic beverages, tobacco of any kind or form, laxatives, deodorants, articles of feminine use, or any other product with which it reasonably might be considered to be detrimental or prejudicial to associate artist, or as engaging in any mental or physical dissipation, or in any manner which will appeal to the sensual emotions of the reader, but all material shall star artist, and depict, describe, show or

409. *Coca Cola Co. v. Gemini Rising, Inc.*, 346 F. Supp. 1183 (E.D.N.Y. 1972) (the "Enjoy Cocaine" case).

410. *American Express Co. v. Vibra Approved Lab. Corp.*, 10 U.S.P.Q. 2d 2006 (S.D.N.Y. 1989) (condom in fake AMEX card with phrase "Never Leave Home Without It"). *But see* *L.L. Bean, Inc. v. Drake Publishers*, 811 F.2d 26, (1st Cir. 1987), *cert. denied* 483 U.S. 1013.

411. *Dallas Cowboy Cheerleaders v. Pussycat Cinema, Ltd.*, 467 F. Supp. 366 (S.D.N.Y.), *aff'd*, 604 F.2d 200 (2d Cir. 1979)); *Pillsbury Co. v. Milky Way Productions*, 215 U.S.P.Q. 124 (N.D. Ga. 1981) ("Poppin Fresh" and "Poppie Fresh"); *Edgar Rice Burroughs, Inc. v. Manns Theaters*, 195 U.S.P.Q. 159 (C. D. Cal. 1976) ("Tarzan" in X-rated film).

412. *Steinway & Sons v. Demars & Friends*, 210 U.S.P.Q. 954 (C.D. Cal. 1981) (*STEINWAY* Pianos v. *STEIN-WAY* clip-on beer can handles); *General Electric Co. v. Alumpa Coal Co.*; 205 U.S.P.Q. 1036 (D. Mass. 1979) (infringing product "Genital Electric" underwear).

413. *See supra* note 408 and accompanying text.

mention artist or any character described by the name of Roy Rogers or Rogers, in a decent and virtuous manner, and as champion of right and the enemy of wrong. . . ."414

If the reanimator casts the synthetic actor in a character and role that is out of keeping with the image portrayed by the actor in lifetime, particularly if the role is one with unsympathetic or repugnant characteristics, the owner of a trademark in the late performer's name or image, or even the owner of post-mortem rights of publicity might argue that such miscasting of the synthetic actor tarnishes the image of the mark or the persona of the late actor. The reanimator might argue that any restrictions placed on the type of role the reanimated actor plays would be a violation of the First Amendment rights of the reanimator. Defendants have been successful in defeating trademark infringement or dilution claims based on First Amendment considerations.⁴¹⁵ However, not every unlicensed use of a trademark is protected. First Amendment defenses may fail "where adequate alternative avenues of communication exist"⁴¹⁶ or where "a barely discernible message" is conveyed.⁴¹⁷ Pornographic films similar to *Debbie Does Dallas*⁴¹⁸ clearly would not merit serious consideration of a First Amendment defense. But, in the spectrum between films that employ the reanimated actor in roles consistent with the image of the late actor and pornographic motion pictures with "barely discernible messages," some weight must be given to First Amendment considerations. One might hazard a guess that the more "negative" the role played by the reanimated actor, coupled with a diminished communicative content, the less likely it would be that a First Amendment defense would be effective.

414. Reprinted in DONALD E. BIEDERMAN ET AL., LAW AND BUSINESS OF THE ENTERTAINMENT INDUSTRIES 244 (2d ed. Praeger 1992).

415. *Toho Co. v. Sears, Roebuck & Co.*, 645 F.2d 788 (9th Cir. 1981) ("Godzilla" v. "Bagzilla"); *New Kids on the Block v. News Am. Pub.* 745 F. Supp. 1540 (C.D. Cal. 1990) *aff'd* 971 F.2d 302 (9th Cir. 1992) (telephone survey); *Lucasfilm, Ltd. v. High Frontier*, 622 F. Supp. 931 (D. Col. 1985) ("STAR WARS"). McCarthy has stated "In terms of traditional free speech policy, use of a mark in a purely communicative, non-trademark setting should be permitted . . ." 3 MCCARTHY, *supra* note 392, § 31.37, at 31-207.

416. *Lloyd Corp. v. Tanner*, 407 U.S. 551, 567 (1972). See also *Mutual of Omaha Ins. Co. v. Novak*, 648 F. Supp. 905, 911 (D. Neb. 1986) ("There are numerous ways in which [defendant] may express his aversion to nuclear war without infringing upon a trademark in the process."), *aff'd*, 836 F.2d 397 (8th Cir. 1987), *cert. denied*, 488 U.S. 933 (1988).

417. *Dallas Cowboys Cheerleaders, Inc. v. Pussycat Cinema, Ltd.*, 604 F.2d 200, 206 (2d Cir. 1979); see also *Pillsbury Co. v. Milky Way Productions*, 215 U.S.P.Q. 124 (N.D. Ga. 1981); *Gucci Shops v. R.H. Macy & Co.*, 446 F. Supp. 838 (S.D.N.Y. 1977); *Edgar Rice Burroughs, Inc. v. Manns Theaters*, 195 U.S.P.Q. 159 (C.D. Ca. 1976); *Coca-Cola Co. v. Gemini Rising, Inc.*, 346 F. Supp. 1183 (E.D.N.Y. 1972).

418. (*Pussycat Cinema* 1978). This film was the subject of the controversy in *Dallas Cowboy Cheerleaders*, 604 F.2d 200.

E. Contractual Restrictions

If the entertainer has created trademark or service mark rights and those rights are sold or franchisees are licensed to use the trademark, the assignee or licensee would obviously be concerned that nothing the actor does in his lifetime would adversely affect those rights. In Roy Rogers' contract with Republic, Rogers agreed that any rights to be granted to others would be exploited "in a decent and virtuous manner." Today, Roy Rogers restaurants are a familiar landmark. Just as Republic Pictures was concerned about Roy's image, the owners of the Roy Rogers trademark and franchises are equally interested in Roy's continuing to project a wholesome, family image. Presumably, when reanimation becomes a reality, trademark assignees and licensees will want the actor to agree to language in the assignment or franchise license that any other contract entered into by the celebrity or by the actor's legatees and heirs will not be inconsistent with the image of the actor at the time the assignment of trademark or franchise agreement was entered into.

V. MORAL RIGHTS

A. Introduction

"Cast Your Fate to the Wind," recorded some thirty years ago by Vince Guaraldi,⁴¹⁹ might well serve as the anthem of the reanimated actor, for the fate of the actor's reputation may well be in the hands of those with little interest in preserving the dignity of his memory. Were this a nation steeped in the traditions of the Continental *droit moral*, an actor might be comforted by the knowledge that there would be safeguards against the desecration of his memory by those with little conscience. But moral rights do not fit comfortably in our property-oriented society. A half-century ago, an article in the *Harvard Law Review* opined that "[i]nsofar as judicial recognition has been accorded the moral right, the expressed grounds on which common-law protection has been based have been those of libel, unfair competition, copyright and the right of privacy, with some groping towards an inarticulate, *sui generis* tort theory."⁴²⁰ The "groping" towards a *sui generis* tort continues. Today, moral rights doctrine in the United States is a collage of narrowly-drawn federal and state statutes, libel, Lanham Act, breach of contract actions — and whatever else occurs to a court seeking to provide relief. A review of

419. Music by Guaraldi, lyrics by Carol Rowe, copyright 1961. Guaraldi, a jazz musician, was perhaps more popularly known for his musical contribution to the "Charlie Brown" T.V. specials.

420. Martin Raeder, *The Doctrine of Moral Right: A Study in the Law of Artists, Authors and Creators*, 53 HARV. L. REV. 554, 575 (1940).

the current state of moral rights will provide some insight as to the general inadequacy of the law in protecting the reanimated actor against unconscionable exploitation.

B. Moral Right Statutes

Even with the decision to join the Berne convention, the American embrace of moral rights has been tepid at best. Title 17 abjures any notion that adherence to Berne expanded moral rights protection beyond its current status in the United States.⁴²¹

While the moral rights provisions of the Berne Convention have not been adopted in gross in the United States, they provide a framework within which to consider the applicability of the doctrine of moral rights to reanimation. Article 6 *bis* of the Berne Convention provides:

Independently of the author's economic rights, and even after the transfer of said rights, the author shall have the right to claim authorship of the work, and to object to any distortion, mutilation, or other modification of, or other derogatory action in relation to, the said work, which shall be prejudicial to his honor or reputation.⁴²²

This provision protects attribution rights and integrity with respect to *works* of the author in order to protect the honor and reputation of the *author*. The right has been said to be a personal right rather than a property right. While the protection relates to *works* as they reflect on the *author*, it does not appear to deal with more direct attacks on the honor and integrity of the author. In attempting to apply the moral rights doctrine to exploitation of the reanimated actor, one would hope that moral rights protection could be extended to deal with the quality of the reanimation itself, *i.e.*, the dynamic three-dimensional computer model, the role assigned to the reanimated actor as well as the overall quality of the film.

Two arguments might be made for the application of moral rights to these issues. First, if the rationale of moral rights is to protect the honor and reputation of the actor, would not a distorted image of the actor, or a miscasting, or a poor quality of film, be a more direct attack on that honor and integrity than a distortion, mutilation or other modification of a *work* of that actor — and therefore be even more deserving of moral rights protection? Second, one might consider that in participating in the creation of a film an actor could be said to be a contributor to (if not in a

421. The Berne Convention Implementation Act (BCIA) states that adherence to Berne and passage of BCIA "do not expand or reduce any right of an author" with respect to attribution and integrity. BCIA § 3(b). Pub. L. No. 100-568, 102 Stat. 2853 (1988).

422. Berne Convention (Paris text), art. 6 *bis* (1).

narrow legal sense an "author" of) the work, *i.e.*, the film.⁴²³ Since the late actor is not himself the cause of the poor quality of image, the miscasting or the poor overall quality of the film, the spokesman for the late actor might argue that his work (the contribution of the late actor's synthetic counterpart) has been distorted by the producers of the film. The second argument goes to the direct application of the moral rights provisions, whereas the first argument would justify the application of the doctrine by analogy, if not directly. If either or both of these arguments is persuasive, then Article 6 *bis* would provide a vehicle for protecting the late actor against shoddy or inappropriate exploitation of his computer-generated "clone." How would this interpretation of Berne affect U.S. "moral rights," such as they may be?

When the United States made a tentative step towards codifying moral rights, the scope of protection was narrow. Section 106A extends moral rights protection to a "work of visual art." A work of visual art is defined as "a painting, drawing, print or sculpture,"⁴²⁴ and includes "still photographs."⁴²⁵ Motion pictures are specifically excluded from the definition of "visual art."⁴²⁶ Furthermore, for works created on or after June 1, 1991, the effective date of the Visual Artists Rights Act of 1990,⁴²⁷ moral rights protection only endures for the life of the author.⁴²⁸ Thus, those seeking relief against inappropriate post-mortem exploitation by the reanimator will receive no succor from the moral rights provision of Title 17, at least as presently enacted.

423. The contributions of performers to the economic success of a production was recognized in *Frank Music Corp. v. Metro-Goldwyn-Mayer, Inc.*, 886 F.2d 1545 (9th Cir. 1989), *cert. denied*, 494 U.S. 1017 (1990). The Ninth Circuit, while disagreeing with the district court's ultimate apportionment of profits in the case, agreed that a portion of the profit of the infringing derivative work should be allocated to "the creative talent of the producer, and director, the talent of the performers, composers, choreographers, costume designers and others who participated in creating [the derivative work]" *Id.* at 1549 (emphasis added). France provides moral rights protection to actors in "videograms" under "Neighboring Rights." See *infra* note 468 and accompanying text.

424. 17 U.S.C. § 101(1) "Work of Visual Art" (1988). The definition is restricted to a single copy or no more than 200 copies signed (sculptures need not be "signed" but must bear, if not "signed", and "identifying mark") and consecutively numbered. *Id.*

425. *Id.* The definition is restricted to a single copy or no more than 200 copies signed and consecutively numbered.

426. *Id.* § 101 (A)(i) (1988).

427. Pub. L. No. 101-650, 104 Stat. 5128.

428. 17 U.S.C. § 106(A)(d) (Supp. II 1991). However, for works created before June 1, 1991, in which title to the work had not been transferred by the author as of June 1, 1991, the rights provided by § 106(A) shall last for as long as § 106 rights endure (*e.g.*, life plus 50, 75 years, etc., as appropriate). See 2 NIMMER, *supra* note 49, § 8.21[B], 8-826 to 8-289.

Several states have enacted moral rights statutes.⁴²⁹ These statutes provide moral rights protection to an artist with respect to the artist's creation — painting, sculpture, etc. — but not protection to the artist's persona. Whether a state would be willing to extend protection by analogy to the persona of an actor as embodied in a reanimation is uncertain, but the possibility should be explored. The Massachusetts⁴³⁰ and New Mexico⁴³¹ statutes would, arguably, extend moral rights protection to reanimation. Both statutes specifically include film in the types of works protected, and both extend protection to 50 years after the death of the author (by analogy, the actor, in our case).⁴³² In Massachusetts, the Attorney General may act on behalf of the deceased author. A number of states specifically exclude film from coverage: Louisiana,⁴³³ Nevada,⁴³⁴ New Jersey,⁴³⁵ New York,⁴³⁶ and Rhode Island.⁴³⁷ One might argue that it is not the desecration of the film that is in issue, but rather the desecration of the actor. As the extension of protection that is sought is not of the work of the author (actor), but of the author (actor) himself, the exclusion of film makes that application of the statutes, by analogy, more difficult. California extends protection to "fine art" (defined as original painting, sculpture or drawing or work of art in glass) for the life of the author and fifty years after his death; post-mortem, the rights may be exercised by his "heir, beneficiary, devisee, or personal representative."⁴³⁸ Connecticut extends protection to drawings, paintings, etc. for the life of the author and fifty years after death; heirs, etc., may exercise the post-mortem rights.⁴³⁹ Maine extends protection to works of "fine art" and makes no mention of post-mortem protection.⁴⁴⁰

429. To some degree, these state statutes have been pre-empted by the Visual Artists Rights Act of 1990. 17 U.S.C. §301 (f)(1),(2), (1988 & Supp.II 1993) (scope of pre-emption). It should be particularly noted that subsection (f)(2)(C) provides that the pre-emption does not annul or limit any rights or remedies under the common law or under statutes of any state with respect to "activities violating legal or equitable rights *which extend beyond the life of the author.*" *Id.* (emphasis added). Consequently, the pre-emption provisions of section 301 will not present an obstacle to the application of state law to *post-mortem* exploitations of an actor through re-animation.

430. MASS. GEN. LAWS Ch. 110 § 231-85(S) (1993); see Vance Koven, *Observations on the Massachusetts Art Preservation Act*, 71 MASS. L. REV. 101 (1986).

431. N.M. STAT. ANN. § 13-4B-2 (Michie 1987).

432. See *supra* note 428 and accompanying text for the federal approach to post-mortem protection.

433. LA. REV. STAT. ANN. 51:2152(7) (West 1986).

434. NEV. REV. STAT. § 598.970(3) (1989).

435. N.J. STAT. § 2A:24A-3e (1993).

436. N.Y. ARTS & CULT. AFF. LAW § 14.03 (McKinney 1983).

437. R.I. GEN. LAW § 5-62-2(e) (1987).

438. CAL. CIV. CODE § 987(g)(1) (West 1979).

439. CONN. GEN. STAT. § 42-116(s) -(t) (1988).

440. ME. REV. STAT. ANN. tit. 27, § 303 (West 1985).

Pennsylvania protects original works of art in any medium (which arguably would include film) but makes no provision for descendibility protection.⁴⁴¹ Whether the statutes of California, Connecticut, Maine or Pennsylvania would extend protection, by analogy, to the reanimated actor is questionable. Of all the states with moral rights statutes, Massachusetts appears to be the most hospitable to possible post-mortem protection of actors against inappropriate exploitation. But, for the moment, neither federal nor state moral rights statutes appear to be an effective source of protection.

While the moral rights statutes, such as they are, do not appear to offer much, if any, protection to creators in other than the visual arts, protection has been obtained under a variety of rubrics including libel, false attribution, privacy and contract violation. While courts have been reluctant to base relief on a *sui generis* moral rights tort, preferring merely to mention the notion of moral rights while going on to grant or deny relief on grounds more comfortable to common-law nations,⁴⁴² it is clear that courts have been willing, on occasion, to grant relief based on moral

441. PA. STAT. ANN. tit. 73, § 2102 (1986).

442. The reluctance of courts to rest a decision on moral rights when other grounds are available is illustrated by the language in *Granz v. Harris*, 198 F.2d 585 (2d Cir. 1952):

"Moral right" seems to indicate to some persons something not legal, something meta-legal. (b) The "moral right" doctrine, as applied in some countries, includes very extensive rights which courts in some American jurisdictions are not yet prepared to acknowledge; as a result, the phrase "moral right" seems to have frightened some of those courts to such an extent that they have unduly narrowed artists' rights. (c) Finally, it is not always an unmitigated boon to devise and employ such a common name. As we have said elsewhere: "A new name, a novel label expressive of a new generalization, can have immense consequences. Emerson said, 'Generalization is always a new influx of the divinity into the mind. Hence the thrill that attends it.' Confronted with disturbing variety, we often feel a tension from which a generalization, an abstraction, relieves us. It serves as a de-problemizer, aiding us to pass from an unstable, problematical, situation to a more stable one. It satisfies a craving, meets what Emerson called 'the insatiable demand of harmony in man,' a demand which translates itself into the so-called 'law' of 'the least effort.' But the solution of a problem through the invention of a new generalization is no final solution: The new generalization breeds new problems. Stressing a newly perceived likeness between many particular happenings which had theretofore seemed unlike, it may blind us to continuing unlikenesses. Hypnotized by a label which emphasizes identities, we may be led to ignore differences * * * For, with its stress on uniformity, an abstraction or generalization tends to become totalitarian in its attitude toward uniqueness."

Without rejecting the doctrine of "moral right," I think that, in the light of the foregoing, we should not rest decision on that doctrine where, as here, it is not necessary to do so.

Id. at 590-91 (citations omitted).

rights considerations, even if they have been chary of labeling the cause as one sounding in moral rights.⁴⁴³ A review of cases involving false attribution or distortion will give some insight into the effectiveness of this patchwork of theories to substitute for a moral rights law.

C. Moral Rights "Stand-In"

1. LIBEL

In *Brown v. Paramount Publix Corp.*,⁴⁴⁴ the court, in referring to the "talking motion picture," observed that "[i]n the hands of a wrongdoer these devices have untold possibilities toward producing an effective libel."⁴⁴⁵ The court probably had in mind the libel arising out of the story told, rather than a libel growing out of a misattribution to, for instance, a producer or director. This latter libel pertains not to the story itself, but to the quality of the story telling, *i.e.*, the quality of the motion picture. But the court's observation as to calumniators would seem equally applicable to the quality issue. In fact, libel actions have been successful with respect to misattribution of inferior quality films and other types of works.⁴⁴⁶ But injunctive relief traditionally has not been available to the plaintiff in libel actions,⁴⁴⁷ and this leaves the plaintiff without an effective prophylaxis.

443. In *Jaeger v. American International Pictures*, 330 F. Supp. 274, 278, (S.D.N.Y. 1971), the court explicitly acknowledged the moral rights substitute approach of American courts:

Whether or not there is any square counterpart in American law of the "moral right" of artists assertedly recognized on the European Continent, there is enough in plaintiff's allegations to suggest that he may yet be able to prove a charge of unfair competition or otherwise tortious misbehavior in the distribution to the public of a film that bears his bane but at the same time severely garbles, distorts or mutilates his work, it is at least arguable that there is a claim under the Lanham Act. . . . Perhaps a similar species of wrong is defined and reachable under the law of New York and other jurisdictions where the film is being shown.

Id.; (citations omitted) *see also* *Gilliam v. American Broadcasting Co.* 538 F.2d 14 (2d Cir. 1976); *Edison v. VIVA International, Ltd.*, 421 N.Y.S.2d 203 (N.Y. App. Div. 1979); *Society of Survivors of the Riga Ghetto, Inc.*, 535 N.Y.S.2d 670 (N.Y. Sup. Ct. 1988); *Seroff v. Simon & Schuster, Inc.*, 162 N.Y.S.2d 770 (N.Y. Sup. Ct. 1957), *aff'd*, 210 N.Y.S.2d 479 (N.Y. App. Div. 1960). *But cf.* *Classic Film Museum, Inc. v. Warner Bros., Inc.*, 453 F. Supp. 852 (D. Me. 1978), *aff'd*, 597 F.2d 13 (1st Cir. 1979).

444. 270 N.Y.S. 544 (N.Y. App. Div. 1934).

445. *Id.* at 547.

446. *Carroll v. Paramount Pictures*, 3 F.R.D. 95 (S.D.N.Y. 1942) (film); *Clevenger v. Baker Voorhis & Co.*, 168 N.E.2d 643 (N.Y. 1960) (book). *Ben-Oliel v. Press Pub. Co.*, 167 N.E. 432 (N.Y. 1929) (newspaper article). Less successful in a libel action was the plaintiff in *Seroff v. Simon & Schuster, Inc.*, 162 N.Y.S.2d 770 (N.Y. Sup. Ct. 1957), *aff'd*, 210 N.Y.S.2d 479 (N.Y. App. Div. 1960) (translated book).

447. *Girl Scouts of the United States of America v. Personality Posters Mfg. Co.*, 304 F.Supp. 1228 (S.D.N.Y. 1969); *Hoxsey Cancer Clinic v. Folsom*, 155 F.Supp. 376 (D. D. C.

While monetary damages for libel provide some balm for injury to reputation, they are a poor substitute for avoiding the harm in the first instance, as a true moral rights law might do.

Furthermore, libel laws are an inadequate substitute for another reason. Few states have enacted 'libel of the dead' criminal statutes.⁴⁴⁸ Fewer still have enacted civil statutes, and those that have seem reluctant to enforce them.⁴⁴⁹ The statutes typically proscribe acts that "blacken" or "vilify" the memory of the deceased. The most likely occasion for violation of a libel of the dead statute will be when the reanimator exploits the synthetic actor in a role that, if undertaken by the late actor in life, would have subjected him to criminal prosecution. In effect, placing the synthetic replica in such a situation is akin to suggesting that the actor in life would have played such a role, which in turn is tantamount to accusing him of a crime.⁴⁵⁰ If the reanimated actor is playing a real person, living or dead, such a possibility must be considered. If the characterization of the real person, as portrayed by the reanimated actor, is itself libelous, and particularly if the portrayal would be in violation of a criminal libel statute, then placing the reanimated actor in such a position might itself be considered a libel of the deceased actor. The most likely occasion for such a criminal prosecution would be when the film is

1957); *Kuhn v. Warner Bros. Pictures*, 29 F.Supp. 800 (S.D.N.Y. 1939); *Prucha v. Weiss*, 197 A.2d 253 (Md. 1964), *cert. denied*, 377 U.S. 992. *But see West Willow Realty Corp. v. Taylor*, 198 N.Y.S.2d 196 (N.Y. Sup. Ct. 1960); *Wolf v. Gold*, 193 N.Y.S.2d 36 (N.Y. App. Div. 1959).

448. At present, ten states have libel of the dead statutes that make it a crime to defame a deceased person. COL. REV. STAT. ANN. § 18-13-105 (West 1990); GA. CODE ANN. § 16-11-40 (1991); IDAHO CODE § 18-4801 (1991); LA. REV. STAT. ANN. § 14:47 (West 1986); NEV. REV. STAT. § 200.510 (1989); WASH. REV. CODE ANN. § 9.58.010 (1988); KAN. STAT. ANN. § 21-4004 (1988); N.D. CENT. CODE § 12.1-15-01 (1985); OKLA. STAT. ANN. tit. 21, § 771 (West 1983); UTAH CODE ANN. § 76-9-501 (1986). It is a misdemeanor in six states. GA. CODE ANN. § 16-11-40 (1990), KAN. STAT. ANN. § 21-4004 (1988), NEV. REV. STAT. § 200.510 (1989), N.D. CENT. CODE § 12.1-15-01 (1985); UTAH CODE ANN. § 9.58.010 (1986) and WASH. REV. CODE ANN. § 9.58010 (West 1988). In threestates, one may be fined or imprisoned, or both. ID. CODE § 18-4802 (1991), LA. REV. STAT. ANN. § 14:47 (1986); OKLA. STAT. ANN. tit. 21, § 773 (1983). In Colorado, criminal libel is a class 6 felony. COLO. REV. STAT. ANN. § 18-13-105 (1990).

449. Presently Oklahoma, Texas, and Utah have civil statutes defining libel as to include that which tends to blacken the memory of one who is dead. OKLA. STAT. ANN. tit. 12, § 1441 (1980); TEX. CIV. PRAC. & REM. CODE ANN. § 73.001 (1986); UTAH CODE ANN. § 45-2-2 (1986). However, despite the plain language of these statutes, courts in Oklahoma and Texas have so far refused to recognize a right in favor of the relatives of the deceased actor. *in Drake v. Park Newspapers of N.E. Oklahoma, Inc.*, 683 P.2d 1347 (Okla. 1984); *Renfro Drug Co. v. Lawson*, 160 S.W. 2d 246 (Commission of App. of Tex. 1942).

450. *Restatement (Second) of Torts* section 569 comment d (1977) states, in part, that "[T]he imputation of certain crimes is sufficient to support an action for slander without proof of special harm. To constitute slander actionable per se under the rule there stated, the crime imputed must be of a kind that involves moral turpitude or that is punishable in the first instance by confinement."

obscene.⁴⁵¹ If the quality of the reanimation is itself poor, it is improbable that poor quality, *per se*, would constitute a libel of the dead, under either criminal or civil law.⁴⁵²

If the film itself, apart from the quality of the reanimation, is not in keeping with the type of film the actor performed in during life, there is a possibility that such use of the reanimated actor in an inferior quality film would itself be a libel. Attribution of inferior quality work products to a *living* individual has been held to be a libel.⁴⁵³ Whether the same standard used for determining that a false attribution of an inferior work to a *living* person is a libel should also be applied to the false attribution of an inferior work to a *deceased* person is a question not free of difficulty. One could envision situations in which the distortion is not so outrageous as to constitute a "blackening" or a "vilification" of an actor's memory, but which nonetheless would deserve redress had there been a *droit moral* provision.

3. LANHAM ACT & STATE UNFAIR COMPETITION LAWS

Where the moral rights issue has arisen in a business context, Lanham Act Section 43(a)⁴⁵⁴ and state unfair competition laws have provided relief.⁴⁵⁵ Unlike libel laws, they have made injunctive relief available to redress such wrongs as the false attribution of inferior works

451. A number of jurisdictions make it a criminal offense to appear in an obscene film. IND. CODE ANN. § 35-49-3-2 (1983); N.C. GEN. STAT. § 14-190.5 (1985); OKLA. STAT. tit. 21 § 1040.8 (1983); S.C. CODE ANN. § 16-15-305 (1987); VA. CODE ANN. § 18.2-382 (1988).

452. Cf. *Gardella v. Log Cabin Prod. Co.*, 89 F.2d 891, 896 (2d Cir. 1937). The court said:

If there was a deceptive imitation which amounted to an impersonation, an inferior performance would constitute an attack upon appellee's professional reputation. To have said of her, whether in writing or orally, that her abilities had suffered, or that she was an incompetent singer, or that she was no longer the able and talented entertainer the public knew her to have been, would constitute a clear injury to her reputation. To say it by self-revelation is the same thing and, if anything, is more effective.

Id.

453. *Carroll v. Paramount Pictures*, 3 F.R.D. 95 (S.D.N.Y. 1942). Legendary producer Earl Carroll brought an action for libel with respect to a motion picture "A Night at Earl Carroll's" which film contained the false legend that it had been produced by Carroll. The opinion in *Carroll* recited Carroll's complaint that the film "was of poor quality and vastly inferior to the plays and motion pictures with which the plaintiff has been associated as producer in the past and reflects adversely on his name, standing and reputation." *Id.* at 96, *see also* *Clevenger v. Baker Voorhis & Co.*, 168 N.E.2d 643 (N.Y. 1960) (claim of libel for false attribution of revision to author of original work where revision claimed to contain numerous errors).

454. *Gilliam v. American Broadcasting Companies*, 538 F.2d 14 (2d Cir. 1976); *Follett v. New American Library*, 497 F. Supp. 304 (S.D.N.Y. 1980). *See* *Jaeger v. American International Pictures*, 330 F. Supp. 274 (S.D.N.Y. 1971).

455. *Jaeger*, 330 F. Supp. 274; *Granz v. Harris*, 198 F.2d 585 (2d Cir. 1952); *Prouty v. National Broadcasting Co.*, 26 F. Supp. 265 (D. Mass. 1939).

to the plaintiff. While the Lanham Act and state unfair competition laws may be invoked to prevent a violation of the deceased actor's moral rights, typically the plaintiff must have a protectable economic interest. Only if there is such a plaintiff, and then, only if that plaintiff deems "the game worth the candle" will an action under these statutes be brought. Those with the greatest interest in the actor's memory — his family — may have no standing under the Lanham Act or state unfair competition laws. In addition, even if a commercial plaintiff with standing were to bring a Lanham Act, state unfair competition or state anti-dilution action, the success of the plaintiff might depend in part on the strength of the mark — in this case the strength of the actor's persona.⁴⁵⁶ Thus, the moral rights protection of a reanimated actor might depend upon the amount of his celebrity. One would hope that moral rights might be more egalitarian.

3. PRIVACY

Right of privacy statutes have on occasion been invoked to redress what more properly might be categorized as a moral rights violation, particularly where there has been false attribution of authorship to a mutilated work.⁴⁵⁷ But typically, the injured party has been a *living* person. To the extent right of privacy statutes do not extend protection to the deceased, they are, of course, of no benefit to reanimation. Given the paucity of decisions in which a right of privacy has substituted for a moral rights law, the right of privacy remedy appears an anemic guardian of moral rights.

4. CONTRACT RIGHTS

Courts have also looked to contract provisions, either express or implied, to protect against false attribution, and to provide injunctive relief when appropriate.⁴⁵⁸ But the absence of author-protective contract clauses has, at least to some degree, left authors without remedy for what

456. *E.g.*, *Allen v. Nat'l Video, Inc.*, 610 F.Supp. 612, 627 (S.D.N.Y. 1985); *Estate of Presley v. Russen*, 513 F.Supp. 1339, 1366 (D.N.J. 1981).

457. *Manger v. Kree Inst. of Electrolysis, Inc.*, 233 F.2d 5 (2d Cir. 1956); *Jaeger*, 330 F.Supp. 274.

458. *Society of Survivors of the Riga Ghetto, Inc. v. Huttenbach*, 535 N.Y.S.2d 670 (N.Y. Sup. Ct. 1988); *Edison v. VIVA International, Ltd.*, 421 N.Y.S.2d 203 (N.Y. App. Div. 1979).

Plaintiff Edison's moral right to protection has been subsumed in his contractual right to seek redress for the alleged mutilation of his article. Hence, even if the second cause is viewed as expressing a request for relief based on the plaintiff's 'moral right,' it must be dismissed for its failure to allege a breach of duty distinct and apart from a breach of contract.

Id. at 206; *see also Gilliam*, 538 F.2d 14.

they perceived to be moral rights violations.⁴⁵⁹ However, the failure to provide contract protection against alteration is not necessarily fatal to all moral rights-like claims. A comparison of two decisions with opposite results is instructive on this issue. In *Preminger v. Columbia Pictures*,⁴⁶⁰ the court denied relief to Otto Preminger with respect to the editing by television stations of the film *Anatomy of a Murder* to accommodate commercials. In contrast to *Preminger*, the court in *Gilliam v. American Broadcasting Companies*⁴⁶¹ granted relief against editing of the "Monty Python" series to accommodate commercials and to remove certain scatological material. At a superficial level, one might distinguish *Gilliam* from *Preminger* on the basis that the creators of Monty Python programs took the precaution to include language in their contract to preclude alteration of the Python programs once they were recorded, whereas Otto Preminger had no such language in his producer/director contract with respect to *Anatomy of a Murder*. But a closer look suggests a more substantial reason for distinguishing the two cases with respect to moral rights considerations. In *Gilliam*, ABC had cut approximately 24 minutes from each 90-minute segment (comprised of three 30-minute programs). Thus, close to 27% of the original program content was excised by ABC. By way of contrast, the editing of *Anatomy of a Murder*, which had an original running time of 161 minutes, to accommodate commercials was considered "minor cuts" and not a "mutilation."

In *Gilliam*, the court recognized that some latitude must be given with respect to minor editing changes: "Courts have recognized that licensees are entitled to some small degree of latitude in arranging the licensed work for presentation to the public in a manner consistent with the licensee's style or standards."⁴⁶² But the *Gilliam* court went on to say, "That privilege, however, does not extend to the degree of editing that occurred here especially in light of the contractual provisions that limited the right to edit Monty Python material."⁴⁶³ And in *Preminger*, the court invited the producer/director to make application for injunctive relief if cuts were made that were not minor, but so major as to constitute a "mutilation," citing as examples cutting the film to 100 minutes or 53

459. Jaeger, 330 F. Supp. 274; *Preminger v. Columbia Pictures Corp.*, 219 N.E.2d 431 (N.Y. 1966), *aff'd*, 269 N.Y.S.2d 913 (N.Y. App. Div. 1966); *Seroff v. Simon & Schuster*, 162 N.Y.S.2d 770 (N.Y. Sup. Ct. 1957), *aff'd*, 210 N.Y.S.2d 479 (N.Y. App. Div. 1960).

460. 219 N.E.2d 431 (N.Y. 1966).

461. 538 F.2d 14.

462. *Id.* at 23 (citing *Preminger*, 219 N.E.2d 431, as well as *Statchborneo v. Arc. Music Corp.*, 357 F. Supp. 1393, 1405 (S.D.N.Y. 1973)); *see also*, *Packard v. Fox Film Corp.*, 202 N.Y.S. 164 (N.Y. App. Div. 1923).

463. *Gilliam*, 538 F.2d at 23 (emphasis added).

minutes total running time.⁴⁶⁴ Thus, we might conclude that even in the absence of specific moral rights protection in a contract, a court will grant relief when the alteration is so serious as to constitute a "mutilation."

However, short of "mutilation," other "distortions" of the actor's memory, as far as contract law is concerned, would be left to the parties to resolve. The courts' language appears to place the burden on the talent to define, contractually, what is proscribed, rather than to place on the exploiter of that talent the burden of bargaining for what is permitted. As interpreted by courts faced with a moral rights issue, contract law seems to favor property rights over moral rights, a not surprising result given our common law heritage. In short, contract law is, at best, a "crap shoot" as far as moral rights are concerned. On the other hand, a moral rights law would be less unpredictable in protecting an actor's reputation. A moral rights approach would shift the burden to the talent exploiter, reserving to the talent the right to prohibit all *unmentioned* alterations.

D. International Implications

Perhaps the moral rights of the creative community could be left to the tender mercies of the legal crazy quilt that now exists, if the efforts of the creative community were distributed only domestically. But domestically-created intellectual property is exploited not only in America; it is a major, and very successful, export of the United States. This country cannot afford to be unmindful of the fact that there are nations to which we export intellectual property that place a high value on moral rights. France is such a country. In 1991, the *Cour de Cassation* in France held that John Huston's children and Ben Maddow, who had collaborated with Huston on the screenplay of the *Asphalt Jungle*, had standing to complain of the television exhibition of the colorized version of the film.⁴⁶⁵ The decision of the High Court of France to ignore United States copyright law with respect to "authorship" in works made for hire, and instead, to apply French law under the doctrine of "loi de police," will force American producers to consider the ramifications of the Continental *droit morale*. In that regard, it should be noted that France accords protection to performers under "Neighbouring Rights." In

464. *Preminger v. Columbia Pictures Corp.*, 267 N.Y.S.2d 594, 603 (N.Y. Sup. Ct. 1966); *aff'd*, 269 N.Y.S.2d 913 (N.Y. App. Div. 1966), *aff'd*, 219 N.E.2d 431 (N.Y. 1966). An invitation similar to that in *Preminger* was extended to Gene Autry by a court that found no mutilation in minor T.V. editing. "As to the question of the appellee's emasculating the pictures, we have attempted to leave that question open, to be properly presented when and if the occasion arises . . ." *Autry v. Republic Prod.*, 213 F.2d 667, 670 (9th Cir.), *cert. denied*, 348 U.S. 858 (1954).

465. For a discussion of the decision in *Huston*, see Jane Ginsburg & Pierre Sirinelli, *Authors and Exploitations in International Private Law: The French Supreme Court and the Huston Film Colorization Controversy*, 15 COLUM.-VLA J.L. & ARTS 135 (1991).

Article 17, a "performer shall have the right to respect for his name, his authorship and his interpretation. This inalienable and imprescriptible right shall attach to his person. It may be transmitted to his heirs in order to protect the interpretation and the memory of the deceased."⁴⁶⁶ Whether France would extend the protection granted performers to the reanimated actor is, of course, unknown at this time. While France may be the leading proponent of moral rights, it is not alone in exalting those rights. The transnational nature of intellectual property is one more reason for overhauling our approach to moral rights.

The piecemeal approach of the United States to moral rights, while perhaps not a pastiche, is a poor substitute for the integrated approach an adoption of *droit morale*, in full panoply, would yield. Moral rights have implications far beyond reanimation considerations. But reanimation provides a microcosm of the creative universe. It is, perhaps, not too great a leap of faith or logic to suggest that a moral rights law that addresses the issues raised by reanimation might be appropriate to a broad spectrum of creative activities.

E. Recommendations

The law, in its current state, will only imperfectly protect the integrity of the reanimated actor. Libel laws protecting the dead are too few, and in any event, probably ineffective, except where the role is in a film that would violate criminal law. Trademark and similar laws protect only limited economic interests; they do not protect the public's interest. What is needed is a *sui generis* moral rights law. Assuming that a moral rights law is appropriate, a number of questions arise: Should the law be state or federal? If federal, should it be part of the Copyright Act? Who should have standing to bring an action? Should the action be civil, criminal or both? Should the protection be of limited duration or unlimited duration? Should the law be broadly worded or should it be specific?

I would suggest that a moral rights law should be adopted at the federal level rather than the state level. Transaction costs would be less if there were a uniform law. While a uniform state law might provide a solution, experience demonstrates that the uniform adoption of proposed uniform laws is a goal not easily achieved; witness the forty-year history of the Uniform Commercial Code. A federal law would ensure the kind of uniformity that is desirable in what is clearly, with respect to film, both an interstate business and an international business. The Commerce

466. Law on Authors' Rights and on The Rights of Performers, Producers of Phonograms and Videograms and Audiovisual Communications Enterprises, Title II, Neighboring Rights, Article 17.

Clause of the Constitution provides a sufficient legal basis for adoption of a national moral rights law, should Congress decide that moral rights should not be integrated into the Copyright Act, as Congress did so decide with respect to visual artists' moral rights. Since the adoption of a comprehensive, national moral rights law would be a departure from our long-standing position on the issue, and given the pragmatics of politics, divorcing moral rights from copyright may be politically unrealistic. However, as previously stated, moral rights, which could be constitutionally supported under the Copyright and Patent Clause of the Constitution, could also be justified by the Commerce Clause, if a decision were made to decouple moral rights from copyright.

State statutes could provide standing to the Attorney General acting in *parens patriae*, to the next of kin, or to the actor's estate. If a national moral rights act is adopted, it should carefully spell out the extent to which it pre-empts state laws, civil and criminal, including "libel of the dead" statutes. Of particular concern would be the relation of the federal moral rights to the Lanham Act Section 43(a) and state unfair competition and anti-dilution statutes. If trademark owners and those with similar economic interests were given standing to sue under the moral rights law, pre-emption of the federal statutes and state law would be appropriate. However, it may be preferable to leave trademark and other economic-interest plaintiffs to the Lanham Act and state law, since their interests are solely to prevent economic harm and only incidentally to preserve the integrity of the memory of the late actor. However, one could make the argument that distinguishing between economic and personal interests could lead to inconsistent treatment of what is, at base, a moral rights violation. On balance, I believe that retaining the status quo with respect to trademark and related issues is the preferred course.

If the federal moral rights law provides civil relief only and avoids criminalizing breach of its provisions, there are a number of advantages. By not including criminal provisions, the language of the statute, arguably, can be less specific than it would have to be if criminal sanctions were involved. Omitting criminal provisions will help to reduce the caseload of the federal judiciary; states are perhaps in a better position to decide what conduct is deserving of criminal sanctions in light of their particular circumstances. And finally, it will not be necessary to address pre-emption as to state criminal laws, such as "libel of the dead" statutes.

With respect to duration of moral rights protection, one might adopt the French position of perpetual protection. However, if this position were to be seriously entertained, Constitutional issues would have to be addressed. First, moral rights could not be incorporated in the Copyright

Act, since the Constitution⁴⁶⁷ directs Congress to grant protection for a limited time only. On the other hand, basing Congressional authority to legislate moral rights on the Commerce Clause removes the time impediment posed by the Copyright/Patent clause. However, one must ask whether perpetual, as opposed to a limited-duration, protection is advisable. In her dissent in *Lugosi v. Universal*,⁴⁶⁸ Chief Justice Bird suggested, with respect to a post-mortem right of publicity, a term of life plus 50 years. A similar suggestion was made by the court in *Estate of Presley v. Russen*.⁴⁶⁹ Moral rights could be similarly limited.

I would suggest that a time limit be placed on moral rights. I do so for several reasons. As time passes, descendants multiply; which of the great-great-great grandchildren are to have standing? If there are no heirs, must some government official forever be guardian of an actor's integrity? As society evolves, what yardstick is to be used to measure the inappropriateness of a role, that existing when the actor died, or those of the current generation? On a practical level, would Congress pass a moral rights statute that would give perpetual protection? A moral rights statute grants a type of personal monopoly - a perpetual monopoly would likely not be politically acceptable. If life plus 50 years would be too short, perhaps life plus 75 or 100 years would be sufficient.

Finally, one must decide the specificity of the statute's wording. Detailed language serves to give specific guidance to the reanimator and others involved with moral rights issues. But detailed guidelines deprive courts of flexibility in dispensing justice and detailed guidelines are an invitation to the devious. Broad language provides flexibility, a quality that lends itself to an ever-evolving society.

VI. CONCLUSION

In centuries past, authors and artists enjoyed a kind of immortality denied to performers. So long as their prose, poetry, music, paintings and sculptures endured, the memory of long dead authors and artists persisted in the physical embodiment of their creative genius; works created centuries ago are enjoyed today by the latest inhabitants of this planet. Performers were not so fortunate; performance was gossamer, vanishing upon completion. All that remained were, at best, fragments — a sketch of the performer, a description of the performance, a playbill, nothing more. The twentieth century changed all that; the motion picture and the sound recording lend permanence to the talent of the performer. The voices of Caruso, Madame Schumann-Heinke and McCormack have

467. U.S. const. Art. 1, § 8, cl. 8.

468. 603 P.2d 425, 447 (Cal. 1979).

469. 513 F. Supp. 1339, 1355 n. 10 (D.N.J. 1981).

not been stilled by death. The performances of the Barrymores, Olivier, Tracy, Garbo and Swanson, captured on film, remind succeeding generations of their skill as actors. The twenty-first century may bestow yet an additional measure of immortality to performers via reanimation.

The prospects of reanimation are exciting and boundless. Acting dynasties may find the living performing with their ancestors; Drew Barrymore may find herself teamed with her grandfather John and her great-aunt and uncle, Ethel and Lionel. Dream casts assembled across generations would enrich the silver screen. Society might be able to rectify, in some small way, social ills of the past. Actors from minority groups who had been given only stereotypical roles during their lifetime or who were cast in films with limited, ethnic distribution could be cast in serious roles with general appeal. Actors denied the opportunity to explore subjects taboo during their lifetimes would have the opportunity through reanimation to address the once-forbidden topics. But, unless the legal issues implicated by reanimation are addressed in a thoughtful, comprehensive and cohesive way, reanimation may find itself strangled at birth.

Reanimation technology is still in the embryonic stage of development. In fact, it is likely that reanimation will not reach the silver screen until early in the twenty-first century. There is time to explore the legal issues raised by this fascinating innovation in entertainment. This article has discussed a number of issues raised by reanimation; others may occur to the reader. There is time to debate the best ways of responding to the legal issues raised. Too often in the past, the legal profession has lagged behind the scientific community. Playing legal catch-up might impede rather than foster innovation. I do not suggest that laws be drafted before we fully understand the ramifications of the technology. But it is not premature for the legal profession to join the scientific community in discussing the entwined legal and technical issues of reanimation. The readiness is all.

COMMENT

THE NEW PRIVACY INTEREST: ELECTRONIC MAIL IN THE WORKPLACE

STEVEN WINTERS[†]

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[T]here are no comparable Federal statutory standards to protect the privacy and security of communications transmitted by new *noncommon carrier communications services or new forms of telecommunications and computer technology*. This is so, even though American citizens and American businesses are using these new forms of technology in lieu of, or side-by-side with, first class mail and common carrier telephone services. . . .

Most importantly, the law must advance with the technology to ensure the continued vitality of the Fourth Amendment. *Privacy cannot be left to depend solely on physical protection*, or it will gradually erode as technology advances. Congress must act to protect the privacy of our citizens. If we do not, we will promote the gradual erosion of this precious right.¹

I. INTRODUCTION

At the First Conference on Computers, Freedom & Privacy, Professor Lawrence Tribe proposed a Twenty-Seventh Amendment to the United States Constitution. The purpose of the new amendment is to protect individual privacy rights increasingly threatened by burgeoning computer technology.² Tribe and others evidence concern that computer technology has so eroded our privacy that nothing less than a Constitutional Amendment will protect those vanishing rights.

Tribe's call for a new Constitutional Amendment highlights his concern for what he labels as invasions of "cyberspace." "Cyberspace" simply refers to the ephemeral space occupied by computer transmissions and communications. The United States Constitution does not expressly protect an individual from invasions of cyberspace. Courts, too, seem less willing or less able to protect an individual from these electronic invasions.³ As a result, both our current Constitution and the common law right to privacy are ill-equipped for the voyage into cyberspace.

1. S. REP. NO. 541, 99th Cong., 2d Sess. 2 (1986), reprinted in 1986 U.S.C.C.A.N. 3555, 3559 (emphasis added).

2. See Henry Weinstein, *Amendment on Computer Rights Urged*, L.A. TIMES, Mar. 27, 1991, at A3.

3. See, e.g., *Shoars v. Epson America, Inc.*, No. SWC 112749 (Cal. Super. Ct. 1990); *Flanagan v. Epson America Inc.*, No. BC 007036 (Cal. Super. Ct. Mar. 12, 1991) analyzed *infra* nn. 150-184 and accompanying text. See also Current Developments Section: *Electronic Mail Raises Issues About Privacy, Experts Say*, DAILY LABOR REPORT, Nov. 17, 1992, at A-7; Mitch Ratcliffe, *Privacy Focus of Borland Case*, MACWEEK, Vol. 6, No. 35, Oct. 5, 1992, at 1.

One of the most proliferating forms of "cyberspace" is electronic mail.⁴ Electronic mail is now used by an estimated 20 million people across the United States. More than half of those users went on-line in the past two years.⁵ E-mail continues to be the subject of much debate regarding the privacy of its users.⁶ The issue of workplace privacy as it relates to computer use and electronic communications is actively before Congress.⁷

This Comment examines what level of privacy employees who use electronic mail systems are entitled to expect. Part II recounts the current court-made and statutory laws which purport to protect employees' workplace privacy. Part II argues that the Supreme Court has poorly fashioned search and seizure law for the public workplace because it continues to rely on a radically outdated view of how the workplace functions. The Supreme Court has created case law which all but eliminates constitutional protection afforded public employees for work-related searches and seizures. Statutes have picked up some of the slack and in some instances protect both private and public employees. However, the statutes also have significant gaps and ambiguities. Part II urges that there are very good reasons to protect private employees who use E-mail in the workplace, not the least of which is that it is in the employer's best interest to do so.⁸

Part III suggests that the best place to find privacy protection for private employees who use computer systems at work is in state constitutions.⁹ To this end, Part III analyzes *Shoars v. Epson America*,

4. Electronic Mail, often referred to a "E-mail," is a form of communication sent from one computer to another, much like postal mail is sent from one location to another. However, the privacy protection afforded postal mail far outstrips that currently afforded E-mail. See 18 U.S.C. §§ 1708-1710 (1988) (sections concerning theft or receipt of stolen mail matter generally, theft of mail matter by officer or employee, and theft of newspapers). Moreover, unlike postal mail, E-mail reaches its intended recipient almost instantaneously and is subject to all the costs and benefits of using a networked computer system.

5. See DAILY LABOR REPORT *supra* note 3.

6. See, e.g., Lory Zottola Dix, *Some Organizations are Defining E-Mail Privacy*, COMPUTERWORLD, Nov. 23, 1992, at 87; Bruce Caldwell, *E-Mail Privacy: A Raw Nerve For Readers*, INFORMATION WK., July 30, 1990, at 52 (the magazine's survey regarding E-mail privacy drew the largest number of responses from readers in the magazine's history); see also Don J. DeBenedictis, *E-mail Snoops: Reading Others' Messages May Be Against the Law*, A.B.A.J., Sept., 1990, at 26-27.

7. See, e.g., H.R. REP. NO. 1218, 102d Cong., 1st Sess. §§ 2-7 (1991); Caldwell, *supra* note 6, at 36.

8. *But cf.* O'Connor v. Ortega, 480 U.S. 709, 720-24 (1987). The Court reasoned that the public employer's interests in workplace supervision, control and efficiency justified severely limiting employee privacy.

9. This, of course, assumes state constitutions have a provision protecting a person from private infringements of her privacy similar to that of the California Constitution, Art. I, § 1. See *infra* note 12.

Inc.,¹⁰ a case which is now working its way through the California courts. This Comment contends that the California Superior Court decided *Shoars* incorrectly, both as a matter of law and of policy. Part III extends the *Shoar* analysis to show how state courts might better interpret their respective privacy laws to effect these legal and policy concerns.

In Part IV, this Comment concludes that courts have a special role to play when adjudicating work-related computer privacy issues. This part summarizes the reasons why courts should not blindly defer to legislators when adjudicating technology-related privacy issues.

II. COURT-MADE PRIVACY LAW: WHY FAVOR EMPLOYERS?

The right of privacy appears to be a diverse and growing bundle of rights which derive from four principal sources: The United States Constitution,¹¹ state constitutions,¹² statutory sources,¹³ and the common law.¹⁴ None of these four sources adequately protects an employee's privacy in the computerized workplace. Inadequacies exist because issues of computer privacy do not fit neatly into current Fourth Amendment law. It is true the Fourth Amendment applies only to state actions and therefore protects only public employees. However, Fourth Amendment law as decided by the Supreme Court heavily influences

10. See *supra* note 3.

11. The Fourth Amendment reads:

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

U.S. CONST. amend. IV.

12. See, e.g., WASH. CONST. art. I, § 7 (providing that no person shall be disturbed in his or her private affairs). The purpose of this constitutional amendment is to prevent unreasonable searches and seizures and to require a standard of a reasonable expectation of privacy. *City of Seattle v. See*, 408 P.2d 262 (Wash. 1965), *rev'd on other grounds*, 387 U.S. 541 (1967). Generally, the Washington provision does not apply to private individuals, but government employers are within the purview of the provision. *But cf.* CAL. CONST. art. I, § 1. California courts have held that private actors are within the purview of the constitution. *Wilkinson v. Times Mirror Corp.*, 264 Cal. Rptr. 194, 199-200 (Ct. App. 1989); see also CAL. PENAL CODE §§ 630-632 (Deering 1983 & Supp. 1992) (specifically stating that private communications come within the purview of the state eavesdropping and wiretapping statutes).

13. See, e.g., Electronic Communications Privacy Act of 1986, Pub. L. No. 99-508, 100 Stat. 1848 (codified in scattered sections of 18 U.S.C.) [hereinafter ECPA]; CAL. PENAL CODE §§ 630-632 (Deering 1983 & Supp. 1992).

14. Courts have developed a cause of action for injury based on an invasion of privacy. *K-Mart Stores Corp. v. Trotti*, 677 S.W.2d 632, 635-36 (Tex. Ct. App. 1984) (court stated that the essence of our right to privacy is our right to be left alone, to live a life free from intrusion and unwanted publicity), *writ refused*, 686 S.W.2d 593 (Tex. 1985); RESTATEMENT (SECOND) OF TORTS § 652 (1977).

both state and federal court interpretations of non-public employee's privacy rights in the workplace.¹⁵

Generally, a "search" under the Fourth Amendment protects "an expectation of privacy that society is prepared to consider reasonable."¹⁶ The Fourth Amendment further requires that searches¹⁷ must be reasonable in all circumstances. A reasonable search is one where the searcher obtains a warrant based on probable cause. Searches conducted without a warrant are adjudged *per se* unreasonable.¹⁸ However, courts may abandon warrant and probable cause requirements when they become "impractical under the circumstances."¹⁹ Impractical circumstances exist during emergencies, or when the need for either a warrant or probable cause will "frustrate the purpose for which the search was intended."²⁰ Where a warrant is found to be impractical, the probable cause standard may serve as a reference for adjudicating the search's reasonableness.²¹ When the Court decides probable cause is not applicable to analyzing the reasonableness of the search, as an alternative, it may balance the need to search against the invasion of privacy resulting from the search.²²

Traditionally, employees have received little privacy protection on the job. It is argued that employers' interests should be favored because the work is done on the employers' premises. Employers own the communications equipment used at work and it is the company's business which is being conducted on this equipment. Employers have a strong interest in monitoring employee activity for the purposes of assuring the quality and quantity of work-product, and for protecting against theft or fraud.²³ Even the Supreme Court has decided that the balance on interests should favor employers because public employers' interests in an efficient workplace outweigh the employees' privacy interests.²⁴

15. See *infra* notes 30-62 and accompanying text (discussion of *O'Connor v. Ortega*, 480 U.S. 709 (1987), and its effect on subsequent federal court decisions); see *infra* notes 182-84 and accompanying text (the state of California incorporates Supreme Court-made privacy law into its analysis).

16. *United States v. Jacobsen*, 466 U.S. 109, 113 (1984).

17. Exactly what constitutes a search is unclear. Whether a "search" has occurred seems to turn on some physical invasion the court can observe. See *id.*

18. Keith P. Larsen, Comment, *Governmental Intrusion into the Public Employee Workplace—O'Connor v. Ortega*, 21 CREIGHTON L. REV. 409, 419-20 (1987-1988).

19. *Id.* at 424.

20. *Id.*

21. *Id.* at 425.

22. *Id.*

23. Fred W. Weingarten, *Communications Technology: New Challenges to Privacy*, 21 J. MARSHALL L. REV. 735, 746 (1988).

24. *Ortega*, 480 U.S. at 718-22 (plurality opinion).

The important policy question underlying current work-related privacy law is whether computer technology has so shifted control to the employer that the scales need to be re-calibrated to better protect an employee's privacy rights. Privacy law requires courts to balance the interests of one group against another to determine whether an illegal invasion of privacy has occurred.²⁵ To this end, scholars have argued that effective judicial balancing ferrets out the needs, interests and limitations of the parties before the court.²⁶ Implicit within the "ferreting out" are three goals that balancing should accomplish: (1) to justify the appropriate level of generality for the issues before the court; (2) to insure that the result is based on an adequate factual background; and, (3) to not substitute deference for a cogent analysis of the parties' interests.²⁷ These three goals serve the greater objective of openly and candidly acquiring knowledge and better defining society's values through legal discourse.²⁸

Current privacy law neglects these goals. The Supreme Court has inaccurately defined society's privacy values in the workplace because the Court has based its decisions on an outdated view of both the workplace and privacy generally.²⁹ Lower courts have been left to resolve the tension between the new privacy interests created in the computerized workplace and the Supreme Court's outdated view of workplace privacy.

A. The Seminal Case: *O'Connor v. Ortega*

The seminal case on work-related searches and seizures is *O'Connor v. Ortega*.³⁰ The *Ortega* case is significant for the way it developed search law rather than for Dr. Ortega's particular claim. The Court held that a reasonableness standard applies to supervisory searches of the workplace of public employees who are subject to supervisory searches of their offices. This reasonableness standard falls short of the stricter requirements of a police investigative search. *Ortega* carved out a special rule for government workplace supervisory searches and reversed prior trends in the case law which had begun to differentiate investigative from

25. See *supra* note 15.

26. Frank M. Coffin, *Judicial Balancing: The Protean Scales of Justice*, 63 N.Y.U. L. REV. 16, 38 (1988).

27. *Id.* at 33-39.

28. *Id.* at 41.

29. Justice Blackmun's dissent noted that the changing social landscape of the workplace. See *Ortega*, 480 U.S. at 739-40 nn. 6-7 (Blackmun, J., dissenting).

30. 480 U.S. 709 (1987). For an excellent summary of the case and its holding(s), see Larsen, *supra* note 18; Note, *Fourth Amendment—Work-Related Searches By Government Employers Valid on "Reasonable" Grounds*, 78 J. CRIM. L. & CRIMINOLOGY 792 (1986) [hereinafter Note, *Fourth Amendment*].

non-investigative searches.³¹ The holding in *Ortega* suggests that employees in the public sector have little, if any, privacy in the workplace as long as the searches and seizures are work-related.³² The holding also implies that, notwithstanding statutory protection to the contrary, *private* employees have little, if any, privacy protection in the workplace with regard to work-related searches. Consequently, this case suggests that an E-mail user at a public agency would not be protected from work-related invasions of privacy for work-related reasons under the Fourth Amendment.

In *Ortega*, Dr. Ortega was employed as a psychiatrist at a state hospital. Ortega became subject to an investigation regarding various improprieties including his alleged mismanagement of the hospital's residency program. During the investigation, hospital employees entered and searched Ortega's locked office, where numerous items were seized from Ortega's desk and files. Subsequently, Ortega was fired. Ortega sued the hospital, complaining that the search violated his Fourth Amendment rights. The district court granted summary judgment for the hospital. The Ninth Circuit affirmed summary judgment on Ortega's state claims, but reversed the district court's grant of summary judgment on Ortega's Fourth Amendment claims.³³ On appeal, two issues came before the Supreme Court: (1) whether a work-related search constituted an exception to the warrant and probable cause requirements of the Fourth Amendment, and (2) how courts should balance the competing interests of the agency-employer and the government employee in deciding whether the search was reasonable under the circumstances.

Ortega is worth examining in some detail because it fleshes out many of the limitations of Fourth Amendment law and how those limitations restrict an employee's workplace privacy. In a plurality opinion written by Justice O'Connor, the Court began by noting that Ortega's Fourth Amendment rights would be violated only where the hospital's search infringed on an expectation of privacy society is prepared to consider reasonable.³⁴ Such an expectation is determined, in part, by: (1) what the framers intended for the Fourth Amendment to protect, (2) how an individual uses a particular location or space (a customary approach), and (3) the Court's view of what areas society desires to protect from governmental invasion (an "objective" standard).³⁵

31. See, e.g., *New Jersey v. T.L.O.*, 469 U.S. 325 (1985) (deciding whether Fourth Amendment protects investigative search of student's locker at school); Note, *Fourth Amendment*, *supra* note 36, at 822 n.249.

32. *Ortega*, 480 U.S. at 734-36 (Blackmun, J., dissenting).

33. *Id.* at 714 (plurality opinion).

34. *Id.* at 715. The plurality opinion written by Justice O'Connor was joined by Justices Rehnquist, White and Powell.

35. *Id.*

The Court found that Ortega had a reasonable expectation of privacy in his desk and file cabinets located inside his office.³⁶ The Court's holding that Ortega maintained an expectation of privacy in his desk followed *Gillard v. Schmidt*³⁷ where the Ninth Circuit determined that a right to privacy existed in a school counselor's desk. Like the desk in *Gillard*, Ortega's desk contained confidential records and was secured in a locked area. However, Ortega's desk was located in his private office rather than in a shared suite as was the counselor's desk in *Gillard*. The plurality opinion consistently noted that no hospital administrative policies were in force to discourage employees from storing personal items in their desks and files.³⁸

Based on two prior Supreme Court decisions, *Oliver v. United States*³⁹ and *Mancusi v. DeForte*,⁴⁰ the plurality recognized Ortega's expectation of privacy. In *Oliver*, employees were found not to have a reasonable expectation of privacy where police searched a field adjacent to Oliver's home. The court distinguished an open field as "usually . . . accessible to the public and the police in ways that a home, an office or a commercial structure would not be."⁴¹ In *Mancusi*, the defendant, DeForte, was a union official under investigation for criminal activities. State officials searched his private office without a warrant and seized union records. The *Mancusi* Court held, *inter alia*, that on the facts, the union official had an expectation of privacy in his office which was protected from the state officials' unwarranted search.

[I]t seems clear that if DeForte had occupied a "private" office . . . and union records had been seized from a desk or filing cabinet in that office . . . DeForte would . . . expect that he would not be disturbed except by personal or business invitees, and that records would not be taken except with his permission or that of his union superiors. [This] situation was not fundamentally changed because DeForte shared an office with other union officers.⁴²

Based on these two precedents, the Court found a reasonable expectation of privacy in the workplace where an employee works for a government employer. However, this expectation was a qualified one:

The operational realities of the workplace . . . may make *some* employees' expectations of privacy unreasonable when an intrusion is by a supervisor rather than a law enforcement official. Public employees' expectation of privacy in their offices, desks and file

36. *Id.* at 719.

37. 579 F.2d 825 (3d Cir. 1978).

38. *Ortega*, 480 U.S. at 719 (plurality opinion).

39. 466 U.S. 170 (1983).

40. 392 U.S. 364 (1968).

41. *Oliver*, 466 U.S. at 179

42. *Mancusi*, 392 U.S. at 369.

cabinets, like similar expectations of employees in the private sector, may be reduced by virtue of actual office practices and procedures, or by legitimate regulation.⁴³

The plurality's "operational realities" approach found support in *Mancusi*, where the Court suggested that, based on the facts before it, a union employee probably would not have a reasonable expectation of privacy against her union supervisors. Combining *Mancusi* and *Katz v. United States*,⁴⁴ the plurality in *Ortega* suggested that some government offices may have no expectation of privacy because they are "so open to fellow employees or to the public."⁴⁵

The three-part inquiry utilized by the plurality to determine *Ortega's* expectation of privacy probably excludes protection of computer technologies like E-mail. Taken in order, the first part of this inquiry queries whether the framers intended that the Fourth Amendment protect E-mail users. One might argue that framers' intent could be extrapolated to include E-mail. However, such extrapolation more likely serves as a subterfuge for balancing the interests at stake. It would be better to balance the privacy interests openly rather than to artificially connect the Court's reasoning to framers' intent.

In the second part of the inquiry, the Court looks to how an individual uses a particular location or space. The criteria include: (1) whether that which was searched contained confidential records, and (2) whether what was searched was secured in a locked area, or was in a private office. The Court's emphasis on physical location makes it more difficult to apply the law to technologies like E-mail. Surely, E-mail can be regarded as a physical location or a "space." However, regarding it as such does not tell lower courts whether E-mail should be treated as a highly protected space, e.g., postal mail; or as a space which receives less protection, e.g., electronic publishing. The problem is that electronic mail can simultaneously contain confidential and non-confidential records depending on how one defines the "space" being searched. If the "space" includes only one computer file, and that file is confidential, then that which was searched contained confidential records. However, if the space includes more than one file, or includes all that may be accessed by an employee's E-mail code,⁴⁶ that which was searched may contain both confidential and non-confidential data. The same kind of definitional problems apply to determining whether E-mail is secured in a locked area

43. *Ortega*, 480 U.S. at 717 (plurality opinion).

44. 389 U.S. 347, 351 (1967) (holding that "what a person knowingly exposes to the public, even in his home or office, is not a subject of Fourth Amendment protection").

45. *Ortega*, 480 U.S. at 718 (plurality opinion).

46. Most E-mail systems in the workplace give the employee a code. The code works like a key to a door. An employee's E-mail may be accessed only with this code. Of course, supervisors may have copies of this code.

or is "kept" in a private office. On one hand, an E-mail communication which originates from *any* office, private or not, seems to be confidential. The sender intends that the communication reach only certain recipients. In this sense, E-mail is analogous to postal mail or telephone conversations at work. On the other hand, E-mail could be viewed as a tool provided to employees solely for work-related use. The Supreme Court indicated that employees may not expect privacy where an employer maintains a policy which discourages employees from storing or communicating personal information on E-mail. Thus, focusing on how an employee uses E-mail does not solve the problem, but simply further describes it, because neither the employee nor the employer seems to have well-settled expectations regarding privacy rights in the E-mail context.

The third part of the expectations inquiry relies upon a court's view of what areas society desires to protect from governmental invasion. This part is supposed to be "objective" in the sense that a court objectively analyzes whether society desires to protect users of E-mail in the public workplace from governmental invasion. In *Ortega*, the Court applies this part of the test when it discusses its balancing analysis, reviewed immediately below.

Once a court finds a legitimate expectation of privacy, as it did in *Ortega*, it must analyze the reasonableness of the search under the circumstances. Traditional Fourth Amendment analysis requires that a court first determine whether the case before it should be excepted from the warrant and probable cause requirements.⁴⁷ However, in *Ortega*, the plurality moved directly to a balancing test to determine the reasonableness of the hospital's search of Ortega's office, desk and file drawers. The plurality found that a search conducted by a government employer is reasonable where the government's need for supervision, control and efficiency in the workplace outweighs the invasion of the employee's protected privacy.⁴⁸ Arguably, had the plurality first looked to whether the search of Ortega's office required an exception to the warrant and probable cause requirements,⁴⁹ the Court would have found a need for a warrant and would have affirmed the Court of Appeals' finding in favor of Ortega. Instead, the plurality found that a warrant was not required for two reasons. First, the plurality found that the case law regarding work-related searches of employees' offices favored the government employer's needs and interests.⁵⁰ Similarly, in *New Jersey v.*

47. Larsen, *supra* note 18 at 434.

48. *Ortega*, 480 U.S. at 719-20 (plurality opinion).

49. *See id.* at 741 (Blackmun, J., dissenting); Larsen, *supra* note 18, at 434.

50. *Ortega*, 480 U.S. at 720-21 (plurality opinion).

T.L.O.,⁵¹ the Court justified a warrantless search by school officials because of the need to enforce "the swift and informal disciplinary procedures needed in the schools."⁵² Lower court opinions also suggested that work-related searches by employers generally satisfied the reasonableness requirement of the Fourth Amendment.⁵³

Second, the plurality performed its own balancing and found that government employers' interests *generally* outweigh the privacy interests of public employees. The plurality reasoned that employers often enter employees' offices and desks for work-related reasons.⁵⁴ An employer or supervisor should not be required to obtain a warrant when entering an employee's office, desk or filing cabinet for work-related purposes where an employer or supervisor desires to complete the government agency's work promptly and efficiently.⁵⁵ Here, a warrant would "seriously disrupt [the] routine conduct [of the government agency] and would be unduly burdensome . . . [because] government offices could not function if every employment decision became a constitutional matter."⁵⁶

The plurality also found that probable cause was unnecessary when searching in a work-related context. Ortega maintained that the search was a non-investigatory, work-related intrusion, while the hospital characterized the search as investigatory, its purpose to find evidence of suspected work-related misfeasance. The plurality held that, for the non-investigatory search, "probable cause, rooted as it is in the criminal investigatory context, [does not have] much meaning when the purpose of a search is to retrieve a file for work-related reasons."⁵⁷ Likewise, an investigatory search for evidence of work-related misfeasance does not require probable cause because "[t]he delay in correcting the employee misconduct caused by the need for probable cause rather than reasonable suspicion will be translated into tangible and often irreparable damage to the [government] agency's work, and ultimately to the public interest."⁵⁸ Moreover, "[i]t is simply unrealistic to expect supervisors in most government agencies to learn the subtleties of the probable cause standard."⁵⁹ In other words, probable cause is not required for either non-investigatory or investigatory intrusions as long as they are work-related.

51. 469 U.S. 325 (1985) (holding that where "special needs" are present, such as in public schools, warrant and probable cause requirements are impracticable).

52. *Ortega*, 480 U.S. at 720 (citing *New Jersey v. T.L.O.*, 469 U.S. 325, 340 (1985)).

53. *Id.* at 720-21.

54. See *infra* notes 63-75 and accompanying text for arguments against this proposition.

55. *Ortega*, 480 U.S. at 722.

56. *Id.* at 722 (plurality opinion).

57. *Id.* at 723.

58. *Id.* at 724.

59. *Id.* at 724-25.

The *Ortega* Court concluded that privacy interests of the public employee are thus outweighed by the government's substantial interests in an efficient and well-run workplace. The employee's privacy interests in the workplace are "far less than those found at home or in some other contexts."⁶⁰

The Court further reasoned that limited employer intrusions, like the one in *Ortega's* office, do not offend the Fourth Amendment because the sole purpose of government offices is to facilitate agency work—" [t]he employee may avoid exposing personal belongings at work by simply leaving them at home."⁶¹

The plurality opinion concluded that a standard of reasonableness should be applied where a public employer searches and/or seizes items from an employee's office, desk or file cabinets because both the warrant and probable cause requirements are impractical for work-related searches. Such a search is permissible in both its inception and scope where the measures adopted for the search reasonably relate to the search's work-related objectives; and, given the nature of the employee's alleged misconduct, the search does not excessively intrude on the employee's privacy.⁶²

60. *Id.* at 725.

61. *Id.*

62. *Id.* at 729-32 (Scalia, J., concurring in the judgment). Justice Scalia wrote a separate concurring opinion. Though he agreed with the plurality's decision to reverse and remand the case, he disagreed with both the plurality's reasoning and with the standard it proffered for Fourth Amendment analysis. Starting with the plurality's standard, Justice Scalia argued that the plurality's case-by-case application of a reasonableness standard "produces rather than eliminates uncertainty" because the standard is essentially void of content. *Id.* at 730. Such a standard is meaningless because it is near impossible to figure how "open" an employee's office must be before a work-related search is reasonable under the circumstances. Based on *Mancusi*, Scalia's concurrence contended that Fourth Amendment protection exists in all offices, public or private.

There is no reason why this determination that a legitimate expectation of privacy exists should be affected by the fact that the government, rather than a private entity, is the employer. Constitutional protection against unreasonable searches by the government does not disappear merely because the government has the right to make reasonable intrusions in its capacity as an employer.

Id. at 730-31.

Moreover, the searcher's identity is not relevant as to whether privacy protection applies, only whether the search of *Ortega's* office was reasonable. Scalia argued that *Ortega's* office, and government offices generally, are protected by the Fourth Amendment. Scalia prefers a more "global" analysis of Fourth Amendment protection. This means a higher level of generality. Scalia would hold that Fourth Amendment protection applied to all offices of government employees unless such an office was subject to unrestricted public access. *Id.*

Since Fourth Amendment protection applied here, the case turned on whether the governmental intrusion was reasonable. Justice Scalia contended that *Ortega* is a case where "special needs, beyond the normal need for law enforcement, make the warrant and probable cause requirement[s] impractical." Scalia agreed with the result of the plurality's balancing test. Thus, Government searches that were purely work-related, or that purported to investigate workplace misconduct did not violate the Fourth

B. The Ortega View Wrongly Eliminates Most Workplace Privacy

The Ortega Analysis suggests that a court view E-mail as a tool provided by employers to be used by employees for work-related communications. This view further implies that courts fashion case law so as to provide public employers with unbridled discretion to monitor E-mail transmissions.

The Ortega analysis is wrong for several reasons. First, the decision probably causes the workplace to run less efficiently. The Ortega plurality seems to assume that employers need almost unlimited access to employees' offices and desks to maintain efficiency. In fact, it is equally likely that increased employee privacy would result in a more efficient workplace.⁶³ Increased employee privacy sends a positive message from the employer to the employee. That message implicitly states that the employer trusts the employee to be responsible for his or her time and productivity. Such a message fortifies the working relationship between employers and employees and imputes personal dignity into the workplace. Arguably, the employer who regularly intrudes on and monitors its employees' workspace "tear[s] apart the fabric of trust and cooperation that binds companies and their employees."⁶⁴ This fabric is a delicate one. At the extreme, an employer who is privy to all intra-company communications creates a workplace filled with distrust. An employee who does not trust his employer has much less of an incentive to be efficient, resourceful and productive.

Ultimately, the Court's view of workplace efficiency wrongly casts the employee as the employer's adversary. This view of work is dysfunctional because it portrays the employee as a dolt incapable of managing his given responsibilities.⁶⁵ Successful companies do not treat employees as enemies.⁶⁶ Instead, smart managers provide their employees with both personal and professional incentives to perform

Amendment. Because the evidence presented in the case was incomplete regarding search's purpose, Scalia agreed that the case should be reversed and remanded. *Id.* at 731.

63. Terry M. Dworkin, *Protecting Private Employees From Enhanced Monitoring: Legislative Approaches*, 28 Am. Bus. L.J. 59, 75 n.92 (1990).

64. Caldwell, *supra* note 6 at 34.

65. The author would also contend that this view of employees becomes increasingly dysfunctional as an employee's responsibilities increase.

66. ERIC G. FLAMHOLTZ & FELICITAS HINMAN, *THE FUTURE DIRECTION OF EMPLOYEE RELATIONS* 145-63 (1985) (arguing that an organizational leader will be successful if she has a system of beliefs and values in which all employees can participate psychologically); PAUL R. LAWRENCE ET AL., *ORGANIZATIONAL BEHAVIOR & ADMINISTRATION: CASES AND READINGS* 668, 678 (1976) (organization change which affects those "at the bottom" must actively engage those employees in the change process to be successful); GEORGE RITZER, *WORKING: CONFLICT AND CHANGE* 232-97 (1977) (arguing that the most pressing psychological problem for many unskilled and semi-skilled workers is alienation; arguing that the most pressing problem for middle managers is threats to their autonomy).

productively.⁶⁷ Implicit within the employer-employee relationship is some element of trust. Trust begets teamwork, and teamwork begets productivity. Thus, an employee who has a modicum of workplace privacy probably will work more efficiently than an employee who is constantly looking over his or her shoulder.

Second, unlimited monitoring of employee E-mail transmissions could result in a competitive disadvantage to the employer.⁶⁸ Technologies such as E-mail enable immediate and efficient exchange of information. Sharing information enhances workplace productivity and efficient decision-making. However, allowing unlimited work-related monitoring of E-mail provides employees with a disincentive to use E-mail. For example, an employee who might constructively criticize a superior on E-mail might be reluctant to do so knowing her communication was being monitored. Likewise, an employee who wants to make a good impression on his superiors may avoid using E-mail where his communication mixes the personal with the professional. Some minimum protection of E-mail privacy promotes workplace efficiency through information sharing, especially in companies that rely heavily on E-mail as a form of intra-company communication.

Third, the *Ortega* decision takes no account of an employee's personal dignity. Generally, as a society, we agree that a person needs some minimal level of privacy to function with dignity.⁶⁹ Why should it be different in the workplace? The Supreme Court's view might make more sense if the employer still legally controlled all of its property under all circumstances.⁷⁰ Justice Blackmun, writing for the dissent in *Ortega*, noted substantial evidence indicating that employees are spending an increasing amount of time in the work environment.⁷¹ The more time employees spend at work, the more critical some minimum level of privacy will become. There also exists a substantial body of

67. Before the author ventured into law school, he worked from 1982 to 1988 at Bozell, Inc., an advertising agency headquartered in New York. In 1986, as supervisor of Research and Strategic Planning for the Western Division, the author conducted an in-depth analysis of Honda Motor Company for one of the agency's clients. The research revealed that, at every turn in its organization, Honda provided employees with incentives to perform efficiently and creatively. Honda is one of the most financially successful companies in the world—its success appears to be due, in part, to its incentive structure. See TETSUO SAKIYA, *HONDA MOTOR: THE MEN, THE MANAGEMENT, THE MACHINES* 207-10 (1982).

68. This argument is related to the efficiency argument insofar as inefficient companies are at a competitive disadvantage.

69. See, e.g., GEORGE ORWELL, *NINETEEN EIGHTY-FOUR* (1st Am. ed., Harcourt, Brace & Co. 1949) (1948).

70. See *supra* note 23 and accompanying text.

71. *Ortega*, 480 U.S. at 739. (Blackmun, J., dissenting) (family life and work life intersect increasingly as the combination of two-earner families plus single parents with children increases).

organizational behavior literature which strongly suggests that employees who have privacy at work are more productive as a result.⁷² This productivity derives, in part, from the dignity an employee derives from knowing he has a reasonable expectation of privacy.⁷³ In contrast, the plurality characterized the workplace as purely for the purpose of work where nothing of a personal nature should be kept.⁷⁴ The plurality offered no evidence, however, as to why personal belongings should not be kept at work, or how such a rule furthers workplace efficiency. The *Ortega* opinion implies that technologies like E-mail should be given little privacy protection similar to a technology such as an objective data transmitter (e.g., stock price data).⁷⁵ For the reasons mentioned above, this Comment urges that E-mail in the workplace should receive privacy protection greater than that implied by the *Ortega* analysis.

C. How Subsequent Courts Have Deciphered and Applied The *Ortega* View of Workplace Privacy

Unfortunately, it is the plurality's view of the workplace, not the dissent's, which controls the current state of work-related privacy law. To date, a few courts have applied the *Ortega* holding to other fact scenarios. Examining these cases further illustrates how *Ortega* practically eliminates employee privacy in the computerized workplace. Three Circuit court decisions have applied the holding in *Ortega*.⁷⁶ These

72. See, e.g., FERDINAND D. SCHOEMAN, PHILOSOPHICAL DIMENSION OF PRIVACY: AN ANTHOLOGY 223-44, 403 (1984) (author provides a wonderful summary of various authors' works regarding privacy; specifically, these authors argue that an individual must be able to control personal information to remain dignified); LOUIS HARRIS & ASSOCS. & ALAN F. WESTIN, THE DIMENSIONS OF PRIVACY: A NATIONAL OPINION RESEARCH SURVEY OF ATTITUDES TOWARD PRIVACY 32-41 (1981) (employers should recognize that productivity is tied to workplace privacy); see also ALAN F. WESTIN, PRIVACY AND FREEDOM 388-99 (1970) (discussing guidelines on wiretapping and eavesdropping legislation).

73. See *Ortega*, 480 U.S. at 718 (plurality opinion); see also ORWELL, *supra* note 69, at 8-20.

74. *Ortega*, 480 U.S. at 725 (plurality opinion).

75. See Victoria Slind-Flor, *What is E-mail Exactly?*, NAT'L. L.J., Nov. 25 1991 at 3.

76. There are other decisions which purport to follow the holding. See, e.g., *Leckelt v. Board of Comm'rs*, 909 F.2d 820 (5th Cir. 1989) (hospital requiring its employees to be tested for infectious diseases did not violate employee's privacy where employer's intrusion for work-related purposes judged by a reasonableness standard); *Moxley v. Regional Transit Servs.*, 722 F. Supp. 977 (W.D.N.Y. 1989) (where Fourth Amendment intrusion serves special government needs, reasonableness of search is determined by balancing governmental interest against employee's privacy interests); *American Fed'n of Gov't Employees, Local 1616 v. Thornburgh*, 713 F. Supp. 359 (N.D. Cal. 1989) (urinalysis found to be not justified under *Ortega* by balancing employee's right to privacy against government interests which justify intrusion); *Bangert v. Hodel*, 705 F. Supp. 643 (D.D.C. 1989) (employees do not lose Fourth Amendment protection because they work for the government instead of a private employer); *Diaz Camacho v. Lopez Rivera*, 699 F. Supp. 1020 (D.P.R. 1988) (work-related searches by government-employer held reasonable where inception and scope of intrusion are reasonable).

are *Schowengerdt v. General Dynamics Corp.*,⁷⁷ *Shields v. Burge*,⁷⁸ and *Walker v. Darby*.⁷⁹ In particular, *Walker v. Darby* is reviewed separately, in some detail, because it is one of the few cases which deal directly with electronic invasions of privacy in the workplace.

1. EXPECTATION OF PRIVACY

In *Schowengerdt*, the circuit court held, *inter alia*, that Schowengerdt had a reasonable expectation of privacy in "areas given over to his exclusive use" unless his employer had notified him that his office might be subject to a work-related search on a regular basis.⁸⁰ Schowengerdt had alleged that his employer provided no such notification and, consequently, it was not clear the search of his office was work-related. As a result, the circuit court reversed for *Schowengerdt* on the issue of expectation of privacy in Schowengerdt's desk, and remanded regarding the work-relatedness of the search and seizure and the reasonableness of the search under the circumstances.⁸¹

The *Schowengerdt* court relied on *O'Connor v. Ortega* to decide whether Schowengerdt had an expectation of privacy in his office where his employer did not notify him of possible work-related searches. The Ninth Circuit held that, under *Ortega*, Schowengerdt could have had a reasonable expectation of privacy in his desk, and therefore reversed the district court. The Ninth Circuit found that "all members of the *Ortega* Court agreed that '[i]ndividuals do not lose Fourth Amendment rights merely because they work for the government.'"⁸²

The *Schowengerdt* court also noted that eight of the Justices agreed in *Ortega* that some expectations of privacy held by employees may be unreasonable due to the "operational realities of the workplace."⁸³ While Justice O'Connor, writing for four Justices, contended that an office may be so open as to afford no privacy protection, five Justices disagreed. The *Schowengerdt* court pointed out that Justice Scalia and the four dissenting Justices held that employees' desks, offices and files are protected against unreasonable searches by government employers. Moreover, Justice O'Connor's *Ortega* opinion had argued that public employees' privacy expectations may be diminished by office practices and procedures or by

77. 823 F.2d 1328 (9th Cir. 1987).

78. 874 F.2d 1201 (7th Cir. 1989).

79. 911 F.2d 1573 (11th Cir. 1990).

80. *Schowengerdt*, 823 F.2d at 1335.

81. *Id.* at 1336.

82. *Id.* at 1334 (citing *Ortega*, 480 U.S. at 717 (plurality opinion)).

83. *Id.* It was surely wrong for the circuit court to state that eight of the justices in *Ortega* held that some expectations of privacy held by employees may be unreasonable due to the "operational realities of the workplace." See *Ortega*, 480 U.S. at 731-32 (Scalia, J., concurring in the judgment), 735-37, 744-46 (Blackmun, J., dissenting).

legitimate regulation. The *Schowengerdt* court found that pre-*Ortega* rulings supported Justice O'Connor's view even though the remaining five Justices did not embrace or reject O'Connor's contention. Thus, the *Schowengerdt* court concluded that, where an employee is forewarned of an office search for work related purposes, the employee's expectation of privacy diminishes accordingly.⁸⁴

2. THE REASONABLENESS OF THE SEARCH

Consistent with its understanding of *Ortega*, the *Schowengerdt* court held that, despite *Schowengerdt*'s reasonable expectation of privacy in his office, a warrantless search of the office would be legal if it were both (a) work-related, and (b) reasonable under the circumstances. Based on *Ortega*, the *Schowengerdt* court defined "reasonable" as follows:

Ordinarily a search of an employee's office by a supervisor will be "justified at its inception" when there are reasonable grounds for suspecting the search will turn up evidence that the employee is guilty of work-related misconduct, or that the search is necessary for a non-investigatory, work-related purpose such as to retrieve a needed file The search will be permissible in its scope when "the measures adopted are reasonably related to the objectives of the search as not excessively intrusive in light . . . of the nature of the [misconduct]."⁸⁵

The *Schowengerdt* analysis suggests that a public employee has no privacy on a government E-mail system unless the system is used exclusively by the employees. Such exclusive use could be attained by using a password which only the employee and a network administrator knew.⁸⁶ The expectation would diminish accordingly where the employer provided notice of a possible work-related search of the system. Thus, *Schowengerdt* implies that a warrantless search of an employee's E-mail files could be conducted if the search were both work-related and reasonable under the circumstances. Both inquiries appear to be questions of fact.

In *Shields v. Burge*,⁸⁷ the Seventh Circuit also elaborated on what constituted a "reasonable work-related" search. *Shields* was a police sergeant and narcotics investigator for the state. Based on reports that *Shields* was trafficking marijuana, he was removed from his narcotics beat. Subsequently, an internal investigation of *Shields*' alleged misconduct was begun. The superintendent of the internal investigation,

84. *Schowengerdt*, 823 F.2d at 1334, 1335.

85. *Id.* at 1335-36 (quoting *Ortega*, 480 U.S. at 725 (plurality opinion) (quoting *New Jersey v. T.L.O.*, 469 U.S. 325, 341 (1985))).

86. Jim Nash, *E-mail Lawsuit Cranks Open Privacy Can of Worms*, *COMPUTER WORLD*, Aug. 30, 1990, at 1.

87. 874 F.2d 1201 (7th Cir. 1989).

Burge, learned that Shields may have tipped off a suspected criminal that the criminal was being investigated by the state. As part of the internal investigation against Shields, two officers working for Burge searched a desk in Shields' office. They also searched Shields' automobile and a locked briefcase in the automobile. The searches were performed without a warrant and without Shields' consent.⁸⁸

During the internal investigation, a special prosecutor appointed by the state court investigated whether Shields had committed any crimes. An indictment was issued, but no convictions resulted. Shields alleged in his complaint that the search of his desk, automobile and locked briefcase violated the Fourth Amendment. The district court granted the government summary judgment on this count because it found the search to be reasonable under *Ortega*.⁸⁹ The Seventh Circuit court affirmed, discussing the *Ortega* decision at length.

The *Shields* court found that the plurality's reasonableness standard in *Ortega* governed work-related searches in the workplace. It further outlined two types of interests which supported the search of Shields' desk as reasonable. First, both the government and the public have a strong interest in stopping work-related misconduct by police officers. Second, both the government and the public have an interest in halting drug use and drug trafficking.⁹⁰ However, the court applied a different standard to the search of Shields' briefcase.

D. Applying *Ortega* to Searches of a "Hybrid Nature"

The *Shields* court distinguished the search of Shields' locked briefcase from the search of his car and desk. Citing *Ortega*, the *Shields* court noted that the standard for a workplace search is not necessarily the same as the standard applied to searching a briefcase in the workplace area.⁹¹ The search of the locked briefcase was of a "hybrid nature." On the one hand, the search involved a more personal intrusion than just searching a workplace area. On the other hand, the search was justified by the same interests as those justifying a workplace search.⁹² The hybrid nature of the briefcase search led the court to discuss significant precedent upon which it set up a continuum of work-related search justifications to which it compared the search of Shields' briefcase.⁹³

88. *Id.* at 1202.

89. *Id.* at 1202-03.

90. *Id.* at 1204

91. *Id.* at 1207.

92. *Id.* at 1208.

93. *Kirkpatrick v. Los Angeles*, 803 F.2d 485 (9th Cir. 1986); *Security and Law Enforcement Employees v. Carey*, 737 F.2d 187 (2d Cir. 1984); *Biehunik v. Felicetta*, 441 F.2d 228 (2d Cir.), *cert. denied*, 403 U.S. 932 (1971).

One case indicated that strip searches of prison employees to investigate work-related misconduct must be supported by a warrant and probable cause because of the highly intrusive nature of visual body-cavity searches.⁹⁴ A second case upheld a "seizure" of police officers for a lineup. The lineup was to determine if any of the officers had been involved in alleged police brutality. In this case, the court stressed the unique interest of the government and the public in police integrity. These interests limited the full privacy and liberty police officials otherwise enjoyed.⁹⁵ A final case held that strip-searching a police officer to investigate work-related misconduct violated the Fourth Amendment, absent a reasonable suspicion that the search would turn up evidence of the misconduct.⁹⁶

Compared to these three cases, the court adjudged warrantless search of Shields' briefcase as reasonable. Searching a locked briefcase was less intrusive than a strip search. Moreover, those conducting the internal investigation did have some information indicating that Shields had engaged in misconduct at work. Though this information may not have risen to the level of a "reasonable suspicion," the *Shields* court held that the search's less intrusive nature, the search's work-related nature, and the special interest in police integrity added up to a reasonable search.⁹⁷ *The Shields* decision implies that police officers may retain substantially less rights to privacy than other types of public employees. "Some information" of work-related misconduct probably will suffice to make a search reasonable given the public's special interest in police integrity.

Regarding "reasonableness," *Shields* and *Schowengerdt* together suggest that a work-related search of an employee's E-mail may be of a "hybrid" nature, especially where there is no notice given by the employer. A plaintiff would have to characterize the E-mail transmissions at issue as similar to the locked briefcase in Shields' office. Such a characterization would be easier where the employer had no policy stating that E-mail should be used only for work-related matters, and the employee's E-mail files had a private access code known only to the employee and the systems manager. The access code would be analogous to a briefcase lock. Arguably, the more the facts of a given case indicate the employee expected her E-mail transmissions to be confidential, the less likely a court will find that an employer's work-related search was reasonable.

94. *Shields*, 874 F.2d at 1208 (citing *Carey*, 737 F.2d at 207).

95. *Id.* at 1208 (citing *Biehunik*, 441 F.2d at 231).

96. *Id.* (citing *Kirkpatrick*, 803 F.2d at 489).

97. *Id.* at 1209.

E. Wiretapping Versus Work-Related Monitoring: *Walker v. Darby*

In *Walker v. Darby*,⁹⁸ the court discussed in less detail the holding in *Ortega*. The case is doctrinally different because Walker sued his employer under Title III of the Omnibus Crime Control and Safe Streets Act of 1968.⁹⁹ Despite this difference, the case is worth examining in detail because it pointedly addresses issues of wiretapping and the privacy of employee communications in the workplace. Of the three cases discussed, the issues in *Walker* most resemble issues which might arise in the workplace regarding computer technologies such as E-mail.

Walker was a letter carrier in the United States Post Office in Florence, Alabama. Walker was African-American, his supervisors were Caucasian. Walker and other employees believed Walker's supervisors were trying to terminate Walker's employment for race-motivated reasons. Someone warned Walker that his supervisors were monitoring his conversations at his work station. Walker then noticed two objects that looked like intercoms affixed to his workstation. Walker sued his supervisors, Darby and others, for illegal interception of his conversations and invasion of privacy.¹⁰⁰

The district court granted summary judgment for Darby who was the named defendant for the United States Postal Service. On appeal, the Eleventh Circuit found that, for Walker's claim to survive summary judgment, a court must find that questions of material fact exist regarding: (1) whether Walker's communications were actually intercepted by his supervisors through the use of some device, (2) whether Walker had an expectation of privacy that his conversations would not be intercepted, and (3) if Walker had such an expectation, whether it was justified under the circumstances.¹⁰¹

The Eleventh Circuit held in favor of plaintiff Walker based on two key factors. First, the district court believed that a plaintiff could raise an issue of material fact regarding "actual interception" only where he could prove specific contents of a particular conversation were intercepted.¹⁰² The Eleventh Circuit disagreed and held that "actual interception" may be proved without direct evidence because a successful wiretap depends on the perpetrator's ability to conceal the tap.¹⁰³

98. 911 F.2d 1573 (11th Cir. 1990).

99. 18 U.S.C. §§ 2510-2521 (1988 & Supp. II 1990). Title III was later amended by the ECPA. See *supra* note 13 and *infra* notes 121-44 and accompanying text.

100. *Walker*, 911 F.2d at 1575.

101. *Id.* at 1577. Note how the "expectation of privacy" standard helps guide the court's analysis. See *supra* notes 15-16 and accompanying text.

102. *Id.*

103. *Id.* at 1578; The *Walker* court cited *Awbrey v. Great Atl. & Pac. Tea Co.*, 505 F. Supp. 604 (N.D. Ga. 1980), and *Scutieri v. Paige*, 808 F.2d 785 (11th Cir. 1987), where the

Second, the *Walker* court found that questions regarding Walker's expectation of privacy were part of the same inquiry. Walker needed a *subjective* expectation that his conversations would not be intercepted; and, that expectation had to be *objectively* reasonable.¹⁰⁴ The court distinguished this inquiry from determining whether Walker had a reasonable expectation of privacy in his workplace area at the post office.¹⁰⁵

This distinction was critical to Walker's case. Otherwise, he would be subject to the lower standard of reasonableness for search and seizure outlined in *Ortega*. In *Ortega*, the Supreme Court utilized a balancing test to compare the government's interest as an employer in the workplace against the employee's interest in personal privacy. The balancing test tipped in favor of the employer because supervisors, co-workers and even the public had access to the employee's workplace. In contrast, no such governmental interests tempered the analysis in *Walker*. Walker must have had a subjective belief his conversations would not be intercepted, and that belief must have been objectively reasonable. In other words, another average reasonable person in Walker's situation would have believed his or her conversations would not be monitored under the circumstances.¹⁰⁶

The *Walker* court pointed out that other Circuits had found that a suit under the anti-wiretapping statute¹⁰⁷ stated a cause of action even absent an expectation of privacy in the Fourth Amendment search and seizure context.¹⁰⁸ For example, an employee may not expect total privacy in her office, but she still would be protected by the anti-wiretapping statute where she was "[unaware] of the specific nature of

Eleventh Circuit held that a wiretapping claim may be established by circumstantial evidence.

104. *Id.*

105. *Id.* at 1578 n.7.

106. This distinction may *seem* muddled because Walker's situation at work is going to affect the objective part of the analysis. But it is not hard to imagine a continuum of privacy expectations: on that continuum, concealed wiretapping is "worse" than a search of a person's workplace for work related purposes. Because wiretapping is worse, it does not get the benefit of the balancing test (Title III therefore is more protective than the *Ortega* Court's interpretation of Fourth Amendment protection). Walker's case was even stronger because those tapping his conversations appeared to be racially motivated, and were not acting in their official capacity as Walker's supervisors. If Walker's supervisors had been acting in their "official" capacity, would that make the wiretapping less egregious? This query refers to the intent of the person doing the wiretapping or the work-related search and seizure. One of the key disagreements between the plurality and the dissent in *Ortega* was each side's characterization of the hospital supervisor's intent when searching Ortega's office.

107. The court relied on 18 U.S.C. §§ 2510-2521 (1988 & Supp. II 1990).

108. *Walker*, 911 F.2d at 1578, This point is critical when analyzing the kinds of privacy protection state constitutions might afford employees in the workplace. See *infra* notes 167-73 and accompanying text.

another's invasion of [her] privacy."¹⁰⁹ The *Walker* court concurred with decisions by both the Sixth Circuit¹¹⁰ and an Illinois district court¹¹¹ which distinguished an expectation of privacy from an expectation of non-interception:

We agree that there is a difference between a public employee . . . [who expects] privacy in [her] personal conversations . . . in the workplace, and [an employee who expects [her] conversations will not be intercepted by a device which allows] those conversations to be overheard inside an office in another area of the building.¹¹²

The *Walker* court further asserted that Walker's expectation of privacy did not arise out of a legitimate attempt by his employer to police his work-related conduct.¹¹³ Unlike the parties in *Ortega*, Walker argued that his supervisors intended to intercept his conversations based on a personal vendetta, whereas Darby contended that no actual interception took place.¹¹⁴ Neither party argued that Walker's supervisors were acting in an official capacity.¹¹⁵ As a result, the *Walker* court reversed and remanded the case based on the inference that "Walker might have expected conversations uttered in a normal tone of voice to be overheard . . . , [but that] he would [not] have expected his conversations to be electronically intercepted and monitored in an office in another part of the building."¹¹⁶

Interestingly, the concurring opinion in *Walker* believed that much of the majority's opinion regarding Walker's subjective and objective expectations of privacy was dicta. The concurring opinion reasoned that the district court never discussed these issues and neither party's brief raised the issue. Thus, whether an employee had an expectation of non-

109. *Walker*, 911 F.2d at 1579 (citing *Bianco v. American Broadcasting Cos.*, 470 F. Supp. 182, 185 (N.D. Ill. 1979)).

110. *Boddie v. American Broadcasting Cos.*, 731 F.2d 333, 339 n.5 (6th Cir. 1984).

111. *Bianco v. American Broadcasting Cos.*, 470 F. Supp. 182, 185 (N.D. Ill. 1979) (holding that there are circumstances where a person does not have an expectation of total privacy, but can still find protection under the anti-wiretapping statute where he was not aware of another's invasion of his privacy).

112. *Walker*, 911 F.2d at 1579.

113. *Id.* at 1579 n.8.

114. A good example of bad lawyering by the defendant's attorney. Attorneys for Darby should have argued in the alternative that, even if the court found there was interception, it was for work-related reasons.

115. *Walker*, 911 F.2d at 1579 n.8. Note how this case is similar to the mixed motive analysis in employment law. Mixed motive analysis arises in the context of employment discrimination where an employer's actions may have been both legally and illegally motivated. For example, an employer fires an employee with some racially discriminatory motive, but the employer alleges that it would have taken that action against the employee anyway, regardless of skin color. See *Texas Dep't of Community Affairs v. Burdine*, 450 U.S. 248, 252-54 (1981).

116. *Walker*, 911 F.2d at 1579.

interception in his place of work should not have been addressed on appeal until the district court tried the issue.¹¹⁷

Ortega, Schowengerdt, Shields, and Walker, taken together, suggest two critical points regarding work-related employee privacy. First, federal courts have so narrowly circumscribed the public employee's Fourth Amendment work-related privacy rights that these rights have all but vanished completely.¹¹⁸ Where an employee is forewarned of an office search, the employee's expectation of privacy diminishes accordingly. These cases show that court-made law favors employers. Second, with an eye to the future, if we think it wise to expand work-related privacy for employees, such an expansion will have to be found in either federal statutes¹¹⁹ or state constitutions.¹²⁰

F. Congress' Attempt To Better Protect Employees' Work-Related Privacy

There is no federal statute on point which protects computer or electronic communications within a private business organization.¹²¹ To the extent a court might adduce this privacy protection, it would arise under the Electronic Communications Privacy Act of 1986 (ECPA).¹²² The ECPA protects users of telephones and other communications equipment from wiretapping and similar invasions of privacy. The Act also includes within its purview electronic mail, cellular phone service, other forms of electronic communication, and a broadened scope which incorporates communications other than those carried over public networks. Under the ECPA, private individuals and organizations may be prosecuted for intercepting electronic communications of outside third parties without authorization to do so.¹²³ However, the ECPA does not directly address the private business user who communicates by E-mail.

117. *Id.* at 1579-80.

118. This idea of vanishing constitutional rights was adapted from an article by Erwin Chemerinsky, *The Supreme Court, 1988 Term—Foreword: The Vanishing Constitution*, 103 HARV. L. REV. 43, 96-98 (1989).

119. See *infra* notes 123-45 and accompanying text.

120. See *infra* notes 146-86 and accompanying text.

121. See, e.g., Alice La Plante, *Is Big Brother Watching?*, INFOWORLD, Oct. 22, 1990, at 58, 60. But see *infra* notes 150-86 and accompanying text.

122. Pub. L. No. 99-508, 100 Stat. 1848 (1986) (codified at scattered sections of 18 U.S.C.). For a good analysis of the ECPA see Russell S. Burnside, *The Electronic Communications Privacy Act of 1986: The Challenge of Applying Ambiguous Statutory Language to Intricate Telecommunications Technologies*, 13 RUTGERS COMPUTER & TECH. L.J. 451 (1987); Robert I. Webber, Note, *The Privacy of Electronic Communication: A First Step in the Right Direction*, 1 J.L. & TECH. 115 (1986).

123. John Pallato, *Congress Closes Gap Between Law and Computer Technology; Computer Crime Prevention*, PC WEEK, Jan. 20, 1987, at 55-56.

Congress passed the ECPA to close loopholes in Title III of the Omnibus Crime Control and Safe Streets Act of 1968 (Title III).¹²⁴ These loopholes in privacy protection were created by advancing communications technologies, particularly in the area of computer communications.¹²⁵ The important loopholes in Title III, for purposes of this discussion, are threefold: (1) Title III limited privacy protection to narrowly defined categories of "wire" and "oral" communications;¹²⁶ (2) Title III protected only against unauthorized "aural interception of voice communications";¹²⁷ and (3) Title III did not cover communications between computers, or between a computer and a human.¹²⁸

The ECPA remedied these loopholes. First, the ECPA amended the definitions of "wire" and "oral" in Title III to include the term "electronic."¹²⁹ An "electronic communication" specifically includes E-mail.¹³⁰ The phrase "electronic communication" is defined broadly and is intended to cover any communication not carried by sound waves, and not carrying the human voice.¹³¹

Second, Title III was amended to include the words "aural or other acquisition."¹³² Amending this section allowed Congress to include non-aural, electronic communications within the purview of Title III's protection.¹³³ The term "intercept" in Title III now includes acquiring the contents of an electronic communication non-aurally, in addition to acquiring a wire or oral communication aurally.¹³⁴ For example, using an electronic wiretap to read and store a competitor's computer modem transmissions without consent would violate Title III even though the wiretapping involves no human ear listening.

Finally, the ECPA amended sections 2701 through 2711 of Title III for stored wire and electronic communications. An "outside" or third party may not intercept electronic mail under these sections.¹³⁵ The amendments make it criminal for a person to intentionally access an electronic communication without authorization; to go beyond the authorization when accessing the communication; to "intentionally

124. 18 U.S.C. §§ 2510-2521 (1988 & Supp. II 1990).

125. See generally S. REP. NO. 541, *supra* note 1.

126. 18 U.S.C. § 2511(1)(a) (1988).

127. Burnside, *supra* note 122, at 463.

128. *Id.* at 482.

129. ECPA § 101(c)(1)(A), 100 Stat. at 1851 (modifying 18 U.S.C. § 2511(1)(a) (1988)).

130. S. REP. NO. 541, *supra* note 1, at 14.

131. Burnside, *supra* note 122, at 495 (quoting 1986 U.S.C.A.N. at 3568).

132. 18 U.S.C. § 2510(4) (1988) (emphasis added).

133. Burnside, *supra* note 122, at 502.

134. 18 U.S.C. § 2510(4) (1988).

135. Burnside, *supra* note 122, at 509.

obtain" a communication; or, to alter or prevent authorized access to a communication.¹³⁶

With regard to "electronic communications," particularly electronic mail, courts have not yet applied the ECPA.¹³⁷ However, recently, in Colorado Springs, Colorado, an interesting issue regarding E-mail privacy surfaced. The city's mayor admitted he had read hard-copy printouts of electronic mail messages sent between City Council members.¹³⁸ The mayor felt he had a right to read the E-mail, since state laws demand that most City Council business be conducted in public. Furthermore, the city's E-mail policy required a secretary to print out all E- messages periodically, then delete them from the city computer to save space. The printouts were retained in case any of the messages were deemed covered by the state's broad public-records law. City officials did post official notices in the Colorado Springs computer message system because the system was partially open to the public. The mayor claimed he intended to review these E-mail printouts to insure government employees were performing their jobs in a forthright manner. The city officials would never have kept the printouts had they thought their actions criminal. In fact, he thought his actions were legal because of the state's public-records laws.¹³⁹

Applying the ECPA to the facts, the mayor's actions come within the purview of the Act because he is an "outside" or third party who is a public actor. Inadvertent interceptions by third parties are not crimes under the ECPA because amended sections 2510 and 2511 of Title III require that the actor's *mens rea* be "intentional."¹⁴⁰ The legislative history of the subsection reveals that Congress desired that the wiretapper's conduct or his causing a certain damaging result from wiretapping must be the wiretapper's "conscious objective."¹⁴¹ Arguably, the mayor did not have the conscious objective of causing a damaging result to those employees whose E-mail he read. On the other hand, he

136. 18 U.S.C. § 2701(a)(1)-(2) (1988); Burnside, *supra* note 122, at 509.

137. Courts have applied the ECPA to cases involving cellular phone service. *See, e.g.,* Schubert v. Metrophone, Inc., 898 F.2d 401 (3d Cir. 1990) (cellular phone service providers who do not encrypt or otherwise protect cellular phone transmissions held not to have "intentionally" divulged contents of cellular phone communications, and therefore not liable under ECPA); Tyler v. Berodt, 877 F.2d 705 (8th Cir. 1989), *cert. denied*, 493 U.S. 1022 (1990) (interception of incriminating cordless phone conversation by citizen not illegal under ECPA); Edwards v. State Farm Ins. Co., 833 F.2d 535 (5th Cir. 1987) (listener who overheard incriminating cordless phone conversation on his radio scanner and reported contents of conversation to federal investigators not liable under ECPA).

138. DeBenedictis, *supra* note 6, at 26; *see also* Rob Kolstad, *Daemons and Dragons: Mail Privacy, Electronic Mail*, UNIX REVIEW, Vol 10, No. 8, at 79-81 (Aug. 1992).

139. DeBenedictis, *supra* note 6, at 27.

140. S. REP. NO. 541, *supra* note 1, at 3577. Interestingly, for civil actions, the state of mind required may be something less than intentional, "with a knowing or intentional state," 18 U.S.C. §§ 2511-2512 (1988).

141. S. REP. NO. 541, *supra* note 1, at 3577.

did intend to intercept the E-mail communications, and that action in itself may constitute a harm.¹⁴²

Courts have held that states may enact broader privacy protection than that required by the ECPA. Where state protection against wiretapping or eavesdropping is less stringent than the ECPA, federal law controls. However, where state law is more stringent, a potential offender is subject to the higher standard.¹⁴³ State law is pre-empted only where it is more permissive than federal law.¹⁴⁴ This point is critical when considering whether state law might provide broader privacy protection than its federal counterpart. Under the ECPA, states may enact broader privacy protection in the workplace should they see fit to do so.

It bears repeating that current federal law does not directly cover the situation where a private employer wiretaps or monitors employee E-mail transmissions. Instead, the ECPA appears to focus on "third party" interception. This focus provides some proof that Congress enacted the ECPA because it was principally addressing the problem of a company's stealing valuable electronic information from its competitors. Yet, nothing in the legislative history of the ECPA clearly suggests that Congress did not intend the ECPA to cover a private employer's monitoring of an employee's E-mail transmissions.¹⁴⁵

III. STATE LAW: LOOKING FOR BROADER RIGHTS TO WORK-RELATED COMPUTER PRIVACY

The best chance for protecting private employees who use E-mail lies in the area of state law. Many states have enacted criminal and civil statutes which appear to protect user-privacy on technologies like E-mail.¹⁴⁶ Also, many of the highest state courts have interpreted their respective state constitutions to provide broader privacy protection than the Federal Constitution.¹⁴⁷ To this end, all of the cases filed in this area

142. No court has addressed the issue of whether the requisite intent is a desire for a damaging result, or simply intentional monitoring.

143. *United States v. Marion*, 535 F.2d 697 (2d Cir. 1976) (government lost argument that less stringent state law wiretapping statute controlled); 18 U.S.C. §§ 2516(2), 2517(5) (1988).

144. *People v. Jones*, 106 Cal. Rptr. 749 (Ct. App.) (holding that Congress intended states to supplement federal law in this area; federal law should serve as the minimum standard), *appeal dismissed*, 414 U.S. 804 (1973).

145. See *infra* notes 166-69, 178-80 and accompanying text.

146. See, e.g., CAL. PENAL CODE §§ 630-632 (Deering 1983 & Supp. 1992).

147. See, e.g., *Immuno A.G. v. Moor-Janowski*, 567 N.E.2d 1270, 1278 (N.Y.) (protection afforded by free press and speech provisions in New York Constitution is broader than minimum protection afforded by federal Constitution), *cert. denied*, 111 S. Ct. 2261 (1991); *Hope v. Perales*, 571 N.Y.S.2d 972, 978 (Sup. Ct. 1991) (due process clause of New York Constitution provides broader protection than analogous federal provision).

thus far have been pinned to privacy rights articulated in state constitutions or state statutes.¹⁴⁸

Experts predict that "whatever California courts decide will probably be a model for the nation."¹⁴⁹ Currently, the critical case in California is *Shoars v. Epson America, Inc.*¹⁵⁰ In *Shoars*, the plaintiff was employed as an Office Systems Programmer Analyst in the Information Resources Department at Epson America, Inc. Her responsibilities included providing user support and training in office automation software and personal productivity tools with special emphasis on supporting Epson's employees in the use of electronic mail. About seven hundred Epson employees had desktop computers which, through electronic mail, created access to approximately nine million other computers worldwide. E-mail was presented to Epson employees by Epson management as an alternative to FAX, telephone and U.S. mail. All of Epson's E-mail users needed a personal password to access their own messages.

Plaintiff's direct supervisor systematically printed up and read all of the E-mail that was entering and leaving Epson's place of business where plaintiff worked. Plaintiff's supervisor accomplished this monitoring by placing a "tap" on the electronic mail gateway where the mainframe computer interfaced with the outside E-mail communications service. The tap automatically downloaded and printed up every private communication entering or leaving the office.

Plaintiff, as part of her job description, had been informing Epson employees that their E-mail transmissions were confidential. She also believed that no one in Epson had given her supervisor consent to read the transmissions. Plaintiff entered the unlocked office of her supervisor while he was on vacation and discovered that the tap was in place, and that her supervisor had printed up thousands of pages of employee E-mail. Plaintiff subsequently confronted her supervisor and demanded that he dismantle the tap and destroy the printed up messages. Plaintiff's supervisor advised plaintiff the tap was not her business and threatened

148. To the author's knowledge, the cases filed so far are as follows: *Cubby v. Compuserve*, 90 Civ. 6571 (N.Y. Sup. Ct. filed 1991) (electronic gossip column sued for libel under state law); *Cameron v. Mentor Graphics*, No. 716361 (Cal. Super. Ct. filed Nov. 7, 1991) (employer sued under state law for wrongfully firing plaintiffs based on information it gained while monitoring plaintiffs E-mail communications); *Bourke v. Nissan Motor Co., Inc.*, No. YC 003979 (Cal. Super. Ct. filed 1991) (plaintiffs sue employer under state law for wrongful termination based on information gained by the employer while monitoring E-mail transmissions); and *Shoars v. Epson Am., Inc.*, No. SWC 112749 (Cal. Super. Ct. filed 1990) (plaintiff suing employer for wrongful termination under state statute where employer obtained information by accessing plaintiff's E-mail communications).

149. *Slind-Flor*, *supra* note 75, at 22.

150. Ruling on Submitted Matter, *Flanagan v. Epson Am., Inc.*, No. BC007036 (Cal. Super. Ct. 1991).

to fire her if she did not keep quiet about her discovery. In turn, plaintiff, using the E-mail at work, sent a private message to the Manager of Network Software and E-Mail Administrator at Epson's Santa Clara office, requesting that he issue her a new E-mail account number, one to which plaintiff's supervisor would not have access. Plaintiff's supervisor intercepted the transmission, and fired plaintiff shortly thereafter for gross insubordination.¹⁵¹

Plaintiff sued Epson under California Penal Code section 631 which provides a private right of action for wiretapping in the workplace.¹⁵² Section 631 prohibits "[a]ny person who by means of any machine, instrument, or contrivance, or in any other manner, intentionally taps, or makes any unauthorized connection, whether physically, electronically, acoustically, inductively or otherwise." The section requires consent from all parties before a communication may be tapped. Section 631 also states that a person may not "read or attempt to read [the communication], . . . learn the contents or meaning of any message, report or communication

151. Second Amended Complaint at 6, *Shoars v. Epson Am., Inc.*, No. SWC 112749 (Cal. Super. Ct. 1990).

152. CAL. PENAL CODE §§ 630-632 (Deering 1983 & Supp. 1992).

Most states have statutes similar to that of California's. See, e.g., CONN. GEN. STAT. ANN. §§ 53a-187-189 (West 1992); GA. CODE ANN. §§ 16-11-66 through 69 (Harrison 1993); KAN. CRIM. CODE ANN. §§ 21-4004 through 4006 (Vernon 1992); MICH. COMP. LAWS ANN. § 750.539d (West 1992); 18 PA. CONS. STAT. ANN. §§ 5705-5748 (1993). The legislative intent of these statutes is to provide private employers and employees with some protection regarding the intercepting and wiretapping of private communications in the workplace. These statutes differ. Some require one-party consent while others require all-party consent where a communication is being tapped. About half the state statutes provide for civil liability in addition to criminal. Criminal fines range from \$500 to \$150,000 and sentences range from one to seven years.

Before *Ortega* was decided in 1986, courts generally held that the employer owned all property in the workplace and therefore, had a right to examine that property at any time. It followed that employers had the right to search work areas, desks, lockers or other property to obtain evidence of theft, to prevent diversion of goods, or to prevent illegal drugs on the premises. No search warrant was needed except in criminal cases where constitutional warnings and precautions had to be followed. The employers' major limitation was that they were not permitted to search those areas where an employee has a reasonable expectation of privacy.

However, as early as 1984, some courts began to chip away at this rule. For example, in *K-Mart Corp. Store No. 7441 v. Trotti*, 677 S.W.2d 632 (Tex. Ct. App. 1984), writ refused, 686 S.W.2d 593 (Tex. 1985), an employee used a company locker for personal storage. She kept her own lock and gave no key to her employer. The Texas court upheld a finding of damages for the employee on evidence that the employer wrongfully searched the employee's locker and purse. The court stated that the employee had an expectation of privacy for the locker and its contents. This expectation was based on the fact that the company allowed the employee to put her own lock on the locker. The court further held and reversed and remanded (in favor of K-mart) for the judge's failure to instruct the jury that, in the workplace, to constitute an invasion of privacy, it must be "highly offensive to the reasonable person." *Id.* at 636.

while the same is in transit or passing over any such wire, line or cable, or is being sent from, or received at any place within the state."¹⁵³

Section 632 proscribes intentional eavesdropping on a confidential communication using "any electronic amplifying or recording device" without the consent of all parties involved. Eavesdropping is illegal "whether the communication is carried on among such parties [in person] . . . or by means of a telegraph, telephone or *other device*"¹⁵⁴ (emphasis added). Interestingly, in section 632(b), the code defines the term "person" to include individuals as well as businesses.¹⁵⁵

Section 632(c) states that a confidential communication includes any communication carried on in circumstances as may reasonably indicate that any party to the communication desires [that] it be confined to the parties [who are communicating at the time], but excludes a communication made in a public gathering or in any legislative, judicial, executive or administrative proceeding open to the public, or in any other circumstance in which the parties to the communication may reasonably expect that the communication may be overheard or recorded.¹⁵⁶

Although sections 631 and 632 describe the use of similar equipment which intercepts private communications, the *manner* in which the equipment is used has been distinguished by the California state courts. In *People v. Ratekin*,¹⁵⁷ a California court of appeals held that wiretapping meant intercepting communications by an unauthorized connection to the transmission line. In contrast, eavesdropping meant intercepting a communication by using equipment not connected to a transmission line. Thus, the cause of action in *Shoars* was brought under section 631 because defendant Epson physically placed a "tap" on the electronic mail gateway

153. CAL. PENAL CODE § 631(a) (Deering 1983 & Supp. 1992). Violations of section 631 entitle the plaintiff to money damages. This damage provision is important where a plaintiff, like Shoars, files a class-action suit.

154. Section 632(a) states that

[e]very person who, intentionally and without consent of all parties to a confidential communication, by means of any electronic amplifying or recording device, eavesdrops upon or records the confidential communication . . . shall be punished by a fine not exceeding \$2500, or imprisonment in county jail not exceeding one year, or in the state prison, or by both that fine and imprisonment.

Id. § 632(a).

155. It is not clear whether this definition of "person" in § 632(b) applies to the term "person" in § 631(a).

156. CAL. PENAL CODE § 632(c) (Deering 1983 & Supp. 1992). Two recent cases in which § 632 has been applied to plaintiffs' benefit are *People v. Gibbons*, 263 Cal. Rptr. 905 (Ct. App. 1989) (the crime of eavesdropping is not limited to covert recording of oral communications, but extends to the recording of other forms of communication); and *Frio v. Superior Court*, 250 Cal. Rptr. 819 (Ct. App. 1988) (a communication may be "confidential" for purposes of § 632 even though it relates solely to ongoing business matters between a business person and his client).

157. 261 Cal. Rptr. 143 (Ct. App. 1989)

where the mainframe computer interfaced with the outside E-mail communications service.

Arguably, Shoars might have had a stronger case if she could have brought a cause of action under section 632. Section 632(c)'s "reasonable expectation of privacy under the circumstances" standard weighs in plaintiff's favor where Epson represented that E-mail was a confidential form of communication to the employees. Unfortunately, Epson's "listening in" on employees' E-mail transmissions involved a physical tapping of an electronic line as opposed to equipment not connected to a line. However, under section 630, the California legislature's strong statement of intent to broadly apply sections 631 and 632 to "new devices and techniques [used] for the purpose of eavesdropping on private communications" might encourage a court to apply the reasonable expectation standard articulated in section 632 to causes of action under section 631.¹⁵⁸ Furthermore, recovery of monetary damages are allowed for violations under sections 630 to 632. The damages are three thousand dollars per violation or three times the amount of any actual damages sustained by the plaintiff. Injunctive relief is also available.¹⁵⁹

Thus far in *Shoars*, the Superior Court of California sustained Epson's demurrer by reason of plaintiff's failure to state sufficient facts on which a cause of action may be based. The court found that E-mail was not covered by section 631 of the California Penal Code for three reasons. First, the court contended that it was not clear plaintiff had an expectation of privacy. Without such an expectation, there could be no invasion of that privacy through wiretapping. The superior court did not elaborate on this statement.¹⁶⁰

Second, the court assumed, and found *arguendo*, that even if plaintiff had an expectation of privacy, E-mail was not covered by section 631 based on the California Supreme Court's interpretation of section 631 coverage in *Ribas v. Clark*.¹⁶¹ In *Ribas*, Ribas and his wife were obtaining a divorce. Ribas's wife had Clark monitor a critical telephone conversation regarding the couple's divorce. Ribas's wife later used this information to

158. CAL. PENAL CODE § 630 (Deering 1983). Section 630, which applies to both sections 631 and 632, is a statement of legislative intent. It is a strong statement which declares that

advances in science and technology have led to the development of new devices and techniques for the purpose of eavesdropping upon private communications and that the invasion of privacy resulting from the continual and increasing use of such devices and techniques has created a serious threat to the free exercise of personal liberties and cannot be tolerated in a free and civilized society.

159. *Id.* § 637.2.

160. This claim probably refers to the court's presumption that the employer's interests in an efficient, well-run workplace outweigh whatever privacy interests the employees have vested in their use of E-mail. This explanation, though, is purely speculative.

161. 696 P.2d 637 (Cal. 1985).

try to rescind the divorce. Ribas sued Clark for an invasion of his privacy under section 631. The California Supreme Court held, *inter alia*, that section 631 covers intra-spousal wiretapping and eavesdropping.¹⁶²

Third, the court in *Shoars* held that section 631 did not cover interception of E-mail communications despite the broad statement of intent offered by the California legislature in section 630 of the California Penal Code.

Given this three-part analysis, the superior court concluded that, Although it may well be that plaintiff's right to privacy with respect to the electronic communications described in the complaint ought to be, as a matter of public policy, entitled to protection, this court believes that such an extension of Penal Code § 631, if it is to be made, is the proper province of legislature, which is better equipped than a court to determine the precise nature of such an extension, as well as appropriate exceptions and exemptions therefrom. In this connection, the court notes the U.S. Congress has enacted separate statutes pertaining to Wire and Electronic Communications Interception and Interception of Oral Communications [18 U.S.C. § 2510, *et seq.*] and pertaining to Stored Wire and Electronic Communications and Transactional Records Access [18 U.S.C. § 2701, *et seq.*]¹⁶³

In a footnote to the above conclusion, the court cited an article which discusses the ECPA.¹⁶⁴ The court's footnote quoted liberally regarding the background and purpose of the ECPA, concluding that under section 2701, although it may be illegal for others to gain access without authorization or to exceed authorized access to a system [under the ECPA], "the person or entity providing a wire or electronic communications service" is not liable for any offenses regarding stored communications, i.e., voice-mail, E-mail, or other recorded communications.¹⁶⁵

In other words, there simply is no ECPA violation if "'the person or entity providing a wire or electronic communications service' intentionally examines everything on the [electronic mail] system."¹⁶⁶

There are several problems with the trial court's ruling in *Shoars*. First, the trial court concluded it was not clear plaintiff had an expectation

162. *Id.* See also *Thompson v. Dulaney*, 970 F.2d 744 (10th Cir. 1992) (finding no interspousal exception to wiretapping statute). The reader might wonder why the superior court cited this case in support of a "narrow" reading of § 631 which excludes within its purview E-mail. See *infra* notes 170-84 and accompanying text for a critical discussion of the superior court's holding in *Shoars*.

163. Ruling on Submitted Matter at 4, *Flanagan v. Epson Am., Inc.*, No. BC 007036 (Cal. Super. Ct. 1991).

164. *Id.* at 5-6 n.1 (citing Ruel T. Hernandez, Note, *Electronics Communications Privacy Act of 1986 and Online Computer Privacy*, 41 FED. COM. L.J. 17 (1988)).

165. *Id.* at 5-6 n.1; 18 U.S.C. § 2701(c)(1) (1988).

166. Ruling on Submitted Matter at 5-6 n.1, *Flanagan*.

of privacy on the employer's electronic mail system. This conclusion completely ignored the reasoning employed by the Eleventh Circuit in *Walker v. Darby*.¹⁶⁷ Recall that in *Walker* the court concurred with decisions by both the Sixth Circuit and a state district court which distinguished an expectation of privacy from an expectation of non-interception.¹⁶⁸ Further, the court held that an expectation of privacy is not required in order to find an expectation of non-interception.¹⁶⁹ The *Shoars* court completely ignored this distinction,¹⁷⁰ and instead pre-emptively concluded that the controlling question was whether plaintiff had an expectation of privacy.

The reasoning in *Walker* suggests that a plaintiff may sustain a cause of action under the California Penal Code anti-wiretapping statute even absent an expectation of privacy under a Fourth Amendment analysis. The plaintiff in *Shoars* may not have expected total privacy in her office, but she is still protected by the anti-wiretapping statute where she is *unaware* of the specific nature of another's invasion of her privacy. Under this reasoning, an employee who expects privacy in her personal conversations in the workplace may be distinguished from an employee who expects that her E-mail conversations would not be intercepted by a device which allows those (electronic) conversations to be monitored inside an office in another area of the building.¹⁷¹

Shoars could argue that her supervisors intended to intercept her E-mail conversations because she had discovered that her supervisor was acting contrary to company policy. Recall that Shoars had informed Epson employees that their E-mail transmissions were confidential. She also believed that no one in Epson had given her supervisor consent to read the transmissions. This belief probably satisfies the objective prong of the standard articulated in *Walker*.¹⁷² When Shoars discovered the electronic tap, she confronted her supervisor, and demanded that he dismantle the tap and destroy the printed up messages. Shoars' supervisor threatened to fire her if she revealed what she had found. Hence, it appears Shoars was fired because she discovered her supervisor covertly and thus illegally reviewing employee E-mail.

In contrast, the defendant in *Shoars* could distinguish *Walker* by arguing that Shoars' supervisors are private actors who were attempting

167. 911 F.2d 1573 (11th Cir. 1990).

168. See *supra* notes 110-112 and accompanying text.

169. 911 F.2d at 1579.

170. While California courts may choose not to adopt the reasoning of federal courts, the *Shoars* court simply chose to ignore the issue.

171. *Walker*, 911 F.2d at 1579.

172. *Id.* at 1578-79. Shoars must have had a subjective belief her electronic conversations would not be intercepted, and that belief must have been objectively reasonable.

to police her work-related conduct.¹⁷³ Shoars' supervisors, as part of a private business, were acting in an official capacity by reviewing E-mail communications. Thus, the *Walker* analysis should not apply in *Shoars* because (1) Walker's arguments were made pursuant to the ECPA which does not cover *private* actors, and (2) the monitoring was work-related.

At least the *Shoars* trial court should have addressed the expectation of privacy issue based on the inference that Shoars would not have expected her electronic conversations or other employees' transmissions to be electronically intercepted or monitored by her supervisor in his office. The distinction articulated by the *Walker* court could be utilized to bring Shoars within the purview of California's anti-wiretapping statute because the statute clearly covers private actors.

The second problem stems from the court's reliance on *Ribas v. Clark*¹⁷⁴ The *Shoars* Court cited *Ribas* in support of a "narrow" reading of section 631 excluding E-mail from the statute's purview. A careful reading of *Ribas* reveals that this case does not support the trial court's conclusion. In *Ribas*, the California Supreme Court cited favorably the legislative intent in section 630 of the California Penal Code, writing that [t]his philosophy [to broadly protect citizens against invasions of their privacy] appears to lie at the heart of virtually all the decisions construing the Privacy Act (citations omitted). Section 631 was aimed at one aspect of the privacy problem . . .¹⁷⁵

The *Ribas* court went on to hold that

section 631 [prohibits] far more than illicit wiretapping (citations omitted), [In past cases] we considered [section 631] to proscribe three separate acts: (1) intentional wiretapping, (2) willful attempts to learn of the contents of the communication in transit, and (3) attempts to use or publicize information obtained in either manner (citations omitted). Additionally, the Privacy Act has long been held to prevent one party to a conversation from recording the conversation without the other's consent.¹⁷⁶

The *Ribas* court further noted that secret monitoring denies the speaker the important right to control the nature and extent of how the speaker's statement is disseminated.¹⁷⁷

It is difficult to understand how plaintiff's cause of action in *Shoars* does not fit into either the second or third proscriptions articulated by the California Supreme Court in *Ribas*. Under the second proscription, Epson's interception of employee's E-mail constitutes a willful attempt by Shoars' employer to learn the contents of a confidential communication.

173. *Id.* at 1579 n.8.

174. 696 P.2d 637 (Cal. 1985).

175. *Id.* at 640 (citations omitted).

176. *Id.* (citations omitted).

177. *Id.* at 640-41.

Under the third proscription, using the intercepted transmissions to fire Shoars is an attempt to use or publicize information obtained through interception. Thus, the actual text in section 631, the legislative intent articulated in section 630, and the opinion of the California Supreme Court in *Ribas* combine to strongly favor placing E-mail communications within the protection of section 631.

Third, the Superior Court employed a flawed rationale in its ruling by alluding to the ECPA in support of its conclusion that E-mail is not covered under section 631. This analogy to federal law proves uninformative. Nowhere in the ECPA's language, nor in its legislative history, is state law mentioned. It is at least equally likely that federal legislation serves as a floor for privacy protection, not as a ceiling; and therefore states are free to enact stricter privacy laws. Moreover, section 631, with its broader legislative intent, should not be limited in scope simply because the ECPA, a federal statute, does not cover a private employer's intentional monitoring of its employees' communications. In fact, it is not clear that even the ECPA bars suits by private employees against surreptitious employer monitoring of E-mail communications. The legislative history for section 2701(c)(1) of the ECPA¹⁷⁸ states that "it is not a violation of [the ECPA] if the conduct *was authorized* by the person or entity providing the wire or communications service, or if the conduct *was authorized* by the user of that service with respect to communications of or *intended for* that user."¹⁷⁹

In *Shoars*, management represented to the employees that E-mail communications were confidential. Under the ECPA, whether Shoars' supervisor "was authorized" to monitor E-mail transmissions appears to be a triable issue of fact. Likewise, whether employees' E-mail was "intended" for Shoars' supervisor also appears to be an issue of fact.

Furthermore, it is not clear from the ECPA or its legislative history that "a person or entity" providing E-mail service is synonymous with the employer or a supervisor within the company. Many companies purchase their E-mail services from an outside supplier.¹⁸⁰ Technically, this outside supplier "provides" the E-mail service to the employer. The employer, in turn, provides the E-mail service to the employees. The specific language of the ECPA does not equate "employer" with "E-mail provider." It is at least equally likely Congress intended to impose employer liability where a supervisor covertly monitored employee

178. Section 2701(c) lists exceptions to the crime of unlawful access to stored communications, i.e., it explains when an employer or other person may lawfully access electronic communications.

179. S. REP. NO. 541, *supra* note 1, at 36 (emphasis added).

180. For example, MCI supplies such a service.

E-mail communications which were represented to employees as confidential.

The *Shoars* court's reluctance to allow a cause of action under section 631 for intercepting E-mail communications probably turned on the fact that the actual language of section 631 never mentions the magic words "electronic mail." But, excluding E-mail from the coverage of the section ignores the legislative intent of section 630, and misreads the California Supreme Court's broad interpretation of privacy protection presented in *Ribas v. Clark*.

State courts should hold that electronic mail is within the purview of a state's anti-wiretapping or anti-eavesdropping statutes where: (1) the legislative intent of the statutes supports such a reading, or (2) the state courts have implied such a reading, despite the fact that the actual state statute does not mention the actual words "electronic mail." The *Shoars* trial court erred because both elements (1) and (2) were present. Neither the Constitution nor federal statutes afford such protection to private employees. Including electronic mail within the purview of state statutes like section 631 is not only consistent with the state's interest in employment law, but is also consistent with the trend toward giving private employees more privacy protection.¹⁸¹

We know that Congress did not amend Title III of the ECPA until technological advances made Title III obsolete. State courts should not exclude E-mail from the purview of their analogous state statutes simply because those statutes neglect to mention the words "electronic mail." Such a narrow reading of state statutes effectively resolves the issue in favor of employers by ignoring state legislative intent. States have as much an interest in protecting employees as they do in employers. Based on the superior court's holding in *Shoars*, sections 630 and 631 may require amendments to specifically include forms of communications like electronic mail. Certainly, this is an issue with which the state court will have to grapple if *Shoars* is appealed.

On appeal, should a California court find that *Shoars* is protected under sections 630 and 631, it would not be the first time California courts have found that state law provides broader privacy protection than comparable federal law. In *Hill v. NCAA*,¹⁸² the California Court of Appeal held that the NCAA violated student athletes' right to privacy by requiring that all athletes be drug-tested. According to the court, article 1, section 1 of the California Constitution¹⁸³ provides broader privacy

181. See, e.g., H.R. REP. NO. 2168, 96th Cong., 2d Sess. § 8 (1980).

182. 273 Cal. Rptr. 402 (Ct. App.) (opinion superseded by grant of review by the California Supreme Court), review granted, 801 P.2d 1070 (Cal. 1990).

183. Article 1, Section 1 of the California Constitution reads:

protection than Fourth Amendment law because article 1 both covers private and public actors, and requires the state to show a compelling interest before it can invade a fundamental right to privacy.¹⁸⁴ The NCAA lost on appeal because it could not meet the higher state-imposed constitutional burden.

Analogously, a state court of appeals might find that *Shoars* comes within the purview of sections 630 and 631 because the state generally provides greater privacy protection than does the Federal Constitution. Recall that sections 630 and 631 are criminal statutes, not civil. While *Hill v. NCAA* is of constitutional significance, the *Shoars* case deals directly with privacy as a criminal matter. Arguably, the state has a very strong interest in regulating criminal intrusions of privacy. At minimum, a court of appeals should recognize a cause of action under section 631 because such recognition squares with both precedent and state legislative intent.

IV. CONCLUSION: THE GAP BETWEEN NEWLY CREATED COMPUTER SPACES AND PROTECTING PRIVACY IN THOSE SPACES

Courts must take into account an overarching policy concern regarding their role when adjudicating work-related computer privacy issues. The concern is under what rationale a court can allow a privacy cause of action when: (1) a new technology like E-mail is created, (2) an employee believes his right to privacy on this technology has been invaded by his employer, (3) no new law has been legislated to address the new privacy issues associated with the technology, and (4) old law does not clearly cover the area of privacy in question.

A gap exists in between the time when a new communication technology is created and the later time at which a statute is designed by Congress or a state legislature to regulate the new technology. During that period, the letter of the law may not protect the users of the new technology from invasions of privacy. In this gap, courts retain exclusive jurisdiction to decide whether newly-created privacy issues may be brought within the purview of the old law. Often, a court confronted with a "gap" issue will decide that it is the province of legislators, not courts, to extend statutes to cover privacy issues raised by new technologies.¹⁸⁵ Such a decision by a court is fully acceptable as long as

All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness, and privacy.

CAL. CONST. art. 1, § 1.

184. *Hill*, 273 Cal. Rptr. at 408, 410.

185. This is exactly what the trial court in *Shoars v. Epson America* held.

the court owns up to what such a decision means. Denying a plaintiff a cause of action means that the court is deciding in favor of the defendant, based not on the merits of the case, but, based on a value-judgment by the court regarding its role in the legislative/adjudicative process.

As the magnitude of the gap increases, a court should allow a cause of action under old law instead of waiting for a legislator to legislate accordingly.¹⁸⁶ The decision to defer to the legislature decides the issue in favor of the defendant in a veiled manner; yet, such a decision still shapes the landscape of employer-employee relations, no less than a decision on the merits. Where a plaintiff is an employee as in *Shoars*, the meaning of such deference by courts is clear: an employer does not violate an employee's right to privacy in the workplace unless a law created by a legislative body specifically proscribes such a violation; otherwise, we favor the employer's interests by default.

It is wrong for the *Shoars* court to favor the employers' interests by default. A court adjudicating a "gap" case which denies the employee a cause of action decides the issue in favor of the employer under the illusion of deference to the legislature. This type of deference favors the employer without a discussion as to *why* the employer should be favored. This Comment has argued that the workplace may run more efficiently if the employee's privacy interests are favored. At least, courts must remain aware of how their deference and inaction work a hardship on plaintiffs, regardless of how they ultimately would balance the interests at stake. To act otherwise in the "gap" institutionalizes a view of the workplace which, like the view promulgated in *Ortega*, is outdated.

186. This may be more true where a the court believes that disallowing plaintiff's cause of action *seems* to turn on a technicality of language, i.e., the statute in question *seems* to cover privacy and technology, but new technology is not mentioned in the statute by name. Of course, a court's ability to extend the purview of a privacy statute will depend doctrinally on the typical rationales court must invoke when performing statutory construction and interpretation, e.g., legislative intent, the statute's actual language, precedent interpreting the statute and other relevant information brought before the court by the parties.

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