The Space(s) of Hypertext Fiction

Rita Wilson

> 'Isn't this an "interface" here? a meeting surface for two worlds ... sure, but *which two*?' (Pynchon 1973:668).

The cultural experiences of globalisation and advanced media communications have strongly challenged the notion of intertextuality in literature. Interest is focussed less on the interaction of texts, and more on a media-shaped heterogeneity of literary/cultural practices. The concept of hypermedia has contributed to reflections on intercultural notions of language and to the shift in hermeneutic interests toward hybrid narrations that do not fit into conventional genre and media categories. How, then, does literary culture perform its age-old ritual of narrative in an era when fragmentary and discrete units of information—the mass-media soundbite, television's corporate icons, or hypertext links on the World Wide Web—have become the dominant means by which we communicate? Contemporary novelists have responded in different ways to the challenge of living and writing in the latter half of the twentieth century, a historical moment in which the paper and ink with which they have traditionally worked have begun dissolving into the electronic hyperspaces of the post-print era. This paper considers the relationship between writing, literature and technology, provides a brief survey of the on-going theoretical debate over the question of electronic writing and some examples of contemporary writers who promote the interactive dimension, the 'layering' or 'branching' possibilities of hypertext. Clark et al. (in progress) argue that

> any technological artifact ... can be seen as both a tool—something functional or working in the world—and as a realm—a reconceptualised world view with the theory/ technology foregrounded.

Hypertext[1] provides us with an immediate example of both tool and realm. Hypertextual programs can be seen as tools for composition, while hypertext is its own realm of writing, requiring unique ways of thinking and composing.

1. Writing, Literature and Technology

Marshall McLuhan first called attention to the transforming powers of media in *Understanding Media* (1964), in which he claims that we cannot learn anything of importance about a medium by looking only at its content. To avoid what McLuhan calls 'the numb stance of the technological idiot'[2], we must refocus our attention on the ways in which the technological characteristics of the medium itself reshape our lives not just by giving us new tools with which to play, but by reshaping our consciousness on a fundamental and subliminal level. Baudrillard (1983:98-102), views technology, and the various forms it assumes, as 'structuring the world directly'. In the sphere of culture this implies a theory that privileges the particularities of a technological form and how it induces certain relations, experiences and effects, over, say, looking at the content of meanings contained in its various mediations.

Baudrillard (1983:119f) says that before the screen

> no contemplation is possible. The role of the message is no longer information, but testing and polling, and finally control .... Montage and codification demand, in effect that the receivers construe and decode by observing the same procedure whereby the work was assembled. The reading of the message is then only a perpetual examination of the code.

[1] In the 1960s, Theodor H. Nelson proposed a system of 'non-sequential writing' for which he coined the term *hypertext*: 'By "hypertext" I mean non-sequential writing—text that branches and allows choices to the reader, best at an interactive screen. As popularly conceived, this is a series of text chunks connected by links which offer the reader different pathways' (Nelson 1987:12).

[2] 'Our conventional response to all media, namely that it is how they are used that counts, is the numb stance of the technological idiot. For the "content" of a medium is like the juicy piece of meat carried by the burglar to distract the watchdog of the mind' (McLuhan 1964:18).

Thus, the technology itself imposes a model of response, and even though further 'sub-codes' such as montage and its associated codes and conventions appear to liberate 'response mechanisms', they do so, 'only according to stereotypes and analytical models' (Baudrillard 1983:120). Referring to McLuhan's famous dictum that 'the medium is the message', Baudrillard (1983:123) concludes:

> it is in effect the medium—the very style of montage, of decoupage, of interpolation, solicitation, summation, by the medium—which controls the process of meaning.

In *Orality and Literacy* (1982), Walter Ong also builds on McLuhan's general philosophy, plus anthropological research on the development of oral societies, in order to explain the dramatic changes in society that came about with the advent of literacy. He argues that the shift from oral to literate culture in about the fifth century BC did more than change patterns of art, politics and commerce. It enabled a profound shift in human consciousness, bringing about the linear, abstract forms of Western logic that we take for granted today but which were simply unthinkable without literacy as a means of preserving complicated original thought. Ong observes that to live and understand fully, we need not only proximity but also distance. It seems that the information age we now live in represents and reinforces this human need to be simultaneously connected and disconnected, i.e., our need to be both proximate and distanced. We experience this optimal state every time we log on to the World Wide Web: friends, colleagues, merchants, and infinite resources and information are all just a click away; we can send, receive, and connect from a safe and comfortable distance. The 'technologized word', then, as Ong puts it, both in its form and its function, fulfils this need by giving us unlimited access to both the external and our own internal resources of knowledge[3].

[3] 'A deeper understanding of pristine or primary orality enables us better to understand the new world of writing, what it truly is, and what functionally literate human beings really are: beings whose thought processes do not grow out of simply natural powers but out of these powers as structured, directly or indirectly, by the technology of writing. Without writing, the literate mind would not and could not think as it does, not only when engaged in writing but normally even when it is composing its thoughts in oral form. More than any other single invention, writing has transformed human consciousness' (Ong 1988:80).

Writing, as the term is used in contemporary literary theory, is the mode of literary creation that comes of age in the wake of 'The End of the Book' and 'The Death of the Author'. In *Of Grammatology*, Derrida demonstrates that, from Plato (who, of course, prohibited poets from his ideal Republic) to Rousseau and Saussure, the western philosophical tradition has systematically excluded and suppressed the concept of writing as a free play of signification. In our logocentric world, speech is privileged over writing for its sense of proximity to the source of utterance; when I speak, the seal between my words and the meaning I intend by them remains intact, secured by my physical presence. Writing, by contrast, seems to drive a wedge between the speaker and his or her utterance. Cut off from the consciousness that would guarantee their meaning, words begin to move, to take on unintended connotations, to be received in unexpected ways. Signifiers are no longer fixed to their signifieds, but begin to point beyond themselves to other signifiers:

> The meaning of meaning ... is infinite implication, the indefinite referral of signifier to signifier ... its force is a certain pure and infinite equivocality which gives signified meaning no respite, no rest, but engages in its own economy so that it always signifies again and differs (Derrida 1978:25).

In its potentially radical transformation of the literary mode, hypertext has obvious alliances with Derrida's conception of writing. Moving from node to node in an undetermined path, meaning in a hypertext accrues not in the word, but between words; a text's meaning lies less in what the author intended than in the ways it is read and, in being read, is re-written. Hypertext, in its electronic form, takes on the mutability and mobility with which Derrida characterizes writing; disseminated through phonelines and electronic bulletin boards, the electronic word has no author, has no point of origin, has no meaning except that of its transmission, of its devotion to the possibilities of dissemination itself.

Ezio Manzini (1987: i-vii,ix,xv), in one of the first Italian articles on the decline of linearity and the new structure of messages argued that computers, by offering a multi-faceted quantity of data, not only change the spatio-temporal dimension of perception, they also change thought organization, resulting in a computer writable thought. We are getting to the core of the issue: the nature of the problem of writing and the computer, apart

from its phenomenology, is an epistemological one. When using a computer all the writer's knowledge (language, style, and perception) comes into play.

2. The Electronic Text

The claim that hypertext is more 'constructed' and 'intertextual' than the print text may seem too obvious to need expansion. But reader response and post-modernist reading theories challenge this assumption. Readers don't always read linearly from the beginning of the book to the end. They skip back and forth, reread passages, and walk over to the bookshelf for another book before they have finished the one in hand. Even if they don't literally skip, the representation of text they create in their mind is always constructed from an amalgam of the words of the text and their own experiences, purposes and meanings.

If all text is constructed in ways that the writer cannot predict, what makes hypertext so special?

I would argue, with George Landow (1992), that the difference is a difference of such a great deal of degree that it becomes more like a difference in kind. Hypertext pushes text past what McLuhan calls a 'break boundary', the point at which a medium becomes speeded up to the point at which it becomes something utterly different. Print text at least gives the author the opportunity to suggest a default path through the text. The author can also assume, or write as if s/he assumes, that the average reader will read the entire text. The author of hypertext can make no such assumption. The reader can find no default path, no suggested order of text blocks from one page to the next, and can never be sure that s/he has found every node. At minimum, hypertext automates and simplifies the reader's task in moving through a complex, non-linear document. More importantly, hypertext offers not simply to streamline our access to writing, but to transform the way we produce and organize bodies of text. Since all elements in a hypertext system are subject to connection, it becomes harder to separate one discourse from another. In printed works, notes and bibliography give writings outside the current text a presence on the page, but the presence is metaphoric. Hypertext abolishes this metaphor: the other writings actually become present when the reader activates a link. Linking becomes not just possible, but easy, natural, inevitable. This is what pushes hypertext over the break boundary.

Hypertext thus offers to revise our notions of definitive discourse. It seems to move us in the direction of Roland Barthes' (1979:81) 'writerly' text

which he defined as

> that social space that leaves no language safe or untouched, that allows no enunciative subject to hold the position of judge, teacher, analyst, confessor, or decoder.

Hypertext assumes a system where diverse and even antithetical statements coexist within a single structure, each capable of emerging in the act of reading. The system thus presents the ideal figure for its own future—for the notion of hypertext is itself a site of convergence for opposing ideas about text, authority, and the social function of writing. Barthes' critique of the 'readerly' text produced a distinction that has great value for anyone trying to understand the difference between electronic hypertext and the textuality of the printed page. This is the opposition of 'the work', the object of traditional literary study, to 'the Text', the new field of discourse which Barthes sought to open. 'The work' is a defined body of writing, a bound volume marked with an author's name, sanctioned and validated by tradition. Against this idea of 'classic' literature Barthes set 'the Text', a web of language that links the 'work' to other discourses, including works of other writers and critics, reader responses, and even non-literary documents. 'The Text', Barthes (1979:78) wrote, 'is read without the father's signature. The metaphor that describes the Text is also distinct from describing the work .... The Text's metaphor is that of the *network*'.

2.1 Hypertext Fiction

The theory of transformative technology (Michael Heim's term) suggests that modernism arose with a print culture that could freeze knowledge in apparently stable archival forms separated from the flux of human existence. Postmodernism arose with the onset of an electronic culture which gives the audience (according to McLuhan) a much more personal, intense, involving relationship with media that can no longer be kept at a safe distance, or, to put it slightly differently:

> The facticity of print tends to transform writer into 'author', whereas the interactivity and malleability of electronic text tends to empower the reader (Ong 1988:132).

A combination of postmodernism, literary theory and transformative technology is to be found in the work of Jay David Bolter and George Landow, among others. These theorists, as do most proponents of hypertext, see it as a practical realization of the theory of intertextuality. Through hypertext, Landow (1990:150) claims, 'one gains an opening up, a freedom to create and perceive interconnections'. In this process, he notes elsewhere, 'links within and without a text ... become equivalent, thus bringing texts closer together and blurring the boundaries among them' (Landow 1992:61)[4]. As Landow claims, hypertext enormously speeds up the process of making links both within a text and between texts. He concludes that this promises to change the way we read and write and that with hypertext 'the distinction between intratextuality and intertextuality will become harder to maintain than it is with book technology' (Landow 1990:154).

For readers, then, hypertext literature has two fundamental properties that make it unique. First, it lets readers interact with the text. Second, it lets them perceive the text as a nonlinear or multilinear structure. But what are the implications of hypertext technology as a medium for the creative writer looking to move beyond traditional notions of linearity and univocity? For Michael Joyce (1995), hypertext turns the text into 'a present tense palimpsest where what shines through are not past versions but potential, alternate views'. His first work, *Afternoon, a story*[5], completed in 1987, is a hypertext novel which requires the reader to unravel interwoven strands of narrative to

[4] Overlooking the process of the reader's own construction of meaning from a text, however, this view of reading risks substituting a battery of intertextual links for those that readers form for themselves out of their own past experience (whether personal or literary). Readers inclined to form personal and intertextual contexts for themselves have no place in this scheme. In the perspective offered by Landow, the integrity and significance of the response to the single work of literature is replaced by a shift to the margins of the text, where endlessly permeable relationships to other texts and contexts are seen to disperse and intellectualize its values.

[5] *Afternoon* was published in 1990 by Eastgate Systems (Watertown, Massachusetts), an innovative electronic publisher that has become the most important force in fostering and promoting interactive literature. Besides *Afternoon,* the most significant product of Eastgate Systems is Stuart Moulthrop's *Victory Garden.* Notable for its linguistic virtuosity, this work is the most ambitious and sophisticated embodiment yet of the hypertext novel.

make sense of the story[6]. The reader's efforts parallel the struggle of the story's main character to learn whether his son and estranged wife have been killed in a car accident. Bolter calls this work an example of 'topographic writing'. The writing space is made up of a complex structure of levels and links, and each reading is only one projection of the geometry of the whole. The whole is the sum of all the possible ways in which *Afternoon* may be read (500 episodes and over 900 connections) (Bolter 1990:127-130).

Another example of hypertext as visual and conceptual writing is *Uncle Buddy's Phantom Funhouse* (1992) by John McDaid. More a satirical literary potpourri of loosely connected writings than a novel, it invites readers to explore its text in unconventional ways. For example, choosing among various graphic images (such as Tarot cards or the rooms of a house) will take readers to different points in the text. Paradoxically, the images chosen by McDaid for his electronic text remind us that, in Umberto Eco's words, 'you don't need the hypertext in order to have an open-ended reading of literature'. Obvious examples from Italian fiction are *Il castello dei destini incrociati* (*The Castle of Crossed Destinies*, 1976) by Italo Calvino, which is a book 'made first of pictures—the tarot playing cards—and secondly of written words. Through the sequence of the pictures stories are told, which the written word tries to reconstruct and interpret' (Calvino 1978:124), and Eco's second novel, *Il pendolo di Foucault* (*Foucault's Pendulum* 1986). Calvino's description of the Tarot has many affinities with electronic hypertext, providing a model for a graphic means of reading that stands in contradistinction with the signifying practices of The Book. Eco's novel shares with other postmodernist texts the thematics of mechanical reproduction, and it does so primarily through the motif of 'Abulafia', a transcendent personal computer[7]:

[6] Hypertext gives an unusual immediacy to this recounting of many events unfolding at once in different parts of the world during the recent Gulf War. It also ideally accommodates the novel's obsession with the blurring of the boundary between reality and TV brought about by the news media's war coverage.

[7] The computer's name recalls Abraham Abulafia, a thirteenth century Jewish mystic, who proposed a theory of language as a sphere of contemplation. Abulafia produced twenty-six theoretical works on the subject, of which only one remains today, the *Sefer ha'-Oth*. These texts described in detail a discipline known as *Hokmath ha-Zeruf*, 'the science of combining letters'.

> Computers decouple writers from eternity .... Moreover, symbolized by Abulafia, word processors continuously but exclusively carry on transactional activities. Electronic media process pure information, obliging us to recognize that we decode meanings in terms of the contexts we bring to them (Artigiani 1992:875).

By entrusting several traditional narratological functions 'to a secondary medium', namely the representation of computer-files (first flashed on a monitor screen, then printed out as 'hard copy' (McHale 1992:183), Eco allows the reader to access simultaneously Casaubon's first-person narrative point of view and an alternative perspective on the same events. This strategy is consonant with Bolter's assertion that the geometry of electronic fiction need not be defined solely in terms of plot:

> The electronic writer can exploit other organizing principles of modern printed fiction, such as the stream of consciousness of one character or the points of view of several characters ... [or] the possibility of narrating the same events from different points of view (Bolter 1990:127).

In addition, the computer and the 'files' that are embedded in the text form an intrinsic part of the structuralising order of the narrative. Abulafia functions as a reminder of the text as it was in its original form—a haphazard combination of letters that must be combined and interpreted. In this function as a language-machine, it suggests an affiliation with the poetics of 'procedural' writing[8], involving partial surrender of authorial control over the production of the text. A fixed procedure is used which generates, automatically as it were, strings of language, which in turn become the raw materials for building narrative worlds.

Foucault's Pendulum uses the techniques of distancing and self-referentiality typical of electronic fiction. Furthermore, it is an interactive

[8] 'The procedure involved can be rigorously mechanical, as in the case of the "algorithms" and *combinatoires* of the OuLiPo group, or, alternatively, based on chance or found objects, as in the case of Burroughs's cut-ups, fold-ins, and splices. Either way the effect, from the writer's point of view, is much the same: unanticipated combinations, surprise, the evasion of the internal "censor"' (McHale 1992:184).

verbal text in which the reader follows 'file' links from 'screen to screen' and so constructs the text in the act of reading. The reader is repeatedly made aware of the artificial character of reading and writing fiction, and of the aesthetic kinship between the new literary technology, the boundlessness of the new writing space and topographic writing.

3. An Italian Case Study

It is a similar aesthetic kinship that is particularly evident in the work of Carmen Covito, one of the 'new' Italian authors of the 1990s[9]. Covito, a professional writer and translator, has been a theatre and literary critic, written comic screenplays, and worked as a free-lance journalist and editor. Covito reflects the ideology of her 'generation' of writers in her interest in transformations and the possibilities of 'contamination' between genres, modes of writing, multimodal productions of literary works. In her third novel, *Benvenuti in questo ambiente* (Welcome to this Environment), Covito introduces the notion of 'windows' to add a metanarrative level to the text. She explains that one of her objectives in writing this novel was to combine the use of a 'neo-Italian' spoken language, which increasingly makes use of jargon and modes of expression from telecommunication, with the uses of literariness. She calls this combination 'integrated Italian', a term obviously borrowed from the computer lexicon (as is also clearly the case for the title of the novel)[10].

The style used in e-mails is particularly interesting for contemporary Italian writers, because it is a style that reflects both the current, spoken language and the classic epistolary style. There is both immediacy and syntax; there is a tendency to use a colloquial register (the informal 'tu', short phrases,

[9] Covito was born in 1948 near Naples. Currently she lives and works in Milan. She is the author of prizewinning novels: *La bruttina stagionata* (Plain and of a Certain Age, 1992), *Del perché i porcospini attraversano la strada* (Why do Hedgehogs Cross the Road? 1995) and *Benvenuti in questo ambiente* (Welcome to this Environment, 1997).

[10] 'Mi interessava contaminare il linguaggio letterario con questa specie di neolingua che in certi casi ha esiti bizzarri o comici (quando il 'computerese' viene usato fuori contesto, applicandolo a situazioni della vita quotidiana) e in altri casi può addirittura indicare qualche via di evoluzione praticabile dell'italiano vivo' (Quoted in interview with Capozzi 1999:269).

lack of traditional civilities) but the gap between the formulation of an idea and the time taken to type it out on the keyboard ensures that the repetition typical of spoken language is avoided and helps to structure the discourse. In *Benvenuti in questo ambiente*, the Computer Lady (an on-line help programme 'experimentally equipped with a complex and articulate artificial personality in order to create as natural an interface with users as possible', 1997:4) writes in a style that mimics the style of email (including iconic faces or 'emoticons'). But Covito found this type of intervention at the level of the phrase, i.e., at a microstructural level, insufficient:

> I tried to introduce computer logic into the macrostructure of the novel, and I came up with the idea of using 'windows', and having windows introduced the possibility of a variety of intertextual and extratextual games (using 'cascaded' windows to narrate episodes that occur simultaneously, windows that don't close, or that only close partially [imitating the action of minimizing a window], advertising windows, windows which contain *Easter eggs*. In other words, I don't believe that traditional narrative should be satisfied with classic literary structures, but should introduce to its canon all of the modifications which reflect the contemporary capacity for responding to stimuli, and therefore the modifications of our perceptions. And our perceptions today are above all formed by the mass media (the first of which in chronological order was television), but now even more so by the interface with computers[11].

[11] 'Ho cercato di fare entrare la logica del computer anche nella macrostruttura del romanzo, ed ecco che sono venute fuori le 'finestre', e dall'esistenza delle finestre si è affaciata tutta la varietà possibile di giochi intertestuali ed extratestuali (finestre 'a cascata' per raccontare episodi che avvengono simultaneamente, finestre che non si chiudono o si chiudono male, finestre pubblicitarie, la finestra che contiene un Easter egg). Insomma, io credo che la narrativa tradizionale non debba più accontentarsi delle strutture letterarie classiche, ma debba in ogni modo far entrare nei suoi canoni quelle che sono le modificazioni della sensibilità contemporanea, e quindi anche le modificazioni della nostra percezione. E la nostra percezione oggi è modellata innanzitutto dai mass media (primo in ordine cronologico la televisione), ma ora anche dalle interfacce con il computer' (Quoted in interview with Capozzi 1999: 269).

By using 'windows' instead of traditional chapters, she produces an irreverent effect, while drawing attention both to the impact of the computer and the spatial dimensions (geometry) of her text.

4. Spatial Semiotics

Covito is effectively creating a hypertextual environment by weaving a writing space that is more personal than the standard sheet of paper. At the same time, she draws the reader into the virtual reality of the Computer Lady's domain: the 'window' becomes a 'liminal zone where new meanings and values are negotiated for old structures' (Dickinson 1996:82). In the same way, the setting of the novel, north-east Italy, represents a 'territorial history', a 'political and temporal complement of the cognitive map':

> Our North-East is a flourishing industrial zone, with many technologically advanced small businesses (I think that most of the Italian companies that manufacture and design software and hardware are concentrated in that region), and yet typical features of an old peasant society are still evident, including spectacular examples of cultural backwardness; some of the characters in my novel, from a cultural point of view, are not equal to their level of consumption[12].

Covito's 'vernacular landscape' provides a dramatic account of the contradictions inherent in the development of information technology and telecommunications in an old peasant society. Choosing this particular industry as a setting is also symptomatic of her fascination with the new technology and the Internet:

> I am attracted by its sociological, psychological, and especially its philosophical implications (the abolition of distances and geographical

[12] 'Nel nostro Nord-Est c'è un tessuto industriale fitto di piccole aziende tecnologicamente molto avanzate (credo che buona parte delle ditte italiane che fabbricano software, o anche hardware, siano concentrate in quella zona) e tuttavia vi permangono caratteri di vecchia società contadina, con fenomeni anche di arretratezza culturale vistosa: alcuni dei personaggi del mio romanzo non sono, dal punto di vista culturale, all'altezza dei propri consumi' (Quoted in interview with Capozzi 1999:269-270).

> boundaries made possible by the simultaneity of communication: the fragmentation and the multiplication of identity, and so on)[13].

Carmen Covito was among the first Italian authors to have an Internet site for the purpose of being able to dialogue with her readers. In addition to reviews and interviews, the site contains interesting links chosen by the author, including short stories, artwork and the first six pages of ***Benvenuti in questo ambiente***. Covito's web site (www.carmencovito.com) is highly informative, interdisciplinary and rich in hyperlinks in the spirit of the World Wide Web's infinite intertextuality. Covito notes that our postmodern era is particularly concerned with multiplicity, with equalized and decentralized authority, which is actually reflected in the structure of the Web itself. She asserts that contemporary (electronic) writing can help to shape new ways of reading (especially fiction): it can help do away with retrograde insistence on author-provided continuity of narrative, and give more significance to reader-provided coherence.

Her web site, which she entitles a 'Novel Site' (a pun which works well both in Italian and in English), is, thus, both an introduction to and the natural extension of her third novel. In this novel the protagonist designs and sets up a personal web page, and Covito declares that having written this fictional event, she (the author) felt like imitating her fictional character, and constructing her own web site: 'this could be called an autobiographical novel "in reverse", where instead of a character imitating the author, we have the author who imitates the character'.[14] So, we are given a link on Covito's home page to 'Six Characters in Search of Websites'. Each character, in turn, provides links to websites that 'best suit their character and their role in the novel'. (Interestingly, the 'missing link' is the obvious intertextual one, to Pirandello's theatre text, *Six Characters in Search of an Author*.) Covito's writing space is now boundless. The links from her home page can lead to other documents by other authors who in turn can direct the reader into

[13] 'Mi attraggono le sue implicazioni sociologiche, psicologiche ma soprattutto filosofiche (l'azzeramento delle distanze e dei confini geografici attraverso la simultaneità della comunicazione, la frantumazione e la moltiplicazione dell'io, e così via)' (Quoted in interview with Capozzi 1999:268).

[14] 'Si potrebbe dire quindi che è un romanzo 'autobiografico al contrario', dove invece di avere un personaggio che mima l'autore abbiamo un autore che mima il personaggio' (Quoted in interview with Capozzi 1999:268).

boundless other spaces. Once a text reaches outside itself in this manner, the author has not only lost control of the reader's path through that particular text, but the size and shape of the text itself. Ted Nelson's (1987) 'docuverse' is born.

In a similar vein, Covito's Pirandellian characters allow us to speculate that interactive fiction may eventually engender characters that communicate as if they were actual people. Indeed, a step in that direction has already been taken by Jeffrey Morrow and Janet Murray of the Massachusetts Institute of Technology (MIT), developers of a program called *Character Maker,* which uses rudimentary artificial intelligence to unfold a work of fiction by responding to questions and comments that the reader types in. This makes the act of reading much like having a conversation with a character in a story. Interactive literature is likely to flourish because it satisfies some strong artistic needs. It has been hailed as the logical culmination of postmodern tendencies such as making the reader a partner in constructing the meaning of a work, but there are deeper attractions. Hyperfiction gives the traditional spectator entry into the fictional world: no longer merely a viewer (reader), s/he also becomes a doer (writer). Furthermore, the interactive reader gets an illusion of a dynamic presence within an alternative world—i.e. has the impression of agency inside the world of the (hyper)text. In order to continue, the narrative needs the reader's intervention: both proactive and reactive.

5. Instead of a Conclusion

Hypertext theorists point out that when we follow the linear flow of words down the page, there is often not just a single route. Look at all those unmarked intersections in the form of ambiguities, allusions, and levels of symbolism. They lead in many different interpretive directions at once. If, as Umberto Eco puts it, the poetic effect is the capacity that a text displays for continuing to generate different readings, without ever being completely consumed (1994) should we not welcome anything that can deepen its textual multiplicity, such as, say, hypertext?

Hypertext doesn't demand that the multifarious structural possibilities inherent in a narrative be pared away to accommodate the sheath of linearity. The narrative's multiplicities can stand unashamed as the structural framework itself. Interrelationships among the narrative's parts become actual links rather than implied connections. The painted-on *trompe l'oeil* doors (or windows) become real, letting the reader open them to explore alternative

juxtapositions and interweavings. While all sorts of subtle multiplicity, multivalence, and synchronism lend themselves well to embodiment in hypertext[15], the best links are realizations of connections that already exist in the text. If associations and relationships on many different levels unify diverse parts of a work, hypertext is a natural outgrowth of the writing—like Covito's 'character' pages that could be viewed as a new aesthetic space in which narrative is de-centred.

As Jay David Bolter explains, the most 'unusual feature' of electronic writing is that it is not directly accessible to either the writer or the reader.

> The bits of text are simply not on a human scale. Electronic technology removes or abstracts the writer and reader from the text. If you hold a magnetic tape or an optical disk up to the light, you will not see text at all .... In the electronic medium several layers of sophisticated technology must intervene between the writer or reader and the coded text. There are so many levels of deferral that the reader or writer is hard put to identify the text at all: is it on the screen, in the transistor memory, or on the disk? (Bolter 1990:42f).

A timely reminder that computer code, too, is a species of writing. Programming languages actualize procedures and principles rather than signifying objects or concepts. But their goal, like that of the natural languages we speak and write, is at least partly to embody human thought. Hypertext literature can be viewed as an effort to integrate these two branches of language to form a richer, deeper medium of expression. The hypertext system complements the expressive capabilities of natural language by representing the dynamics underlying the words. The words are the final product of emotional and intellectual processes, an artifact of something in the author's

[15] It is common in hypertext to find central metaphors in the writing that reflect properties inherent in the medium. For example, fragmentation is a major theme in Shelley Jackson's *Patchwork Girl* (Eastgate Systems, 1995), and Kathryn Cramer's *In Small & Large Pieces* (Eastgate Systems, 1994). Bill Bly's *We Descend* examines historical 'truth' as a collage of sources and interpretations (Eastgate Systems, 1997). Other works employ motifs of exploration or journeying that play off the navigation factor. Of course, the tropes need not be so obvious to be effective. Indeed, if a work is too blatantly 'about' hypertext, it risks coming across as an exercise in theory.

head. The computer interface can embody a thing more primal in character—the impetus behind the poetic text.

It should be remembered that readers of hypertext don't actually create their own texts, though this has become a popular trope for discussing the medium. Rather, hypertext readers take the reins of a creative process that is uniquely the author's but also no longer the author's. The interface is a harnessing of a drive toward verbal expression, an enactment of the inner guidance system that leads the author in the quest for the text. Writing hypertext should not be understood as an absolute binary either/or choice. The medium should be understood as an experimental space, one that is suited to some writing situations and perhaps less well-suited to others, it is an extension of our writing environment not a replacement for other, supposedly outmoded, forms.

Department of Modern Languages
University of the Witwatersrand

References

Artigiani, R 1992. Image-Music-Pinball. *MLN* 107: 855-876.

Barthes, R 1975. *S/Z.* Miller, R (trans). London: Jonathan Cape.

Barthes, R 1979. *From Work to Text.* In Harari, J (ed): *Textual Strategies: Perspectives on Post-Structuralist Criticism.* Ithaca: Cornell UP.

Baudrillard, J 1983. *Simulations.* New York: Semiotexte.

Bolter, JD 1990. *Writing Space. The Computer in the History of Literacy.* Hillsdale, NJ: Lawrence Erlbaum.

Brinkerhoff Jackson, J 1984. *Discovering the Vernacular Landscape.* New Haven: Yale University Press.

Calvino, I 1978. *The Castle of Crossed Destinies.* Weaver, W (trans). London: Picador

Capozzi, R 1999. Un incontro elettronico con Carmen Covito. *Forum Italicum* 263-272.

Clark, JM, WF Davidson, & ME Doherty Jr. (In Progress). *Cyberwrite: Implications and Applications of Virtual Discourse for the Composition Class.*

Consigny, S 1974. Rhetoric and its Situations. *Philosophy and Rhetoric* 7:175-88.

Covito, C 1997. *Benvenuti a questo ambiente.* Milano: Bompiani.

Delany, P & GP Landow (eds) 1991. *Hypermedia and Literary Studies.* Cambridge-London: MIT Press.

Derrida, J 1976. *Of Grammatology.* Baltimore: The Johns Hopkins University Press.

Derrida, J 1978. *Writing and Difference.* Chicago: University of Chicago Press.

Dickinson, J 1996. Entropic Zones: Buildings and Structures of the Contemporary City. *CNS* 7 3, September: 81-95.

Eco U 1994. *Reflections on* The Name of the Rose. Weaver, W (trans). London: Minerva.

Eco, U 1990. *Foucault's Pendulum.* Weaver, W (trans). London: Picador.

Gottdiener, M 1994. *The Social Production of Urban Space.* Austin: University of Texas Press.

Hein, M 1987. *Electric Language: A Philosophical Study of Word Processing.* New Haven: Yale University Press.

Joyce, M 1995. *Of Two Minds: Hypertext, Pedagogy and Poetics.* Ann Arbor: University of Michigan Press.

Landow, GP 1990. *Changing Texts, Changing Readers: Hypertext in Literary Education, Criticism and Scholarship.* In Henricksen, B & T Morgan (eds): *Reorientations: Critical Theories and Pedagogies.* Urbana and Chicago: University of Illinois Press.

Landow, GP 1992. *Hypertext. The Convergence of Contemporary Critical Theory and Technology.* Baltimore and London: The Johns Hopkins University Press.

Manzini, E et al. 1987. Lo scimpanzé lo scriba il computer. *Alfabis 1,* supplement to *Alfabeta,* 102.

McHale, B 1992. *Constructing Postmodernism.* London: Routledge.

McLuhan, M 1964. *Understanding Media: The Extensions of Man.* New York: New American Library.

Nelson, TH 1987. *Computer Lib/Dream Machines.* Redmond, WA: Tempus Books.

Ong, WJ 1988. *Orality and Literacy. The Technologizing of the Word.* New York: Routledge. (First published in 1982 in London-New York by Methuen.)

Pynchon, T 1973. *Gravity's Rainbow.* New York: Viking.