

The Codex Unbound: The (Failed?) Promise of the Hypertext Novel

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Since the 1990s, many critics have suggested that the interactive, hypertext novel will be the heir (or usurper) to the role occupied since the ‘Gutenberg revolution’ by the printed, bound codex. However, despite the ever-increasing prevalence of hypertext (in genres other than fiction), this nascent storytelling form has already begun to show signs of stagnation.

This paper examines what happened to the hypertext novel, and why. It tracks the development of interactive fiction and hypertext, and their potential as extolled by a number of leading theorists. It then considers the downturn in hypertext literary production, suggesting reasons for that downturn, as well as situating that downturn within the context of the advent of other interactive forms. The paper then identifies some inherent problems with hypertext literature, and considers what role, if any, hypertext literature may play in the wider field of literature. Finally, it offers some suggestions as to how fiction may more successfully move from the print to the digital age—from printed, bound codex, to digital, unbounded hypertext—and how it may further develop its interactive potential in that transition.

I accept that, in focusing my analysis on the idea of the hypertext novel, I have taken a somewhat narrow view of hypertext fiction, ignoring a larger corpus of hypertext poetry and other interactive creative works that resemble the novel little if at all. It is not my intention to marginalise the potential of interactive fiction in total. Rather, my (arguably) narrow focus is for the purpose of interrogating whether the emerging corpus of interactive fictions has (at least so far) disturbed the role and function hitherto served by the most widely read form of printed, bound literary fiction—the novel.

The Promise of Hypertext Fiction

It shows how far and how fast technology has advanced that a definition of hypertext is now barely needed. However, for the sake of clarity, I propose to adopt N. Katherine Hayles’s definition of hypertext as having “at a minimum the

following characteristics: multiple reading paths, some kind of linking mechanism; and chunked text (that is, text that can be treated as discrete units and linked to one another in various arrangements)."¹ I should note that this definition does not require hypertext to be stored, displayed or interacted with electronically. Indeed, some theorists have attempted to classify texts dating as far back as the I Ching and the Talmud as hypertexts, and there is certainly an argument to be made that such texts qualify, if not as hypertexts proper, then at least as proto-hypertexts. However, in this paper, I am principally concerned with the *digital* hypertext novel, and the promises that it has held out—and still holds out—for the future of fiction.

Irrespective of how we categorise its historical forms and antecedents, our current conception of hypertext as a form and category of text—and, indeed, the word itself—are relatively new in terms of the history of literature, only having existed since the late twentieth century. The term 'hypertext' was coined by Ted Nelson in 1963 (first published in 1965), and the first notable digital hypertext editing program was developed at Brown University, by Andries van Dam, two years later.² However, hypertext didn't really 'take off' until the mid 1980s, with the development of NoteCards and a number of other hypertext programs in relatively quick succession.³ Therefore 'hypertext' has existed as a well-defined textual genre or form for a little over 40 years, and has been an increasingly viable technology for almost thirty years. This is, arguably, a long enough period to assess the viability of, and the promises offered by, this still relatively new technology.

As critics such as Jay David Bolter have observed, each technology of writing, from the invention of the alphabet to the printing press, and beyond, has affected extant styles of writing, and genres of literature, as well as their format, structure and content.⁴ For instance, it is generally accepted that the advent of writing (and then printing) radically altered the nature of fiction, forming it into what we recognise today—the freer and more episodic nature of oral stories became fixed in sequence into dramatic arcs, and mnemonic devices were no longer necessary, allowing narrative structure to become more complex and introspective.⁵ This raises the question, as we move from the print to the digital age, of whether such radical changes to fiction will ensue as those that occurred in the transition from oral to written and print cultures.

It is possible to appreciate the sense of potential for these ‘radical changes’ by examining literary criticism and analysis of some early hypertext fictions. For example, Robert L. Selig recounts Wolfgang Iser’s explanation of how, in rereading a traditional bound codex novel, we “establish connections by referring to our awareness of what is to come, and so certain aspects of the text will assume a significance we did not attach to them on first reading, while others will recede into the background.” Selig suggests that when we reread a printed novel, the work itself does not change and only our perceptions about it do. However, “[u]p to a certain point, when we reread a hypertext novel, our thoughts about it change in much the same manner that Iser describes, but they change as well in a stranger way when the hypertext changes too.”⁶ Of Stuart Moulthrop’s seminal hypertext novel *Victory Garden*, Selig attempts to show how “just a single sequence ... requires of us many rereadings simply because it comes up in pieces of varying orders, combinations, and lengths.”⁷ Selig even claims to receive “literary pleasure rather than frustration ... from [*Victory Garden*’s] capacity to cause us to repeat and repeat our readings.”⁸ At least part of Selig’s pleasure seems to be in identifying and tracing the patterns that underscore the work and hold it together “like a gravity field.”⁹

Sünje Redies describes Robert Coover’s hypertextual novella *Briar Rose* as “an ontological puzzle”: “Narrative levels and their hierarchies collapse; events are cancelled in retrospect; linear chronology gives way to a network of redundant structures. The heterocosm of the novella is unstable. Alleged ‘realities’ turn out to be dreams, narrations, or hallucinations. In *Rose*’s dreams, inside and outside run together; that is, it is not clear whether there is a reality outside her dreams at all.”¹⁰

Many of these critics seem to imply that hypertext fiction effectively challenges the Aristotelian conception of a narrative as being built around “a beginning, a middle, and an end.”¹¹ However, Marie-Laure Ryan argues that, while hypertext fiction lacks the “Aristotelian curve of dramatic tension” involving a slow rise, climax and sudden fall, nonetheless,

the pleasure of the problem-solving activity follows its own rhythm of mounting and decreasing intensity. At the beginning, the reader is frustrated by a lot of incoming information and an absence of pattern. Pleasure peaks when a pattern begins to take shape ... The more the pattern fills out, the more difficult it is to locate new information to fill in the holes. Reading ends not when the plot is conquered, but ... when the reader becomes finally tired of

circling through the same screens ... Yet like the sons who plowed [sic] the field and made it more fertile, the reader who has been patient enough to explore the text in depth will find ample rewards in its poetic images and in its complex pattern of recurrent motifs.¹²

Indeed, this sense of satisfaction in the act of pattern recognition and 'treasure hunting' for new meanings and connections runs across many positive theoretical accounts of hypertext fiction.

Another oft-cited promise of hypertext fiction is that of a greater sense of 'agency'.¹³ Nancy G. Patterson, for example, claims that hypertext allows readers to challenge or contest the author or the authorial role in a more immediate sense.¹⁴ Similarly, Bolter says that hypertext fiction offers "a new literary experience" in which the reader "can share control of the text with the author,"¹⁵ while George P. Landow talks of it in terms of 'merging': "the functions of reader and writer become more deeply entwined with each other than ever before."¹⁶ Whether conceptualised as a merging, dialogue, sharing, or contestation, this concept of an alteration in the dynamic between author and reader is almost ubiquitous amongst pro-hypertext theorisations.

Associated with this reconceptualisation of the author/reader dynamic is a reconceptualisation of the act of reading. J. Yellowlees Douglas alleges that authors of interactive (and she appears to be referring particularly to hypertext) fiction are akin to playwrights: they create the initial conditions for later performance. Furthermore, such texts create, or at least aim for, discursive intimacy and engagement, rather than the more traditional, modernist, mode of textual impersonality and entrancement.¹⁷ Similarly, Hayles suggests that electronic text is "a *process* rather than an object,"¹⁸ and also suggests that it is "performative by its very nature, independent of whatever imaginations and processes the user brings to it."¹⁹

One of the most significant promises offered by hypertext fiction, according to many theorists, lies in its supposed relationship to existing postmodern, post-structuralist and semiotic theorisations. According to Guido Ipsen, the proposal that hypertext is a study in applied semiosis is traceable to Bolter, in 1991.²⁰ To Bolter,

hypertext is a vindication of postmodern literary theory ... When Wolfgang Iser and Stanley Fish argue that the reader constitutes the text in the act of reading, they are describing hypertext. When the deconstructionists emphasize that a text is unlimited, that it expands to include its own interpretations—they

are describing hypertext, which grows with the addition of new links and elements. When Roland Barthes draws his famous distinction between the work and the text, his is giving a perfect characterization of the difference between writing in a printed book and writing by computer.²¹

In a similar way, Landow argues that poststructuralist theory and hypertext have “increasingly converged,” and approach Barthes’s concept of an “ideal textuality.”²² To Landow, hypertext offers an “almost embarrassingly literal embodiment” of Barthes’s concept of the “writerly text,” as well as Jacques Derrida’s emphasis on decentering.²³ Indeed, Landow posits a “remarkable convergence” between computer (hypertext) theory and poststructuralist/postmodern theory generally,²⁴ while Richard A. Lanham has also written of a “convergence” of postmodern thought and electronic textuality.²⁵

According to these theorisations, hypertext fulfils the promise held out by Barthes (and also Michel Foucault) of the ‘death of the author’, as the text, freed from the materiality of the bound codex, is revealed to be “not a line of words releasing a single ‘theological’ meaning (the message of the Author-God), but a multidimensional space in which a variety of writings, none of them original, blend and clash.”²⁶

Of particular interest to hypertext theorists is Barthes’s passage from *S/Z* in which he writes:

In this ideal text the networks are many and interact, without any one of them being able to surpass the rest; this text is a galaxy of signifiers, not a structure of signifieds; it has no beginning; it is reversible; we gain access to it by several entrances, none of which can be authoritatively declared to be the main one; the codes it mobilises extend *as far as the eye can reach*, they are indeterminable.²⁷

Hayles similarly writes that, “[a]s Jay David Bolter ... and George Landow ... have pointed out, Barthes’s description of ‘text,’ with its dispersion, multiple authorship, and rhizomatic structure, uncannily anticipates hypertext.”²⁸ As if to underscore the prophetic nature of Barthes’s textual model, Hayles also observes that Barthes’s account was proffered some twenty years before the advent of the microcomputer.²⁹

Of all the theoretical accounts of hypertext, Bolter’s view of hypertext is perhaps the most emphatic, as he posits digital literature as “the inevitable next step,” and the “take-off” of literature.³⁰ This promise is certainly a seductive one. However, one factor missing from many of these accounts (one may even think of

it as the ‘elephant in the room’) is that, to date, this ‘take-off’ has not happened, and, perhaps more alarmingly, it doesn’t look like it’s going to happen anytime soon. This raises the question: if hypertext has such revolutionary potential in terms of fiction, then why isn’t the revolution happening?

The Failure of Hypertext Fiction

Of course, hypertext is now ubiquitous. Newspapers, magazines, encyclopaedias and textbooks can all be read as digital hypertexts, and, in some cases (particularly in the case of encyclopaedias), online hypertexts have all but completely usurped the role of the printed, bound codex—after all, why would you spend thousands of dollars on a printed set of encyclopaedias that will be out of date before it even leaves the warehouse? However, conspicuously absent from this abundance of hypertext is literary fiction.

It is difficult to know just how much hypertext literary fiction is currently being written or produced, because very little is commercially available, or distributed or disseminated through the ‘usual’ institutional channels (such as through publishing houses or academic syllabuses). However, this very difficulty in locating a corpus of hypertext literary fiction only serves to underscore the point that it has failed to displace or unsettle the role of traditional print literature, contemporary examples of which are abundant in bookstores and classrooms alike.

There are, of course, a few hypertext novels that have already started to attract ‘canonical’ status in the genre—Michael Joyce’s *afternoon*, Stuart Moulthrop’s *Victory Garden*, Shelley Jackson’s *Patchwork Girl*, Judy Malloy’s *love0ne* and Judd Morrissey’s *The Jew’s Daughter* are amongst the most notable—but it is hard to find much that has been published in the last five years (even for someone with a research interest in the field), let alone enough to suggest some kind of emerging ‘critical mass’ of such works.

Many of the more recent hypertext or online interactive works, such as Kerry Lawrynovicz’s *Girls’ Day Out*, Nanette Wyld’s *Storyland*, and Young Hae-Chang’s *Nippon*, are multimedia poems or experimental short fiction, and thus (arguably) fulfil a very different role and function to that of the novel. (Moreover, many of these works are virtually unheard of outside of the small community of producers and consumers of such works.)

Indeed, to date, there appears to be a general reluctance to embrace even non-hypertext digital literary fiction. While digital music and film are already rapidly

replacing the CD and DVD, the digital book (or ebook) does not seem to be threatening the printed book, particularly the printed fiction book, in nearly the same way, and the ebooks that are sold are almost always digital facsimiles of the static, printed, bound codex, and are not hypertextual. Even Landow, one of hypertext literature's principal proponents, concedes that there have been relatively few published hypertext fictions, although hypertext poetry has been somewhat more successful.³¹

Related to this problem of a lack of actual hypertexts being produced, let alone being commercially successful, is the fact that many of the theorists who teach or advocate hypertext theory do so without reference to and analysis of a wide range of such fictions—due, no doubt, to the very lack of a wide range of such fictions. As Rasmus Blok concisely notes, “[s]cholars and critics often talk about the great potential of digital literature in a futuristic manner, referring not to actual digital literature but to its ideal or theoretical examples.”³²

Furthermore, when theorists do refer to hypertext literary fictions in their analyses, it is often to their own, or to each other's. It is notable that producers of hypertext fiction are often hypertext theorists, creating the objects of their intended future or present study. For example, Robert Coover, founder of the hypertext program at Brown University, created a hypertext version of his novella *Briar Rose*.³³ (Coover is something of a hypertext fiction evangelist, not only having taught classes on the subject, but also having published a number of articles in periodicals, such as the *New York Times Book Review*, championing hypertext fiction.³⁴) Similarly, Joyce, who wrote *afternoon*, generally agreed to be the pioneering work in the genre,³⁵ and Douglas, who wrote *I Have Said Nothing*, are both hypertext writers *and* theorists. Of course, there is nothing wrong with writers also being theorists, or vice versa—indeed, this fact has often characterised avant-garde literary movements. However, this factor does become concerning when it conceals or obscures amongst the theoretical or critical accounts a general lack of subject matter for that theory or criticism.

Some critics have attempted to overcome this lack of hypertext literary fiction by pointing to the hypertextual elements of printed, bound texts. For example, Hayles suggests that “many print texts are now imitating electronic hypertexts. These range from Don DeLillo's *Underworld* to Bolter and Grusin's *Remediation*, which self-consciously pushes toward hypertext through arrows that serve as visual indications of hypertextual links.”³⁶ Aside from the fact that Hayles's second

example is a theoretical work by two leading hypertext theorists, the fact of the print novel appropriating other forms of writing and discourse is itself nothing new. From the epistolary novel, to Bram Stoker's appropriation of various institutionalised writing forms (letters, diaries, newspapers) in *Dracula*, print fiction has demonstrated a consistent ability to mimic, represent and incorporate various technological forms and their conventions. If anything, this incorporation of hypertextual form speaks not to printed text's near obsolescence but to the enduring nature of printed textuality. Moreover, even if printed fictions are increasingly appropriating the 'look and feel' of online hypertext, this does not make them hypertexts (at least in the sense that we currently understand the term) any more than an epistolary novel is itself a letter or series of letters.

Finally, against the relative failure of hypertext literary fiction is a dramatic increase in the popularity (and profitability) of video games and online participatory environments. Amongst the currently most popular are so-called 'massively multiplayer online role-playing games' (MMORPGs), such as *World of Warcraft*, and 'social avatar worlds', such as *Second Life*, which themselves offer an immersive fictional world. While these applications are predominantly graphics-based, some of their forebears were text-based. Hypertext theorists reacted ambivalently to these developments, some quick to analogise them with hypertext fiction, and others to emphasise their dissimilarity. Speaking of MOOs (short for 'multi user dungeon object oriented'), an earlier form of text-based multiplayer game, Bolter concedes: "MOOs may be stories, but they are not sophisticated fictions ... The verbal MOO is an heroic attempt to recreate in prose what many, perhaps most, of its users would already prefer to be a sensory experience."³⁷ Sure enough, with the advent of more powerful computers, these games and environments have moved increasingly away from text to graphics. Moreover, increasingly, their structure has moved away from narrative- or plot-based gameplay and participation, to social networking and conversation, or combat and strategy. Even the 'adventure game'—a genre that most closely approximates a novel or film in its reliance on plot (often a quest), dialogue and character—has not taken off in the same way that other video game genres have, and it too can be said to be in decline, at least in part because of the recurring criticism that the genre is too 'linear' in terms of its gameplay.

A recent game for the popular Nintendo handheld system, the Nintendo DS, *Hotel Dusk*, perhaps has come closest to a novel/game hybrid—it is a noir/pulp-ish

interactive detective story, in which the gamer is even required to hold the DS sideways like a book. However, even to the extent that this game can be considered to be literature (and that is certainly a debatable point), it would still be, to date, amongst the exceptions that prove the rule that gaming and literature are moving in separate directions rather than converging.

Although ‘adventure games’ appear to have limited ongoing commercial viability, non-commercial adventure games—also called ‘interactive fictions’—do continue to be produced and exchanged through an online interactive fiction community. Amongst the more famous interactive fictions is Emily Short’s *Galatea*, in which the player can interact with and interrogate an animated statue. While the lineage of these interactive fictions can be traced directly back to the commercial text-based adventure games of the 1980s, it is notable that the emphasis of some of these works is on the quality of the narrative, rather than on the puzzles that form the core of more traditional adventure games. (One such example is Adam Cadre’s *Photopia*, considered to be amongst the first of such works that abandoned the puzzle focus.) However, while certainly an interesting and noteworthy area of creative activity, it does not appear that ‘interactive fiction’, in this iteration, is set to disturb the role of the printed codex. First, as already noted, this form of writing does not appear (at present) to be commercially viable (which any challenger to the codex would need to be) and tends only to be exchanged within a relatively confined community, and, secondly, despite its increasing emphasis on the role of narrative, the majority of these works do appear to be, at their core, computer games (both structurally and generically), and are experienced by their users as such.

In light of the above, the concept of a truly interactive novel now seems both impossibly distant and quaintly anachronistic. Given the relative failure to date of hypertext literary fiction, if we are to continue to advocate it as the future of literary experience, then we need to confront a number of important questions, including: Does hypertext literary fiction pose insurmountable pragmatic problems, at least for the foreseeable future? Will we really retain the novel form if we have the technology to tell a truly interactive story? Are there underlying philosophical problems associated with the idea of interactive narrative? And do we even want a truly interactive literary experience anyway? In short, what are the problems faced by hypertext literary fiction that have prevented its widespread popularity and the realisation of the claims of early theorists?

The Problem of Hypertext Fiction

The first ‘problem’ with hypertext fiction is a pragmatic one. I’m putting this first because pragmatic problems seem to be overlooked or unfairly deprecated in critical debates about hypertext, and this pragmatic problem seems to be a fairly fundamental one: hypertext fiction is hard to make. By definition, hypertext fiction must afford the reader some degree of choice in how to navigate through the text, either in the form of continually branching plotlines or units of writing (often called ‘lexias’) that can be meaningfully and satisfyingly read in a number of different orders. This is difficult work for an author, particularly with respect to large or long works. If she or he scripts too few choices or conceptualises too few orderings or connections, then there is a risk that the text, or at least its hypertext dimension, will seem pointless or perfunctory. On the other hand, if the author wishes to provide many choices to the reader, then she or he has to script them all and find ways for them all to ‘work’ – that is, to interrelate or interface in ways that both make sense on a literal or figurative level, and are pleasing to the reader.

The children’s proto-hypertext series *Choose Your Own Adventure* (published from 1979 to 1998 and again from 2007), although published in bound codex form, is a useful illustration of this pragmatic problem (in part because of some patent structural flaws, and in part because it is much more widely known than any other kind of hypertext fiction). Despite presenting readers with a number of often binary choices, and allowing those readers thereby to proceed along multiple plot lines, rarely did the series present more than one or two truly narratologically satisfying paths, with the rest being, essentially, ‘dead ends’. No doubt, a large part of this was due to the fact that, in order to make the story more interactive, the authors would have to script many equally satisfying, and densely networked, paths and subpaths. This limitation, however, affected the reading experience, making the books more like a game to be ‘won’ than a world to explore. (Here I confess that I often used to keep my finger in the page to evaluate the result of each multiple choice, so that I wouldn’t have to ‘die’ and restart!) Ryan seems to reflect my experience when she says of hypertext fiction that “[a]pproaching the text as a computer game, some readers ... experience it as an imprisoning maze of secret pathways devilishly designed by the author to make them run in circles. Their goal is to navigate the system with a purpose, thus escaping the tyranny of the labyrinth master, and the means to this goal is the reconstitution of the underlying map of the network.”³⁸

Of course, critics may argue that, as a children's series, the *Choose Your Own Adventure* books were necessarily simplified, or that, as bound codices, the number of options was limited by the 'storage limits' of the medium. Both of these criticisms are true enough, but the fact remains that a truly interactive fictional environment, in which our explorations would be satisfying in a literary way, would require an intimidating, and often prohibitive, amount of scripting.

Moreover, given that there is already a potential to treat hypertext as a 'game', then the question must be asked whether the interactive element (hypertext fiction's supposed strength), might better be realised in other modes, such as in video games and non-scripted online environments. While it may be tempting to treat interactive games (even more literary ones such as MOOs) as hypertext fictions, it would most likely be a mistake to do so, because even though they may display some literary elements, ultimately, they comprise their own manifestation of rhetoric, semiotics and cultural communication, distinct from those often attributed to literature, and therefore they arguably warrant their own distinct classification and modes of inquiry.³⁹ Notably, these interactive works often lack such fundamental literary elements as story, narrative and characterisation, suggesting that they may be better classified as distinct entities that fulfil a separate, distinct role or function.

The different roles fulfilled by literature and new media such as video games is underscored by the fact that popular video games—lauded by respected critics in that field—are often derided by critics of traditional literature. For example, Moulthrop cites Pulitzer laureate, Michael Dirda, of the *Washington Post*, who gave the video game *Myst* a poor review, finding fault with its prose (or lack thereof), its dramatic sequences, its quest plot, and its characters. Moulthrop joins Steven Johnson in responding that "eminent book critics, steeped as they are in Gutenberg conventions, might not be the best judges of work in new media."⁴⁰ Moulthrop suggests that *Myst* is a "different sort of creation" to a novel or feature film, and must be approached with a different mindset and with different evaluative criteria. In counterpoint, Espen J. Aarseth suggests that it may be possible to incorporate video games within the field of literature, but only with significant revisions to our concepts of literary theory and poetics.⁴¹

While Myron C. Tuman may be unduly dismissive in complaining that hypertext replaces the psychological depth of the experience of reading a bound codex with the technical cleverness of the computer programmer,⁴² Tuman's

comment does allude to a valid point that games and literature try to ‘do’ different things and satisfy us in different ways, and that we consequently experience and therefore evaluate them differently. If literature were increasingly to merge with or resemble gaming, then we would be forced to ask ourselves whether we were satisfied with this new role for literature, and whether we were willing to alter our evaluative criteria to match this new role. A more philosophical ‘problem’ with hypertext, then, is that it has the potential to unsettle the traditional ‘role’ and experience of literature.

One change to the experience of reading offered by, and one of the oft-cited criticisms of, hypertext fiction—the majority of which allows the reader infinitely to cycle through lexia without ever reaching a determined ending—is its lack of narrative ‘closure’. While some critics take issue with the lack of ‘closure’ itself, others experience this feature in terms of a sense of encroaching boredom as familiar lexia are cycled through *ad infinitum*, or a sense of ‘diminishing returns’ as the number of read lexia begin to exceed by far the unread lexia. Such hypertext fiction seems to peter out until the point that it is abandoned.

Blok, Douglas, Peter Brooks, Frank Kermode and Frank Smith all appear to identify narrative ‘closure’ as amongst the most important—if not *the* most important—elements in conferring cohesion and significance upon a narrative, and also providing pleasure to readers.⁴³ To Brooks, “only the end can finally determine meaning.”⁴⁴ Even complicated traditional narratives with multiple threads and plot lines—from George Eliot’s *Middlemarch* to Thomas Pynchon’s *Gravity’s Rainbow*—follow a dramatic arc, and possess an underlying narrative structure, however much that narrative structure may be convoluted.

Sven Birkerts makes the case against hypertext most emphatically, when he dismisses hypertextual fiction for having nothing of any value to say about human experience, due to its lack of a single, determined ending.⁴⁵ In response, Moulthrop has argued that hypertextual fiction can be “deeply concerned with causal logic and if read with reasonable engagement can convey very clear messages about choices and outcomes.”⁴⁶ Moulthrop also observes the “strong cognitive demands” imposed by hypertextual fiction, due to its discontinuity and convolution.

Similarly, Douglas responds that

[e]ven though in interactive narratives, we as readers never encounter anything quite so definitive as the words ‘The End,’ or the last page of a story or novel, our experience of the text is not only guided but enabled by our sense

of the 'ending' awaiting us ... So when we read through interactive narratives, we are pursuing the same sorts of goals we do as readers of print narratives ... Because our sense of an ending does not derive explicitly from the text itself ... reading these interactive narratives sheds light on what—other than the physical ending of a story—satisfies our need for endings or closure.⁴⁷

According to Douglas, “[o]ur sense of arriving at closure is satisfied when we manage to resolve narrative tensions and to minimize ambiguities, to explain puzzles, and to incorporate as many of the narrative elements as possible into a coherent pattern.”⁴⁸

On the issue of the text petering out, Selig admits that “I finally stopped reading. I gave up clicking through [*Victory Garden*’s] multiple complexities when about a hundred screenings had brought me to a point of diminishing returns,” but adds that he “abandoned this hypertext novel with a genuine regret ... In spite of our desire for closure in the arts, a certain kind of sadness hovers over fictional endings in general and, in a special way, over the final blacking out of Moulthrop’s *Victory Garden*. This sadness relates to a basic human feeling about death and loss in actual existence—a desire that life might go on forever...”⁴⁹

In the same vein, many critics argue that this indeterminacy allows hypertext fiction to act as an ‘ontological puzzle’, with satisfying results. Similarly, Landow asserts that the experience of disorientation often encountered by readers of hypertext fiction can be a source of pleasure, particularly to expert readers (i.e., readers who have assimilated the logics of hypertext), and, further, disorientation in literature is certainly not new, and is already well known to students of modernism and postmodernism.⁵⁰

These points notwithstanding, it could well be asked whether this kind of cognitive foregrounding of pattern recognition and meaning production, or the elegiac tone, produced by an indeterminate ending is something that we would be happy to have *structurally encoded* within an entire form of fiction. Ryan argues that “[f]rom a literary point of view, the best hypertexts are those that manage to present the reader’s activity of moving through the network and reassembling the narrative as a symbolic gesture endowed with a meaning specific to the text, a meaning which cannot be predicted by reading the medium as a built-in message.”⁵¹ Arguably, then, this is a modality that would only suit certain types of stories, and it is not one of general or generalisable application.

In addition to concerns about the indeterminate endings of many hypertext fictions, other critics have raised concerns about the actual act of reading hypertext

fiction. Critics such as Jürgen Fauth have criticised writers of hypertextual fiction for being morbidly obsessed with technique, and have accordingly dismissed hypertextual fiction as a passing fad, along the lines of 3D film.⁵² Peter W. Foltz's report of studies conducted into the way people navigate hypertext suggest that "subjects seldom wanted to stray from the hierarchical structure and they expressed interest in reading all the text in one area of the hypertext before moving on to other areas."⁵³ Foltz also notes the importance of 'coherence' in readers' comprehension of both linear text and hypertext.⁵⁴ It may well be, then, that given the choice people would rather not explore the unbounded potential of hypertext, particularly when attempting to assimilate new conceptual structures and develop coherence strategies, but prefer to access even hypertext in a relatively structured, if not linear way.⁵⁵

It is possible that this reluctance is cultural and surmountable, as we become more accustomed to hypertext. However, it is also arguable that structured narrative serves an important social role—and is perhaps even the product of an evolved biological impulse—that would serve as an impediment to a significant alteration in the role of fiction and narrative.

Although it has taken many forms, from the epic to the novel, traditional structured narrative is a centuries- (or millennia-) old practice for the transmission and contestation of knowledge and information about the world and about human experience and psychology, and one that exists across all (or virtually all) known cultures. Ryan observes that "[i]f narrative is a reasonably universal semantic structure, a cognitive framework in which we arrange information to make sense of it as the representation of events and actions, it consists of a certain repertory of basic elements arranged into specific logical and temporal configurations."⁵⁶ Brooks documents how the "narrative impulse" extends back, both to the earliest human cultures, and to the earliest stages of childhood. He suggests that "[n]arrative may be a special ability or competence that we learn, a certain subset of the general language code which, when mastered, allows us to summarize and retransmit narratives."⁵⁷ He adds that "[n]arrative in fact seems to hold a special place among literary forms ... because of its potential for summary and retransmission."⁵⁸

These accounts suggest that narrative possesses certain structures that are relatively universal, and which are tied to an important function of narrative: the transmission of knowledge and experience. To this, Peter Swirski adds an

evolutionary element, when he argues that that literature (and storytelling more generally) “is a form of functionally *adaptive behaviour*. In its own way it assists in the survival and well-being of the gene-carriers and the communities who practice it ... After all, literary archetypes and story patterns harmonize exceedingly well with human behavioural and cognitive economy ... This harmony, in turn, is the likely source of literature’s authority on human affairs.”⁵⁹ Swiriski further cites Michelle Sugiyama’s research in support of the proposition that the basic elements of storytelling such as “characters, goal-oriented action, and resolution” have an evolutionary basis.⁶⁰

From a more humanities-focused position, Paul Cobley, in his study of narrative, expounds upon the work of Julian Jaynes, who argues that narratisation (the process of locating a sense of self within a narrative) arose concomitantly with, and as a product of, the development of human consciousness, and that human beings have an impulse to produce a ‘meaningful’ existence through narratisation of the past.⁶¹ Cobley also cites experiments conducted by Mihály Csikszentmihalyi that suggested that humans experience immense satisfaction and joy deriving from an early engagement with narrative as a means of meaning production. Cobley suggests that, in this sense, narrative “is pre-eminently a matter of human interaction in meaning.”⁶²

Indeed, the power and universality of structured narrative in meaning production and information transmission is a common theme among many theorists and theoretical schools, from Joseph Campbell to Walter Ong, and from the Russian Formalists to Jungian psychoanalysts. Taken together, these accounts may offer some explanation for society’s reluctance to overhaul too significantly and too readily this important and entrenched social tool.

In his argument for hypertext, and for this overhaul, Landow extrapolates from Jean-François Lyotard, noting Lyotard’s agreement that “narration is the quintessential form of customary knowledge,” but invoking Lyotard’s dictum that postmodernism is “incredulity towards metanarratives,” to suggest that “any culture that chooses hypertextual fiction will either already have rejected the solace and reassurance of linear narrative or will soon find their attachment to it loosening.”⁶³

However it is possible to raise two objections to this: first, Landow’s response presupposes that the culture in question has already chosen hypertext fiction or already rejected linear narrative, whereas ours hasn’t done either (at least yet); and,

secondly, Landow arguably commits a theoretical imprecision by too readily equating the specific postmodern concept of a 'grand narrative' with the more general concept of 'narrative itself'. One could also add that his argument rests on the strength and authority of postmodern theory, or on the strength of Lyotard's famous dictum, both of which are open to debate.

From a different biological perspective is the argument that hypertext, because it is a networked (as opposed to a linear) form of writing, is the more 'natural' form, as it more closely resembles the associationist nature of the human mind.⁶⁴ This is a position that Andrew Dillon has attempted to debunk. According to Dillon, information networks are not isomorphic to knowledge structures.⁶⁵ Dillon similarly criticises the view that the linearity of printed text is necessarily constraining.

David S. Miall takes this argument further, suggesting that the linked or networked aspect of hypertext not only does not mirror the associative or networked nature of the human mind and its way of responding to literary texts, but, rather, that it works contrary to it. Miall observes that "from the perspective of the reader the inherent tendency of hypertext is, paradoxically, to disconnect text sections, not to connect them." Miall further observes that "mechanical invocation of nodes through links will rarely correspond to the process of anticipation that a reader of a novel or poem experiences, since the need to choose from an array of multiple pathways at each step is unlikely to sustain the progressive unfolding of the reader's affective engagement with the text."⁶⁶

Miall puts this position most strongly in saying that

[t]he interactive nature of literary reading requires readers to permeate the text with their own images, memories, and desires; but the text in turn refashions these and situates them within a new perspective ... hypertext fiction tends to preclude this interactivity; by drawing attention to its own fictionality, it ironizes the constructive process, repeatedly decentering the reader and blocking participation in the fictional world.⁶⁷

While this may go too far—there is no reason why readers can't bring readerly interpretation to bear on hypertext any less than in a linear text—it does highlight a potential performative contradiction on the part of hypertext fiction. It is certainly true that much of the interpretational activity that is constitutive of the experience and pleasure of reading fiction occurs outside of the bounded codex—Miall, for example, neatly observes that "the pull of narrative ... may call upon

feelings not previously acknowledged or recognized by the reader, and include the relations, explicit or not, that are elicited to other literary texts, art works, movies and the like.”⁶⁸ However, these networks of association are inherently extra-textual or para-textual, and there is something to the argument that it would be impossible (and perhaps also *undesirable*) to incorporate these into the fictional text in hypertext form.

Further, according to Dillon, “[i]t is generally assumed, but rarely demonstrated, by advocates of hypertext that humans are constrained by the supposedly inherent linear qualities of paper and forced to access and use information in a strongly directed fashion.”⁶⁹ Dillon questions the “theoretical dubiousness” with which some theorists of hypertext claim that the association of information deemed possible with hypertext is more natural to readers than paper presentation, without proper recourse to or understanding of the insights into the workings of the human mind offered by cognitive science.⁷⁰

Aarseth also neatly points out the fallacy of one of this argument’s underlying premises when he notes that “linearity is not an intrinsic part of the codex structure.”⁷¹ There are many books that we can—and do—read in a non-linear fashion. As such, it is arguable that, even in the codex era, the dominance of linearity must possess another dimension, or other dimensions, besides mere restrictions in technology, and that we already adopt hypertextual reading strategies in relation to specific contexts and forms of cognitive activity.

The fact that Barthes’s theorisation predates hypertext is a simple enough proof that the printed codex is already in many ways unbounded, and Aarseth’s suggestion that “cybertext is more of a perspective on textuality than a category of it”⁷² has some argumentative force, as long as we are willing to accept that, if it is a reading strategy, it is a strategy that is more or less ‘open’ to the reader depending on the text and textual form in question. Aarseth himself concedes as much when he writes that “like all perspectives, it will necessarily emphasize certain types of text and marginalize others.”

In light of the above, it is tempting to suspect that current theorisations of the role of hypertext fiction may need to be amended, particularly given that many such theorisations were developed so early in the history of hypertext that there was little or no actual hypertext fiction upon which to base analysis.⁷³

In a situation where theory essentially precedes the creative work, instead of coming after it, to explicate it, there is an obvious temptation to force creative work

to fit a pre-existing theory. Further, according to Ryan, advance theorisations which posited hypertext fiction as holding the potential for the “super postmodern novel” may even have impeded the development of hypertext fiction:

First, the traditional length of the genre [i.e., the postmodern novel] motivated hypertext authors to start right away with large compositions that made unreasonable demands on the reader’s concentration ... With the arrogance typical of so many avant-garde movements, hypertext authors worked from the assumption that audiences should be antagonized and stripped of any sense of security, rather than cajoled into new reading habits. Second, the model of the novel created a pattern of expectations that subordinated local meaning to a global narrative structure, and even though this structure hardly ever materialized, its pursuit distracted readers from the poetic qualities of the individual texts.⁷⁴

The persuasiveness of Ryan’s argument appears to be supported by the fact that hypertext poetry has encountered greater success than has hypertext prose.

As Grusin observes, a similar theoretical error is evident amongst critics who too readily explain hypertext as embodying the Barthesian poststructuralist ideal:

A ... misreading has developed in regard to Barthes’s poststructuralist distinctions between ‘work’ and ‘text,’ or between ‘readerly’ and ‘writerly’ texts, both of which distinctions are also habitually cited as theoretical anticipations of the technology of electronic writing. For Barthes, as for Derrida, however, the ‘writerly’ ‘text’ is always already immaterial, allusive, and intertextual—even in print ... in describing hypertext or electronic writing as embodying the assumptions of Barthesian poststructuralism or Derridean deconstruction, electronic enthusiasts run the risk of fetishizing the ‘work,’ of mistaking the ‘work’ for the ‘text,’ the physical manifestation (electronic technologies) for the linguistic or discursive text ...⁷⁵

Along the same lines, Miall argues that while Barthes figured the ‘writerly’ text as a ‘network’, hypertext theorists are too literal in their application of Barthes’s model to hypertext literature:

Where Barthes, with great subtlety, explains what he means by a ‘writerly’ text by pointing to a remarkable array of reading operations to which we are invited in constructing the meanings and narrative by Balzac [in *S/Z*], the hypertext reader described by Bolter or Landow is imprisoned within a predetermined set of operations that preempts the writerly response in favour of reader manipulation.⁷⁶

It is possible to trace similar problems with other theoretical models that we are led to believe are played out *par excellence* in hypertext fiction, such as Stanley Fish-style reader response, or Umberto Eco’s ‘open work’.

Another problem with these theorisations is that they were developed in respect of the printed, bound codex, and we can already see Barthes's 'network' or Eco's 'open work' played out perfectly well with respect to those texts. As Eco notes, interpretation—especially of so-called 'open' works—depends on the "encyclopedia of knowledge within which the text was both composed and received (and how that 'encyclopedia' changes over time)."⁷⁷ This interpretational 'encyclopedia' is *extratextual*—it is located outside of the individual, bounded text—and therefore cannot be simply reducible to it, irrespective of the format in which that text is coded (although the method of encoding, and the intended, or to use Eco's term, model, reader, and consequently intended range of interpretations, will affect or constrain the plane of available readings to a significant extent). Nonetheless, the 'revolutionary' character of hypertext fiction is diminished if we accept that unbounded interpretive potential is open to the novel in bound codex form.

For example, C. Nella Cotrupi cites Italo Calvino as imagining the contemporary novel (i.e., in print form) as "an encyclopedia, as a method of knowledge, and above all as a network of connections between the events, the people and the things of the world."⁷⁸ Cotrupi, writing about the genre of metafiction generally, and Calvino's *If on a Winter's Night a Traveler* specifically, argues that it

shows us, through the manipulation of the fiction-making agents, how all fictional worlds, regardless of their metafictional density, are ontologically and systematically constructed ... The verbal mirrors in [*If on a Winter's Night a Traveler*] pretend ... to reflect the material world of a real reader while they in fact play at ordering worlds contrived within the contextualizing frames of fiction. Ultimately the discontinuity between the material reality of the book and the ideational foundation of its verbally constructed worlds remains inviolate.⁷⁹

(With reference to the above discussion, it should also be noted that Cotrupi observes that Calvino's novel, despite being a "whirlwind tour of the styles, genres, and historical periods of fiction," offers a sense of narrative closure insofar as it is "encased in a coherent and closed narrative frame."⁸⁰)

Jerome McGann argues that works in the emerging genre of 'hyperfiction' "pale in complexity before their paper ancestors: early works like *The Metamorphoses*, *The Arabian Nights*, *The Saragossa Manuscript* or recent ones by Joyce, Riding Jackson, Borges...."⁸¹ While McGann then goes on to express hope for

hyperfiction (and video games) in the future, his observation nonetheless suggests that what hypertext fiction offers is not something radically new, but rather something that certain genres of fiction have been offering since well before fiction had genres. If we are to extrapolate into the future, in light of this record, the evidence would point towards hypertext fiction becoming instantiated as one amongst these genres, rather than providing a whole new paradigm for literature.

The Future of Hypertext Fiction

I am reticent about dismissing too quickly the potential for hypertext literary fiction. However, one doesn't have to search too hard in history to find that, often, what could—or even *should*—be is not what will be.

Janet H. Murray notes that

[i]t took fifty years in experimentation and more [following the invention of the Gutenberg printing press] to establish such conventions ... which made the published book a coherent means of communication. The garish videogames [sic] and tangled Web sites of the current digital environment are part of a similar period of technical evolution, part of a similar struggle for the conventions of coherent communication.⁸²

Murray's observation underscores the danger in 'calling it too soon', as does author E. Annie Proulx's 1994 comment in the *New York Times* that "no one is going to read a novel on a twitchy little screen. Ever"—cited by hypertext advocates such as Bolter to suggest how quickly 'never-ever' pronouncements can seem myopic and Luddite.⁸³

However, on all the available evidence, the hypertext novel, per se, while undoubtedly having some unique aspects, will most likely remain a niche genre at least for the foreseeable future. Indeed, the strong recent success of non-literary online participatory environments also supports Aarseth's call for an uncoupling of the concepts of 'fiction' and 'narrative'.⁸⁴ If we do so, then we are freed from the need to reform or deform our concept of narrative, and its underlying structures and social function, to bend to new and emerging technologies. It is possible for narrative to exist in a digital environment, through (for example) web-published books or ebooks. And it is also possible to look to and promote interactive online fictions that offer a more richly interactive digital environment without needing to view them only in terms of traditional literary criteria.

As for hypertext itself, in terms of literature, for now at least, it appears to have settled into a different role, assisting in the explication and dissemination of literary texts, through fostering interpretation and ‘interpretive communities’ (through litblogs, online bookclubs and literary networking sites such as *LibraryThing*), literary scholarship (such as online digital archives and university affiliated research projects), and textual exegesis (through online teaching environments and hypertext annotation projects associated with traditional narratives). An example of this last category is Michael Groden’s promised digital companion to James Joyce’s *Ulysses*, which seeks to explicate and enrich Joyce’s novel through images, sound files, maps and hyperlinks to sources and resources.⁸⁵

Indeed, the increasing success of such ventures suggests that critical attention might better be directed towards the potential for hypertext as an analytical tool, to examine the matrix of social, cultural, discursive, generic, and technological practices of writing, reading and producing meaning from texts, however they may be constituted. Overall, this seems to be consistent with Moulthrop suggestion that “network culture could assist and not displace the culture of the book, for instance by helping serious writers build communities of readers.”⁸⁶

While Miall is also deeply critical of hypertext as an interpretational tool, claiming that there too it is too constraining and limited, I am inclined to disagree here. In terms of interpretation and exegesis, it is certainly possible to enrich individual and collective literary interpretive experience without exhausting or entirely preempting it. Indeed, if such explication foreclosed all interpretational activity, it would be a powerful case for ceasing all literary criticism and closing all English departments.

Another potential future for literature is suggested by Mark Z. Danielewski’s novel *House of Leaves*. As Hayles observes, “*House of Leaves* was first published on the Web before being instantiated in print. The print novel itself exists in four different editions, each significantly different from the others. Also in the cluster is a Web site devoted to *House of Leaves*, on which hundreds of readers make postings exploring details of the print novels.”⁸⁷ While Hayles may overstate the differences between the print editions—according to the inside cover of my edition, the differences between the four versions are relatively minor, and pertain to the colouring of certain words and plates that appear in the text, and, in relation to one edition, the omission of certain information in the “exhibits, appendices and

index”⁸⁸—Hayles’s other points are notable. This is particularly true insofar as they suggest both a mode of participatory audience interaction with the text, and the way in which the novel’s real hypertextual dimension derives from the novel’s online presence, in terms of its marketing, its promotion, and its consumption, even as it exists, ultimately, as a (rather well put together) bound codex.

The above analysis has suggested that the promise held out by hypertext fiction to supplant the printed, bound codex has not been fulfilled. However, recent developments have suggested that to unbind the codex may involve less of a wholesale reimagining than a technological transposition. Ultimately, it is the practices of reading, writing and meaning production that bind the text, far more than its physical embodiment in codex form, and it is in these practices that hypertext is beginning to show some very promising signs.

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- ³ See, and *cf.*, McAleese, 'Reflections,' vi–vii.
- ⁴ See, eg, Jay David Bolter, 'Literature in the Electronic Writing Space.' In *Literacy Online: The Promise (and Peril) of Reading and Writing with Computers*, edited by Myron C. Tuman, 19–42. Pittsburgh: University of Pittsburgh Press, 1992, 21.
- ⁵ See Walter J Ong, *Orality and Literacy: The Technologizing of the World*. Edited by Terence Hawkes, New Accents. London: Routledge, 2002. See also Marie-Laure Ryan, 'Multivariant Narratives.' In *A Companion to Digital Humanities*, edited by Ray Siemens, Susan Schreibman, and John Unsworth, 415–30. Malden: Blackwell Publishing, 2004, 415.
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- ⁷ *Ibid.*, 642.
- ⁸ *Ibid.*, 643.
- ⁹ *Ibid.*, 48.
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- ¹¹ See Aristotle, *Poetics*, and also Rasmus Blok, 'A Sense of Closure: The State of Narration in Digital Literature.' In *From Homer to Hypertext: Studies in Narrative, Literature and Media*, edited by Hans Balling and Anders Klink Madsen, 167–80. Odense: University Press of Southern Denmark, 2002, 168.
- ¹² Marie-Laure Ryan, *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Edited by Gerald Prince, Stephen G. Norris, and Wendy Steiner, Parallax: Re-Visions of Culture and Society. Baltimore: John Hopkins University Press, 2001, 239.
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- ¹⁷ Stuart Moulthrop, 'Pushing Back: Living and Writing in Broken Space.' *MFS: Modern Fiction Studies* 43, no. 3 (1997): 651–74, 661.
- ¹⁸ N. Katherine Hayles, 'Translating Media: Why We Should Rethink Textuality.' *The Yale Journal of Criticism* 16, no. 2 (2003): 263–90, 274 (emphasis in original).
- ¹⁹ *Ibid.*, 275.
- ²⁰ Guido Ipsen, 'The Crisis of Cognition in Hypermedia.' *Semiotica: Journal of the International Association for Semiotics Studies* 143, no. 1–4 (2003): 185–97, 187.
- ²¹ Jay David Bolter, 'Literature in the Electronic Space,' 24. See also Ryan, *Narrative as Virtual Reality*, 6.
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- ³³ See Redies, 'Return with New Complexities,' 12.
- ³⁴ Bolter, *Writing Space*, 122.
- ³⁵ See, eg, Murray, *Hamlet on the Holodeck*, 57.

- 36 Hayles, 'Print is Flat, Code is Deep,' 69.
- 37 Bolter, *Writing Space*, 75.
- 38 Ryan, *Narrative as Virtual Reality*, 183.
- 39 See eg. and cf. Espen J. Aarseth, 'Nonlinearity and Literary Theory.' In *Hyper/Text/Theory*, edited by George P. Landow, 51–86. Baltimore: The Johns Hopkins University Press, 1994, 82.
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- 41 Aarseth, 'Nonlinearity,' 83.
- 42 Myron C. Tuman, *Word Perfect: Literacy in the Computer Age*. Pittsburgh: University of Pittsburgh Press, 1992, 41. See also David S. Miall, 'Trivializing or Liberating? The Limitations of Hypertext Theorizing.' *Mosaic: A Journal for the Interdisciplinary Study of Literature* 32, no. 2 (1999): 157–71. Cf. Selig, 'The Endless Reading of Fiction,' 654.
- 43 See Blok, 'A Sense of Closure,' 175.
- 44 Peter Brooks, *Reading for the Plot: Design and Intention in Narrative*. New York: Alfred A. Knopf, 1984, 22. See also Blok, 'A Sense of Closure,' 175.
- 45 See also Moulthrop, 'Pushing Back,' 660.
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- 56 Ryan, *Narrative as Virtual Reality*, 18.
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- ⁸⁰ Ibid, 282.
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- ⁸² Murray, *Hamlet on the Holodeck*, 28.
- ⁸³ See Bolter, *Writing Space*, 5.
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