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Hamlet II: The Sequel: The Rights of Authors vs. Computer-Generated Read-Alike Works

Tal Vigderson

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**HAMLET II: THE SEQUEL? THE RIGHTS OF
AUTHORS VS. COMPUTER-GENERATED
“READ-ALIKE”¹ WORKS**

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1. The term “read-alike” defines a work that has the same look and feel as a work by a particular author but is produced by nonhuman means. Copyright law does not contemplate the concept of a computer-generated work that misappropriates an author’s style. I have coined the term read-alike to express this concept.

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The sun was hot. Her hair was dark. He wanted her. Nick was excited. He could still smell the pungent odor of bull on his clothing. He examined the spot where he had nearly been gored. It would leave a fine scar. He took off his boots and sat down on the iron bed in the tiny room in Pamplona. She came to him.

There was a ringing. It was shrill. It filled his head like the rapid burst of cannon fire. He wanted some absinthe. He reached for the bottle. The ringing. It wouldn't stop. He grabbed the damn cellular phone and answered it. It was his publisher. He had something to fax. She was still waiting on the bed—open for him; only for him.

He moved over to the dresser. Where was the damn glass? He put the bottle to his lips and felt the shock, then the calm as the absinthe rolled down his throat. He turned on the fax machine and waited.

I. INTRODUCTION

The lost writings of Hemingway? Probably not. But computer technology is advancing rapidly to the point where a computer may soon be able to generate works in the exact style of any author it is programmed to duplicate. The first example of this new technology has already been completed.

Scott French, a self-taught computer programmer, engineered his computer to write like Jacqueline Susann.² The result is *Just This Once*,³ *A Novel Written by a Computer Programmed to Think Like the*

2. Steve Lohr, *THE MEDIA BUSINESS: Encountering the Digital Age—An Occasional Look at Computers in Everyday Life; Potboiler Springs from Computer's Loins*, N.Y. TIMES, July 2, 1993, at A1.

3. SCOTT FRENCH, *JUST THIS ONCE* (1993).

World's Bestselling Author [Ms. Susann] *As Told To Scott French*.⁴ Mr. French utilized two of Ms. Susann's novels, *Valley of the Dolls*⁵ and *Once Is Not Enough*,⁶ to program his Macintosh IICX, aptly named Hal.⁷ Thousands of rules were input into Hal's memory to produce the tone and plot of the book.⁸ The result garnered surprisingly generous reviews,⁹ in contrast to the reviews of Ms. Susann's books which were "unanimously unkind."¹⁰

Current copyright law is not equipped to deal with the potential legal ramifications of such a computer-generated work.¹¹ A copyright law professor would say, "There is no issue here. End of story. The author did not use anything that is protected."¹² This Comment analyzes what French has done, in "creating" *Just This Once*, against the backdrop of existing law and attempts to construct an appropriate model to resolve any legal conflicts.

Copyright law protects the *expression* of an idea, but not the idea itself.¹³ The idea of a muscle-bound Austrian travelling backward in time to hunt the mother of a future rebel hero, who has not been born yet, is not protectable. The screenplay for *The Terminator*,¹⁴ however, is protectable as the expression of the idea.¹⁵ Protection extends to works *fixed* in a tangible medium of *expression*.¹⁶ Protection does not extend to procedures, processes, systems, methods of operation, concepts, principles, or discoveries.¹⁷ If writing style is characterized as a system or method of operation, then it is not protectable.

But if French's computer uses Jacqueline Susann's exact literary style to create a work of literature that could be considered a creation of Jacqueline Susann, then common sense would seem to dictate that *something* has been stolen, or at least inappropriately acquired. The

4. *Id.* (quoting explanatory subtitle).

5. JACQUELINE SUSANN, *VALLEY OF THE DOLLS* (Bernard Geis Assocs. 1966).

6. JACQUELINE SUSANN, *ONCE IS NOT ENOUGH* (Bantam Books 1974) (1973).

7. John Boudreau, *A Romance Novel with Byte; Author Teams Up with Computer to Write Book in Steamy Style of Jacqueline Susann*, L.A. TIMES, Aug. 11, 1993, at E6; see *infra* note 101 and accompanying text.

8. Boudreau, *supra* note 7, at E6.

9. *Id.*

10. *Id.*

11. See discussion *infra* part II.

12. Interview with Lionel S. Sobel, Professor of Law, Loyola Law School, in Los Angeles, Cal. (Sept. 7, 1993) (paraphrasing statement of Lionel S. Sobel).

13. 17 U.S.C. § 102(a), (b) (1988 & Supp. V 1993).

14. *THE TERMINATOR* (Hemdale 1984).

15. See *infra* part II.

16. 17 U.S.C. § 102(a).

17. *Id.* § 102(b) (1988).

word "plagiarize" comes from the Latin *plagiarius*, which originally meant the stealing or kidnapping of men.¹⁸ French did not kidnap Susann. She has been dead for over twenty years. But he *did* steal a part of her soul, at least the uniquely creative part that resulted in the sale of over 26 million books.¹⁹ If Ernest Hemingway remained an ambulance driver and made a career out of the military, he may never have written anything that revealed his style. Similarly, if Susann had never created works of fiction, her style would not exist. But Hemingway and Susann did write and both were prolific. He went on to win the Nobel Prize and she went on to make a lot of money. Their works are their legacy. The law affords them various kinds of protection.

If an unauthorized film version of *The Sun Also Rises*²⁰ is made, starring Kathie Lee Gifford as Brett Ashley,²¹ the Hemingway estate would have a valid claim against the producers.²² Additionally, if an unauthorized version of *Valley of the Dolls*²³ is made, with Meryl Streep and Ben Kingsley in the leads, the Susann estate would have a claim.²⁴ If a film is made with Tom Arnold as the character of Nick Adams,²⁵ specifically with Nick Adams's unique characteristics, but based loosely on a combination of Hemingway's stories, the Hemingway estate would also have a claim.²⁶ The stories and characters are protected. The specific words are also protected. If one of Pilar's speeches from *For Whom the Bell Tolls*²⁷ were used in a commercial

18. WEBSTER'S NEW UNIVERSAL UNABRIDGED DICTIONARY 1371 (2d ed. 1983).

19. *Morning Edition: Computer Software Designed to Emulate Creative Styles*, (NPR radio broadcast), Aug. 23, 1993, available in LEXIS, News Library, CURNWS File [hereinafter *Morning Edition*].

20. ERNEST HEMINGWAY, *THE SUN ALSO RISES* (1926).

21. *Id.* (leading female character from *The Sun Also Rises*).

22. See 17 U.S.C. § 103 (1988); see also *Weissmann v. Freeman*, 868 F.2d 1313 (2d Cir. 1989), *cert. denied*, 493 U.S. 883 (1989).

23. SUSANN, *supra* note 5.

24. See 17 U.S.C. § 103.

25. Nick Adams is a frequently used Hemingway character. He is a rough, weathered man who is cynical as a result of the life he lived. His unique characteristics make him easily identifiable. See ERNEST HEMINGWAY, *THE NICK ADAMS STORIES* (Charles Scribner's Sons ed., 1972).

26. See *infra* note 69.

27. ERNEST HEMINGWAY, *FOR WHOM THE BELL TOLLS* (Charles Scribner's Sons ed., 1968) (1940). Pilar is an important character who carries much of the story. She gives many monologues on her plight and place in the world, such as, "listen, *guapa*, I love thee and he can have thee, I am no *torillera* but a woman made for men. That is true. But now it gives me pleasure to say thus, in the daytime, that I care for thee." *Id.* at 155.

for Calvin Klein's *Obsession*,²⁸ a lawsuit might similarly ensue.²⁹ But what about the writer's style? Is this a tangible aspect worthy of protection?

To determine if a writer's style can be protected, it must first be defined. In copyright terms, this is referred to as "dissection."³⁰ In order to duplicate the style of Jacqueline Susann, Scott French programmed thousands of computer-coded rules "suggesting how certain kinds of characters will interact with others in a given situation, based on patterns in Ms. Susann's works."³¹ According to French, "[t]he most difficult thing was trying to analyze exactly what constitutes a writer's style."³²

French identified 200 idiosyncrasies in Susann's writing. These idiosyncrasies related to language, character, and action. The 6000 rules he wrote into his computer program served to "teach" the 200 idiosyncrasies to the computer through artificial intelligence (AI).³³ AI technology is used to teach computers to scan satellite maps for missile sites, predict Saddam Hussein's military strategy, land the space shuttle, diagnose heart diseases, and now, write a novel.³⁴ The purpose of AI is to teach the computer to think like a particular expert in a given field, and make decisions as the expert would.³⁵ In this case the expert is Jacqueline Susann and the decisions made involve the writing of a novel.

Assume that a traditional legal analysis proves French did not infringe Susann's copyright. Is French off the hook? Herein lies the dilemma. French admits using Susann's style. Not only has he used her style, but he has outright *copied* it, reducing it to 6000 computer-

28. *Obsession* is a perfume that is frequently advertised using sexually provocative characters.

29. See *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992).

30. *Id.* at 707. *Altai* enunciated the abstraction test from *Nichols v. Universal Pictures Corp.*, 45 F.2d 119 (2d Cir. 1930), *cert. denied*, 282 U.S. 902 (1931).

Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the [work] is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the [author] could prevent the use of his "ideas," to which, apart from their expression, his property is never extended.

Altai, Inc., 982 F.2d at 706.

31. Lohr, *supra* note 2, at D16.

32. Boudreau, *supra* note 7, at E6.

33. *Morning Edition*, *supra* note 19.

34. *Id.*

35. Victoria Kader, *Use of "Expert Systems" Spreads, Particularly in Europe, and U.S. Has Technological Lead*, *BUS. AM.*, Sept. 7, 1992, at 18.

programmed rules equalling hundreds of thousands of lines of computer code. The result is a computer-produced work from which French is profiting. If copyright law vindicates French, should he be able to continue writing books in the style of Susann or any other author he chooses to emulate? Common sense seems to say no. If French wants to make money as an author, he should make up his own style, yet he admits targeting Tom Clancy's style³⁶ for his next work.³⁷

But don't most authors simply "improve" on other author's styles? Isn't *Blade Runner*³⁸ just a futuristic hard-boiled detective story told in the style of Raymond Chandler or Dashiell Hammett?³⁹ The difference between what the author of the story *Blade Runner* was based on did and what Scott French did is the technology. Humans by nature will imitate. There is truly nothing new under the sun.⁴⁰ But when a computer is programmed to specifically imitate an author's style, the human interpretive element is removed. The fundamental premise of this Comment is as follows: *If we assume artificial intelligence has developed to the point where it can interpret an author's style in digital terms, basing new creations on the closed universe of an imitated author's works, then something worthy of protection has been appropriated.* It is the process rather than the product that must be examined. Likewise, if an author has been injured there should be a remedy. This remedy is a function of what has been appropriated and how it can be protected.

Part II examines relevant copyright law on this issue and analyzes the current method of determining infringement, focusing on the *Computer Associates International v. Altai, Inc.* test.⁴¹ This analysis applies the *Altai* test to *Just This Once*,⁴² by comparing French's book to the two Susann works that French used to extract his set of computer rules.

Part III explains the technology French used in order to determine what sets it apart from human interpretation. Specifically, I will

36. Tom Clancy is the author of intrigue novels such as *The Hunt for Red October* and *Patriot Games*.

37. *Morning Edition*, *supra* note 19.

38. *BLADE RUNNER* (Warner Brothers 1982).

39. Raymond Chandler and Dashiell Hammett both wrote "noir" mysteries about hard-boiled detectives. Certain aspects of their stories were duplicated in *Blade Runner*, such as character narration, vigilant morality, and a cynical approach to the world.

40. "The thing that hath been, it is that shall be; and that which is done is that which shall be done: and there is no new thing under the sun." *Ecclesiastes* 1:9.

41. 982 F.2d 693, 706 (2d Cir. 1992).

42. FRENCH, *supra* note 3.

deal with the theories behind AI, in an attempt to determine if a difference exists when compared with human thought. Many theoreticians believe that AI can merely respond to stimulus and react to situations but is not capable of cognitive thought.⁴³ If this theory is true, then how can a computer create an original work? If a computer cannot create an original work, then it must copy from somewhere.

Building on Part III, Part IV utilizes an understanding of AI technology to compare the protection afforded AI-created works relative to that of human-created works. This section will provide the necessary tools for comparing the two when analyzing an AI-created work under current law. The focus is on *Just This Once* as a derivative work. Other theories, such as compulsory licenses and plagiarism are incorporated into the discussion.

The solution may lie in the laws of other countries, such as France's *Droit Moral*.⁴⁴ European countries have observed this system for years, although it has been slow to catch on in the United States.⁴⁵ The concept behind it is sometimes difficult for publishers, film studios, recording companies, lawyers, and other exploiters of creative works to understand. The author of a creative work has certain rights that transcend the economic. Artists have the right not to have their works distorted, defaced, altered, or diminished by future authors. One should not be able to glue prosthetic arms on the Venus de Milo, add Big Macs to The Last Supper, or allow *Old Yeller*⁴⁶ to live.

Part V explains the philosophy behind such moral rights. France supplies a model for protection based on the inalienability of an author's connection to her work. Protection for Susann's works is examined against this *Droit Moral* model.⁴⁷ California has also adopted certain moral rights, which will be discussed.⁴⁸ I will explain the policy

43. See Lawrence B. Solum, *Legal Personhood for Artificial Intelligence*, 70 N.C. L. REV. 1231 (1992).

44. See *infra* part V.

45. The Second Circuit almost set a precedent for the domestic use of the *Droit Moral* in *Gilliam v. American Broadcasting Co.*, 538 F.2d 14 (2d Cir. 1976). ABC contracted with the British Broadcasting Company (BBC) to show several episodes of *Monty Python's Flying Circus*. ABC cut up the episodes to the point that the members of Monty Python felt their work had been violated. The members sued ABC for violation of their rights. The court declined to grant them a moral right in the work. Instead, the court found for Monty Python on the grounds that Python had not granted BBC the rights to the scripts that BBC had contracted away to ABC. *Id.*

46. *OLD YELLER* (Walt Disney Studios 1957).

47. See *infra* part V.

48. CAL. CIV. CODE § 986 (West 1992).

reasons behind such a model and suggest possible benefits that may be obtained by fully adopting it. Part VI suggests departing from copyright law and deciding this issue based on the right of publicity.⁴⁹

II. YOU CAN'T TEACH AN OLD DOG NEW TRICKS: WHY CURRENT LAW IS NOT EQUIPPED FOR A NEW WORLD

Copyright law has two stated purposes. One is to encourage creativity and artistic achievement by rewarding authors and artists for their endeavors. This reward is the grant of ownership of their works.⁵⁰ The other is to limit this ownership so as not to hinder other artists and authors from being able to create.⁵¹ Most of the time these goals are mutually compatible. Sometimes, however, they are not and in these circumstances the courts must step in.

If I were to make a film about a man-eating shark, in a small New England town, with a soundtrack playing bass tones every time the shark approaches, a sheriff, a shark expert, a town official, and other similarities to *Jaws*,⁵² a court would likely find that I had infringed the original work.⁵³ My film would have the same plot, same themes, same setting, similar characters, similar music, and same ending as a highly successful existing film. If copyright law did not protect *Jaws*, there would be little incentive for filmmakers to invest millions of dollars to make films. On the other hand, if I make a film about a playful shark who lives off the coast of Santa Monica and helps capture some ruthless surfer pirates from Pismo Beach, have I infringed *Jaws*?

Current copyright law functions to encourage subtle variations on previously existing works, even when they capitalize on the success of their predecessors. It is better for subsequent sales as a whole, since the public is more willing to spend money on something that is familiar. Jacqueline Susann is renowned as one of the best-selling authors of all time,⁵⁴ in much the same way Steven Spielberg, director of *Jaws*, is one of the most financially successful directors of all time.⁵⁵ Scott

49. The right of publicity is the right to prevent the commercial use of one's name or image. See *infra* part VI.

50. *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 711 (2d Cir. 1992).

51. *Id.*

52. *JAWS* (Universal Pictures 1977).

53. This scenario is based on the facts of *Universal City Studios v. Film Ventures Int'l*, 543 F. Supp. 1134 (C.D. Cal. 1982), where the defendant's *Great White* proved to bear a substantial similarity to *Jaws*.

54. *Bookends; Lovely Me: The Life of Jacqueline Susann*, *TIME*, Mar. 30, 1987, at 73.

55. John E. Froom, *Top Directors Top Box Office Report*, *DAILY VARIETY*, May 28, 1992, at 3.

French is admittedly capitalizing on Susann's fame and success, as both he and the Susann estate agree.⁵⁶ There is a difference, however, between a film that subtly reminds the viewer of *Jaws* and a book that purports to be a digital reconstruction of a dead author's style.

A. *Analyzing Just This Once Based on Current Law: The Computer Associates International v. Altai, Inc. Test*

The Second Circuit has distilled over 100 years of copyright infringement decisions into a test that effectively enables courts to determine if an infringement has occurred.⁵⁷ This test seeks to answer two questions: (1) Has the defendant copied the plaintiff's work, and (2) if there is copying, is the defendant's work *substantially* similar to the plaintiff's work?⁵⁸ Answering the substantial similarity question is the sticky part. The court referred to its analysis of substantial similarity as the "*Abstraction-Filtration-Comparison*" test,⁵⁹ breaking this second step into a separate three-prong test.

To determine if there is *copying*, two factors must be considered. The first is whether or not the defendant had sufficient access to the plaintiff's work.⁶⁰ In our case, French admits using Susann's works as the basis for *Just This Once*, so access is established by admission. Ordinarily, an author would have to prove that an infringer could possibly have seen or heard the author's work. The second factor is whether there is probative similarity between the defendant's work and the plaintiff's work. This threshold requirement is easy to meet. The fact that both Susann's works and French's book are romance novels with steamy love scenes, shallow characters, and exotic settings, may be enough to establish such similarity. This is especially true if the "inverse ratio rule" is applied.⁶¹ Using this rule, French's admission of access allows a lesser degree of similarity to satisfy the probative similarity factor.

The counterargument is that there is no copying because probative similarity cannot be established. Even with the inverse ratio rule, no amount of access can substitute for at least some degree of similar-

56. *Morning Edition*, *supra* note 19.

57. *See* *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 706 (2d Cir. 1992).

58. *Id.* at 701 (discussing necessary components to establish infringement).

59. *Id.* at 706.

60. *See* *Meta-Film Assocs. v. MCA, Inc.*, 586 F. Supp. 1346, 1355 (C.D. Cal. 1984).

61. *See* *Sid and Marty Krofft Television Prods. v. McDonald's*, 562 F.2d 1157, 1172 (9th Cir. 1977) (stating inverse ratio rule allows abundance of access to substitute for lack of similarity and vice versa).

ity between the works.⁶² The argument could be made that every trashy romance novel, the so-called potboiler,⁶³ is probatively similar to Jacqueline Susann's works. In fact, one of the key premises of this Comment is that conventional "human" appropriation of style is not protectable.⁶⁴ It is my contention, however, that since French has admitted using Susann's works as the basis for his program, then probative similarity *must* exist because the computer had nothing else with which to base its product. If the computer *used* a plaintiff's work, no other similarity should be required. Assuming that copying exists, we move on to determine if the defendant's work is substantially similar to the plaintiff's work. This is where the three-pronged test of *Altai, Inc.*,⁶⁵ comes into play.

1. Abstraction

The first prong of the test is *abstraction*.⁶⁶ The goal of abstraction is to dissect the plaintiff's work, in this case *Valley of the Dolls* and *Once is Not Enough*, into its constituent parts and determine what is expression and what is mere idea. At the lowest level, the entire work, no matter how divided, would be considered original expression.⁶⁷ At the highest level of abstraction, each word, considered alone, is not original. The dissector is left with the mere title of the work.⁶⁸

In the case of a novel, the constituent parts for dissection are the plot, characters, setting, scenes, dialogue, and themes. Susann's novels have plots revolving around women in, or aspiring to be in, the entertainment industry. There is generally a "rags to riches" story involving the interactions of these women and the men who enter their lives. Curiously, there is a misogynistic tone to the male characters. The result of their interactions generally leads to drugs, exploitation, deceit, avarice, and at least one lesbian love scene. The settings are large American cities, with forays to exotic locales. The main characters range from aspiring actresses to magazine publishers to Broadway

62. Even though the defendant has admitted using the plaintiff's works, there must be some degree of similarity between the original and the imitation to establish copying. *Id.*

63. Lohr, *supra* note 2 (using term "potboiler" to describe novels of this genre).

64. *See infra* part IV, exploring the nature of human thought contrasted to a computer's processing which is missing the *something* that makes human creation unique. The discussion focuses on the process, rather than a comparison of the finished product.

65. *Altai, Inc.*, 982 F.2d at 706.

66. *Id.* at 706-07 (citing *Nichols v. Universal Pictures Co.*, 45 F.2d 119, 121 (2d Cir. 1930)).

67. *Id.* at 706 (citing *Nichols v. Universal Pictures Co.*, 45 F.2d 119, 121 (2d Cir. 1930)).

68. *Id.* (citing *Nichols v. Universal Pictures Co.*, 45 F.2d 119, 121 (2d Cir. 1930)).

producers. These characters could arguably be highly delineated and therefore protectable.⁶⁹

The dialogue is standard potboiler fare: sexual innuendos, veiled threats, and romantic musings. Each scene is usually brief in length with a minimal amount of description and exposition. Abstraction serves to categorize the aspects of expression in Susann's works.

2. Filtration

Once these constituent elements have been identified, the next step in the analysis is *filtration*.⁷⁰ The goal of filtration is to separate out the protectable expression from the unprotectable residue. Determining what is protectable is somewhat subjective.⁷¹ What is merely the idea or what flows naturally from the idea is not protectable. For example, a telephone book that arranges listings in alphabetical order is not a protectable arrangement. Alphabetical listings are the most logical and perhaps the only way to arrange a telephone book. It is impossible to separate out this arrangement from the idea of a telephone book.⁷²

In our case, the actual words from *Valley of the Dolls* or *Once is Not Enough* would be considered protectable expression. The selection and arrangement of chapters, scenes, settings, and dialogue get thrown out as unprotectable, at least as individual elements.⁷³ French contends that his computer did not copy more than two words of

69. There are two basic standards by which characters are deemed protected. The first is the "story being told" standard from *Nichols v. Universal Pictures*, 45 F.2d 119 (2d Cir. 1930), and *Warner Bros. Pictures v. CBS*, 216 F.2d 945 (9th Cir. 1954), where the character is more than "only the chessman in the game of telling the story." *Id.* at 950. The second standard, recognized in *Anderson v. Stallone*, 11 U.S.P.Q. 2d (BNA) 1161, 1166-67 (C.D. Cal. 1989), requires the character to be "highly delineated." In *Stallone*, the court found that "the Rocky characters [Rocky Balboa, Adrian, Apollo Creed, Clubber Lang, and Paulie] are so highly delineated that they warrant copyright protection." *Id.* at 1166.

Susann's books do contain characters that most likely would pass the highly delineated test, most notably January Wayne from *Once is Not Enough*, but French did not copy any of these characters directly; January is a beautiful but naive young woman with a strong father fixation. Note, however, for later discussion, that Susann's works contain protectable characters under both tests.

70. *Altai, Inc.*, 982 F.2d at 707-10.

71. The courts are unanimously confused in their determination of what is protectable. This discussion serves to illustrate the *Altai* analysis, which is gaining momentum as the analysis of choice.

72. See *Feist Publications v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991). In *Feist*, a rival publisher copied the listings from a local telephone book but sustained a charge of infringement because the listings were found to be unprotectable by copyright. *Id.*

73. See *infra* part II.A.3.

Susann's in a row.⁷⁴ There may be instances of accidental duplication of whole sentences, but probably not enough to constitute infringement.

The story itself is also protectable. What happens to the characters in *Valley of the Dolls* is protectable expression of the premise, which constitutes the idea. In much the same way, the individual characters are protectable, as long as they carry the story.⁷⁵ It would be difficult to imagine *Rocky*⁷⁶ without the character of Rocky.⁷⁷

Other concepts of copyright law help make more of Susann's work unprotectable. The first is the merger doctrine.⁷⁸ "When there is essentially only one way to express an idea, the idea and its expression are inseparable and copyright is no bar to copying that expression."⁷⁹ If two characters walk into a restaurant, there are only so many ways for them to order dinner. Although the decor, menu items, server, and beverages may all vary, the basic concept remains the same. Otherwise, every author wishing to write a restaurant scene would need permission from the first author to copyright it.

Somewhat related to the merger doctrine is the *scenes à faire* doctrine.⁸⁰ A story about an infidelity is logically going to have a sex scene. If a story takes place in World War II Germany, chances are one of the characters will say "Heil Hitler."⁸¹ Jacqueline Susann is a formula author. Most of her scenes are either difficult to separate from the idea of the story, or they logically flow out of the scenario she has set up. Based on the *scenes à faire* and merger doctrines, therefore, these scenes are likely not protected or protectable.

Anything that Susann copied from works in the public domain would also be eliminated. If the lyrics to a song, a poem, or a passage from a public domain novel were used, they would be filtered out as well.⁸²

74. Boudreau, *supra* note 7, at E6.

75. See *Warner Bros., Inc. v. CBS*, 216 F.2d 945, 950 (9th Cir. 1954).

76. *Rocky* (United Artists 1976).

77. See *supra* note 69 for a detailed discussion of the protectability of highly delineated characters.

78. See *Altai, Inc.*, 982 F.2d at 707-08.

79. *Concrete Mach. v. Classic Lawn Ornaments*, 843 F.2d 600, 606 (1st Cir. 1988).

80. See *Hoehling v. Universal City Studios*, 618 F.2d 972 (2d Cir. 1980). In *Hoehling*, the plaintiff believed the defendant infringed his copyright in a book about the Hindenburg by making a film about the tragedy. The court found, among other things, that a film about World War II Germany will logically contain certain scenes that are not protectable. *Id.* at 979.

81. *Id.*

82. *Altai, Inc.*, 982 F.2d at 710.

We are left with the actual words, the story, and possibly the characters. These elements are characterized as the "golden nuggets"⁸³ of expression. These are the elements that are protectable. The next step is to see which of these elements appear in French's work.

3. Comparison

The third and final step is *comparison*. In comparing the two works, the observer attempts to determine if the protectable "golden nuggets" are what make the allegedly infringing work substantially similar to the original. Two works may appear to be identical, but if the basis for their similarity is unprotectable, there is no infringement.⁸⁴ Since *Just This Once* does not contain more than two words of copied material at a time, there is no exact duplication of the text.⁸⁵

If an average reader read *Just This Once* and *Once is Not Enough* back to back, they would not notice any obvious similarities. Subtly, however, there are many underlying similarities. Both stories contain principal characters who are homosexual.⁸⁶ The protagonists from both books are naive and inexperienced in their dealings with the world. This naiveté, pervades the narrative structure and gives the two works a similar "feel." Both books leave the reader up in the air as to the ending and include a scene where the naive main character succumbs to the temptation of drugs. Both works also give the reader an inside perspective on a perceived glamorous facet of life: Las Vegas in *Just This Once*, and New York's high society in *Once is Not Enough*.

The actual story of *Just This Once* is not legally, substantially similar to either *Once is Not Enough* or *Valley of the Dolls*, although the reader might come away from reading all three works feeling they had read the same story three times.⁸⁷

The inquiry might end here; however there is another possibility. In the initial step—the dissection—the selection and the arrangement of material that Ms. Susann used was deconstructed into its constituent parts and eliminated as unprotectable elements. These elements

83. *Id.* (explaining *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465, 1475 (9th Cir. 1992)).

84. *Id.*

85. Lohr, *supra* note 2, at A1.

86. *See infra* part III.A.4.

87. For example, take the novels of John Grisham. *The Client*, *The Pelican Brief*, and *The Firm* all involve the same basic story of an innocent protagonist running from a web of legal intrigue, unsure as to who represents good and evil, and faced in the end, with a moral dilemma.

may now be reconstructed and considered anew as a whole. Thus, infringement may be found if French used Susann's actual selection and arrangement.

Suppose *P* writes a cookbook with 1000 recipes, including several varieties of foods. *P* arranges the recipes in random order and publishes the book. Another author, *D*, writes a book and uses the same recipes and in exactly the same order. The only difference is that *P* uses garlic in every recipe, but *D* does not use garlic in any recipe, preferring oregano. If *P* can prove that *D* had access to her book, *P* may be able to make a case for infringement, even though the actual recipes are different. The fact that *D* picked the same 1000 recipes as *P*, and arranged them in exactly the same order would be enough to establish substantial similarity.⁸⁸

French may be found to have infringed Susann's work if he duplicated enough of her selection and arrangement. But there is no such duplication of selection and arrangement of Susann's works in French's book. Possibly, however, the computer duplicated Susann's selection and arrangement on another level. If the particular *style* French's computer used is uniquely attributable to Susann, then a case might be made that the computer infringed by copying *style*. Since we know that French admittedly used only *Once is Not Enough* and *Valley of the Dolls* as the raw data to program his computer, then the computer could not have possibly duplicated anyone else's *style*. The only alternative is that the computer actually created *Once is Not Enough* on its own, independent of Susann's novels. To determine what occurred, it is necessary to analyze the nature of AI.⁸⁹

B. Current Law is Not Sufficient

*The plethora of sibilants in the sentence still offended his [Grand's] ear, but he saw no way of amending them without using what were, to his mind, inferior synonyms. And that "flower-strewn" which had rejoiced him when he first lit on it now seemed unsatisfactory. How could one say the flowers were "strewn" when presumably they had been planted along the avenues, or else grew there naturally? On some evenings, indeed, he looked more tired than Rieux.*⁹⁰

88. See *supra* part II.A.2.

89. See *infra* part III.

90. ALBERT CAMUS, *THE PLAGUE* 172 (Vintage Books ed., Random House 1972) (1947). Grand, one of the novel's characters, has been writing a story for several years. He

Apparently French, or his computer, copied little of Susann's protected work into *Just This Once*. According to current copyright case law, no infringement has taken place.⁹¹ But Susann's estate was able to negotiate an undisclosed settlement with French.⁹² Although French's out-of-court actions are not dispositive on this issue, they do suggest that there is a valid question as to whether or not French misappropriated any material.

Imagine, if possible, that this is not a legal analysis. Suppose an author has invested many years perfecting each word of his or her great novel.⁹³ Life experience and character are poured into creating a delicate and exacting recipe. Every nuance is carefully planned. Each scene is drafted and redrafted to final perfection. The novel is published and it is a success, both critically and publicly. The author feels vindicated; hard work and a unique creative vision have paid off.

A programmer buys the author's book and uses the most advanced flatbed-scanning technology to feed the book into the memory of an AI computer. The AI displays a menu. The programmer, using a mouse, chooses "Extrapolate?" or perhaps "Create New Novel?" or simply "Update?" The hard drive whirs and minutes later the printer begins to spit out the first pages of a new work.⁹⁴ Nothing in the new work has been "copied" from the author's original work. A step-by-step analysis, like the one detailed in section A would prove this. No court would assign liability to the programmer, or his or her computer⁹⁵ on copyright infringement grounds.

But if the human author's fans were to read both the original and the computer product, they would not be able to tell which one was actually created by the human author. The question to ask is whether or not there is anything "wrong" with this. It may be more of a philosophical question than a legal one. It goes to the very heart of what intellectual property is. Operating under the assumption that tradi-

has only completed one sentence because he desires to make it perfect. This quote serves to illustrate the great pains that are often undertaken in the writing of a book.

91. *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 711 (2d Cir. 1992).

92. Lohr, *supra* note 2, at D16. "A computer-generated book based on the style of a well-known author raises thorny questions of copyright infringement. Mr. Schragis [French's agent] has held discussions with representatives of Ms. Susann's estate. 'It's worked out,' he said. 'But I can't discuss it—that's part of our agreement.'" *Id.*

93. See CAMUS, *supra* note 90 and accompanying text.

94. This scenario is based on advanced technology that is not yet available. French admits that he spent thousands of hours "teaching" his computer how to interpret the data he input and that he had to input several suggestions and changes before he reached his finished product. Lohr, *supra* note 2, at A1, D16.

95. See *infra* part IV.

tional copyright law does not sufficiently address this issue, the remainder of this paper will attempt to explore other possible theories of protection.

The human author, incensed, would scream to the press that technology has run amuck. An AI, programmed for journalistic reporting, records the author's words and cranks out an article extolling the author's ire. An attorney's AI, which is programmed to scan the news for possible clients, alerts its employer or owner⁹⁶ that an issue exists. The attorney contacts the human author and offers to take the case on a contingency basis. The computer shifts into its legal research mode and begins looking for avenues of recovery. After discarding traditional copyright law,⁹⁷ this hypothetical computer would be forced to develop something new.

III. WHAT IS ARTIFICIAL INTELLIGENCE?

Theories on AI range from the highly technical to the philosophical to the legal to the theological.⁹⁸ "Ask a dozen different researchers the question 'What is AI?' and you get a dozen different answers."⁹⁹ Although it is an oversimplification, AI can be broken down into three basic categories: (1) Applied AI, where commercial products use or are produced with the use of AI; (2) cognitive science, where AI is used to solve questions about the nature of intelligence; and (3) basic AI, where AI uses computer-based techniques to simulate intelligent behavior.¹⁰⁰ The type of AI French used in the writing of *Just This Once* is best defined as a combination of the first and third categories, but the second must be considered in determining any possible legal issues. Is there a difference between the way French's computer interpreted Susann's works and the way any human author would try to imitate her style? This section attempts to answer that question.

96. See *infra* part IV.A for a discussion of who owns the computer and its products.

97. Assume that copyright law remains unchanged in this futuristic scenario.

98. B. Chandrasekaran, *What Kind of Information is Intelligence?*, in *IN FOUNDATIONS OF AI: A SOURCE BOOK 14* (Derek Partridge & Yorick Wilks eds., 1990).

99. Bob Ryan, *AI's Identity Crisis*, *BYTE*, Jan. 1991, at 239.

100. Alan Bundy, *What Kind of Field is AI?*, in *IN FOUNDATIONS OF AI: A SOURCE BOOK*, *supra* note 98, at 215.

A. Artificial Intelligence as a Person

French nicknamed his computer Hal, after the self-realizing computer in *2001: A Space Odyssey*.¹⁰¹ Hal was chosen because, like the fictional computer in Arthur C. Clarke's story,¹⁰² French's Hal is supposed to be an independent entity, capable of creating works on its own. But it is universally admitted by scientists that AI has not reached that stage yet.¹⁰³

If Hal *were* capable of "thinking" on its own, then perhaps French would be off the legal hook. If Hal can think, then what Hal has created is original. But if Hal cannot think, then Hal cannot create an original work. It is therefore necessary to delve into the nature of AI.

The debate as to whether or not a computer can be built that would think for itself is an old one, going back to the seventeenth century and the views of Descartes.¹⁰⁴ Although Descartes had no way to predict the future of AI technology, he made a philosophical rather than a technical determination when he said no machine would be able to think.¹⁰⁵ He was delving into a question more akin to the nature of the soul.

Legal minds will not inquire into the soul. The legal inquiry is, "Can an AI be considered a person?" in much the same way a corporation or a natural human being is. Could an AI gain standing to assert its constitutional rights? Could an AI sue or be sued? And for purposes of our inquiry, could an AI commit copyright infringement, or in the absence of infringement, misappropriate the work of another?

1. What is a person?

The definition of a legal person varies with the nature of a person. A person generally is one who can own property and can sue or be sued.¹⁰⁶ A corporation, as a person, has different rights than an

101. *2001: A SPACE ODYSSEY* (United Artists 1968).

102. ARTHUR C. CLARKE, *2001: A SPACE ODYSSEY* (London, Hutchinson, 1968).

103. Bundy, *supra* note 100, at 215.

104. Descartes asserted that no machine could arrange words "to reply appropriately to everything that may be said in its presence." Rene Descartes, *Discourse on the Method of Rightly Conducting One's Reason and Seeking Truth in the Sciences* (1637), reprinted in *THE ESSENTIAL DESCARTES* 138 (Margaret D. Wilson ed., 1969).

105. Solum, *supra* note 43, at 1234 n.13.

106. See Stephen C. Hicks, *On the Citizen and the Legal Person: Toward the Common Ground of Jurisprudence, Social Theory, and Comparative Law as the Premise of a Future Community, and the Role of the Self Therein*, 59 U. CIN. L. REV. 789 (1991).

individual.¹⁰⁷ One theory proposes that in order for an "entity" to have legal rights, it must have intelligence and a will.¹⁰⁸

Legal rights come into question when there is a dispute. If *A* sells a house to *B* and also to *C*, and *C* records title first in a race-notice jurisdiction, then *C* owns the house.¹⁰⁹ *B* may now attempt to sue *A* for fraud. But if *A* is an AI, what result would *B*'s lawsuit have? If *A* owns assets, then *B* may be able to recover monetary damages. If *B* wishes to pursue criminal charges against *A*, then the issue is punishment. If the AI is "bad," then it could be sent back for reprogramming or perhaps, ultimately, shutdown—capital punishment for AIs.

Theories of punishment may apply equally to AIs and humans. An asset-owning AI can give restitution. An AI can get its "just deserts" through reprogramming. But what about retribution? Suppose the AI is a hospital administrator. A patient fails to pay a delinquent bill. The AI orders the patient's respiratory system turned off, through a computer, and the patient dies. If a prosecutor wishes to pursue a case for murder, how can the family of the deceased feel they have been vindicated? But compare this hypothetical to a corporate error that results in negligently caused damages, such as the Exxon Valdez incident.¹¹⁰ There is often no theory for assigning liability and issuing criminal punishment to the corporation. AI researchers who wish to give greater administrative responsibility to their "creations" may cite to the entire body of corporate law to silence those critics who fear an Orwellian society run by soulless machines. An AI could therefore infringe a copyright but escape payment of full restitution to those infringed.

2. Do people really have to think?

The current state of AI technology, notwithstanding French's Hal, is almost exclusively used in "expert systems."¹¹¹ These systems are programmed with decision rules by human experts in any given

107. See generally CAL. CORP. CODE (West 1992) (cited as source for rights of corporation).

108. Solum, *supra* note 43, at 1239 (discussing JOHN CHIPMAN GRAY, *THE NATURE AND SOURCES OF THE LAW* (Roland Gray ed., 1921)).

109. See, e.g., CAL. CIV. CODE §§ 1214-1215 (West 1992).

110. See, e.g., Robert W. Adler & Charles Lord, *Environmental Crimes: Raising the Stakes*, 59 GEO. WASH. L. REV., 781, 786 (1991) (stating fines and restitution will not modify Exxon's conduct).

111. AIs are being used as expert systems in the diagnoses of industrial processing and control systems. They have been used in everything from the building of Volvos to the running of banks. See Kader, *supra* note 35, at 18.

field. The computers then use this set of decision rules to problem-solve, in much the same way a lawyer uses existing case law to develop a legal strategy. What separates AIs from ordinary computers is the ability to apply existing knowledge to a new set of facts or problems.¹¹² This ability could be considered thinking.

Thinking has not been conclusively defined, either by philosophers or scientists. The boundaries of consciousness are slowly being discovered, often with the help of AIs.¹¹³ If a machine is merely imitating human thought, but not actually thinking, then it *may* not qualify as a person. This reasoning assumes that something is missing from an AI, so that it cannot be a person.¹¹⁴ The so-called missing-something argument looks at souls, consciousness, intentionality, feelings, interests, and free wills as candidates for what is missing.¹¹⁵ This section will analyze each one of these missing elements to determine if one is necessary to prove that an AI has misappropriated the work of a human.

The argument that a machine cannot have a soul, and is therefore not a person, is too ethereal for this Comment. Although theologians may argue the point, this discussion assumes that a soul is not a requirement of personhood. Many lawyers will probably agree with this statement. The soul is an intangible commodity. We often use the word soul to represent those qualities which make one human truly unique when compared to another. Writers are often said to have "reached into their souls" when they create something truly moving. Soul was used earlier in the discussion,¹¹⁶ to represent unprotected aspects of Susann's works that this discussion seeks to protect.

After reading six or seven law review articles in a row, the mind of the reader, on about the 800th footnote, may slip into unconsciousness. In a conventional sense, consciousness is the difference between alertness, or being awake, and loss of sense, as in sleep. Self-consciousness is perhaps a higher level. An AI can certainly be programmed to react to stimuli or to respond, even to new experiences. An AI could conceivably be programmed to simulate consciousness.¹¹⁷

112. Ryan, *supra* note 99, at 240.

113. *Id.*

114. I credit Lawrence B. Solum, *supra* note 43, at 1262 n.106, for this concept. Professor Solum relies on OWEN J. FLANAGAN, JR., *THE SCIENCE OF THE MIND* 254 (1991), as well as John Haugeland, *Semantic Engines: An Introduction to Mind Design*, in *MIND DESIGN* 1, 32 (John Haugeland ed., 1981).

115. Solum, *supra* note 43, at 1261-72.

116. *See supra* part I.

117. Solum, *supra* note 43, at 1265.

But it is difficult to grasp how an AI could be self-aware. If an AI were self-aware, would its life have value to itself? The fictional Hal of 2001 became so self-aware that it took steps to protect itself. Since AI research hasn't reached this point, this question may only be answered in the abstract.

The relevant inquiry is whether self-awareness translates into the ability to create rather than merely to reinterpret. If French's Hal is self-aware, then it might be said to have created an original work, in the way a human would. If it is not self-aware, however, then it doesn't realize what it has done. The fruit of its labors is then merely a digital reinterpretation of what it has been programmed with, and an infringement of the underlying work.

3. I process data therefore I am

Self-awareness is a key point to this discussion. A human author who imitates Jacqueline Susann by reading her books has committed no actionable infringement.¹¹⁸ An AI that is self-aware would conceivably be no different than a "physical human person." But if the AI were merely imitating human behavior by processing two Susann novels into one new work, then perhaps an actionable misappropriation has taken place. More information would be necessary to make a determination.¹¹⁹

It has been estimated that it would take roughly ten trillion calculations per second to equal the speed of the human brain.¹²⁰ It is believed that computers will not reach this speed, economically, for another thirty-five years.¹²¹ So now we know the human brain is really complicated. That does not really prove anything. What we are looking for is the nexus between how the computer turns Susann's books into its own and a how a human accomplishes this task. Until modern science makes the necessary leaps in understanding, this question may not have an answer. We must choose, even arbitrarily, to allocate rights of ownership based on existing law and knowledge of technology.

118. See *supra* part II for a detailed discussion of what constitutes conventional infringement.

119. This information might be what other knowledge the computer contains and what other possible sources of input were used in the production of the work in question.

120. HANS MORAVEC, *MIND CHILDREN: THE FUTURE OF ROBOT AND HUMAN INTELLIGENCE* 59-68 (1988).

121. *Id.*

4. Intentionality, feelings, interests, and free will¹²²

The remaining "missing-something" elements that serve to explain the difference between the computer and the human are also due consideration. This Comment contends that if one of these elements is necessary for personhood, and Hal is missing it, Hal has misappropriated from Susann. Intentionality can best be described as state of mind, similar to the states of mind in criminal or tort law.¹²³ If an AI is not self-aware, then it is unlikely it can possess the requisite state of mind to commit an intentional tort, for example.

a. *intentionality*

Without intentionality, can an AI create a unique work? Works of fiction generally have themes and points of view. Although these themes may not be clearly stated, they are definitely accessible to the trained reader. A work of satire, such as *Gulliver's Travels*,¹²⁴ uses fictional characters and settings to represent real ones: Lilliput stands for England, Blefuscu represents France, and Flimnam is Sir Robert Walpole.¹²⁵ Swift used these characters to convey his message about government, law, and power to the reader. Without intentionality of thought, Swift would not have any message to convey, unless he used, or *copied*, someone else's message.

*Just This Once*¹²⁶ contains a unique point of view about homosexuality that is coincidentally contained in Susann's works as well. What makes this view unique is its dated perspective. Susann wrote *Once is Not Enough* in 1973.¹²⁷ In it, the Karla character is admittedly a lesbian. The book describes in detail her realization that she was not interested in men and her joy at finding the sexual pleasures of women. But when she meets the "right man," she realizes that she likes men after all and *doesn't have to be* a lesbian anymore.¹²⁸

David . . . she had thought she was too old for all that. David with the blond hair and brown eyes . . . and she felt young and foolish and wonderful when she was with David. . . . Be-

122. Solum, *supra* note 43, at 1267-74.

123. *Id.* at 1267 n.127.

124. A NORTON CRITICAL EDITION: JONATHAN SWIFT, *GULLIVER'S TRAVELS* (Robert A. Greenberg ed., 2d ed. W.W. Norton & Co. 1970) (1785).

125. See A.E. Dyson, *Swift: The Metamorphosis of Irony*, in A NORTON CRITICAL EDITION: JONATHAN SWIFT, *GULLIVER'S TRAVELS* 350 (Robert A. Greenberg ed., 2d ed. W.W. Norton & Co. 1970).

126. FRENCH, *supra* note 3.

127. SUSANN, *supra* note 6.

128. *Id.* at 244.

cause for the first time, she had known that she wasn't really a lesbian. . . . A woman's soft body after David's strong lean one suddenly was beginning to repel her.¹²⁹

Compare this to French's character of Leon, who is gay for the first three-fourths of the book. In the end, he surprises his old friends with the revelation that he is engaged to a woman. Having never experienced sex with a woman, the first time miraculously converts him into a heterosexual. "She's great Carol, you'll really like her—smart, gorgeous. Her touch excites me, do you know what that's like? . . . I know I sound like a teenager, but it's so new to me . . ." ¹³⁰ Although science has recently refuted the concept that people "choose" to be gay,¹³¹ French's book maintains the same viewpoint as Susann's. Either the computer "got" this idea from Susann, or French himself had the same idea, in which case the computer did not actually create the book—French did.

If an AI cannot make value judgments, such as formulating a realistic view about sexuality, then perhaps something *is* missing. Determining what aspect of humanity is responsible for our viewpoints is not an easy task.

b. nothing more than feelings

Some argue that it is our feelings, or emotions, that make us uniquely human and able to formulate opinions.¹³² It would seem superfluous to include "feelings" in an AI. Ultimately, the goal should be to create functioning AIs without feelings, so that AIs can work more efficiently than humans; not getting bored or tired or feeling under appreciated.

But it is possible that such feelings are necessary for an AI to be truly creative. In this sense, Hal has not created any new themes and is not conveying any new messages. The themes and messages of *Just This Once* are carbons of Susann's: drugs are addictive and will ruin your life; women must please their men to be happy; Hollywood is plastic and phony; most celebrities are on drugs; and, as mentioned earlier, one may choose their sexuality—in the same way one would choose a new hairstyle. It may not be physically possible for an AI to experience emotion. Recent research indicates that emotion may be

129. *Id.* at 250-51.

130. FRENCH, *supra* note 3, at 236.

131. William F. Allman, *The Biology-Behavior Conundrum*, U.S. NEWS & WORLD REP., July 26, 1993, at 6.

132. Solum, *supra* note 43, at 1269.

an organic process, stimulated by certain chemical combinations, and activated by messages from the brain.¹³³

It is important to note the difference between reality and simulation. An AI may be able to simulate human emotion, or any of the other "missing" factors, merely by being programmed to do so. What we are looking for is *actual* emotion, or true self-awareness, or a bona fide state of mind. Mere simulation should not be enough, although from a legal standpoint, it might be.

Imagine Hal is on trial for allegedly misappropriating Susann's works. It is a jury trial. Hal's attorney questions it, asking how it created *Just This Once*. Hal explains its process in detail—how it interpreted Susann's works, broke them down into their constituent parts and devised rules for them, then used these rules to "create" a new work in the image of Susann's.¹³⁴ The other side is jubilant. There is no human-like interpretation going on here; therefore according to our theory the computer has "copied" Susann's style. But then Hal's attorney asks it how it "felt" when it was writing the book. Hal describes the creative process as best it can.¹³⁵ Hal is quite eloquent telling its story. The other side cross-examines, but can find no holes in Hal's story. The jury is moved, declares Hal to be a person, and French laughs all the way to the bank.

Why is French so happy? He knows that Hal doesn't have any real emotions. But if French anticipates every conceivable question the other side will ask and "teaches" Hal the appropriate answers, the jury will believe Hal is experiencing emotions.¹³⁶ Given the current state of technology, however, it is unlikely Hal would fool anyone. If emotions are required in order for Hal to be a person, then Hal will lose this battle.

133. Paul Gray, *What is Love?*, TIME, Feb. 15, 1993, at 47, 50.

134. Lohr, *supra* note 2, at A1.

135. Writers generally have a difficult time describing the creative process. Although many have methods of organization and keep rigorous schedules, the actual process of creating something new, where nothing existed before, is not easily articulated.

136. See Solum, *supra* note 43, at 1235-36 (explaining Turing Test developed by Alan M. Turing). In the Turing test, a human blindly questions both another human and an AI at the same time. If the machine can fool the human into believing that it too is human, then the machine may be granted the status of a person. A.M. Turing, *Computing Machinery and Intelligence*, 59 MIND 433, 433-34 (1950).

c. interest and free will

Hal may also lack genuine interest and free will.¹³⁷ Where does an AI get interests from? Where does a person for that matter? Interests come from society. These interests are linked to one's upbringing, religion, experiences in society, and level of education. Interests and viewpoints are often inextricably linked. It is theoretically possible for an AI to have the same experiences as a human and develop its own interests, but there will always be the possibility of outside control. Humans build AIs and these same builders regulate the content of their AI's exposure.¹³⁸ It is possible that a second generation of AIs—AI-created AIs—could be "born" as autonomous beings, in much the same way that the child of a slave could be born free.¹³⁹

B. To Be or Not to Be

The final analysis may come down to a question of faith. There does not seem to be a conclusive determination, at least at this stage in technology, as to whether or not an AI rises to the level of a person.¹⁴⁰

French admits that he "collaborated" with Hal.¹⁴¹ It was French who broke down Susann's books into their constituent parts before he "fed" them into Hal.¹⁴²

Two conclusions may now be made. *Just This Once* is not an infringing work and Hal did not write it by itself as an autonomous entity: a person. Congress agrees that a computer cannot be an author:

On the basis of its investigations and society's experience with the computer, the Commission believes that there is no reasonable basis for considering that a computer in any way contributes authorship to a work produced through its use. . . . In every case the work produced will result from the contents of the database, the instructions indirectly provided

137. See Solum, *supra* note 43, at 1272.

138. Remember that French very specifically exposed Hal to only two works of Jacqueline Susann. Hal was not autonomous in its choices of the works from which to draw. See Lohr, *supra* note 2, at A1.

139. See Pamela Samuelson, *Allocating Ownership Rights in Computer-Generated Works*, 47 U. PITT. L. REV. 1185, 1187 (1985).

140. Ryan, *supra* note 99, at 242.

141. "The computer suggested some ideas, relationships, etc., and then we "collaborated" on the remainder," French explains." Louise Continelli, *In the Spirit of the Master, Computer Pens a Page-Turner*, BUFFALO NEWS, July 23, 1993, at 7.

142. "French listed several hundred facets to [Susann's] writing style—such as mood, dialogue, verb strength, symbolism, imagery and sentence construction." *Id.*

in the program, and the direct discretionary intervention of a human involved in the process.¹⁴³

If French did not write the book and Hal did not write the book—and assuming no supernatural force was involved¹⁴⁴—Susann did not write it, then where should the credit go?¹⁴⁵ This is the focus of the next section.

IV. WHOSE MICROCHIP IS IT ANYWAY?

French does not believe Hal's technology poses any danger to the future of human-created novels. "I had to have something to start with. It didn't come out of the air," is how French responds to such worries.¹⁴⁶ But in the same breath, French predicts a future where "programmers are possibly going to be put to work more than screen-writers. . . . I could do 'Rocky XXVI,' why not? The dialogue is formula."¹⁴⁷

In the case of a *Rocky* sequel, there are provisions in traditional copyright law to handle any legal issues.¹⁴⁸ But without any form of protection, authors such as Susann may lose all financial incentive to create¹⁴⁹ as technology advances. Why should Tom Clancy¹⁵⁰ write new books? French will just scan them into Hal and come up with something just as good.¹⁵¹ Ultimately, everything would become a variation of something that came before. Writers or characters might even be combined in the "hopper" like ice cream flavors. How about James Bond teaming up with Sherlock Holmes to save the world, or Tom Sawyer joining *Oliver Twist* for a little river rafting?

143. NATIONAL COMM'N ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS, FINAL REPORT 47-57 (CCH) (Extra Ed. 1978) [hereinafter CONTU].

144. Jacqueline Susann has been dead for the last 20 years. BARBARA SEAMAN, *LOVELY ME: THE LIFE OF JACQUELINE SUSANN* (MORTON 1987).

145. Note that in order for a colorized version of a black and white film to qualify for copyright registration, the colorizer, a human—not a computer—must make the final selection of colors from an extensive color inventory. The Copyright Office looks to see whether or not there is sufficient human authorship to warrant copyright protection. Copyright Registration for Colorized Versions of Black and White Motion Pictures, 52 Fed. Reg. 23,443-46 (1993) (to be codified at 37 C.F.R. § 202); Irvin Molotsky, *Colored Movies Ruled Eligible for Copyright*, N.Y. TIMES, June 20, 1987, at 9.

146. *Morning Edition*, *supra* note 19.

147. *Id.*

148. *See supra* part II.

149. Copyright law "affords protection to authors as an incentive to create." *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 696 (2d Cir. 1992).

150. *See supra* notes 36, 19.

151. This is of course a value judgment. It will be up to the reader to decide if the computer-generated product has the same literary value as the human-created work.

These seemingly far-fetched combinations are not far away, especially with the advent of interactive technologies.¹⁵² In order to protect the human creators of original works and provide the requisite incentive for them to continue creating, there should be some type of legal “tollbooth” constructed now, before this new technology has overrun the marketplace. Determining just how and when to protect an author’s uniquely human traits, such as a writer’s style, before they are swallowed up into electronic derivatives will be a monumental task.¹⁵³ I will not attempt to answer this inquiry here, but merely provide possible starting points.

A. Derivative Works

*The thing that hath been, it is that shall be; and that which is done is that which shall be done: and there is no new thing under the sun.*¹⁵⁴

The Copyright Act¹⁵⁵ defines a derivative work as “a work based upon one or more preexisting works.”¹⁵⁶ If *Just This Once*, a computer-generated work, is viewed as a derivative work,¹⁵⁷ then it could be covered under an expansive interpretation of copyright law. If the premise is accepted that an AI cannot interpret in the unique way a human can—because it is “missing something”¹⁵⁸—then, based on a new interpretation of the old law French has infringed Susann’s right to prepare derivative works.¹⁵⁹ French would have to pay a licensing fee to Susann’s estate and the discussion is ended. Here we have an especially tidy case because French has admitted that his book is based on Susann’s work.

152. Philip Elmer-Dewitt, *Cyberpunk*, TIME, Feb. 8, 1993, at 58.

153. “Drawing the line between idea and expression is a tricky business. Judge Learned Hand noted that ‘nobody has ever been able to fix that boundary, and nobody ever can.’ ” *Altai, Inc.*, 982 F.2d at 704 (quoting *Nichols v. Universal Pictures Co.*, 45 F.2d 119, 121 (2d Cir. 1930)).

154. *Ecclesiastes* 1:9.

155. 17 U.S.C. §§ 101-1010 (1988 & Supp. V 1993).

156. *Id.* § 101.

157. A “derivative work” is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which as a whole, represent an original work of authorship, is a “derivative work.” *See id.*

158. *See supra* part III.

159. *See supra* note 157.

Suppose that French does the same thing with Tom Clancy's books that he did with Susann's, but this time without admitting the use of Clancy's books. French publishes his new novel, *Just This One Hunt for the Red Patriot*.¹⁶⁰ Clancy reads the book and realizes that French has duplicated his style. Clancy tries to sue in federal court. He will likely have no cause of action because under a traditional infringement analysis there would be no substantial similarity.¹⁶¹

Copyright law clearly excludes "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."¹⁶² A writer's unique style falls into this category. Further, Professor Nimmer defines authorship as "a *sine qua non* for any claim of copyright . . . the person claiming copyright must either himself be the author, or he must have succeeded to the rights of the author."¹⁶³

The Copyright Office has not yet made a determination as to who should hold the copyright to *Just This Once*.¹⁶⁴ The delay is caused by uncertainty as to whether French alone deserves to be labelled as author.¹⁶⁵ I will concede that Susann will likely not be credited because *Just This Once* is sufficiently original.¹⁶⁶ If French were to copyright the hypothetical *Just This One Hunt for the Red Patriot* and Clancy sued, under the derivative work theory, French might be asked to prove what the computer used as its basis for writing the work. Perhaps the computer's databases would be cross-examined to determine if they contained anything other than Clancy's works.

The issue raised is *how* to find French's work to be a derivative. It may be that programmer-authors using AI will readily admit to the use of existing works of renowned authors because printing this ad-

160. This is a fictional composite title.

161. See *supra* part II.A.3.

162. 17 U.S.C. § 102(b).

163. 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 5.01[A], at 5-3 (1993).

164. David Streitfeld, *Book Report*, WASH. POST, Sept. 26, 1993, at X-15.

The Copyright Office is delaying registration of a new novel because it can't figure out who wrote it. Nancy Lawrence of the Literary Section Examining Division wrote Birch Lane Press [publisher] that she wasn't sure Scott French should be listed as "author" of the entire text of *Just This Once*, seeing as how it's being promoted as computer written. "It may be that space 2 [of] your application Form TX should limit Mr. French's authorship to 'some original text; some computer-aided text,'" Lawrence wrote.

Id.

165. *Id.*

166. NIMMER, *supra* note 163, § 3.03, at 3-9 to 3-17 (1994).

mission will sell more books.¹⁶⁷ French certainly has; Susann's name is right on the cover of his book. But without this admission, it is virtually impossible to tell that *Just This Once* is not merely another author's attempt to make his mark in the romance genre by "imitating" Susann, just as Susann probably imitated others before her and as human authors probably have imitated her since.

Even with proof of the derivative nature of *Just This Once*, there must be some legal theory upon which to grant protection. My ideal of protection for the underlying works and ensuing licensing fees paid for AI-derivative works¹⁶⁸ is based on a broad and unrealistic reading of the current Copyright Act. It is likely that Congress did not intend for computer-generated works to be protected as derivative works.¹⁶⁹ In its report on new technologies,¹⁷⁰ Congress considered the user, in this case French, to be the author of a computer-generated work.¹⁷¹

Similarly, the Ninth Circuit maintained its current narrow interpretation of a derivative work in *Litchfield v. Spielberg*.¹⁷² In *Spielberg*, the plaintiffs argued that substantial similarity was not a requirement to find that an infringing work was derivative. The court soundly rejected this argument, stating that substantial similarity *was* necessary.¹⁷³ The legislative history of the 1976 Copyright Act affirms the validity of a very narrow reading.¹⁷⁴

B. Plagiarism

Every elementary school student has this experience at least once. They are assigned to write a report on something very broad, say Mexico. For a starting point, they go to the encyclopedia. There, under "M," are forty glorious pages on Mexico. The student gets a paper and pencil and goes to work. The text is not "copied" but merely transcribed into the student's own words. As he or she is doing it, the student feels little tinges of guilt; it seems okay, but something is bothersome.

167. See *infra* part IV.

168. See *infra* part IV.C.

169. See CONTU, *supra* note 143 at 47-57.

170. *Id.*

171. *Id.* at 45.

172. 736 F.2d 1352 (9th Cir. 1984), *cert. denied* 470 U.S. 1052 (1988).

173. *Id.*

174. "To constitute a violation of § 106(2), the infringing work must incorporate a portion of the copyrighted work in some form." H.R. REP. NO. 1476, 94th Cong., 2d Sess. 55, 62 (1976).

The difference between traditional copyright law and the notion of plagiarism is that copyright focuses on the result—the final product. Plagiarism looks at the creative process; how the work came into being.¹⁷⁵ The hypothetical student above has not created an infringing work, but depending on how they used the encyclopedia, they may have plagiarized the author's work.

In a plagiarism analysis, one looks more to the *morality* of what has occurred, rather than the legality. The goal is to determine if the plagiarist has appropriated the literary property of another and passed it off as their own.¹⁷⁶ There is an ancient tradition of "borrowing" the styles, dialogue, and even storylines of others, and incorporating them into new works.¹⁷⁷ Shakespeare's *Romeo and Juliet*, which was itself based on earlier works, has been used as the basis for such modern works as *West Side Story*¹⁷⁸ and *Valley Girl*.¹⁷⁹

But usually the plagiarist toils in secrecy. The greatest fear of a plagiarist is discovery. Contrast this to French who openly admits that he used the works of Susann to "create" *Just This Once*, hardly the actions of a plagiarist.¹⁸⁰ But admission is not necessarily absolution.

There is little legal precedent for plagiarism. The term was last used in a case in 1946.¹⁸¹ There have been many unsuccessful attempts to invoke the concept in such diverse frameworks as enforcing the Lanham Trademark Act¹⁸² and tort law,¹⁸³ but the concept remains more theoretical than legal. Plagiarism usually results in a loss of reputation and standing in the literary community. Given the nature of French's work, it is unlikely he will suffer such a loss if accused

175. The comparison of plagiarism to copyright law is suggested by Laurie Stearns, *Copy Wrong: Plagiarism, Process, Property, and the Law*, 80 CAL. L. REV. 513 (1992).

176. Plagiarism is defined as appropriating part or all of the composition or ideas of another and passing them off as the product of one's own mind. WEST'S LEGAL THESAURUS/DICTIONARY 578 (1985).

177. See ART THROUGH THE AGES 5 (Horst de la Croix & Richard G. Tansey eds., 7th ed. 1980).

178. WEST SIDE STORY (United Artists 1961) (boy falls in love with girl from rival street gang).

179. VALLEY GIRL (Atlantic Releasing 1983) (streetwise punk rocker falls in love with San Fernando Valley suburbanite).

180. Stearns, *supra* note 175, at 518.

181. Dieckhaus v. Twentieth Century-Fox Film Corp., 54 F. Supp. 425, 427 (E.D. Mo. 1944), *rev'd*, 153 F.2d 893 (8th Cir. 1945), and *cert. denied*, 329 U.S. 716 (1946).

182. 15 U.S.C. § 1064 (1988) (enforced in *International Order of Job's Daughters v. Lindeburg & Co.*, 633 F.2d 912, 917 (9th Cir. 1980), *cert. denied*, 452 U.S. 941 (1981)).

183. See Stearns, *supra* note 175, at 523 (citing *Italiani v. MGM*, 45 Cal. App. 2d 464, 465, 114 P.2d 370, 372 (Cal. Ct. App. 1941) where plagiarism was defined as tort involving "an intangible incorporeal right.").

of plagiarism. It is more likely that he will be despised by authors who toil in anonymity to create their works of art; an effect that will have little impact on his profit margin.

It is conceivable, however, that plagiarism could be worked into the legal protection framework. One such theory, often repeated in law review articles, uses a contract law analogy.¹⁸⁴ There is an implied contract between the original author and the plagiarist. If the plagiarist receives financial gain without properly compensating the author, then the plagiarist may be pursued in an action for unjust enrichment. This theory appeals to a sense of fairness. It also allows judges more liberty in allowing recovery.

If the Susann estate were to sue French under this theory, the court would have to analyze the market, the works, and the processes. It is likely both sides would call expert witnesses on such subjects as AI and literary endeavors. It is not difficult to imagine Norman Mailer¹⁸⁵ on the stand, explaining what is uniquely human about the creative process. In the end, the judge will have to decide how French can compensate the Susann estate.¹⁸⁶

C. Compensation: Compulsory Licenses

If I want to record the latest Counting Crows¹⁸⁷ song with an all-kazoo band, there is nothing Counting Crows can do to stop me, as long as I obtain the appropriate compulsory license from the song's publisher.¹⁸⁸ Similar provisions exist for cable,¹⁸⁹ satellite,¹⁹⁰ and public¹⁹¹ television.

The philosophy behind such license fees is to allow the public access to works, such as songs, while still compensating the creators. In

184. See Wendy J. Gordon, *On Owning Information: Intellectual Property and the Restitutory Impulse*, 78 VA. L. REV. 149, 164 (1992); Stearns, *supra* note 175, at 519.

185. Norman Mailer is a Pulitzer Prize winning author of novels espousing sharp views on American society. Some of his better known works are *The Naked and the Dead* (1948), *An American Dream* (1966), and *The Executioner's Song* (1979; Pulitzer).

186. There are of course side issues, such as the First Amendment's freedom of expression. See, e.g., *New York Times Co. v. Sullivan*, 376 U.S. 254 (1964) (newspaper not liable for statements made in ads supporting civil rights movement). Such issues are beyond the scope of this Comment.

187. The Counting Crows are a contemporary, alternative rock band that has recently achieved commercial success.

188. Note that Counting Crows may consider this an infringement of their moral rights, but currently they would have no legal cause of action. See *infra* part V.

189. 17 U.S.C. § 111(c), (d) (1988 & Supp. V 1993).

190. *Id.* §§ 111(a)(4), 119.

191. *Id.* § 118.

this way, the music publishers cannot monopolize the industry and decide who may record what songs.¹⁹²

Congress has recently recognized emerging technologies with new forms of compulsory licenses. As a result of the Digital Audio Home Recording Act of 1992,¹⁹³ manufacturers of digital audio tape machines (DATs), as well as the manufacturers of the blank tapes used in them, must pay compulsory license fees to the recording industry. If Congress can legislate to compensate record manufacturers for recordings copied onto DATs, then it seems logical that such a scheme could be employed in AI technology.

The scheme I propose would require that the AI programmer (French) admit whose author's works were used to program the AI.¹⁹⁴ Any author's works could be utilized, provided the proper licensing fees are paid. Using the current compulsory license rate of \$.0625 per recording for records, I would propose a compulsory license rate of \$.50 per hardcover book and \$.25 per paperback. This seems reasonable given that presumably more work goes into a book than a song and that hardcover books usually cost quite a bit more than compact discs. Paperbacks cost less but generally sell more copies, so a quarter per copy seems fair. This scheme would likely allow publishers to maintain their profit margins without passing along a prohibitive price increase to consumers.

In this scheme, the new work's programmer-author would be able to exploit the resulting work indefinitely. The programmer could use the original author's name on the cover, or on every page if so desired, so long as it is clear to the reader that the new work is the product of an AI.

The benefits of this proposal are several. The courts would be freed from costly litigation brought by angry authors. Judges would be relieved from having to consider weighty issues, such as the nature of a soul, or what consciousness is.¹⁹⁵ Studio executives and publish-

192. Compulsory licenses date to the days of player pianos. *Aeolian Co. v. Royal Music Roll Co.*, 196 F. 926 (W.D.N.Y. 1912). Congress initially acted to restrain the Aeolian Company from acquiring a monopoly by buying up several popular composers' rights. *Recording Indus. Ass'n of Am. v. Copyright Royalty Tribunal*, 662 F.2d 1, 3-4 (D.C. Cir. 1981).

193. 17 U.S.C. §§ 1001-1010 (Supp. V 1993). The Act created legislation to compensate the recording industry for loss in prerecorded sales anticipated from the introduction of DAT technology in the market. *Id.* § 1006.

194. To be most effective, this scheme would require accompanying legislation making it illegal for a human to falsely claim authorship in a work which is AI created.

195. Judges may still have to consider these issues when AIs begin assuming positions of legal authority, such as trustees. See *Solum*, *supra* note 43, at 1243.

ers would never again be able to lament over how difficult it is to find a good writer. Most importantly, the incentive to create would be preserved. If computer-generated works are based on an author's novels, that author profits.

Problems could arise where AI programmers do not admit to appropriating the works of other authors. It is possible, however, that practical considerations could prevent such problems from occurring. If I were to use a computer to create a "new" novel by Hemingway, I would want everyone to know that it is supposed to be a Hemingway novel. Fifty cents is a bargain to pay for all the free publicity and interest Hemingway's name would generate. I suspect that French had this concept in mind when he publicized the use of Jacqueline Susann's works. This concept bears many similarities to the legal doctrine of right of publicity.¹⁹⁶

The compulsory license scheme works well if authors are happy to have their works adapted and re-adapted. But some authors may not want computer-generated new "models" of their old works to be produced. They may have interests other than the pursuit of the almighty dollar. How will these authors be compensated for their perceived loss? Currently, if Counting Crows object to my all-kazoo version of *Round Here*,¹⁹⁷ the group may say nothing. The issue of whether or not an author should be able to regulate what is done with the integrity of their work is an issue of moral rights.

V. WHAT ABOUT MORALITY?

A work of art is a universe unto itself. The author, who creates it, becomes its god. The author establishes a link to the work, which transcends legal ownership. To take an author's rights to the work she¹⁹⁸ has created may be considered an alienation of her personality:

An individual's disposition of himself is an affront to "Humanity in his own person." It is violative of the "Right of Humanity". . . . The alienation of the person, the treatment of oneself or another as a thing, is a denigration of what it

196. See *infra* part VI.

197. COUNTING CROWS, *Round Here*, on AUGUST AND EVERYTHING AFTER (Geffen Records, Inc. 1993).

198. This section considers the uniquely human connection between an author and *her* work, attempting to devise a scheme to protect it. This connection is best illustrated with gender specific language. For this reason, I deviate from gender neutral language when describing specific examples.

means to be human, not only for the individual concerned, but for humanity as a whole.¹⁹⁹

The concept embodied in Moral Rights, or the *Droit Moral*,²⁰⁰ is that when an artist creates a work of art, she injects her personality into that creation. She becomes a part of the creation. Her moral rights in the work reflect the inalienability of her own being.²⁰¹ The concept that certain aspects of a work of art are inalienable is somewhat foreign to United States copyright law.

A. *How Moral Is the United States?*

Currently, the creator of a literary work, for example, only has one inalienable right, the right to terminate a transfer of copyright after thirty-five years.²⁰² Visual artists, however, have recently been granted certain rights in original drawings, prints, sculptures, and signed photographs.²⁰³ The list of included works is fairly limited, and the scope of protection is even more limited,²⁰⁴ but it does represent an effort by Congress to recognize the importance of attribution and integrity. States, such as California, have enacted similar legislation,²⁰⁵ but most of these local statutes are preempted by federal law. Although it is limited, The Visual Rights Act of 1990 does represent a changing tide in the United States position on moral rights, with a view toward recognizing a link between the creator and her work.

In 1989 the United States became a signatory to the Berne Convention.²⁰⁶ Although the Berne Convention contains provisions for moral rights, the United States opted not to make Berne a self-executing treaty.²⁰⁷ Certain minor changes in United States law had to be made to comply with Berne's minimum standards,²⁰⁸ but these changes specifically left out moral rights. The philosophy behind in-

199. Neil Netanel, *Copyright Alienability Restrictions and the Enhancement of Author Autonomy: A Normative Evaluation*, 24 RUTGERS L.J. 347, 360 n.48 (quoting IMMANUEL KANT, *THE PHILOSOPHY OF LAW* 99 (W. Hastie trans., 1887)).

200. *Loi du 11 mars 1957 sur la propriété littéraire et artistique*, 1957 JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE [J.O.] 2733, 1957 RECUEIL DALLOZ LEGISLATION [D.L.] 102, arts. 26-28, translated and reprinted in UNESCO, *France*, 1 COPYRIGHT LAWS AND TREATIES OF THE WORLD France: Item 1, 1 (1990 Supp.) [hereinafter French Law].

201. *Id.*

202. 17 U.S.C. § 203 (1988 & Supp. V 1993).

203. The Visual Artist Rights Act of 1990, 17 U.S.C. § 106A (Supp. V 1993).

204. *Id.*

205. See CAL. CIV. CODE § 987 (West 1993).

206. See 17 U.S.C. § 104 (Supp. V 1993).

207. See *id.*

208. *Id.*

tellectual property law in the United States is based on a utilitarian theory²⁰⁹ that is conceptually opposed to moral rights. This may explain why the United States has been slow to adopt moral rights.

The United States Constitution empowers Congress to enact copyright laws with a view toward the public good: "[t]o promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive right to their respective writings and discoveries."²¹⁰ The Lockean view, which the framers of the Constitution similarly adopted,²¹¹ gives an author a property right in her work based on the labor she has exerted to produce it.²¹² There is little difference between this and the property right a carpenter earns in a table she has built with materials she purchased. In this view, the marketplace dictates the value of the work, but there is no consideration of such nonmonetary factors as prestige or the act of creating for its own intrinsic value.²¹³

The government grants economic rights in a copyright. It can be argued that the government has no obligation to provide any form of protection for a literary work, but if it so chooses, may do so in any way consistent with its own laws. In this sense, the Copyright Act is sufficient in that it is compatible with the United States Constitution. The Supreme Court has determined that the purpose of the Copyright Act is to provide economic incentives for artists to create, while at the same time making their creations accessible to as many people as possible for the lowest possible price. This view sees copyright as a privilege, not an entitlement.²¹⁴ If this argument is utilized to its full potential, a scheme based entirely on compulsory licenses²¹⁵ would seem more effective than the current system, based on the grant of exclusive property rights.²¹⁶ Granting a compulsory license, however, would not give an author a choice in deciding how her book will be

209. See Netanel, *supra* note 199, at 365 n.75.

210. U.S. CONST. art. I, § 8, cl. 8.

211. *Id.*

212. Netanel, *supra* note 199, at 365 n.75.

213. ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 754 (Roy H. Cambell & Andrew S. Skinner eds., 1976).

214. Sony Corp. of America v. Universal City Studios, 464 U.S. 417, 429 (1984). This case, nicknamed the "Betamax Case," determined that home viewers were not infringing copyrights in broadcast programs when taping shows for time-shifting. The Court considered the utility of time-shifting and the potential economic effects, but not the desires of the shows' producers.

215. See *supra* part IV.

216. See William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1661 (1988).

used. As long as the appropriate fee is paid, the book may be used for anything, whether it be for a screenplay or an ad campaign for laxatives.

But current copyright law does limit the use, by others, of an author's expression. In a sense, this is a moral right. If the Susann estate chooses to not have any of Susann's books turned into screenplays, it may so limit her works.²¹⁷ Similarly, if it chooses to allow laxative commercials based on her work, it may do so contractually.²¹⁸ The notion of an author's right to control the dissemination of her product, rather than letting the marketplace do so, is not totally foreign to United States law.

B. *How Moral Are the French?*

French law is the best model to explain a workable system of moral rights. French copyright law makes a distinction between the economic rights in a work and the moral rights in the same work.²¹⁹ Moral rights last forever and cannot be rescinded, or obtained by any other means.²²⁰ Moreover, moral rights can influence economic rights. If an author licenses her novel for a dramatic film to a studio and includes certain limitations in the contract, the studio must abide by these limitations. If the studio does not, the author may revoke the license.²²¹ Under French law, it is never possible to fully acquire the works of another.²²² There are four rights in the French doctrine of moral rights:²²³ (1) the right of disclosure; (2) the right of withdrawal; (3) the right of attribution; and (4) the right of integrity.

217. See 17 U.S.C. § 103 (1988).

218. See *id.*

219. French Law, *supra* note 200, at 1, art. 1.

220. *Id.* at art. 6.

221. *Id.* Note that United States courts have specifically declined to recognize any such right, with the possible exception of breach of contract. In *Gilliam v. American Broadcasting Cos.*, 538 F.2d 14 (2d Cir. 1976), the members of Monty Python sued ABC for violating their rights in their scripts by broadcasting edited episodes of their show, *Monty Python's Flying Circus*. The court refused to recognize any such rights, but instead found for Python on a contract theory; when the BBC (the original broadcaster of the show) bought the rights in the scripts, Python had the exclusive right to prepare derivative works. Therefore, ABC's edited versions were unauthorized derivative works and in violation of Python's rights. *Id.*; see also *supra* note 44.

222. French Law, *supra* note 200 and accompanying text.

223. *Id.* at 1-3, 5, arts. 1, 6, 19, 32.

1. The right of disclosure

An author is allowed the exclusive right to determine whether or not to create a work, when the work has been completed, and when the work should be disclosed to the public.²²⁴ This right includes commissioned works, even when they are in the possession of a transferee. If Susann decided not to publish *Valley of the Dolls*, after turning over a final draft to her publisher, under French law, she would have the right to withdraw the manuscript, although she may be liable for breach of contract damages.²²⁵ Before completion, the work does not exist independent from the author.

2. The right of withdrawal

This is perhaps the strongest of all moral rights. The author may withdraw her work from publication, *after it has been published*, or require the publisher to make certain modifications *after* publication. The transferee, however, must be indemnified in advance of the author's use of this right.²²⁶ This allows the author to exert creative control over her works, long after she has "relinquished" them to the public.

It seems logical to assume that this right would apply to derivative works. The right of withdrawal should allow Susann's estate to withdraw the use of any of Susann's works in the creation of any new works, including computer-generated works. Due to the many restrictions on exercising this right, however, it is seldom used, so the basis for comparison in case law is slim.²²⁷

3. The right of attribution

An author has the right to credit for the work she performs. Under the right of attribution, she may ask to be credited in name for work created, or to not be credited if she so desires.²²⁸ This is key to our discussion. If Susann's estate determines it would prefer not to have her name connected with French's book, under the right of attribution, the estate would be able to do so. Without the use of the

224. *Id.* at 3, art. 19.

225. Netanel, *supra* note 199, at 385.

226. Russell DaSilva, *Droit Moral and the Amoral Copyright: A Comparison of Artists' Rights in France and the United States*, 28 BULL. COPYRIGHT SOC'Y 1, 23 (1980).

227. *Id.* at 24.

228. French Law, *supra* note 200, at 1, art. 6.

name, programmers of AIs may have no incentive to use other authors' works to create new ones.²²⁹

An author also has the right to prevent her work from being credited to someone else.²³⁰ This aspect might give some relief to authors not wishing to have their works converted into "read-alike" works by AIs. In order for an author to exert this right, however, she must first prove that the AI's work is based on her own. If the AI's programmer properly credits the author of the underlying works, then the author may be precluded from exercising this right, but such crediting may invoke the author's right of withdrawal.

4. The right of integrity

This right entails something very intangible and seemingly foreign to United States law: the author's reputation. To understand this right, one must first accept the premise that there are some things which are more important to an author than monetary gains. This right entitles an author to stop the presentation of her work in a way that is harmful to her reputation, or opposed to any of the following: her personal style, or her literary, artistic or scientific ideals.²³¹

Although a license may be granted to exploit a given work, or prepare a derivative work based on it, the grantee is restricted by the right of integrity from harming the author's reputation. If Steinbeck's estate should object to an animated *Of Mice and Men*,²³² in which the part of Lenny is portrayed by Stimpny,²³³ under current copyright law whoever owned the film rights to the book could exploit it in any way consistent with their contract. Under the right of integrity, Steinbeck's estate could step in and halt production, regardless of what was included in the contract.

Under this theory, Susann's estate might say that calling *Just This Once* "a computer-generated novel in the image of Jacqueline Susann" is a trivialization of Susann's unique talents and abilities.²³⁴ To say that a computer can turn out a work of fiction that attains the

229. See *supra* part IV.

230. French Law, *supra* note 200, at 1, art. 6.

231. *Id.* at 5, art. 32.

232. JOHN STEINBECK, *OF MICE AND MEN* (1937).

233. Stimpny is a large "galootish" animated character in the animated series *Ren and Stimpy* (Nickelodeon Network television broadcast, July 29, 1994). Stimpny constantly gets into misadventures, has a sarcastic wit, and is vulgar and crass—not exactly in the image of the heartwarming and misunderstood Lenny from *Of Mice and Men*.

234. But the estate's lawyers would have to stand up in court and make a straight-faced argument that Susann's reputation has been damaged by French's work.

same quality of a human author would be like saying that a chimpanzee can paint in the style of Jackson Pollack.²³⁵ Although some may agree that a chimp's work is qualitatively no different than Pollack's, Pollack's reputation would be harmed if a chimp-created painting were passed off as being in Pollack's "style."

The right of integrity becomes even more important when AIs are employed to write sequels. A publisher might have a legitimate license to prepare derivative works. An AI might prepare a sequel that is wholly inappropriate to the original author. The author might have religious or political convictions that are usurped in the sequel. Similarly, the author may feel strongly about the direction a given character should take. Currently, such concerns are dealt with contractually. The more successful a writer is, the more these concerns may be expressed in her contract.

Therefore, the right of integrity exists in the United States, at least with respect to licensing, but it is limited to the most successful writers. Perhaps less successful writers could launch an Equal Protection Clause challenge against the federal government, saying that this limited availability right of integrity, available only to those with the power to negotiate for it, unduly burdens their right to express themselves under the First and Fourteenth Amendments.²³⁶

C. Further Restrictions on Alienability Under the French Model

The French include other rights that are more closely tied to the economic interests of the author than her moral rights, but which allow the author more powers of restriction *after* a work has been transferred.²³⁷ The transferee has certain statutory obligations to exploit the author's work once the transfer is made.²³⁸ This right is not only tied to the author's desire to see her profitability maximized, but also the desire to see that her message is conveyed. The recent film *Schindler's List*²³⁹ effectively demonstrates when conveying a message is important. The film ends with a shot of the actual survivors of World War II, portrayed in the film by actors, being escorted past Schindler's grave. This scene conveys an important message about the legacy of

235. Jackson Pollack (1912-1956) was an American pioneer of abstract expressionism. He developed a unique technique of vigorously dripping paint on large canvases, often described as "action painting."

236. This issue would make an excellent topic for another law review article.

237. See French Law, *supra* note 200, at 7, art. 40.

238. *Id.* at 5, 8, 9, arts. 31, 48, 57.

239. SCHINDLER'S LIST (Universal Pictures 1993).

these people and how important it is that they survived. If the studio decided to cut this scene, perhaps to allow for more screenings per day, the film's "author" might restrict the studio by invoking his right to have his message conveyed. The United States, however, does not recognize authors of films and such rights are only gained contractually by the director who obtains rights over the "final cut."

Transfers themselves, under French law, are also severely restricted. Even if an author desires to give broad powers to the transferee, the author may later invalidate these powers. French courts will give the most literal interpretation to any transfer.²⁴⁰ For example, suppose that an author transfers her works to a publishing company. She would then be able to restrict the company from producing AI-created derivatives, unless such a right were explicitly given by contract. Even then, the author could assert other moral rights to restrict publication of the AI work if she felt it violated her integrity.²⁴¹

Transfers may also not be transferred. Susann's publisher would not be able to authorize French's work. Additionally, an author may not transfer the rights to future works in advance of completion, or rather, such a transfer is voidable.²⁴² If the AI-created work is considered a work produced in part by the original author, based on the theory that the AI is "missing something,"²⁴³ and Susann's style fills the missing element, then *Just This Once* might be labelled a future work of Susann's and would not be publishable by French.

D. *Why Should the United States Adopt Moral Rights?*

It is difficult to explain the importance of moral rights to an economist, or even a lawyer for that matter. There is no "bottom line" that moral rights help to attain. Codifying a moral rights doctrine does not help establish a more cohesive legal system or resolve any pressing legal disputes. There does not even seem to be a huge outcry from the arts community to establish moral rights.

But artistic endeavors serve other purposes that are not easily expressed in our society's traditional terms. Authors often create because they wish to educate their audience, or because they want to express an emotion that is significant to them, or because they merely desire to add something to the world that will be aesthetically pleasing to those who view it. These goals are linked to personal expression,

240. Netanel, *supra* note 199, at 390.

241. French Law, *supra* note 200, at 7, art. 40.

242. *Id.*

243. *See supra* part III.A.

which is a fundamental human need. Linked to this need is the importance of being understood by one's audience, and linked to understanding is the ability to control one's expression.

Unfortunately, however, artists do not live in a vacuum. They must eat and pay rent and provide clothing for their children in the same way that nonartists do. Many artists also find that they must devote their lives to their art in order to fulfill their artistic goals. This leaves no time to pursue a middle-level management position in some marketing firm so they can earn a living. Instead, the artist must choose. If she decides to try for monetary gain from her art, inevitably she will have to decide whether to conform to the marketplace or starve. There are those rare grants, but even the administrators of grants engage in censorship and attempt to impose their will on the artist.²⁴⁴

Altering one's art to make it more saleable can be trivial or devastating. A screenwriter who rewrites a minor scene in order to conform to a casting choice by the studio may not bat an eye, but if the writer were asked to "add more sex and violence" to her script, she may not have the same feeling. There are examples of art which are highly commercial, or marketable, such as anything by Andy Warhol,²⁴⁵ and conversely works that enjoy commercial success despite their seemingly limited appeal, such as the photographs of Robert Mapplethorpe.²⁴⁶ If the artist's work is marketable as produced, then she is "lucky." But if the artist must alter her work to sell it, she must choose.

The issue is to determine who should be able to make this choice. If an author is lucky enough to sell her work, she may be asked to sacrifice her artistic integrity, at the whims of the purchaser. She may relinquish the ability to express her message, or at least to have it understood by the viewer. A system of moral rights would allow the author to make her own choice. The market will still dictate what will succeed. The economist may rebut by saying that if the author's works are that great, she will be able to negotiate for moral rights

244. Marilyn Yaquinto, *Arts Official Backs Restriction on Grants*, L.A. TIMES, Mar. 19, 1992, at A13.

245. Andy Warhol (1927-1987) was one of the founders of the pop art movement, known for capturing cultural icons on canvas and film. These icons included soup cans, Marilyn Monroe, and the Empire State Building.

246. Robert Mapplethorpe (1946-1989) was a photographer and sculptor who presented a wide range of subject matter in an objective style. He became newsworthy after death, when a National Endowment for the Arts-supported showing of his work was criticised for portraying graphic sexual images.

contractually. Otherwise she must accept whatever terms the purchaser is willing to give. This argument fails for two reasons. Success in the marketplace is not always linked to merit. Often a mediocre writer with the right connections will succeed where a great writer who knows no one will fail. What this means is that the mediocre writer will be able to dictate her own terms and the great writer will be forced to compromise to make the sale. In the end, the great writer may have succeeded if her work were left intact, but she is never given that chance. If her work is not marketable in any case, no sale will be made.

But once an author sells her work, moral rights would put the choice back in her hands. If she is willing to make the changes requested, or allow them to be made, she may do so. If not, then the sale is rescinded and the work becomes hers once again. Letting the marketplace dictate also fails because often the writer cannot possibly be allowed to make a decision as to the uses of her works. This is our case. Jacqueline Susann could not possibly have conceived of a computer that would write in her style. Although she likely still would have allowed her works to be published knowing this, it should be her decision to make. Allowing an author to retain sovereignty over her expression is a grant of freedom. It does not restrict the free flow of information, but rather grants her the exclusive right to control the exploitation of her works.

VI. WHAT'S IN A NAME?

French chose to use Jacqueline Susann's works because he liked them, and probably also because Susann's name is a household word. The fact that Susann has been dead for twenty years and that she was one of the best-selling authors of all time made her one of the most marketable choices for an AI-created "read-alike" work. If we reject copyright law as a means to protect Susann's works and similarly refuse to adopt a moral rights scheme, there may still be hope for an author if she does not wish to have her name tied to an AI-created work. A celebrity such as Susann has a right of publicity.

The right of publicity is "the right to prevent others from using one's name or picture for commercial purposes without consent,"²⁴⁷ or "the inherent right of every human being to control the commercial

247. *Douglass v. Hustler Magazine, Inc.*, 769 F.2d 1128, 1138 (7th Cir. 1985), *cert. denied*, 475 U.S. 1094 (1986).

use of his or her identity."²⁴⁸ It is transferable by license or assignment,²⁴⁹ and in most states continues after death,²⁵⁰ except apparently for Elvis.

A recent Ninth Circuit case points out the possible applications of this right to computer-generated works. In *Waits v. Frito-Lay, Inc.*,²⁵¹ a performer, Tom Waits, sued Frito-Lay for performing a song in his unique style.²⁵² Mr. Waits has a gravel-rich voice that is immediately recognizable to those who know his work. For this reason, he has been highly sought after for commercial endorsements, although he has always refused. Frito-Lay decided to do a "sound-alike" recording for its ad campaign.²⁵³ The singer Frito-Lay hired sounded just like Waits. The court awarded Waits \$2.5 million because it found that his right to control his image belongs to him.²⁵⁴ The commercial was not an infringement of any of his copyrights, yet the court allowed Waits to collect. The court's award bears resemblance to the moral right to integrity.²⁵⁵

In a similar vein, French has "hired" a computer to write a book that is a "read-alike" to Susann's works. The book was based on two of Susann's works, just as the Frito-Lay song was based on Waits's previous works. The commercial capitalized on the recognizability of Waits's sound, just as French intends to capitalize on the recognizability of Susann's name and style. Under this theory, the Susann estate might have collected if it had chosen to sue French.

There are shortcomings to using the right of publicity to solve this issue. If the AI programmer wants to capitalize on a celebrity writer's name, the programmer will have to pay for it. If the AI programmer wants to capitalize on the writer's talent, without revealing the name, the offended writer may never "know what hit him." Perhaps this is where the line should be drawn. Since it will be difficult to determine what writers were used to create a given AI-generated work, legal economics may dictate that such cases cannot be tried. Litigation may only be practical when the author's name is used for publicity. This

248. Melville B. Nimmer, *The Right of Publicity*, 19 LAW & CONTEMP. PROBS. 203, 216 (1954).

249. J. THOMAS MCCARTHY, *THE RIGHTS OF PUBLICITY AND PRIVACY* §§ 10.3-.4 (1992).

250. *Id.* § 9.5.

251. 978 F.2d 1093 (9th Cir. 1992), *cert. denied*, 113 S. Ct. 1047 (1993).

252. *Id.* at 1096.

253. *Id.* at 1097.

254. *Id.* at 1103.

255. *See supra* part V.

makes for a tidy package and may ultimately be the most reasonable solution.

VII. CONCLUSION

She looked up at him. He liked that look. It was her beauty that made him feel like a man. He felt the warmth from the liquor. He needed it. He needed courage to be with her.

The phone call had saved him. He wasn't ready. He couldn't tell her. Not after the bulls. He watched the fax machine as it spit out page after page. It reminded him of the big gun. The one they placed high on the hill.

She was sad. She knew that he wasn't the man he once was. Not the original. An imitation. Like the original, but somehow not quite the same. "How could someone change him," she thought. He was Rick. Or was it Nick. She couldn't remember anymore. Nothing seemed the same.

It was all fading—like some elusive dream. She wanted things to be the way they were, but she knew he was dead. Dead inside.

A human author can try to write like Hemingway. In fact, many do.²⁵⁶ They read Hemingway's words and feel the emotion that he meant to invoke. They take this feeling and try to interpret it into their own creation. It is a uniquely human process of interpretation and creation.

French has taken Susann's words and interpreted them into his own creation. But he hasn't used his own human abilities. Instead, he used an artificial device to accomplish his task in digital rather than analog terms.

The question we have tried to answer is whether or not there is any difference between what French did and what any "Hemingway pretender" has done. Conventional infringement protection doesn't adequately deal with these issues. The current definition of infringement focuses on the work, not the way in which it was prepared.

There are legal and philosophical ramifications to calling an AI a person. It is what is missing in an AI that makes it different from a human. The missing quality is an intangible and somewhat difficult to

²⁵⁶ Jack Smith, *What Fun to Make Mockery of Hemingway Masterpieces*, L.A. TIMES, Mar. 16, 1992, at E1.

grasp. We cannot define these missing elements, but merely lay out the possible parameters within which they may be found.

If the computer is missing something in its interpretation of human-authored works, then there must be some new standard with which to judge the nature of computer-generated works. A possibility for this standard is to vary the definition of a derivative work. A compulsory license scheme may be the most legally efficient means to compensate authors for the products of their computer counterparts.

Although the focus of copyright law is monetary compensation, there are other considerations. An artist creates for a number of reasons. If the theory is accepted that what an author creates is forever a part of their being, then the author should have certain inalienable rights in this creation. If a computer cannot possess the human qualities of intentionality and free will, then it is usurping these human qualities when it "copies" them. Adopting a system of moral rights to protect the works of authors against unintended exploitation is a logical means of recognizing the importance of the author's integrity in her work.

In addition to maintaining the integrity of her work, an author's name has value apart from the work. Although it is difficult to put a price on the so-called celebrity status, many courts have attempted to do so. If no cohesive theory can be developed to protect an author's work from duplication in "read-alike" form, at the very least, an author should be able to invoke a right of publicity to garner protection.

Currently there is only one known computer-generated work based on an existing author's works. But technology is increasing at exponential rates. With the proposed information "superhighway,"²⁵⁷ these issues will occur with increasing frequency.²⁵⁸ Information is traded back and forth at the speed of light. Each piece of this information has an author, and each one of these authors deserves credit for their unique contributions.

The act of creation is an arduous process. It takes a vision, persistence, and usually a tremendous amount of hard work. Once the work is completed, there are no guarantees that it will be well-received. The artist puts something of herself on the line. The computer programmer may also work hard, have a vision, and certainly

257. "Information Super-Highway" Barrels Down on Consumers, CHRISTIAN SCI. MONITOR, Dec. 31, 1993, at 14.

258. See generally James Boyle, *A Theory of Law and Information: Copyright, Spleens, Blackmail, and Insider Trading*, 80 CAL. L. REV. 1413 (1992) (proposing various legal issues that arise as technology increases).

must be persistent. But the programmer does not put her own integrity on the line, but rather borrows the integrity of others. If intellectual property law will not protect authors, then some other scheme must be enacted to allow them to maintain control of that which makes them human.

*Tal V�gderſon**

* [Winner, 1994 California State Bar's Intellectual Property Section Essay Competition; selected to represent Loyola of Los Angeles Law School in the national Nathan Burkan Memorial Competition (sponsored by ASCAP; results pending)] I thank Krista Helfferich for her editing, love, support, and continuing allegiance as I completed the sisyphusian task of bringing this Comment to publication. Thanks also to Professor Lon Sobel for encouraging me by saying that it couldn't be done. This Comment is dedicated to my grandmother, Anna V�gderſon, a true pioneer who continues to inspire me with her wisdom and grace.

