

George P. Landow, Hypertext 2.0. Baltimore:  
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## Reconfiguring

### the Author

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#### Erosion of the Self

Like contemporary critical theory, hypertext reconfigures—rewrites—the author in several obvious ways. First of all, the figure of the hypertext author approaches, even if it does not entirely merge with, that of the reader; the functions of reader and writer become more deeply entwined with each other than ever before. This transformation and near merging of roles is but the latest stage in the convergence of what had once been two very different activities. Although today we assume that anyone who reads can also write, such was long not the case, and historians of reading point out that for millennia many people capable of reading could not even sign their own names. Today when we consider reading and writing, we probably think of them as serial processes or as procedures carried out intermittently by the same person: first one reads, then one writes, and then one reads some more. Hypertext, which creates an active, even intrusive reader, carries this convergence of activities one step closer to completion; but in so doing, it infringes upon the power of the writer, removing some of it and granting that portion to the reader.

One clear sign of such transference of authorial power appears in the reader's abilities to choose his or her way through the metatext, to annotate text written by others, and to create links between documents written by others. Hypertext does not permit the active reader to change the text produced by another person, but it does narrow the phenomenological distance that separates individual documents from one another in the worlds of print and manuscript. In reducing the autonomy of the text, hypertext reduces the autonomy of the author. In the words of Michael Heim, "as the authoritative-ness of text diminishes, so too does the recognition of the private self of

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the creative author" (*Electric Language*, 221). Granted, much of that so-called autonomy had been illusory and had existed as little more than the readers' difficulty in perceiving connections between documents. Nonetheless, hypertext—which I am here taking as the convergence of poststructuralist conceptions of textuality and electronic embodiments of it—does do away with certain aspects of the authoritativeness and autonomy of the text, and in so doing it does reconceive the figure and function of authorship.

William R. Paulson, who examines literature from the vantage point of information theory, arrives at much the same position when he argues that "to characterize texts as artificially and imperfectly autonomous is not to eliminate the role of the author but to deny the reader's or critic's submission to any instance of authority. This perspective leaves room neither for authorial mastery of a communicative object nor for the authority of a textual coherence so complete that the reader's (infinite) task would be merely to receive its rich and multilayered meaning." Beginning from the position of information theory, Paulson finds that in "literary communication," as in all communication, "there is an irreducible element of noise," and therefore "the reader's task does not end with reception, for reception is inherently flawed. What literature solicits of the reader is not simply receptive but the active, independent, autonomous construction of meaning" (139). Finding no reason to exile the author from the text, Paulson nonetheless ends up by assigning to the reader power that, in earlier views, had been the prerogative of the writer.

Hypertext and contemporary theory reconceive the author in a second way. As we shall observe when we examine the notion of collaborative writing, both agree in configuring the author of the text as a text. As Barthes explains in his famous exposition of the idea, "this 'I' which approaches the text is already itself a plurality of other texts, of codes which are infinite" (*S/Z*, 10). Barthes's point, which should seem both familiar and unexceptional to anyone who has encountered Joyce's weaving of Gerty McDowell out of the texts of her class and culture, appears much clearer and more obvious from the vantage point of intertextuality. In this case, as in others at which we have already looked, contemporary theory proposes and hypertext disposes; or, to be less theologically aphoristic, hypertext embodies many of the ideas and attitudes proposed by Barthes, Derrida, Foucault, and others.

One of the most important of these ideas involves treating the self of author and reader not simply as (print) text but as a hypertext. For all these authors, the self takes the form of a decentered (or centerless) network of codes that, on another level, also serves as a node within another centerless network. Jean-François Lyotard, for example, rejects nineteenth-century Ro-

**HYPertext** mantic paradigms of an islanded self in favor of a model of the self as a node in an information network: "A self does not amount to much," he assures us with fashionable nonchalance, "but no self is an island; each exists in a fabric of relations that is now more complex and mobile than ever before. Young or old, man or woman, rich or poor, a person is always located at 'nodal points' of specific communication circuits, however tiny these may be. Or better: one is always located at a post through which various kinds of messages pass" (*Postmodern Condition*, 15). Lyotard's analogy becomes even stronger if one realizes that by "post" he most likely means the modern European post office, which is a telecommunications center containing telephones and other networked devices.

Some theorists find the idea of participating in a network to be demeaning and depressing, particularly since contemporary conceptions of textuality de-emphasize autonomy in favor of participation. Before succumbing to posthumanist depression, however, one should place Foucault's statements about "the author's disappearance" in the context of recent discussions of "machine intelligence" (Foucault, "What Is an Author?" 119). According to Heinz Pagels, machines capable of complex intellectual processing will "put an end to much discussion about the mind-body problem, because it will be very hard not to attribute a conscious mind to them without failing to do so for more human beings. Gradually the popular view will become that consciousness is simply 'what happens' when electronic components are put together the right way" (92). Pagels' thoughts on the eventual electronic solution to the mind-body problem recall Foucault's discussion of "the singular relationship that holds between an author and a text [as] the manner in which a text apparently points to this figure who is outside and precedes it" ("What Is an Author?" 115). This point of view makes apparent that literature generates precisely such appearance of a self, and that, moreover, we have long read a self "out" of texts as evidence that a unified self exists "behind" or "within" or "implicit in" it. The problem for anyone who yearns to retain older conceptions of authorship or the author function lies in the fact that radical changes in textuality produce radical changes in the author figure derived from that textuality. Lack of textual autonomy, like lack of textual centeredness, immediately reverberates through conceptions of authorship as well. Similarly, the unboundedness of the new textuality disperses the author as well. Foucault opens this side of the question when he raises what, in another context, might be a standard problem in a graduate course on the methodology of scholarship:

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If we wish to publish the complete works of Nietzsche, for example, where do we draw the line? Certainly, everything must be published, but can we agree on what "everything" means? We will, of course, include everything that Nietzsche himself published, along with the drafts of his works, his plans for aphorisms, his marginalia; notations and corrections. But what if, in a notebook filled with aphorisms, we find a reference, a reminder of an appointment, an address, or a laundry bill, should this be included in his works? Why not? . . . If some have found it convenient to bypass the individuality of the writer or his status as an author to concentrate on a work, they have failed to appreciate the equally problematic nature of the word "work" and the unity it designates. (119)

Within the context of Foucault's discussion of "the author's disappearance" (119), the illimitable plenitude of Nietzsche's oeuvre demonstrates that there's more than one way to kill an author. One can destroy (what we mean by) the author, which includes the notion of sole authorship, by removing the autonomy of text. One can also achieve the same end by decentering text or by transforming text into a network. Finally, one can remove limits on textuality, permitting it to expand, until Nietzsche, the edifying philosopher, becomes equally the author of *The Gay Science* and laundry lists and other such trivia—as indeed he was. Such illimitable plenitude has truly "transformed" the author, or at least the older conception of him, into "a victim of his own writing" (117).

Fears about the death of the author, whether in complaint or celebration, derive from Claude Lévi-Strauss, whose mythological works demonstrated for a generation of critics that works of powerful imagination take form without an author. In *The Raw and the Cooked* (1964), for example, where he showed, "not how men think in myths, but how myths operate in men's minds without their being aware of the fact," he also suggests "it would perhaps be better to go still further and, disregarding the thinking subject completely, proceed as if the thinking process were taking place in the myths, in the reflection upon themselves and their interrelation" (12).<sup>1</sup> Lévi-Strauss's presentation of mythological thought as a complex system of transformations without a center turns it into a networked text—not surprising, since the network serves as one of the main paradigms of synchronous structure.<sup>2</sup> Edward Said claims that the "two principal forces that have eroded the authority of the human subject in contemporary reflection are, on the one hand, the host of problems that arise in defining the subject's authenticity and, on the other, the development of disciplines like linguistics and ethnology that dramatize the subject's anomalous and unprivileged, even untenable, position in thought" (293). One may add to this observation that these disciplines' network para-

**HYPERTEXT** digms also contribute importantly to this sense of the attenuated, depleted, eroding, or even vanishing subject.

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Some authors, such as Said and Heim, derive the erosion of the thinking subject directly from electronic information technology. Said, for example, claims it is quite possible to argue "that the proliferation of information (and what is still more remarkable, a proliferation of the hardware for disseminating and preserving this information) has hopelessly diminished the role apparently played by the individual" (51).<sup>3</sup> Michael Heim, who believes loss of authorial power to be implicit in all electronic text, complains: "Fragments, reused material, the trails and intricate pathways of 'hypertext,' as Ted Nelson terms it, all these advance the disintegration of the centering voice of contemplative thought. The arbitrariness and availability of database searching decreases the felt sense of an authorial control over what is written" (*Electric Language*, 220). A data base search, in other words, permits the active reader to enter the author's text at any point and not at the point the author chose as the beginning. Of course, as long as we have had indices, scholarly readers have dipped into specialist publications before or (shame!) instead of reading them through from beginning to end. In fact, recent studies of the way specialists read periodicals in their areas of expertise confirm that the linear model of reading is often little more than a pious fiction for many expert readers (McKnight, Richardson, and Dillon, "Journal Articles").

Although Heim here mentions hypertext in relation to the erosion of authorial prerogative, the chief problem, he argues elsewhere, lies in the way "digital writing turns the private solitude of reflective reading and writing into a public network where the personal symbolic framework needed for original authorship is threatened by linkage with the total textuality of human expressions." Unlike most writers on hypertext, he finds participation in a network a matter for worry rather than celebration, but he describes the same world they do, though with a strange combination of prophecy and myopia. Heim, who sees this loss of authorial control in terms of a corollary loss of privacy, argues that "anyone writing on a fully equipped computer is, in a sense, directly linked with the totality of symbolic expressions—more so and essentially so than in any previous writing element." Pointing out that word processing redefines the related notions of publishing, making public, and privacy, Heim argues that anyone who writes with a word processor cannot escape the electronic network: "Digital writing, because it consists of electronic signals, puts one willy-nilly on a network where everything is constantly published. Privacy becomes an increasingly fragile notion. Word processing manifests a world in which the public itself and its publicity have

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become omnivorous; to make public has therefore a different meaning than ever before" (*Electric Language*, 215).

The key phrase here, of course, is "in a sense," for as a famous Princeton philosopher used to say when a student used that phrase, "Yes, yes, in a sense a cow and a pig are the same animal, but in what sense?" The answer must be in some bizarrely inefficient dystopic future sense—"future" because today few people writing with word processors participate very frequently in the lesser versions of such information networks that already exist, and "bizarrely inefficient" because one would have to assume that the billions and billions of words we would write would all have equal ability to clutter the major resource that such networks will be. Nonetheless, although Heim may much overstate the case for universal loss of privacy, particularly in relation to decentered networks, he has accurately presented both some implications of hypertext for writers and the reactions against them by the print author accustomed to the fiction of the autonomous text.

The third form of reconfiguration of self and author shared by theory and hypertext concerns the decentered self, an obvious corollary to the network paradigm. As Said points out, major contemporary theorists reject "the human subject as grounding center for human knowledge. Derrida, Foucault, and Deleuze . . . have spoken of contemporary knowledge (*savoir*) as decentered; Deleuze's formulation is that knowledge, insofar as it is intelligible, is apprehensible in terms of *nomadic centers*, provisional structures that are never permanent, always straying from one set of information to another" (376). These three contemporary thinkers advance a conceptualization of thought best understood, like their views of text, in an electronic, virtual, hypertextual environment.

Before mourning too readily for this vanished or much diminished self, we would do well to remind ourselves that, although Western thought long held such notions of the unitary self in a privileged position, texts from Homer to Freud have steadily argued the contrary position. Divine or demonic possession, inspiration, humors, moods, dreams, the unconscious—all these devices that serve to explain how human beings act better, worse, or just different from their usual behavior argue against the unitary conception of the self so central to moral, criminal, and copyright law. J. H. Hertz, the editor of the Soncino edition of the Hebrew Bible, reminds us that

Balaam's personality is an old enigma, which has baffled the skill of commentators. . . . He is represented in Scripture as at the same time heathen sorcerer, true Prophet, and the perverter who suggested a peculiarly abhorrent means of bringing about the ruin of Israel.

- HYPERTEXT** Because of these fundamental contradictions in character, Bible Critics assume that the Scriptural account of Balaam is a combination of two or three varying traditions belonging to different periods. . . . Such a view betrays a slight knowledge of the fearful complexity of the mind and soul of man. It is only in the realm of Fable that men and women display, as it were in a single flash of light, some one aspect of human nature. It is otherwise in real life. (668)

Given such long-observed multiplicities of the self, we are forced to realize that notions of the unitary author or self cannot authenticate the unity of a text. The instance of Balaam also reminds us that we have access to him only in Scriptures and that it is the biblical text, after all, which figures the unwilling prophet as a fractured self.

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#### How I Am Writing This Book

Let me tell you how I am writing—which is to say, composing or putting together—the book version of this text, after which I shall compare this form of composition to that practiced within a hypertext environment. During my undergraduate years, I used to take preliminary preparatory notes, make outlines, and begin rough drafts directly on a typewriter. The same procedures continued when I shifted to a word-processing program on the university's mainframe computer, which I used by means of a terminal first across campus in the English Department or in the Computer Center and then on one in my home that connected to the university by a telephone line. Increasingly, the virtuality and manipulability of computer text processing changed my work habits. My usual manner of proceeding now entails taking reading notes, usually in the form of selected passages to which I append preliminary commentary, directly on the computer. I have long taken a few such notes, particularly in preparation for complex projects, but the movement first to a mainframe computer and then to an Apple Macintosh (and later a Macintosh II, a Quadra 950, and other machines) made taking such notes both easier to carry out and potentially more valuable, since the ability to copy and paste electronic text encourages one to expend effort, knowing that it need not be duplicated by the later need to retype or recopy.

Two things about working with a word processor first attracted me to carrying out writing projects on a computer. First, there was the ease with which the writer can make changes and corrections, both the direct result of the virtuality of electronic text. Second, working with a word processor permits one to segment one's work, carrying out certain tasks, particularly less creative ones, as one's time, energy, and disposition permit. Thus, instead of



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having to complete one's writing before adding footnotes, or adding foot- or endnotes in the text of drafts before the last, one can take advantage of the automatic numbering (and renumbering) of notes to complete them ahead of time. Relying on this capacity of computing, I discovered early on that one could accomplish major projects in far less time than they took with typewriters and with fewer of the inevitable errors of retyping.

The present work (which is to this point not one "work" but still a fragmentary set of separate documents or computer files in Microsoft Word) is taking form as a series of fragments that are imported and, when necessary, rearranged under the headings of a continually changing outline. Most of the text thus far has been written in this manner, but those sections that discuss Vannevar Bush take advantage of the availability of digitized text. When I was about to start the section discussing the memex, I mentioned to Paul Kahn, who was working on a book on Bush, that I wanted to borrow from him several of Bush's books in order to make photocopies on which I could then mark passages and prepare them for entry into my word processor. Paul replied, "Why would you want to do that? I have digitized copies of four of his most important articles and placed them on Intermedia and can easily export them from it into MS Word." True to his word, he made copies of Bush's essays for me, which he placed on a disk, after which, using the large two-page graphics monitor on which I work, I opened both the developing draft of the introduction and Bush's "As We May Think" and placed them side by side. Having decided which passages I wished to quote, I first copied and then pasted them as needed into the appropriate place in the text I was "writing." In some cases, I wrote the introductory passages, concluding discussion, and transitions in the Bush document and then transferred these blocks to their new context; in others, I first copied the passages from Bush and only later worked them into my text.

This scenario began with my remarking upon the frustrations experienced by one who has written within a hypertext environment then returns to the linear world of the printed book. Such frustrations derive from repeated recognitions that effective argument requires closing off connections and abandoning lines of investigation that hypertextuality would have made available. Here are two examples of what I mean.

Earlier in this chapter, in the midst of discussing the importance of Lévi-Strauss to recent discussions of authorship, I made the following statement: "Lévi-Strauss's presentation of mythological thought as a complex system of transformations without a center turns it into a networked text—not surprising, since the network serves as one of the main paradigms of synchronous



**HYPertext** structure"; and to this text I appended a note, pointing out that in *The Scope of Anthropology* "Lévi-Strauss also employs this model for societies as a whole: 'Our society, a particular instance in a much vaster family of societies, depends, like all others, for its coherence and its very existence on a network—grown infinitely unstable and complicated among us—of ties between consanguineal families.'" At this point in the main text, I had originally planned to place Foucault's remark that "we can easily imagine a culture where discourse would circulate without any need for an author" ("What Is an Author," 138), and to this remark I had considered adding the observation that, yes, we can easily "imagine" such a culture, but we do not have to do so, since Lévi-Strauss's mythographic works have provided abundant examples of it. Although the diachronic relationship between these two influential thinkers seemed worthy of notice, I could not add the passage from Foucault and my comment, because it disturbed my planned line of argument, which next required Said's relation of ethnology and linguistics to the erosion of "the authority of the human subject in contemporary reflection," and I did not want to veer off in yet another direction. I then considered putting this observation into an endnote that fell at that point, but it also seemed out of place there.

Had I written this chapter within a hypertext environment, the need to maintain a linear thrust would not have required this kind of choice; it would have required choices, but not this kind. And I could have linked two or more passages to this point in the main text, thereby creating multiple contexts both for my argument and for the quoted passage that served as my point of departure. I am not urging, of course, that in its print form this chapter has lost something of major importance because I could not easily append multiple connections without confusing the reader. (Had my abandoned remark seemed important enough to my overall argument, I could have managed to include it in several obvious ways, such as adding another paragraph or rewriting the main text to provide a point from which to hang another note.) No, I make this point to remind us that, as Derrida emphasizes, the linear habits of thought associated with print technology often force us to think in particular ways that require narrowness, decontextualization, and intellectual attenuation, if not downright impoverishment. Linear argument, in other words, forces one to cut off a quoted passage from other, apparently irrelevant contexts that in fact contribute to its meaning. The linearity of print also provides the passage with an illusory center, whose force is intensified by such selection.

A second example points to another kind of exclusion associated with

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linear writing. During the course of composing these first three chapters, several passages, such as Barthes's description of the writerly text and Derrida's exposition of borders, boundaries, and *débordement*, forced themselves into the line of argument and hence deserved inclusion seven or eight times. One can repeatedly refer to a particular passage, of course, by combining full quotation, selections, and skillful paraphrase; but in general the writer can concentrate on a quoted section of text in this manner only when it serves as the center, or one of the centers, of the argument. If I wished to write a chapter or an entire book about Derridean *débordement*, I could return repeatedly to it in different contexts, thereby revealing its richness of implication; but that is not the book I wish to write now, that is not the argument I wish to pursue here, and so I suppress that text and argument, which henceforth exist only *in potentia*. After careful consideration, I decide which of the many places in the text would most benefit from introduction of the quotation; and then, at the appropriate moment, I trundle it forward. As a result, I necessarily close off all but a few of its obvious points of connection.

As an experienced writer accustomed to making such choices, I realize that selection is one of the principles of effective argument. But why does one have to write texts in this way? If I were writing a hypertext version of my text—and the versions would exist so differently that one has to place quotation marks around “version” and “text”—and probably “my” as well—I would not have to choose to write a single text. I could, instead, produce one that contained a plurality of ways through it. For example, after preparing the reader for Derrida's discussion of *débordement*, I could then link my preparatory remarks either to the passage itself or to the entire text of “Living On,” and I could provide temporary markings that would indicate the beginning and end of the passage I wished to emphasize. At the same time, my hypertext would link the same passage to other points in my argument. How would I go about creating such links?

To answer this question, let me return to my first and simpler example, which involved linking passages from Lévi-Strauss's *Scope of Anthropology* and Foucault's “What Is an Author” to a remark about the anthropologist's use of the network model. Linking in Microcosm, Storyspace, Intermedia, and other systems follows the now common cut-and-paste procedure found in word processors, graphics editors, and spread sheets (Figures 11 and 12). Using the mouse or moving the cursor, one highlights the passage one wishes to link. With the text highlighted, one selects “Intermedia” from the horizontal “menu” of words at the top of the screen (“File,” “Edit,” “Intermedia,” and so on), by placing the mouse-controlled pointer on it and clicking the

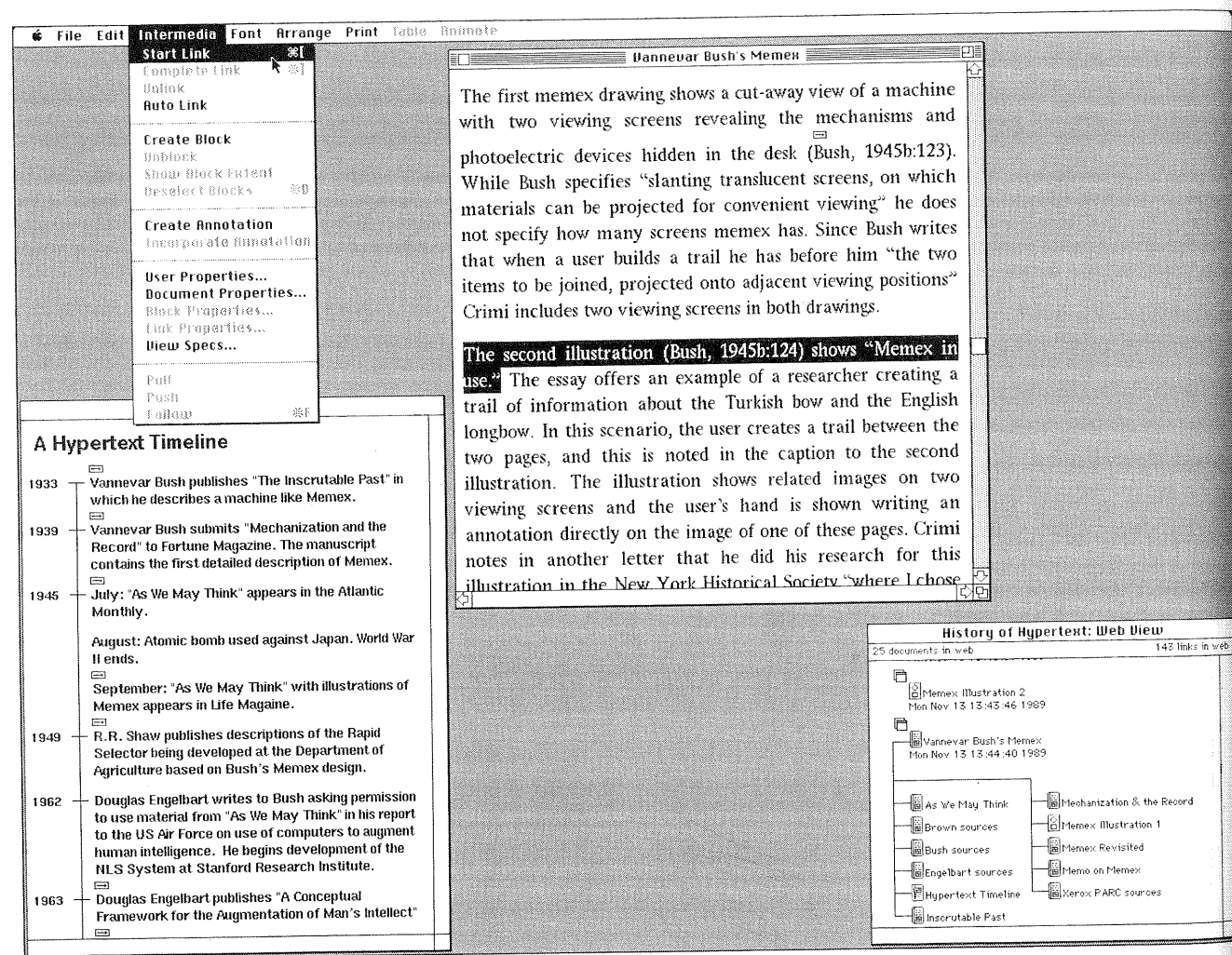


Figure 11. Beginning a Link in Intermedia. To create a new link, the user first selects a portion of the document as an anchor and chooses the "Start Link" command from the Intermedia menu. In this example, the reader-author has selected the sentence beginning "The second illustration." Link creation in Intermedia follows the standard cut-and-paste paradigm. Once the "Start Link" command is chosen, the selection which will become one anchor for the bidirectional link is saved in an invisible link board. One can perform any number of actions, including creating new documents or editing old ones, before completing the pending link. Using selections as anchors for links allows users to create fine-grained endpoints for their links. Anchors (or blocks) can range in size from an insertion point to the contents of an entire document. (Image copyright 1989 by Brown University. Used by permission.)

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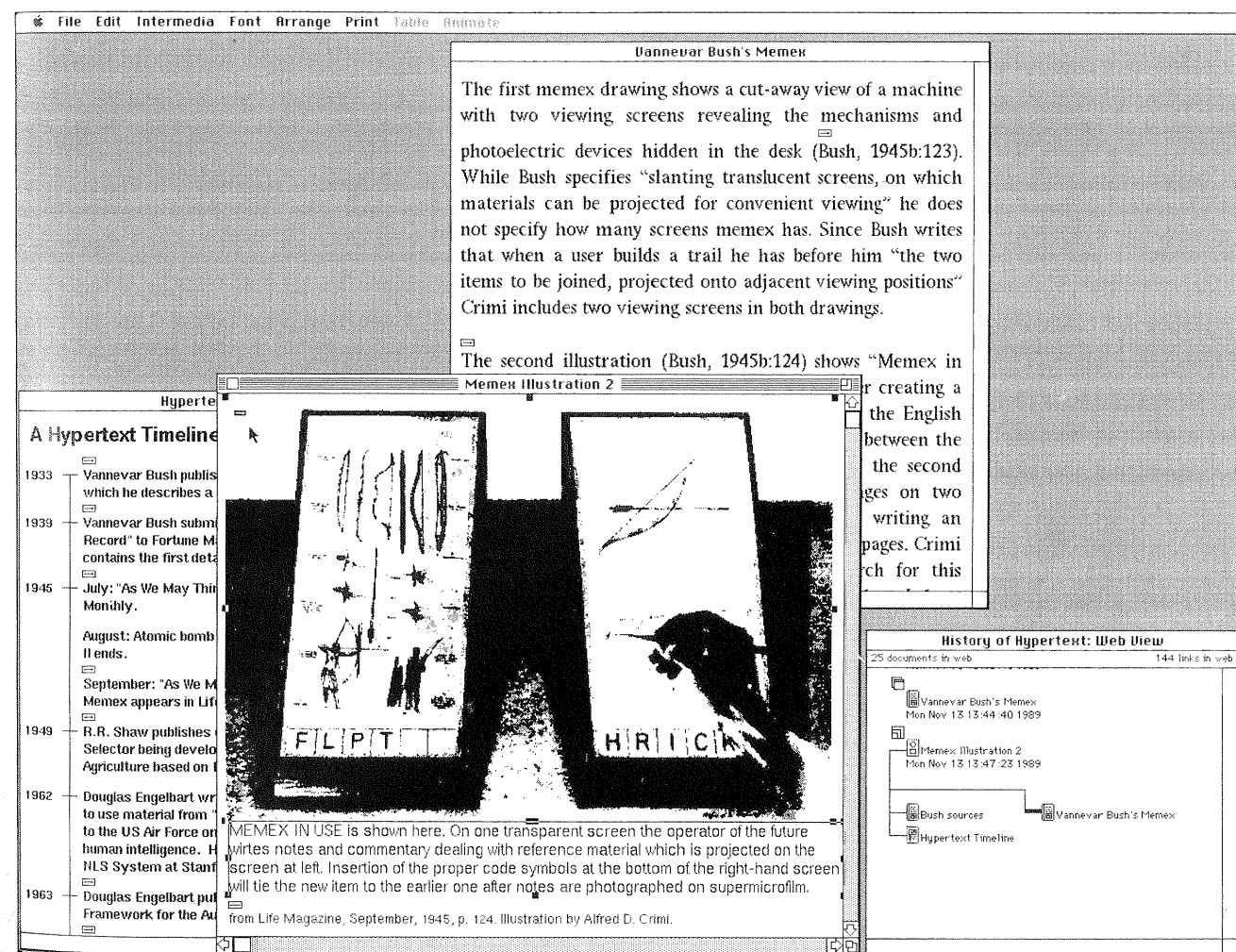


Figure 12. Completing a Link in Intermedia. Choosing the "Complete Link" command from the Intermedia menu places link icons at the source and destination of the link. The Web View reflects the new connection. (Image copyright 1989 Brown University. Used by permission.)

**HYPERTEXT** mouse button. Holding down the mouse button, one draws down the Inter-  
**2.0** media menu, which contains choices. Placing the pointer over "Start Link," one releases the mouse button.

Proceeding to the second text, one carries out the same operation but in the Intermedia menu chooses "Complete Link." The system then produces a panel containing places to type any desired labels for the linked passages; it automatically adds the title of the entire text, and the writer can describe the linked passage within that text. For example, if I created a link between the hypermedia equivalent of my text for the previous section of this chapter and a passage in *The Scope of Anthropology*, Intermedia and similar systems would automatically add the title of that text, "The Erosion of the Author," to which I would add a phrase, say, "Lévi-Strauss & myth as network." At the other end of the link, the system would furnish "Claude Lévi-Strauss, *The Scope of Anthropology*," and I would add something like "Lévi-Strauss & society as network." When a reader activates the link marker in the main text, the new entry appears as an option: "Claude Lévi-Strauss, *The Scope of Anthropology*: (Lévi-Strauss & society as network)."

To link a second text, in my case the passage from Foucault, one follows the identical procedure, with the single exception that one no longer has to provide a label for the lexia in the main text, since it already has one. If instead of linking these two brief passages of quotation, documentation, and commentary, I created a more complex document set, focused upon Derridean *débordement*, I would follow the same procedure to create links.

One can also create kinds of documents not found in printed text, some of which would be primarily visual or hieroglyphic. One, for example, might take the form of a concept map showing, among other things, uses of the term *débordement* in "Living On," other works by Derrida in which it appears, and its relation to a range of contexts and disciplines from cartography and histology to etymology and French military history. Current hypermedia systems, including popular WWW viewers, permit one to link to interactive video, music, and animation as well as dictionaries, text, time lines, and static graphics. In the future these links will take more dynamic forms, and following them will animate some procedure, say, a search through a French thesaurus or a reader-determined tracking of *débordement* through various Indo-European languages. Other forms of linking will permit automatic data gathering, so that lists of relevant publications or current statements about *débordement* created after I had completed my document would automatically become available.

My brief description of how I would go about producing this text were I

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writing it in something like a complete hypertext environment will probably strike most readers as simultaneously terrifying and bizarrely celebratory. One reason lies in the fact that a certain aspect of authorial control has vanished, or rather been ceded to the reader, another in that writing becomes different. Electronic hypertext and contemporary discussions of critical theory, particularly those of the poststructuralists, display many points of convergence, but one point on which they differ is tone. Whereas most writings on theory, with the notable exception of Derrida, are models of scholarly solemnity, records of disillusionment and brave sacrifice of humanistic positions, writers on hypertext are downright celebratory. Whereas terms like *death*, *vanish*, *loss*, and expressions of depletion and impoverishment color critical theory, the vocabulary of freedom, energy, and empowerment marks writings on hypertextuality. One reason for these different tones may lie in the different intellectual traditions, national and disciplinary, from which they spring. A more important reason, I propose, is that critical theorists, as I have tried to show, continually confront the limitation—indeed, the exhaustion—of the culture of print. They write from an awareness of limitation and shortcoming, and from a moody nostalgia, often before the fact, over the losses their disillusionment has brought and will bring. Writers on hypertext, in contrast, glory in possibility, excited by the future of textuality, knowledge, and writing. Another way of putting this opposing tone and mood is that most writers on critical theory, however brilliantly they may theorize a much-desired new textuality, nonetheless write from within daily experience of the old, and only the old. Many writers on hypertext, on the other hand, have already had some experience, however merely proleptic and partial, of hypertext systems, and they therefore write from a different experiential vantage point. Most poststructuralists write from within the twilight of a wished-for coming day; most writers of hypertext, even when addressing the same subjects, write from within the dawn.

Virtual Presence

Many features of hypermedia derive from its creating the virtual presence of all the authors who contribute to its materials. Computer scientists draw upon optics for an analogy when they speak of “virtual machines” created by an operating system that provides individual users sharing a system with the sense of working on their own individual machines. In the first chapter, when discussing electronic textuality, I pointed to another kind of “virtual” existence, the virtual text: all texts that one encounters on the computer screen are virtual, rather than



**HYPERTEXT** real. In a similar manner, the reader experiences the virtual presence of  
**2.0** other contributors.

Such virtual presence is of course a characteristic of all technology of cultural memory based on writing and symbol systems. Since we all manipulate cultural codes—particularly language but also mathematics and other symbols—in slightly different ways, each record of an utterance conveys a sense of the one who makes that utterance. Hypermedia differs from print technology, however, in several crucial ways that amplify this notion of virtual presence. Because the essential connectivity of hypermedia removes the physical isolation of individual texts characteristic of print technology, the presence of individual authors becomes both more available and more important. The characteristic flexibility of this reader-centered information technology means, quite simply, that writers have a much greater presence in the system, as potential contributors and collaborative participants but also as readers who chose their own paths through the materials.

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#### **Collaborative Writing,**

#### **Collaborative Authorship**

The virtual presence of other texts and other authors contributes importantly to the radical reconception of authorship, authorial property, and collaboration associated with hypertext. Within a hypertext environment all writing becomes col-

laborative writing, doubly so. The first element of collaboration appears when one compares the roles of writer and reader, since the active reader necessarily collaborates with the author in producing a text by the choices she makes. The second aspect of collaboration appears when one compares the writer with other writers—that is, the author who is writing now with the virtual presence of all writers “on the system” who wrote at another moment but whose writings are still present.

The word *collaboration*, which derives from the Latin for working plus that for *with* or *together*, conveys the suggestion, among others, of working side by side on the same endeavor. Most people’s conceptions of collaborative work take the form of two or more scientists, songwriters, or the like continually conferring as they pursue a project in the same place at the same time. I have worked on an essay with a fellow scholar in this manner. One of us would type a sentence, at which point the other would approve, qualify, or rewrite it, and then we would proceed to the next sentence. Far more common a form of collaboration, I suspect, is that second mode, described as “versioning,” in which one worker produces a draft that another person then edits by modifying and adding. The first and the second forms of collaborative authorship tend to blur, but the distinguishing factor here is that ver-



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sioning takes place out of the presence of the other collaborator and at a later time.

Both of these models require considerable ability to work productively with other people, and evidence suggests that many people either do not have such ability or do not enjoy putting it into practice. In fact, according to those who have carried out experiments in collaborative work, a third form proves more common than the first two—the assembly-line or segmentation model of working together, according to which individual workers divide the overall task and work entirely independently. This last mode is the form that most people engaged in collaborative work choose when they work on projects ranging from programming to art exhibitions.

Networked hypertext systems like WWW, Hyper-G, Sepia, and Intermedia offer a fourth model of collaborative work that combines aspects of the previous ones. By emphasizing the presence of other texts (the virtual presence of other writers) and their cooperative interaction, networked hypertext makes all additions to a system simultaneously a matter of versioning and of the assembly-line model. Once ensconced within a network of electronic links, a document no longer exists by itself. It always exists in relation to other documents in a way that a book or printed document never does and never can. From this crucial shift in the way texts exist in relation to others derive two principles that, in turn, produce this fourth form of collaboration: first, any document placed on any networked system that supports electronically linked materials potentially exists in collaboration with any and all other documents on that system; second, any document electronically linked to any other document collaborates with it.

According to the *American Heritage Dictionary of the English Language*, the verb *to collaborate* can mean either “to work together, especially in a joint intellectual effort” or “to cooperate treasonably, as with an enemy occupying one’s country.” The combination of labor, political power, and aggressiveness that appears in this dictionary definition well indicates some of the problems that arise when one discusses collaborative work. On the one hand, the notion of collaboration embraces notions of working together with others, of forming a community of action. This meaning recognizes, as it were, that we all exist within social groups, and it obviously places value on contributions to that group. On the other hand, collaboration also includes a deep suspicion of working with others, something aesthetically as well as emotionally engrained since the advent of Romanticism, which exalts the idea of individual effort to such a degree that it often fails to recognize, or even suppresses, the fact that artists and writers work collaboratively with texts created by others.

**HYPertext** Most of our intellectual endeavors involve collaboration, but we do not  
2.0 always recognize the fact for two reasons. The rules of our intellectual culture, particularly those that define intellectual property and authorship, do not encourage such recognitions; and furthermore, information technology from Gutenberg to the present—the technology of the book—systematically has hindered full recognition of collaborative authorship.

Throughout this century the physical and biological sciences have increasingly conceived of scientific research, authorship, and publication as group endeavors. The conditions of scientific research, according to which many research projects require the cooperating services of a number of specialists in the same or (often) different fields, bear some resemblances to the medieval guild system in which apprentices, journeymen, and masters all worked on a single complex project. Nonetheless, “collaborations differ depending on whether the substance of the research involves a theoretical science, such as mathematics, or an empirical science, such as biology or psychology. The former are characterized by collaborations among equals, with little division of labor, whereas the latter are characterized by more explicit exchange of services, and more substantial division of labor” (Galegher, Egido, and Kraut, *Intellectual Teamwork*, 151). The financing of scientific research, which supports the individual project, the institution at which it is carried out, and the costs of educating new members of the discipline all nurture such group endeavors and consequent conceptions of group authorship.<sup>4</sup>

In general, the scientific disciplines rely upon an inclusive conception of authorship: anyone who has made a major contribution to finding particular results, occasionally including specialized technicians and those who develop techniques necessary to carry out a course of research, can appear as authors of scientific papers, and similarly, those in whose laboratories a project is carried out may receive authorial credit if an individual project and the publication of its results depend intimately upon their general research. In the course of a graduate student’s research for his dissertation, he or she may receive continual advice and evaluation. When the student’s project bears fruit and appears in the form of one or more publications, the advisor’s name often appears as co-author.

Not so in the humanities, where graduate student research is supported largely by teaching assistantships and not, as in the sciences, by research funding. Although an advisor of a student in English or art history often acts in ways closely paralleling the advisor of the student in physics, chemistry, or biology, explicit acknowledgments of cooperative work rarely appear.

**RECONFIGURING THE AUTHOR** Even when a senior scholar provides the student with a fairly precise research project, continual guidance, and access to crucial materials that the senior scholar has discovered or assembled, the student does not include the advisor as co-author.

The marked differences between conceptions of authorship in the sciences and the humanities demonstrate the validity of Michel Foucault's observation that "the 'author-function' is tied to the legal and institutional systems that circumscribe, determine, and articulate the realm of discourses; it does not operate in a uniform manner in all discourses, at all times, and in any given culture it is not defined by the spontaneous attribution of a text to its creator, but through a series of precise and complex procedures; it does not refer, purely and simply, to an actual individual" ("What Is an Author," 131). One reason for the different conceptions of authorship and authorial property in the humanities and the sciences lies in the different conditions of funding and the different discipline-politics that result.

Another corollary reason is that the humanistic disciplines, which traditionally apply historical approaches to the areas they study, consider their own assumptions about authorship, authorial ownership, creativity, and originality to be eternal verities.<sup>5</sup> In particular, literary studies and literary institutions, such as departments of English, which still bathe themselves in the afterglow of Romanticism, uncritically inflate Romantic notions of creativity and originality to the point of absurdity. An example comes readily to hand from the preface of Lisa Ede and Andrea Lunsford's recent study of collaborative writing, the production of which they discovered to have involved "acts of subversion and of liberatory significance": "We began collaborating in spite of concerned warnings of friends and colleagues, including those of Edward P. J. Corbett, the person in whose honor we first wrote collaboratively. We knew that our collaboration represented a challenge to traditional research conventions in the humanities. Andrea's colleagues (at the University of British Columbia) said so when they declined to consider any of her coauthored or coedited works as part of a review for promotion" (ix-x).

Ede and Lunsford, whose interest in their subject grew out of the "difference between our personal experience as coauthors and the responses of many of our friends and colleagues" (5), set the issue of collaborative writing within the contexts of actual practice in the worlds of business and academia, the history of theories of creative individualism and copyright in recent Western culture, and contemporary and feminist analyses of many of these other contexts. They produce a wide range of evidence and convincingly argue that "the pervasive commonsense assumption that writing is inherently and

**HYPertext** necessarily a solitary, individual act" supports a traditional patriarchal construction of authorship and authority (5). After arguing against "univocal psychological theories of the self" and associated notions of an isolated individualism, Ede and Lunsford call for a more Bakhtinian reconception of the self and for what they term a dialogic, rather than a hierarchical, mode of collaboration (132).

I shall return to their ideas when I discuss the role of hypertext in collaborative learning, but now I wish to point out that, as scholars from McLuhan and Eisenstein to Ede and Lunsford have long argued, book technology and the attitudes it supports are the institutions most responsible for maintaining exaggerated notions of authorial individuality, uniqueness, and ownership that often drastically falsify the conception of original contributions in the humanities and convey distorted pictures of research. The sciences take a relatively expansive, inclusive view of authorship and consequently of text ownership.<sup>6</sup> The humanities take a far more restricted view that emphasizes individuality, separation, and uniqueness—often creating a vastly distorted view of the connection of a particular text to those that preceded it. Neither view possesses an obvious rightness. Each is obviously a social construction, and each has on occasion proved to distort actual conditions of intellectual work carried out in a particular field.

Whatever the political, economic, and other discipline-specific factors that maintain the conception of noncooperative authorship in the humanities, print technology has also contributed to the sense of a separate, unique text that is the product—and hence the property—of one person, the author. Hypertext changes all this, in large part because it does away with the isolation of the individual text that characterizes the book. As McLuhan and other students of the cultural influence of print technology have pointed out, modern conceptions of intellectual property derive both from the organization and financing of book production and from the uniformity and fixity of text that characterizes the printed book. J. David Bolter explains that book technology itself created new conceptions of authorship and publication:

Because printing a book is a costly and laborious task, few readers have the opportunity to become published authors. An author is a person whose words are faithfully copied and sent round the literary world, whereas readers are merely the audience for those words. The distinction meant less in the age of manuscripts, when "publication" was less of an event and when the reader's own notes and glosses had the same status as the text itself. Any reader could decide to cross over and become an author: one simply sat down and wrote a treatise or put one's notes in a form for others to read. Once the treatise was written, there

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was no difference between it and the works of other "published" writers, except that the more famous works existed in more copies. (*Writing Space*, 148–49)

Printing a book requires a considerable expenditure of capital and labor, and the need to protect that investment contributes to notions of intellectual property. But these notions would not be possible in the first place without the physically separate, fixed text of the printed book. Just as the need to finance printing of books led to a search for the large audiences that in turn stimulated the ultimate triumph of the vernacular and fixed spelling, so, too, the fixed nature of the individual text made possible the idea that each author produces something unique and identifiable as property.

The needs of the marketplace, at least as they are perceived by editors and publishing houses, reinforce all the worst effects of these conceptions of authorship in both academic and popular books. Alleen Pace Nilsen reports that Jessica Mitford and her husband wrote the best-selling *American Way of Death* together, but only her name appears as author, because the publisher urged that multiple authors would cut sales. In another case, to make a book more marketable a publisher replaced the chief editor of a major psychiatric textbook with the name of a prestigious contributor who had not edited the volume at all (cited by Ede and Lunsford, 3–4). I am sure all authors have examples of such distortion of authorial identity for the sake of what a publisher believes to be good business. I have mine: a number of years ago after an exercise in collaborative work and writing with three graduate students produced a publishable manuscript, we decided by mutual agreement upon the ordering of our names on the title page. By the time the volume appeared, the three former graduate students all held teaching positions; and the book's appearance, one expects, might have helped them professionally. Unfortunately, the publisher insisted upon including only the first editor's name in all notices, advertisements, and catalogues. Such an action, of course, does not have so serious an effect as removing the editors' names from the title page, but it certainly discriminates unfairly between the first two editors, who did equal amounts of work, and it certainly conveys a strong message to beginning humanists about the culturally assigned value of cooperation and collaboration.

Even though print technology is not entirely or even largely responsible for current attitudes in the humanities toward authorship and collaboration, a shift to hypertext systems would change them, by emphasizing elements of collaboration. As Tora K. Bikson and J. D. Eveland point out in relation to nonhumanities work, "the electronic environment is a rich context in which

**HYPertext** 2.0 doing work and sharing work becomes virtually indistinguishable" (286). If we can make ourselves aware of the new possibilities created by these changes, we can at the very least take advantage of the characteristic qualities of this new form of information technology.

One relevant characteristic quality of networked hypertext systems is that they produce a sense of authorship, authorial property, and creativity that differs markedly from that associated with book technology. Hypertext changes our sense of authorship and creativity (or originality) by moving away from the constrictions of page-bound technology. In so doing, it promises to have an effect on cultural and intellectual disciplines as important as those produced by the earlier shifts in the technology of cultural memory that followed the invention of writing and printing (see works by Bolter, McLuhan, and Eisenstein).

*Examples of Collaboration in Hypertext.* Collaborative work in hypertext takes many forms, one of the most interesting of which illustrates the principle that one almost inevitably works collaboratively whenever creating documents on a multiauthor hypertext system. Let me cite an example from the old Intermedia days: While linking materials to the overview (or directory) file for Graham Swift's *Waterland* (1983), I observed Nicole Yankelovich, project coordinator of the Intermedia project at the Institute for Research in Information and Scholarship (IRIS), working on materials for a course in arms control and disarmament offered by Richard Smoke of Brown University's Center for Foreign Policy Development. Those materials, which were created by someone from a discipline very different from mine for a very different kind of course, filled a major gap in a project I was working on. Although my co-authors and I had created materials about technology, including graphic and text documents on canals and railroads, to attach to the science and technology section of the *Waterland* overview, we did not have the expertise to create parallel documents about nuclear technology and the antinuclear movement, two subjects that play a significant part in Swift's novel. Creating a brief introduction to the subject of *Waterland* and nuclear disarmament, I linked it first to the science and technology section in the *Waterland* overview and then to the time line that the nuclear arms course materials employ as a directory file. A brief document and a few links enable students in the introductory survey of English literature to explore the materials created for a course in another discipline. Similarly, students from that course can now encounter materials showing the effects on contemporary fiction of the concerns covered in their political science course. Hypertext thus allows and

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encourages collaborative work, and at the same time it encourages interdisciplinary approaches, by making materials created by specialists in different disciplines work together—collaborate.

The important point here is that hypermedia linking automatically produces collaboration. Looking at the way the arms control materials were joined to those supporting the four English courses, one encounters a typical example of how the connectivity that characterizes hypertext transforms independently produced documents into collaborative ones and authors working alone into collaborative authors. When one considers the arms control materials from the point of view of their originator, they exist as part of a discrete body of materials. When one considers them from the vantage point of a reader, their status changes: as soon as they appear within a hypertext environment, these and all other documents then exist as part of a larger system and in relation therefore to other materials on that system. By forming electronic pathways between blocks of texts, Intermedia links actualize the potential relations between them.

*The Dickens Web*, a sample Intermedia document set published by IRIS in 1990, exemplifies the kinds of collaborative authorship characteristic of hypertext. The web, which contains 245 documents and almost 680 links, takes the form of “a collection of materials about Charles Dickens, his novel *Great Expectations*, and many related subjects, such as Victorian history, public health issues, and religion” (5). Creating *The Dickens Web* involved dozens of “authors” and almost that many kinds of collaboration.

I created sixty-four text documents, three time lines, the original versions of ten graphic concept maps (more on this subject later), and provided captions, some elaborate enough to be brief essays, for thirty-odd reproductions of art works, mostly Victorian woodblock illustrations, and a few maps. David Cody, the most prolific of the four graduate and postdoctoral assistants on the part of the Intermedia project funded by the Annenberg/CPB Project, produced forty-four text documents, one or two time lines, and a number of concept maps; he also selected and digitized many of the illustrations, all of which were later redigitized by Paul D. Kahn, the IRIS project coordinator, and Julie Launhardt, assistant project coordinator, both of whom also copy-edited the verbal and graphic content of all the documents.

Working with his permission, I produced thirty documents from published and unpublished works by Anthony S. Wohl, professor of history, Vassar College, on the subjects of Victorian public health and race and class in Victorian Britain. Since my work here consisted of little more than dividing Wohl’s text into appropriate lexias, and since he then gave final approval to



**HYPERTEXT** the resultant hypertext translations of his writing, the documents bear his name alone. Twenty documents created by undergraduates at Brown University were included after obtaining their written permission, and approximately the same number of documents take the form of brief one- or two-paragraph quotations by critics of Dickens; these quotations, which are often preceded by introductory remarks and followed by questions, act as hypertext versions of standard scholarly quotation and are quoted without specific permission under the fair use doctrine. Kathryn B. Stockton, the sole graduate assistant during the third year of the project, created an additional fifteen text and graphic documents, to some of which materials have since been added another dozen or so lexias by additional graduate and undergraduate research assistants or students working on independent projects.

Five faculty members from several universities provided additional materials: Linda H. Peterson, associate professor of English, Yale University, contributed bibliographies on Victorian religion, art, and literature; and Joan D. Richardson, associate professor of history, Brown University, provided a bibliography for Victorian science. Peter Heywood, associate professor of biology, one of two original Intermedia teachers, allowed us to incorporate essays on Darwinism he had created for an upper-division course in plant cell biology; Walter L. Arnstein, professor of history, University of Illinois, contributed a bibliography of materials on religion in Victorian Britain; and Michel-André Bossy, professor of French and comparative literature, Brown University, kindly permitted the inclusion of his brief discussion of detective fiction.

Bossy's contribution exemplifies how complex decisions about authorship can be in a hypertext environment. Bossy's document, which he had developed as a handout for one of his courses in comparative literature, became part of the Intermedia materials after Barry J. Fishman, a student in that course, perceived the essay's connection to Dickens and to other authors he had read a year earlier in my course. Receiving permission from Professor Bossy, he placed it on the Intermedia system and made links, so students in other courses could benefit from it. Now the question arises, Who is "author" of this valuable summary? Bossy, obviously, because he summed up other experts "in his own words." But what about those critics on whom he drew? In print they would not appear worthy of inclusion as authors, but in hypertext the situation might change. Then, what about Fishman, who initially perceived the possible connection, gained permission from both Bossy and myself to include it, and then made the necessary links? To my mind, he obviously deserves to share some part of the hypertext document's authorship, as perhaps should those people who created the lexias to which it links.

## RECONFIGURING

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An even more complex problem of authorship arises in relation to the many graphic overviews in *The Dickens Web*. After Nicole Yankelovich handed me a copy of Joseph D. Novak and D. Bob Gowin's *Learning How to Learn*, which urges the use of concept mapping in support of its constructionist view of knowledge, I drew crude initial versions of graphic directories in which various phenomena, such as religion and philosophy, biography, and cultural context, surrounded an entity (say, Robert Browning, "My Last Duchess," or Victorianism) and were connected to it by lines radiating from it. Since my then-twelve-year-old son had far more facility with the graphics program MacDraw than I did, he ended up creating computer versions of my concept map, which I then took to the development team at IRIS (where for a while it became known, only partly in jest, as "the Noah Landow paradigm"). Helen deAndrade, the IRIS graphic designer, then produced elegant versions of these concept maps on the IBM equipment that first supported our hypermedia environment. Using her work as a template, David Cody modified it in creating the Dickens overview; and more than a year later, I created an additional one, for *Great Expectations*, and added many more, including those for religion in England, public health, and Victorianism. When IRIS transferred ("ported") the Intermedia system to Apple Macintosh IIs, Shoshana M. Landow, an undergraduate summer research assistant, recreated all the overviews, making them smaller, clearer, and more efficient. Then, after IRIS decided to publish a small selection of these materials supporting humanities teaching in the form of *The Dickens Web*, Ronnie Peters of the Rhode Island School of Design undertook a major reconception of the graphic presentation of all materials included. He provided design principles, a graphics style sheet, and specific examples, but most of the overviews were actually designed by Paul D. Kahn. Who, then, is the "author" of the Dickens, *Great Expectations*, and "Religion in England" overviews? Going over my preceding narrative of origins, I count at least ten individuals who partook of authorship in one important way or another—and I have not even mentioned those who linked these overviews to hundreds of other lexias. Some of those people who created links appear in the account above, but there was a host of others, the most important of whom were Suzanne Keene, now an assistant professor at Washington and Lee, and David Cody, associate professor, Hartwick College, who created the first extensive linking on Intermedia.

In the published version, IRIS chose to append sets of initials to these overviews. The *Great Expectations* and "Religion in England" overviews, for example, list "GPL, RP" to indicate authorship, and the preceding account should indicate how misleading is such a limited attribution. "Dickens Liter-

**HYPERTEXT** 2.0 ary Relations," which Kahn entirely reconceived following a design of his own, bears the initials "DC, SML, PDK," thus indicating its line of descent more than its direct parentage; and the graphic directory for "Victorian Bibliography," which replaces my standard, rather crude radiating design with a beautiful illustration of an ornate Victorian book, lists only "GPL," despite the fact that the conception was Kahn's. The rationale seems to be that the person who first thought of the need for a particular document and mapped out its intellectual contents, in this case merely eight subject headings, receives credit. More important, part of the credit here arises in the generosity of colleagues, and part then in turn derives as a kind of reward for earlier, preparatory work.

As this account should make clear, "authorship" of individual texts in a hypermedia environment becomes even more problematic than in the world of print. The concept of "authorship" moves beyond quotation marks when one attempts to account for *The Dickens Web* as a whole: the title page of the user's manual fittingly reads only "IRIS Intermedia / The Dickens Web / User's and Installation Guide." The reverse, which makes required copyright announcements and prohibitions against unauthorized copying, credits the Henry W. and Albert A. Berg Collection of the New York Public Library for permission to publish Frederic W. Pailthorpe's illustrations for *Great Expectations*. The copyright page lists no authors. Instead, it states the following: "Developed by George P. Landow / Edited by Julie Launhardt and Paul Kahn / Graphic design by Ronnie Peters." This solution, which Launhardt and Kahn arrived at after consulting with others at IRIS, contains an important truth about writing within a hypertext environment: hypertext has no authors in the conventional sense. Just as hypertext as an educational medium transforms the teacher from a leader into a kind of coach or companion, hypertext as a writing medium metamorphoses the author into an editor or developer. Hypermedia, like cinema and video or opera, is a team production.

## Reconfiguring the Author

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### Erosion of the Self

Like contemporary critical theory, hypertext reconfigures—rewrites—the author in several obvious ways. First of all, the figure of the hypertext author approaches, even if it does not entirely merge with, that of the reader; the functions of reader and writer become more deeply entwined with each other than ever before. This transformation and near merging of roles is but the latest stage in the convergence of what had once been two very different activities. Although today we assume that anyone who reads can also write, such was long not the case, and historians of reading point out that for millennia many people capable of reading could not even sign their own names. Today when we consider reading and writing, we probably think of them as serial processes or as procedures carried out intermittently by the same person: first one reads, then one writes, and then one reads some more. Hypertext, which creates an active, even intrusive reader, carries this convergence of activities one step closer to completion; but in so doing, it infringes upon the power of the writer, removing some of it and granting that portion to the reader.

One clear sign of such transference of authorial power appears in the reader's abilities to choose his or her way through the metatext, to annotate text written by others, and to create links between documents written by others. Hypertext does not permit the active reader to change the text produced by another person, but it does narrow the phenomenological distance that separates individual documents from one another in the worlds of print and manuscript. In reducing the autonomy of the text, hypertext reduces the autonomy of the author. In the words of Michael Heim, "as the authoritative-ness of text diminishes, so too does the recognition of the private self of

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the creative author" (*Electric Language*, 221). Granted, much of that so-called autonomy had been illusory and had existed as little more than the readers' difficulty in perceiving connections between documents. Nonetheless, hypertext—which I am here taking as the convergence of poststructuralist conceptions of textuality and electronic embodiments of it—does do away with certain aspects of the authoritativeness and autonomy of the text, and in so doing it does reconceive the figure and function of authorship.

William R. Paulson, who examines literature from the vantage point of information theory, arrives at much the same position when he argues that "to characterize texts as artificially and imperfectly autonomous is not to eliminate the role of the author but to deny the reader's or critic's submission to any instance of authority. This perspective leaves room neither for authorial mastery of a communicative object nor for the authority of a textual coherence so complete that the reader's (infinite) task would be merely to receive its rich and multilayered meaning." Beginning from the position of information theory, Paulson finds that in "literary communication," as in all communication, "there is an irreducible element of noise," and therefore "the reader's task does not end with reception, for reception is inherently flawed. What literature solicits of the reader is not simply receptive but the active, independent, autonomous construction of meaning" (139). Finding no reason to exile the author from the text, Paulson nonetheless ends up by assigning to the reader power that, in earlier views, had been the prerogative of the writer.

Hypertext and contemporary theory reconceive the author in a second way. As we shall observe when we examine the notion of collaborative writing, both agree in configuring the author of the text as a text. As Barthes explains in his famous exposition of the idea, "this 'I' which approaches the text is already itself a plurality of other texts, of codes which are infinite" (*S/Z*, 10). Barthes's point, which should seem both familiar and unexceptional to anyone who has encountered Joyce's weaving of Gerty McDowell out of the texts of her class and culture, appears much clearer and more obvious from the vantage point of intertextuality. In this case, as in others at which we have already looked, contemporary theory proposes and hypertext disposes; or, to be less theologically aphoristic, hypertext embodies many of the ideas and attitudes proposed by Barthes, Derrida, Foucault, and others.

One of the most important of these ideas involves treating the self of author and reader not simply as (print) text but as a hypertext. For all these authors, the self takes the form of a decentered (or centerless) network of codes that, on another level, also serves as a node within another centerless network. Jean-François Lyotard, for example, rejects nineteenth-century Ro-