WEAVING THE WORD: A TEXTUAL CONSIDERATION OF USER-DISORIENTATION IN HYPERTEXTUAL SPACE

by

ARNAB GUHA

B.A. Jadavpur University, 1993
B.A., University of Cambridge, 1996
M.A., University of Cambridge, 2000

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Department of ENGLISH

The University of British Columbia
Vancouver, Canada

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Abstract

The central argument of this project is that user-disorientation in negotiating hypertextual environments is primarily a crisis in textuality. The crisis is precipitated largely by a series of binary assumptions that we have hitherto held as being near-axiomatic, and which continue to dominate our textual negotiations, resulting – as argued and illustrated at the conclusion of this project – in two broad categories of hypertext disorientation: the diegetic and the vectoral. Many of the biases that undermine our negotiation of hypertext have borne no relevance to scientific scholars who have contributed to the bulk of HCI studies; indeed, in many cases, the operational success of their projects have relied on modes of thinking which, while undoubtedly beneficial to science, have informed and biased our cognitive processes in ways that have precipitated crises in textuality. Through a critical reading of texts – from Chaucer to Tennyson and Browning, Crabbe and Joyce – that precede a more contemporary electronic hypertextuality, this dissertation argues that user-disorientation in negotiating textual environments is not unique to hypertext: a critical exploration of user (or reader) disorientation in negotiating such non-electronic texts as Browning’s *The Ring and the Book* or Crabbe’s *The Borough*, emphasizes the relationship between hypertext disorientation and crises in textuality, and seeks to illustrate the importance of placing the issue of hypertext disorientation within the continuum of our ambiguous relationship with “text” in any project that seeks a long-term solution to user-
disorientation in hypertextual environments. In conclusion, this dissertation argues that the long-term solution to hypertext disorientation lies in contemplating a spatio-visual framework (for negotiating hypertext) that would enable the shift in cognitive emphasis from the individual document to the network, from the “page” to the information space, from the enclosure to the path, the individual utterance to the dialogic sphere. And if such a solution calls for a radically different browser interface from what we use today, then the proposition is not unrealistic, as argued through a brief review of software that already exists in the public and commercial domain.
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Dedication

For Zoe, Pablo, Ma and Baba
Introduction

The central argument of this project is that user-disorientation in negotiating hypertextual environments is primarily a crisis in textuality. As I shall argue and illustrate throughout the dissertation, this crisis is precipitated largely by a series of binary assumptions – such as “text” and “graphic” – that we have hitherto held as being near-axiomatic, and which continue to dominate our textual negotiations.

In the first part of my study (Chapters 1 and 2), I shall explore the influence of binaries such as “text” and “graphic,” “orality” and “literacy,” and “plastic” and “linguistic” in creating an ambiguous, and potentially manipulative, textuality. In the second part (Chapter 3), I shall argue that the potential for such ambiguous and manipulative textuality is compounded within a hypertextual environment, given the unique nature of hypertext; indeed, it is in order to gain an understanding of the unique nature of hypertext, that I shall extend my exploration of our textual negotiations – the process of textualization, and our evolving relationship with texts – towards delineating what might be termed the hypertextual condition. Finally, in the concluding part of this dissertation (Chapter 4 and 5), I shall use my assessment of the hypertextual condition to discuss two broad categories of hypertext disorientation: the diegetic and the vectoral.
In exploring our textual negotiations, I shall repeatedly engage in a critical reading of texts – from Chaucer to Tennyson and Browning, Crabbe and Joyce – that precede a more contemporary electronic hypertextuality. Given that the central issue of the project concerns hypertext, the preponderance of traditional texts probably begs an explanation at the outset. My reasoning can be summarized, as follows: although electronic hypertextuality is unique to our time, and hypertext disorientation – as contemplated and considered by Human Computer Interaction (HCI) scholars – is a phenomenon only as old as electronic hypertextual environments, the evaluation of the issue of hypertext disorientation can only be complete when one seeks to place the hypertextual condition in relation to our other, often older, relationships with texts. User-disorientation in negotiating textual environments, I shall argue, is not unique to hypertext. In exploring user (or reader) disorientation through such non-electronic texts as Browning’s *The Ring and the Book* or Crabbe’s *The Borough* (as I shall in the second and third parts of this dissertation), I hope to emphasize the relationship between hypertext disorientation and crises in textuality that we have encountered well before the term “hypertext” entered our vocabulary.

Many of the biases that undermine our negotiation of hypertext have borne no relevance to scientific scholars who have contributed to the bulk of HCI studies; indeed, in many cases, the operational success of their projects have relied on modes of thinking which, while undoubtedly beneficial to science, have informed and biased our cognitive processes in
ways that have precipitated crises in textuality. An example may be found in the word processor's continued use of the "text" and "graphic" binary, as I shall elaborate in the first chapter of this dissertation. At the same time, literary theory and scholarship – and, in the case of this project, textual theory in particular – have been long aware of the impact of such biases on our textual negotiations. It is to strengthen my claim on behalf of the wealth of literary – rather than scientific – scholarship, to provide answers to the issue of hypertext disorientation, that I have chosen to critically engage non-electronic texts, whenever and wherever appropriate.

Indeed, in this dissertation, I hope to take the argument on behalf of literary scholarship one step further: I would like to argue that hypertext disorientation is less a result of limitations in technology, and more a crisis in textuality, and that an exploration of the ruptures in textual negotiations that underlie hypertext disorientation is crucial to the discovery of "appropriate metaphors for navigation in these complex information spaces and the spatialization of non-spatial information" (Alan M. MacEachren, Online: Internet). The technology required to enable and execute these metaphors already exists, as would be evident from my consideration of publicly and commercially available software in the final chapter of the dissertation. What is lacking is the willingness to contemplate a radically different cartography of the World Wide Web, as a result of our fears and biases that were formed over centuries of textual negotiations, and which continue to underscore our textual
relationship with electronic, networked information spaces. In this dissertation, I shall discuss some of these fears and biases towards an understanding of our crises in negotiating hypertextuality. Based on a critical exploration of our textual relationships that precede electronic hypertextuality, as well as a review of existing software – Thinkmap, SemioMap and Themescape – that seek to achieve a spatio-visual organization of hypertext, I shall conclude this dissertation with a reflection on these metaphors, to propose a new geography of hypertextual space.

This dissertation, then, is both an argument and a manifesto, for I hope that it will illustrate the importance of placing the issue of hypertext disorientation within the continuum of our ambiguous relationship with “text” in any project that seeks to contemplate a long-term solution to user-disorientation in hypertextual environments. The argument – and demand – in a nutshell is that hypertext disorientation will not be resolved by technological discussion alone, but that the will to contemplate new metaphors would need to be inspired, encouraged and informed by an understanding of a fuller history of textual negotiations within which electronic hypertext is the latest technological invention.
Chapter 1: Towards A Definition of “Text”

In Asterix and Cleopatra, set in 50 BC and published in France in 1965, the Gaulish heroes, Asterix, Obelix and Getafix are introduced to the Egyptian scribe, Exlibris, in Alexandria. Upon their meeting, Getafix asks Exlibris how the latter came to be a scribe. “I took a correspondence course ... a very good college,” says the Egyptian and, holding up a roll of papyrus with three rows of mock hieroglyphics, proudly exclaims, “The advertisement said, anyone who could draw could write!” (12)

The joke, of course, lies in the conflation of two different systems of inscriptive logic; indeed it lies in what now seems an absurd over-simplification of the inscriptive process to a point where the supposedly free strokes of a painter’s brush are equated with the supposedly coded scribble of every shaky stylus. The seeming absurdity of Exlibris’ comment lies in our staunch differentiation between what we perceive as the separate domains of “text” and “graphic,” two terms that we use almost daily in the context of word processors, thereby repeating our emphatic belief in their difference. And yet, even as the user interface of the word processor operates on the basis of the difference between “text” and “graphic,” the conflation of the pictorial and the literal by Exlibris gains both behavioral and technological
affirmation in an age of hypermedia\(^1\), which encourages a far higher proportion of "graphic" information than print, and whose digital bits reduce both "graphic" and "text" into a common, operable binary code.

Even without our explicit knowledge, our constant and alternate coupling of, and differentiation between, "text" and "graphic" posits an important challenge to our understanding of "text" in a world dominated by mouse-clicks and Windows. In negotiating electronic, hypertextual environments, our understanding of "text" and textuality is constantly questioned by an environment that both defies, and derives from, the once near-axiomatic binary of "text" and "graphic."

In this chapter, I shall offer a brief review of the different nuances in our understanding and perception of the relationship between knowledge and documentation as grounded in our use and conception of the word "text." In outlining our relationship with the "text"-"graphic" binary, I shall start with Ong and McKenzie's appraisal of textuality based on orality and the etymology of "text," and then turn to Chaucer for an illustration of an acute and exuberant awareness of chirographic textuality, at a remarkable historical cusp of

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\(^1\) The word "hypertext" is widely understood to be a digital textual network connected by "hotspots" or "hyperlinks" that mark conceptual, transitory nodes; the most common examples are the World Wide Web and other Internet applications, as well as CD-ROMs. "Hypermedia" is a term commonly used synonymously with "hypertext," but which specifically includes sound, animation and other "multimedia" that are also part of a network of links.
chirography, illiteracy, residual orality and the vernacular revolution in England and Europe. I shall then trace our textual biases in terms of the “text”-“graphic” binary through the prescriptions of 18th century England, to the origin of the term “hypertext” and to our present expectations of textuality in what Bolter calls the “late age of print” (2).

The final section of this chapter will argue that hypertext sublates many of the binaries that have so far informed our notions of “text” and textuality; this, in turn, shall pave the way for an exploration, in the following chapter, of how our definitional ambiguities hold the potential for a crisis in narrative and textuality. It is this crisis which, as I shall argue later in the dissertation, leads to different levels of disorientation, manipulated or otherwise.

1.1 “Text” and “Graphic”

One of the most common contemporary uses of the word “text” relates to word processors, which maintain a functional difference between “text” and “graphics.” A word processor offers the user a choice of either “text” or “graphic” viewing modes. It asks the user to “insert” a graphic component, borrowed from another “file,” into a body of “text” which, in the nature of word processing, is always in the state of being edited or “processed.” The graphic component is either directly scanned into a computer and stored as a separate file before its inclusion in the textual body in question, or it may be borrowed from other sources
such as the World Wide Web, or game animation software. Either way, it is “imported” into what the word processor perceives as “text.”

At the most basic level, the word “text,” when used in the context of word processing, refers to words and numbers, verbal components that may be directly typed in through the keyboard. “Text” here excludes everything but the domain of a standard, digitised, referential index (a system of individual chiro/typographic characters) that may be constantly rearranged into different visual and semantic formations through a collective understanding of the representational logic of such digital (re)groupings, the operational logic of the word processor, and the direct input of immediate authorial intent through the attached keyboard.

The word processor’s definition of “text” relies on the explicit collaboration between immediate authorial intent and the standard operational logic of the digitised referential index, through the input of the keyboard. Even words, when scanned into a computer, are received as “graphics,” until their “conversion” into “text” through Optical Character Recognition (OCR) software. The difference between “text” and “graphics” may, in this case, be crudely put as being analogous to that between writing and drawing. Writing relies on a collective understanding of representational logic as the very basis of its communication. This allows the transition from chirography to typography, from writing to typing, through a further refinement and standardisation of the accepted operational digits. Drawing, on the
other hand, does not conform to any such standard. Hence, there is no scope in drawing, as there is in writing, for further standardisation within the fundamental operational framework. While one may type instead of scribbling, one can only continue to draw as one always did, even if by means of an electronic stylus. Pages of a book, when scanned into a computer, remain "graphics," until the digits become operational and dynamic.

Thus, within the framework of word processing, the word "text" excludes not only pictures and other non-verbal data, but also what the poet-theorists McCaffery and bpNichol of the loosely defined Language Group recognise as the "physical experience of print" — with its independent aesthetic and semantic possibilities — which, in collusion with the "psychological and psychosemantic experience of operating verbal signs" (my italics, 59) generate meanings within the "network of symbolic exchanges" that McGann now famously calls the "textual condition" (3)². This is because, in word processing, a transition from "graphic" to "text," as in an OCR conversion, involves a trade-off. While the scanned pages — as graphic — retain the "physical experience of print," they lack the "psychological and psychosemantic experience of operating verbal signs" of their dynamic, operable state, their constant processability, which gives one of the most popular families of computer software

² "Both the practice and the study of human culture comprise a network of symbolic exchanges. Because human beings are not angels, these exchanges always involve material negotiations. Even in their most complex and advanced forms — when the negotiations are carried out as textual events — the intercourse that is being human is materially executed: as spoken texts or scripted forms. To participate in these exchanges is to have entered what I wish to call here 'the textual condition.'" (McGann, 3)
its name. On the other hand, once "processed" into text – into their operable state – the words inhabit the realm of standard computer pagination, a pre-determined format with a limited scope of options for customisation, thereby losing much of the original physical experience of marks on a page.

The interface, through which we engage with the word processor, maintains a strict dichotomy between "text" and "graphic" on the basis of digital operability. Its stringent operational logic admits only the directly typographic into the privileged domain of "text." All else is embellishment, "graphic," that which is to be "borrowed," "inserted," "imported" for effect, an alien component residing on the periphery of the main operational intelligence.

1.2 “Text” and Body

Outside the regimentation of the operational vocabulary of a word processor, the word "text" remains remarkably broad in its scope. In his 1985 Panizzi lecture on "The Book as an Expressive Form," D.F. McKenzie defines "texts" to include "verbal, visual, oral and numeric data, in the form of maps, prints, and music, of archives of recorded sound, of films, videos, and any computer stored information, everything in fact from epigraphy to the latest forms of discography." To support his extension of the meaning of "text" from "manuscripts and print to other forms," McKenzie cites the origins of the word:
It derives, of course, from the Latin *texere*, ‘to weave,’ and therefore refers, not to any specific material as such, but to its woven state, the web or texture of the materials. Indeed, it was not restricted to the weaving of textiles, but might be applied equally well to the interlacing or entwining of any kind of material. ...

The shift from fashioning a material medium to a conceptual system, from the weaving of fabrics to a web of words ... is only by virtue of a metaphoric shift that ... applies [the verb] to language, that the verb ‘to weave’ serves for the verb ‘to write,’ that the web of words becomes a text. In each case, therefore, the primary sense is one which defines a process of material construction. It creates an object, but it is not peculiar to any one substance or any one form. The idea that texts are written records on parchment or paper derives only from the secondary and metaphor sense that the writing of words is like the weaving of threads. (5-6)

In his famously influential book, *Orality and Literacy: the Technologising of the Word*, published three years before McKenzie's lecture, Walter Ong clarifies his understanding of the word “text”:
In concert with the terms “oral literature” and “preliterate,” we hear mention also of the “text” of an oral utterance. “Text,” from a root meaning “to weave,” is, in absolute terms, more compatible etymologically with oral utterance than is “literature,” which refers to letters etymologically/(litterae) of the alphabet. Oral discourse has commonly been thought of even in oral milieus as weaving or stitching — *rhapsoidein*, “to rhapsodise,” basically means in Greek “to stitch songs together.”

(13)

Both Ong and McKenzie argue for an extension of the use of the word “text” beyond manuscripts and print. Both cite the classical origins of the word to support their claim. While McKenzie emphasises the *process* of weaving, over the material or substance of its construction, Ong draws attention to the visual dimension of “text.” The idea of a “text” is, to Ong, essentially visual. When the “rhapsode” of classical Greece derives his name from a word that means “to stitch songs together,” then this oral, perhaps illiterate performer uses a visual metaphor to name his vocation. Ong goes on to seek authority in Havelock to strengthen his claim for an emphasis on the visual aspect of “text.” “Plato's entire epistemology,” he writes, in deference to Havelock's study, “was unwittingly a programmed rejection of the old ... interactive lifeworld of oral culture ... The term *idea*, form, is visually based, coming from the same root as the Latin *video*, to see, and such English derivations as vision, visible or videotape.” (80)
The “metaphoric shift” from “fashioning a material medium to a conceptual system, from the weaving of fabrics to [weaving] a web of words” (McKenzie, Bibliography, 5-6) emphasizes the importance of the visual dimension of “text” which, in turn, facilitates the conceptual spatialization of utterance. Indeed, many an originally oral “text” may well have displayed a visual consciousness in its organisation, as evident in such (possibly residual oral) tropes as “Go lytel bok” in Chaucer’s *Troilus and Criseyde* (Book V, l. 1786), composed in a historic cusp between orality and the gradual ascendancy of literacy. Such a trope would have gained extreme potency in an oral recitation in which the absence of a tangible document or “bok” would have found compensation in a human agent who would fill the emptiness of an absent *manual* (that which may be held in the hand, or Latin *manus*) with the physical human body. This body, in delivering the “text,” would then be translated into the absent “bok” (the physical, textual body), little or great.

1.3 The Book and the Pen

Writing about a century before William Caxton’s publication of the *Recuyell of the Histories of Troy* (1473-4), the first book in English to be produced from movable types, Chaucer provides us with numerous examples of triumphant tension caused by a collective, though stratified, change in the understanding of “text” at a historic moment encompassing
chirography, illiteracy, residual orality and the vernacular revolution in England and Europe. Acutely aware of the significance of using the vernacular in his literary composition, as well as the exuberance and anxiety of a chirographic consciousness working within a powerful legacy of orality, Chaucer celebrates not only the English language, but also the "physical experience" (McCaffery and bpNichol, 59) of ink on paper, and even the aesthetic of the Roman alphabet.

In the Proem that opens the second Book of The House of Fame, Chaucer calls upon "every maner man/That Englissh understonde kan" (my italics, ll.509-10). In The Book of the Duchess, the knight admits that he lacks "both Englyssh and wit" to describe his love (my italics, l.898). In The Legend of Good Women, the God of Love asks the narrator if he had "nat mad in Englysh ek the bok/How that Crisseyde Troylus forsook" (my italics, ll.264-5, G "text"). In these works, Chaucer creates a direct equivalence between "Englissh" and "language": English is no longer a language, but language itself. And, in Troilus and Criseyde, the principle of equivalence is extended to textuality, with the poet’s equation of ink with tears, and the "bok" with the state of the narrator’s mind, so that Chaucer celebrates not only his native tongue, but also the chirographic mode of his composition.

3 Chaucer, of course, was not alone in emphasizing English as the language of his creation. In the Prologue to Confessio Amantis, Gower (1330-1408) explains his purpose by stating that he is writing "In oure englissh .../ ... A bok for Engelondes sake" (ll. 23-24).
At the very opening of the first Book, the poet emphasises the sorrowful nature of his tale: "Thise woful vers, that wepen as I write" (1.7). "Vers," here, alludes to the organisation of written material. The weeping verse replaces the mind, and even the soul, with ink. The verse may weep because it is written. Just as "Englishhe" becomes "language," so does the ink become the tears. It is the very act of writing that occasions the metaphor. The pen weeps ink as it writes. The verses, arranged visually on the page, or in the mind’s eye of the audience of a likely oral performance, add to the sorrowful textual condition. Indeed, even an illiterate member of the audience of an oral recitation of Troilus and Criseyde would be forced to visualise the "woful verse, that wepen" ink. For without such visualisation, the metaphor crumbles: the verses weep as the poet writes and, in turn, cause the reader and the listener to weep with them in their reading and/or telling.

In the last Book of Troilus and Criseyde, Chaucer calls his work his “litel bok” which, as mentioned above, may well have been a residual oral trope, but one which, nonetheless, emphasises Chaucer’s awareness of the “text” as a visually conceivable object, located in space, and therefore quite different from aural/oral sound which, as he carefully explains in The House of Fame, is “noght but eyr ybroken” (1.765). In repeatedly drawing attention to the act of writing, and by differentiating writing from sound, Chaucer marks and celebrates the tangibility, or potential tangibility, that writing accords an utterance. In his celebration of the tangible, Chaucer seems to make a case for Ong who, in Orality and
Literacy, describes writing as “the reduction of dynamic sound to quiescent space”: an external “technology” that allows the commission of the temporal “event” of speech to the divisible tangibility of space (81-83).

But Chaucer goes further than displaying a definitive preference of the general visual dimension of “text.” The visual conceptualisation of his work – however informed it may have been by residual orality – is consistently punctuated by an emphasis on literacy and, subsequently, a demand on his audience to apply a literal sensibility to their appreciation of the poet’s creative corpus. Perhaps the most obvious case in point is “An ABC,” one of the cluster of Chaucer’s “Short Poems,” which begins with an explicit statement – either from Chaucer, or from his scribes – about organisational intent: “Incipit carmen secundum ordinem litterarum alphabeti”: Here begins a song that sets in order the letters of the alphabet. “An ABC” comprises 23 stanzas, each of which starts with a different letter of the alphabet (J, U and W are missing in accordance with the alphabetic set of the time), and which are arranged in alphabetic order, opening with the “A” of “Almighty and al merciable queene,” the first line of the poem, and closing with the “Z” of “Zacharie yow clepeth the open welle,” the first line of the concluding stanza.

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4 Ong’s definition of writing would be at odds with the arguments of several theorists, including Derrida, according to whom the dangers of regarding writing as a “supplement to the spoken word” (Ong’s reference to Plato’s notion of writing as an “external, alien technology”) includes the assumption of the “prior existence of an extra-mental referent” (Ong 166) which the word represents, on the basis of a one-to-one correspondence, to the comprehending mind.
However, while “An ABC” may have been direct in its demand on literacy, Chaucer's literal sensibility takes subtler and more challenging forms when he uses the alphabetic order to evoke a philosophically hierarchical register of comparison. In Book I of *Troilus and Criseyde*, Chaucer describes Criseyde as being as “Right as oure firste lettre is now an A” (l. 171). While the “crowned A” worn by the Prioress in *The Canterbury Tales* signifies the Latin dictum, “Amor vincit omnia,” Chaucer's comparison of Criseyde to “oure firste lettre” in *Troilus and Criseyde* may perhaps be best understood in terms of a Platonic chain of virtue finding a new and exciting analogical model in the alphabetic order. Thus, while Palamoun's reaction upon seeing Emelya in *The Knight's Tale*

He cast his eye upon Emelya,

And therwithal he bleynte and cride, “A!” (ll. 1076-7)

may well be explained in terms of a difference in spelling — the modern “Ah!” being spelt without an “h” by Chaucer or the scribes — one may well relate the use of “oure firste lettre” in both poems to a brilliant Chaucerian reworking of his understanding of the Platonic chain of virtue into a poetic conceit, the object of which is not only the tale of love, but also a moral recognition of “thilke Moevere [who] stable is and eterne” (l. 3004) — the “Firste
Moevere of the cause above” who “first made the faire cheyne of love” (*The Knight's Tale*, ll. 2987-8) – and of the chain of imperfection that descends from this primary ideal:

But of a thyng that parfit is and stable,

Descendynge so til it be corrumpable. (*The Knight's Tale*, ll. 3009-10)

Such a conceit is emphatic in its demand on literacy, for without a knowledge of “our firste lettre” one can go no further in using it as a standard of comparison by which to conceptualize Criseyde. In reviewing the visual dimension of “text” in such firmly literal and literate terms, Chaucer provides further historical support to Ong’s notion of writing. In *Orality and Literacy*, Ong argues that the “alphabetic index is actually a crossroads between auditory and visualist cultures”\(^5\) and that “writing” does not include just any semiotic marking, any visible or sensible mark to which meaning is, or may be assigned. Instead “writing,” according to Ong, is a “coded system of visible marks” (84), which includes Chinese pictographs in, but excludes Native American pictographs from, its scope. By insisting on the “coded” to define writing, Ong re-affirms the “text”-“graphic” binary of the word processor, the Chinese pictographs being “writing” that can be reduced to fonts, and therefore what a word processor would accept as “text.” Thus, an excerpt from an online instructional manual on representing Chinese characters on the World Wide Web, reads:

\(^5\) The word “Index” is a shortened form of *index locurum* or *index locurum communium* (Ong, 125)
Web pages that display Chinese characters can do so as graphics or as text. No special software or Chinese fonts are required if Chinese characters are in the form of graphics (just like a picture or drawing). However this is often impractical because pictures take much longer to load than text. Most Chinese web pages contain Chinese as text rather than graphics. [...] The two most commonly used character sets are GB (GuoBiao), used for simplified characters (mainland China); and Big5, used for traditional characters (Taiwan and Hong Kong). Most popular browsers such as Netscape Navigator or Microsoft Internet Explorer can be configured to display either or both (separate fonts may be needed). (Ocrat.com, Online: Internet)

On the other hand, North American pictographs, which cannot be reduced to “character sets,” are therefore “graphic.” Thus we come back a full circle to the Asterix joke: Exlibris’ comment is funny because we collaborate with the comic book to banish the Egyptian hieroglyphs from the literate domain of “text” and into the marginal realm of the “graphic.” Having collaborated in this exclusionary exercise, we then find it preposterous that “anyone who could draw” should therefore assume that they can write.
1.4 Winged Words

This feeling of preposterousness is not new to our age. While our affirmation of the "text"-"graphic" binary is now facilitated, daily, by the word processor, our insistence on the difference between "text"-"writing" and "graphic"-"drawing" pre-dates the now ubiquitous technology that we so take for granted. As D.N. Rodowick writes in his essay "Reading the Figural" – first published in Camera Obscura in 1990, and now available on the Web – the very distinction between the "linguistic" and the "plastic" arts, maintained at the highest philosophical level in the West, has led us to insist upon either the reduction of the "plastic" into linguistic sense, or the valorization of the visual as transcending "rational" thought:

From the inauguration of modern [Western] philosophy in the 18th century, seeing and saying, imaging and speaking, and pictures and propositions have been considered as fundamentally distinct and often resolutely opposed categories. This strategy is not innocent. Over the course of two centuries, philosophy has barricaded itself within a concept of *speech* as the site of discourse, communication, meaning, and rational thought. This epistemological problem was unthinkable without the corresponding birth of *aesthetics* as a separate domain within the province of professional philosophy. For speech to maintain its identity, and poetry its place as the highest art (as attested by philosophers from Hegel to Heidegger), meaning in the "plastic" arts – architecture, painting, sculpture, and subsequently, photography, cinema and video – had to be
understood either as reducible to linguistic sense or valorized as exceeding “rational” thought. (11)

And even as this distinction between the linguistic and the plastic was being maintained by “modern” philosophy, the linguistic, too, has been suffering a state of division: writing, like the “plastic” arts, was either reduced to being an “external” spatial “supplement” to the oral “event” (Ong), or it was valorized as transcending the ephemerality of an oral utterance. “[W]riting, the letter, the sensible inscription,” goes Derrida’s famous complaint in Grammatology (1967), “has always been considered by Western tradition as the body and matter external to the spirit, to breath, to speech, and to the logos” (35).

Thus, even as George Herbert (1593 – 1633) was bringing together the “plastic” and the “linguistic,” the “text” and the “graphic,” in his famous calligrams in The Temple (1633), Dryden was protecting the sanctity of the chiro-linguistic domain in Mac Flecknoe, written possibly in 1678 and published in 1682. Aiming his pen at the mediocrity of Thomas Shadwell (1640-92), Dryden finds a scapegoat for lack of poetic inspiration in Herbert’s defiance of the “text”-“graphic” binary:

Thy genius calls thee not to purchase fame
In keen iambics, but mild anagram.
Leave writing plays, and choose for thy command

Some peaceful province in acrostic land.

There thou mayst wings display and altars raise,

And torture one poor word ten thousand ways. (ll. 203-8)

Dryden's reference to wings and altars is a direct attack on Herbert's poems, "Easter Wings" and "The Altar," published in The Temple (1633). The attack is grounded in the belief of writing as being "external to the spirit," and this belief leads to fear: if the acrostic or the calligram cannot be fully (or, at times, even partially) expressed by oral recitation alone, then writing is no longer "external to the spirit" (Derrida, 35). Instead, the calligram allows writing to incorporate the "spirit" within itself and, worse still, suggests the possibility of writing's having had a "spirit" of its own. It is as though, having been written in the shape of wings, the marks on the page threaten to fly away from their oral/aural center; this, in spite of the fact that "Easter Wings" employs a fairly simple shape, whose practical malleability is fairly limited.
Lord, who createdst man in wealth and store,
Though foolishly he lost the same,
Decaying more and more,
Till he became
Most poore:
With thee
O let me rise
As larks, harmoniously,
And sing this day thy victories:
Then shall the fall further the flight in me.

Figure 1: “Easter Wings” (1633)

Neither was Dryden alone in his criticism. Within the rigorously prescriptive halls of 18th century English poetics, Dryden was to find a posthumous echo in Joseph Addison who, in 1711, launched a scathing attack on all such forms of “false wit” in the *Spectator* (Nos. 58-61, Online: Internet). Whereas torturing one poor word, visually, in ten thousand ways forms the basis of Apollinaire’s calligrams, Dylan Thomas’ “Vision and Prayer,” and the L=A=N=G=U=A=G=E poet’s creative manifesto and theoretical arguments, the zealously asserted distinction between the “linguistic” and the “plastic,” coupled with the perceived differences between writing and speaking have, over the years, laid the groundwork for the witty creators of Asterix to give us — two years before the publication of Derrida’s
Grammatology – a sure-fire gag that sits like a definitive dunce cap on a character named (note the pun) Exlibris.

1.5 “Text” and “Hypertext”

In 1965, the same year as the publication of *Asterix and Cleopatra*, and over five and a half centuries after the death of Chaucer, Ted Nelson introduced the term “hypertext” to the world in his classic paper, “A File Structure for the Complex, the Changing, and the Indeterminate”:

Systems of paper have grave limitations for either organising or presenting ideas. A book is never perfectly suited to the reader; one reader is bored, another confused by the same pages. No system of paper ... can adapt very far to the interests or needs of a particular reader or student. However, with computer-driven display and mass memory, it has been possible to create a new, readable medium ... that will let the reader find his level, suit his taste, and find the parts that take on special meaning for him ... Let me introduce the word *hypertext* to mean a body of written or pictorial material interconnected in such a complex way that it could not conveniently be presented or represented on paper. It may contain summaries, or maps of its contents or interrelations ... (Nelson, 96)
In this famous and often quoted passage Nelson lends a name, and further articulation, to Vannevar Bush's vision, first articulated in 1945 in his landmark paper, “As We May Think.” In this paper, Bush foresees a device, which he calls MEMEX, “in which an individual stores all his books, records, and communications, and which is mechanised so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory.” Bush explains that the consultation of the record is “by the usual scheme of indexing. If the user wishes to consult a certain book, he taps its code on the keyboard, and the title page of the book promptly appears before him, projected onto one of his viewing positions” (106-7).

What is common to both Bush and Nelson is a conventional awareness of “text” as hard copy, and its subsequent limitations. Both conceive of hypertext within the parameters of the “technology” of writing (Ong 82). Where Bush, in 1945, sees the importance of indexing (a by-product of the “technology” of writing, enhanced by print), Nelson clearly articulates the need for “interrelations.” However, more interestingly, Nelson adds to Bush's vision, the elements of complexity and “pictorial material.” While Bush's MEMEX would receive its data on microfilm, Nelson clearly states that the “body of written or pictorial material [would be] interconnected in such a complex way that it could not be presented or represented on paper” (96). Thus, exactly two decades before McKenzie's Panizzi Lectures
on "the sociology of texts," Nelson recognises the limitations of privileging "the presence of linguistic elements" (McKenzie *Bibliography*, 35) in one's understanding of "text."

Indeed, Nelson goes on to propose a hypertext utopia, the Xanadu Docuverse (www.xanadu.com.au) based on the notion of universality and inclusivity, "a single unified world of data to which everyone will have point-and-click access from whatever computer, videogame or multimedia player they want to use" (*Xanadu Ideal*, Online: Internet). According to the *Xanadu Ideal* (1993), "Literature is a debugged system used and understood throughout the world. *Documents* are information packages with points of view, *literature* is a system of interconnected documents" (Online: Internet). Nelson's inclusive definition of "literature," though not etymologically accurate (the Latin *litterae* refers directly to letters), corresponds well with McKenzie's understanding of "text" to "include verbal, visual, oral, and numeric data, in the form of maps, prints, and music, of archives of recorded sound, of films, videos, and any computer-stored information, everything in fact from epigraphy to the latest forms of discography" (*Bibliography*, 5). Thus Nelson and McKenzie converge not only in proposing a modification of our understanding of the governing logic of inscription, but also in the welcome they accord to the now familiar notion of multimedia:

By definition and by convention, a system which makes use of more than one medium is a multimedia system. In its most liberal interpretation, the rubric "multimedia" would
cover any system which employs the sound of a bell to direct user attention. Typically, though, the term refers to systems with more or less esoteric applications ... of graphics or video. (Csinger, User Models, 56)

Nelson's inclusion of "pictorial material" (Nelson, "A File Structure," 96) within the functional purview of hypertext calls for the same "esoteric applications ... of graphics and video" which Csinger associates with the term "multimedia." There are several reasons why Nelson believes these are inappropriate for representation on "paper," the most obvious being the sheer impossibility of including sound or moving images on paper, though Nelson neither mentions an oral component nor clarifies that the "pictorial" element would include dynamic graphics.

However, what remain most fundamental to Nelson's definitive understanding of hypertext, as articulated in both his 1965 paper and in The Xanadu Ideal, are the "interrelations," the "maps of its contents," which provide the basis for his claim to redefine literature as a pragmatic and dynamic "system of interconnected documents" that consciously uses technology to "allow millions of points of view and to keep track exactly of all their interconnections" (my italics, Zanadu Ideal, Online: Internet). It is the body of interconnections that constitutes the "negotiations [that] are carried out as textual events," the
"intercourse" that McGann calls the "textual condition" (3) and which, translated technologically, forms the basis of Nelson's virtual utopia.

Indeed, so exciting are the "interconnections" underlying the new, linked textuality of our times, that even the best thinkers may be seduced by the promise of textual linkage into committing common fallacies of taxonomy and nomenclature. One example of such confusion is found in Michael Heim's use of the term "digital text" — for instance, in page 217 — in *The Electric Language*, as a linked "text," thereby allowing it to be used interchangeably with "hypertext." A "digital text," writes Heim, has the "essential" property of "linkage." This links Heim's notion of "digital text" to Nelson's definition of "hypertext" and to Moulthrop's explanation of the hypertextual phenomenon as being "all about connection, linkage, and affiliation" (par. 19). Heim's "digital text" finds another echo in Kevin Kelly's understanding of "hypertext" in *Out of Control* (1994) as "a vague network of live links between its words and ideas and sources" (462): a system, *web*, or *net* of "texts," in which each component "text" is linked to the others at several "ideational" (Barrett xvi) nodes, so that readers may *navigate* (cf: *Netscape Navigator*) through the web, net or system, while negotiating their situational needs with the available resources and links.

It is important to note Heim's fallacy because a "digital text" is *not* necessarily "hypertext." Project Gutenberg, started about twenty-two years ago by Michael Hart, aims at
creating a comprehensive on-line library. Their archives may be accessed through the World
Wide Web. This page offers the reader an “index” of “texts” that have already been put on-
line. Now, while the University of Illinois Archive (uiarchive) page is hypertextual and
allows one to navigate through it to, say, the electronic “text” of The Thirty Nine Steps, by
John Buchan, the actual novel remains presented as non-linked “text” (albeit digitally
formatted). Once within the story, we cannot hypertextually navigate our way to the end. And
if we download the “text” through our printer, then what we have before us is a less polished
version of what the bookshop might have sold us.

Understanding this difference is most crucial to “a philosophical study of word
processing” (the subtitle of Heim’s book) in general, and of hypertext, in particular. Or else,
one would continue to equate “electronic text” (e-text) with “digital text” and “hypertext” and
hold the terms as being synonymous, even though the first two kinds of “text” may only
imply non-linked “text,” awaiting the final stage of hard copy (commitment to paper), and
merely disguised under a misconception enforced by a Web address, which allows on-line
accessibility. Hypertext, on the other hand, may be defined as a textual body without a
determining “top” – to quote the introductory screen of the World Wide Web at info.cern.ch
through CERN – which uses technology to allow readers access to different links within the
network and to different points of view, within a minimally predetermined framework, so

http://uiarchive.cso.uiuc.edu or, ftp://uiarchive.cso.uiuc.edu/pub/etext/Gutenberg
that readers may *navigate* through the web, net or system, while negotiating their situational needs with the available resources and links. This is what Barrett calls the malleable "text" and which, in Kelly's terms, is a "distributed document" where "*the reader of hypertext creates a different work* of the author's web depending on how she goes through the material. ... [A]s in other distributed creations, the creator must give up some control of his creations" (Kelly, 462).

While Heim's confusion seems somewhat misplaced in a widely read and well-regarded book on the "philosophy of word processing," it is, nonetheless, no different from the ubiquitous use of the words "digital" and "electronic" (or the prefix "e") to describe any kind of association with a computer. And the words "digital" and "electronic" are, more often than not, followed by the word "network," thereby suggesting a linkage, a system of interconnections, that defies the traditional boundaries that define one documentary corpus from another. In constantly implying this relationship between the digital, the electronic and the networked, we perhaps betray our own desire for Nelson's Xanadu. Literature, we seem to agree, is a "debugged system" (Nelson, *Xanadu*, Online: Internet) within our current understanding, and we should, instead, work towards a "docuverse" (Nelson, *Xanadu*, Online: Internet) of interconnectivity. At the same time, our often synonymous use of the terms "digital text," "electronic text" and "hypertext" may also point to the textual anxiety
that we share in what Bolter, in *Writing Space: The Computer, Hypertext and the History of Writing* (1991), calls “the late age of print” (2).

### 1.6 Textual Anxiety and the “Irreality” of Hypertext

In her essay “Corporeal Anxiety in *Dictionary of the Khazars: What Books Talk about in the Late Age of Print When They Talk about Losing Their Bodies*” (1997), Katherine Hayles describes the state of textual anxiety that follows from the closing of the “long tradition of representing bodies of print and human bodies in terms of each other” and from their now “entering a new phase, when both [bodies of print and human bodies] are understood less as incorporations in physically durable substrates than as flows of information” (801).

In Milorad Pavic’s novel, *Dictionary of the Khazars* (1988) one finds a literal translation of Chaucer's trope in *Troilus and Criseide* — “Go lytel bok” — into a perverted documentation of the history of the Khazar empire on the body of an envoy. The human body thus actually becomes the absent “bok” or manual, which then allows the spatial dislocation of the “text” through the travels of the envoy, as well as the thematic distribution of the narrative through the savage amputation of specific body parts that may have particular strands of Khazar history tattooed on them.
And yet, even as Hayles sees Pavic's novel as being an instance of a book expressing its own corporeal anxiety, its own fear of losing its body, in our “late age of print” (Bolter, Hayles), our daily sessions with word processors and e-mail attachments continue to heighten our own awareness of pre- and meta-corporeal textual forms, so much so that our language implicitly demands the digital “malleability” (Barrett) that arises, in part, from the reluctance to commit “text” to tangibility (e.g., in our use of the terms “word processor” and “digital texts”), and also, in part, from the tremendous interconnection between nodes of information that such meta-corporeality allows (hypertext). At the same time, our desire for malleability is tinged with fear. The technology that allows us a believable promise of an interconnected “docuverse” (Nelson, Xanadu, also used by Hayles, 819) merges worlds that have been traditionally regarded as being distinct from one another. Even as we are seduced by the “pictorial material” (Nelson) and the “esoteric applications ... of graphics and video” (Csinger) in hypermedia, the meta-corporeal merger of “text” and “graphic” challenges our assumptions about the corporeality that underlies our popular conception of “text,” and makes us fear what we then commonly call the “virtual.”

An instance of our scepticism, if not fear, is found in Heim’s *The Metaphysics of Virtual Reality* (1993):
The computer's VR will soon allow me take my body along with me, with either a sensorium interface or a third-person iconic representation. The degree of realism is, in principle, unlimited. This very realism may turn into irrealism, in which virtual worlds are indistinguishable from real worlds ... (134)

He traces the term “virtual reality” to Duns Scotus (1266?-1308):

Although we may have to dig into our experiences to unveil the qualities of a thing, Duns Scotus held, the real thing already contains its manifold empirical qualities in a single unity, but it contains them virtually – otherwise they would not stick as qualities of that thing. Duns Scotus used the term virtual to bridge the gap between formally unified reality (as defined by our conceptual expectations) and our messily diverse experiences. (132)

On the basis of Scotus' concept of “virtual,” Heim explains “virtual reality” as “reality that is not formal, bona fide reality. When we call cyberspace a virtual space, we mean a not-quite-actual space, ... but operating as though it were real space” (Heim, *Metaphysics*, 132). The “as though” and “not-quite-actual” as used by Heim, and combined with the notion of the process as product, leads to what Heims sees as the “problem [that is] not with cyberspace,
but with virtual reality. ... How may we preserve the contrast between virtual and real worlds?” (Heim, *Metaphysics*, 135)

But if we examine Heim’s fear of the “virtual,” and of the “irreality” of hypertext, in the context of cinema, with which we are now very familiar and comfortable, then his anxiety seems somewhat exaggerated. When we perceive the moving image on the cinema screen as a moving image, we transcend the “formally unified reality” of a large number of still pictures arranged vertically on a reel. What allows us to witness motion is our “messily diverse experiences,” in this case, the merger of our singular experience of each frame by the memory lag of a tenth of a second. The “virtual” aspect of the motion may then be placed within each 1/10 second that follows our vision of each still shot and which thereby organizes our senses in a happy, but “messily diverse” experience, without which we would not have perceived motion.

Yet it would be somewhat ludicrous to deny the motion of the cinematic picture on the basis of its being a formal aggregate of still frames. The “reality” of cinema is the motion, for motion is the ontological basis of cinema (“motion picture”), and this “reality” does not conflict with our perception of the world outside the dark auditorium or detract our attention from an accompanying friend even while we accept the motion of the images on the screen as being real. When Heim expresses his fears of virtual “irreality,” he forgets the factor of the
phenomenological adaptation to technology. This may be understood through the Platonic metaphor of the cave whereby one who has had no vision of the “ideal” (or what Heim, in describing Plato’s notion of the “ideal,” calls the “really real”) will take the imitation to be the “really real.” A member of a mythical tribe who has no exposure to modern technology will regard the moving picture as “real.” This person will also be frightened by the telephone and, as has been shown so beautifully in Ketan Mehta’s Hindi film *Spices* (1986), will regard the voice emerging out of the tin-funnel speaker of a gramophone as being a product of witchcraft which, in itself, will be “real” to its unfamiliar audience. To us, however, this is reality re-produced.

At the same time, none of us denies the “reality” of the motion of the pictures on the screen or the sound that we hear on a CD player, the latter using a technology of digitisation that is comparable to that of the cinematic reel (i.e., in lab conditions, it is possible to play one “digit” of sound which would be a monotone, just as one may freeze a celluloid frame from a reel of cinematic film⁷). Our acceptance of the technology of these media does not come through heightened intelligence, but through our phenomenological adaptation to their techniques. Cyberspace then presents an “irreality” that is no more threatening than the first instance of cinema was to its first viewer.

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⁷ An essential difference exists between a still frame and a frozen, monotonous “digit” of sound. The former is complete in itself. It is still a picture, though static. The latter is only sound, not music. However, what is relevant to this discussion is cinema’s event of motion and this is absent from a still picture, a frame, just as a tune is absent in an amplified “digit” of sound.
1.7 The Sublation of Opposites

The fear of the "virtual," of our "messily diverse experiences," and the "the-not-actual" (Heim, *Metaphysics*, 132-135), lies elsewhere. It arises mainly from what Heim, in his discussion on Heidegger, McLuhan and Ong, sees as the sublation of cognitive opposites:

"Ong sees the electronic media sublating the earlier oppositions, the oral and the literate ... Electronic visuals, supported by voices, re-creates human presence and reunites the individuated members of the community" (Heim, *Metaphysics*, 69). And the oppositional binary that the virtual space of hypertext sublates most effectively is "text"-"graphic." Had hypertextuality only involved the written word, then its interconnections, however potent, would not have caused so extreme an anxiety as that expressed by Heim in the passage quoted earlier. Had hypertextuality only comprised the moving image, as in cinema, then its novelty would have fascinated, then bored, us. But the "sensorium interface or a third-person iconic representation" of Heim's fears is based on its forcing a sublation of opposites — "seeing and saying, imaging and speaking, and pictures and propositions" — which, as Rodowick argues, "have been considered as fundamentally distinct and often resolutely opposed categories," the assumption of difference asserting itself through the "text"-"graphic" binary even as I type these words into my word processor at this very moment, in Toronto.
As Orwell's pigs, in behaving *as though* they were humans *are indeed* humans, for their being "not-quite-actual" is superseded by the very actual effects of their actions, so is virtual reality not an "irreality," analogous to "drug-induced hallucinations" (*Metaphysics*, 135) as Heim argues. And just as Orwell's pigs could manipulate the ambiguity achieved by the seeming incongruity – the assumed and insisted difference – between their appearance and their actions, so do the ambiguities in our textual definition – ambiguities arising out of our fear of reconciling perceived oppositional categories – hold potential for manipulation.

Like Orwell's human-pigs, hypertext and "graphic" – being part of an equal "process of material construction" that "is not peculiar to any one [textual] substance or any one [textual] form" (McKenzie, *Bibliography*, 5-6) – are as much "text" as hard copy and "true fonts." In banishing the myth of the "really real" and extending our understanding of "text" beyond the "coded system of visible marks" (Ong, 84), we lose the joke in *Asterix and Cleopatra*, but minimize the potential for such manipulation of our ignorance as I shall illustrate in the next chapter.
Chapter 2: Rupture and Manipulation

The constant challenge posed to our textual complacency, partially as a result of our axiomatic insistence on “text” and “graphic,” “linguistic” and “plastic,” “oral” and “written” (as discussed and illustrated in Chapter 1), leads to ruptures in the “natural rules of discourse,” as noted by Foley in his book *The Singer of Tales in Performance* (1995).

The first rupture arises out of a perception of “text” as a repository of discursive “fossils.” Describing the transcription of “oral formulas” – defined by Parry as “a group of words which is regularly employed under the same metrical conditions to express a given essential idea” (Lord, 4) – Foley writes that, when “written down and perceived as textual,” the oral is “only too easily perceived as ‘dead letters’ of cliché; instead of being understood as the natural result of rules for discourse, they may be consigned to the status of metrical stopgaps or filters” (91). Foley’s statement initially suggests a relationship (between the oral and the written) that is akin to Ong’s conception of writing as an “external,” spatial supplement to an oral “event.” However, Foley’s comment broadens in scope in the light of McKenzie’s claim that the word “text” derives from “the Latin *texere*, ‘to weave,’ and therefore refers, not to any specific material as such, but to its woven state” (McKenzie, *Bibliography*, 5).
It is the *process* of weaving, either oral or written, out of which discourse is generated, that becomes Foley’s “natural rules of discourse” (91). And it is when the “woven *state*” (my emphasis) is expropriated from the *process* of weaving, and fetishized into a “repository” of alleged remnants of the lost, and now idealized and imagined process, that the “natural rules of discourse” become “fossils.” The process of expropriation works not only in the case of the oral being reduced to a visual, fossilized index, but it also applies to the reduction of the visual into “linguistic sense” (Rodowick, 11). Thus, for instance, one may orally recite “Easter Wings,” and thereby expropriate the “linguistic” from the “plastic” by reducing Herbert’s calligram into oral/aural “fossils”; sound here clips the visual wings that were a fundamental part of the process of “weaving” a calligram, or the calligram’s “natural rules of discourse.” Having become “textual fossil,” the ruptured calligram is then opened to the possibility of a second rupture. Abstracted and fetishized into elocution, the spoken words might then be *re-fetishized* into a position of superiority (with greater *authority*/*auctorite*) over the calligram’s particular process of weaving – its “natural rules of discourse” – which reside, at one and the same time, in both sound and space. Our insistence on allegedly irreconcilable binaries – such as “text” and “graphic,” “linguistic” and “plastic,” “oral” and “written,” “body” and “soul” – encourages the process of expropriation and fetishization.
The case of the calligram resonates well with hypertext; just as a calligram subverts the “text”-“graphic” and “oral”-“written” binaries that have been fundamental to our textual negotiations, so does hypertext sublate several binaries whose dominance in our socio-cognitive system is near-axiomatic. And just as forcing the calligram into any one side of the binary divider would be an act of manipulative expropriation, so does the negotiation of hypertext in terms of binary concepts lead to a crisis in textuality. Indeed, I shall argue later in this chapter, in considering the “secondary orality” (Ong) of hypertext, that what makes hypertext particularly susceptible to the process of expropriation and fetishization is its sublation of two highly influential binaries, in a textual universe so dominated by binary definitions of “text” that even theorists such as Ong and McKenzie – who argue at length in favour of a more open and inclusive definition of text – resort to the same binaries that eventually lead to a crisis in (hyper)textuality; it is this crisis which I shall describe in the concluding chapters of this dissertation as user-disorientation in negotiating hypertext.

It is in anticipation of this final argument – that hypertext sublates several binaries whose dominance in our socio-cognitive system precipitates a textual crisis, leading to user-disorientation – that I shall use this chapter to discuss and illustrate the manipulative potential inherent in the binaries that have historically governed our textual negotiations. I shall begin with a consideration of D. F. McKenzie’s famous reading of the Maori “signatures” on the Treaty of Waitangi, with theoretical reference to Henry Louis Gates’ study of tropic
communication in the Afro-American oral tradition; I shall employ this initial discussion towards outlining the process by which our insistence on allegedly irreconcilable binaries precipitates a crisis, which then begs authorial intervention\(^8\) to achieve resolution, and which in turn leads to the tropification of "text." I shall then discuss Walter Ong's theory of "secondary orality" as it relates to hypertext, to further explore the relationship between hypertext and one of the most powerful binaries that underlie our use of language.

### 2.1 Ruptured Negotiations: the Treaty and the Trope

In his lecture on "The Broken Phial: Non-book Texts" (*Bibliography*, 23-43), D.F. McKenzie describes the process by which ambiguous textuality played an important role in appending Maori "signatures" to the Treaty of Waitangi in 1840\(^9\). The Maori "signatures," argues McKenzie, were "complicated configurations" — possibly "representations of natural features of the tribal lands"; these Maori "signatures appended in 1840" to the Treaty of

\(^8\) As I shall argue and illustrate in Chapter 3, and in Appendix A: "Strategy, Meaning, Intent," authorial intervention may refer to both the addressee's attempt to determine the strategic communicative context (formulative); it may also refer to the addressee's predermination of the same context (interpretive).

\(^9\) "On 6 February 1840 forty-six Maori chiefs from the northern regions of New Zealand "signed" a document written in Maori called "Te Tiriti o Waitangi," "The Treaty of Waitangi." In doing so, according to the English versions of that document, they ceded to Her Majesty the Queen of England "absolutely and without reservation all the rights and powers of Sovereignty" which they themselves individually exercised over their respective territories. That act of assent became the substantive ground of British sovereignty over New Zealand." (McKenzie, "Oral Culture," 9)
Waitangi were manipulated by the imperialist cause to secure British sovereignty over New Zealand by making use of a fantastic misunderstanding of Foley's "rules for discourse":

In such signs we can see the idea of place hovering between the verbal and non-verbal but rising, as it were, to textual significance. The sign of the land here makes a man.

The same kind of indeterminate relation between indexical sign and symbolic meaning applies to maps. ...

But what constitutes a text is not the presence of linguistic elements but the act of construction. As Roland Barthes says of texts as the materials of myth, all that is required is that they "presuppose a signifying consciousness." (Bibliography, 33-35)

The Maori "signatures," which McKenzie describes as "complicated configurations" that were possibly "representations of natural features of the tribal lands," were the result of an indeterminacy of what Foley calls the "rules of discourse." Following the process of expropriation and fetishization, the Maori "graphic" and the English "text" were first made to co-inhabit the same textual space with which the Maoris, in their ignorance, and the imperialists, in their design, were both satisfied. Then, the Maori "graphic" was abstracted from the "natural rules of discourse" (the land or landmark that it signified, as well as the
system and/or process of signification) into an absurd "fossil" that was momentarily without definition and thus easily fetished into a "signature." Finally, the fetish was re-fetishized into an authorized testament of the concession of Maori sovereignty to the annexing force.

The Treaty of Waitangi, in engineering the concession of the Maoris to the imperialist cause, made use of the ambiguity in modes of negotiating chirographic textuality. The manipulative potential of the Treaty of Waitangi lay in the exclusionary, literate bias in textual conception and execution\(^\text{10}\), while the actual process of manipulation was achieved by the perversion of the very textuality of the Treaty into what Henry Louis Gates, following Bloom, calls a "trope-reversing trope" (Gates, 52).

In the second chapter of *The Signifying Monkey: A Theory of Afro-American Literary Criticism* (1988), Gates discusses Afro-American rhetoric in terms of the Afro-American tradition of Signifyin(g):

10 "In New Zealand the twenty years or so immediately preceding 1840 span the movement from orality, through manuscript literacy, to the introduction of printing. In a minor way therefore they replicate in a specific and largely quantifiable context the Gutenberg revolution in fifteenth-century Europe. In that New Zealand context one significant document, the Treaty of Waitangi, witnesses to a quite remarkable moment in the contact between representatives of a literate European culture and those of a wholly oral indigenous one. It can be used as a test case for measuring the impact of literacy and the influence of print in the 1830s; and it offers a prime example of European assumptions about the comprehension, status and binding power of written statements and written consent on the one hand as against the flexible accommodations of oral consensus on the other. Its variant versions, its range of 'signatures', and the conflicting views of its meaning and status bring all those questions sharply into focus." (McKenzie, "Oral Culture," 9)
The Afro-American rhetorical strategy of Signifyin(g) is a rhetorical practice that is not engaged in the game of information-giving, as Wittgenstein said of poetry. Signifyin(g) turns on the play and chain of signifiers, and not on some supposedly transcendent signified. As anthropologists demonstrate, the Signifying Monkey is often called the Signifier, he who wreaks havoc upon the signified. One is signified upon by the signifier. He is indeed the “signifier as such,” in Kristeva’s phrase, “a presence that precedes the signification of object or emotion.” (52-3)

The Signifying Monkey, is the “functional equivalent” of the Esu figures of the “Yoruba systems of thought in Benin and Nigeria, Brazil and Cuba, Haiti and New Orleans” in Afro-American “profane discourse” and “stands as a figure of an oral writing within black vernacular language rituals” (52):

In the narrative poems, the Signifying Monkey invariably repeats to his friend, the Lion, some insult purportedly generated by their mutual friend, the Elephant. The Monkey, however, speaks figuratively. The Lion, indignant and outraged, demands an apology of the elephant, who refuses and then trounces the Lion. The Lion, realising that his mistake was to take the Monkey literally, returns to trounce the Monkey. It is this relationship between the literal and the figurative, and the dire consequences of their confusion, which
is the most striking repeated element of these tales. The Monkey's trick depends on the
Lion's inability to mediate between these two poles of signification, of meaning. (55)

As Gates indicates, Signifyin(g) is, foremost, a rhetorical strategy; rhetoric being clasically
defined by Thomas Wilson in *The Arte of Rhetorique* (1553) as

an art to set furthe by utteraunce of wordes, matter at large, or (as Cicero doeth
saie) it is a learned, or rather an artificiall declaracion of the mynde, in the
handlyng of any cause, called in contencion, that maie through reason largely be
discussed. (Bizzell, 589)

But Signifyin(g) is more than an "artificiall declaracion of the mind" through the agency of
"reason." Being not only rhetoric, but also "strategy," Signifyin(g) is specifically caused by
the signifier's wreaking "havoc upon the signified" (Gates, 52).

As a rhetorical strategist, the Signifying Monkey is a manipulative mouth whose
words operate within two poles of reification. *Within* the tale, the Lion (and the Lion's
counterparts in the audience) reify the Monkey's words into a fixed and literal meaning, an
(assumed) essential purity of the words, on the basis of which the Lion accuses the Elephant.
*Outside* of the tale, the counterparts of the Elephant within the "oral writing within black
vernacular language rituals” reify the rhetoric of the Signifying Monkey into “text.” Gates’ clever juxtaposition of the words “oral” and “writing” (52) emphasises the bipolarity of reification within which the “text” exists and operates. And it is this bipolarity that allows the rhetorical strategy, and also leads to the ambiguity of the nature of “text”; an ambiguity that works well in the strategist’s favour, as a “trope-reversing trope.”

In his influential Lectures in Rhetoric and Belles Lettres (first pub. 1783), Hugh Blair describes a trope as consisting in a “word’s being employed to signify something that is different from its original and primitive meaning; so that if you alter the word, you destroy the figure” (Bizzell, 811). While it may be argued that, in the hands of the deconstructive addressee, almost every linguistic utterance – turning “on the play and chain of signifiers, and not on some supposedly transcendent signified” (Gates, 52) – might be perceived as being a conglomerate of tropes, the corollary lies in the rhetorician’s use of a “trope” in pre-empting the deconstructionist’s tropification of language in two ways.

The first lies in the employment of such explicit tropes as metonymy and synecdoche as would aim to undermine the reader or addressee’s attempt to “destroy the figure” of authorial construction. This strategy is akin to using a joke to make an explicitly insulting statement that cannot give offence because it is a joke. The second strategy lies in the employment of a “figure” that is so conventional that the reader or addressee is seduced into
its conventional, or "original and primitive [as opposed to tropic] meaning," without realising the mechanism of tropic reversal that has been built into it by the author. The second strategy may work in two ways. First, it may rely on the reader or addressee's inability to recognise a conventional trope. Thus, if one were to say "The head has spoken" and another were to assume that a disembodied head has made a statement, then we are thrown into the accidental realm of the fantastic. On the other hand, the speaker or writer might actually mask a trope in a seemingly conventional use of a word, a phrase, or, as in the case of the Treaty of Waitangi, of the nature of the "text" itself.

The Treaty's effect on the Maoris was arguably not unlike a trope, for it employed textual logic that was meant "to signify something that is different from its original and primitive meaning" (Blair). But the tropic nature of the Treaty was masked, because a reader of English would never find the text as wanting to signify anything but its "original and primitive meaning," a meaning whose parameters were marked by a different primitive origin when negotiated by the Maori who, in failing to read the "word," altered it and subsequently destroyed the "figure."

In its employing a hidden trope — one whose tropic nature was not immediately discernable by either the Maoris or by other readers of English who did not think to take into account the Maoris' ignorance, or rejection, of European textuality in favour of their own
"natural rules of discourse" (Foley 91) — the authors of the Treaty become imperial counterparts of the Signifying Monkey, and the Treaty itself becomes an instance of Signifyin(g) which is, in one place, defined by Gates as "the rubric for various sorts of language games, some aimed at reconstituting the subject while others are aimed at demystifying a subject" (54). In Signifyin(g) upon the Maoris, the authors of the Treaty used their strategy to "reconstitute the subject" in their own terms so that the "complicated configurations" became "signatures," and the "signatures" became the purported testament to the Maoris' concession of land and sovereignty to the English. In the Treaty of Waitangi, Blair's tropic "figure"11 (which is destroyed "if you alter the word") finds a counterpart in textuality, which, as one important agent of the reification of utterance into "text," serves rhetorical strategy well in its manipulative role in communication.

Like the Signifying Monkey, the drafters of the Treaty are also rhetorical strategists. Indeed, if, following Bacon, rhetoric is the application of reason to imagination to move the will (Bizzell, 639), then the rhetorical strategist's work is two-fold. First, the rhetorical strategist must assume the possibility of the reader/addressee's deconstructive confrontation

11 Blair: "Figures, in general, may be described to be that language, which is prompted either by imagination, or by the passions. ... Rhetoricians commonly divide them into two great classes; figures of words and figures of thought. The former, figures of words, are commonly called tropes ... It is of little importance whether we give to some particular mode of expression the name of trope, or of a figure, provided we remember, that figurative language always imports some colouring of the imagination..." (Bizzell, 811)
of a communicative utterance\textsuperscript{12}, and the reader/addressee’s subsequent examination of the differential play of the constituent signifiers to yield layers of meaning that were sought to be masked by traditional literal fixtures and relationships of equivalence. On the basis of this assumption, the rhetorical strategist’s task is then to pre-empt such unmasking, and to persuade the will (of the reader/addressee) by the brute force, or seduction, of the literal. The tussle is not unlike the ever-important war of cryptographers on hackers. While the hacker’s job is to unmask the encrypted data, captured against the sender’s will, the cryptographer’s task is to counter the possibility of such unmasking and protect the authorial and authoritative sanctity of the data in question. Just as the cryptographer is aware of the coded meaning of the scrambled data, so is the Signifying Monkey aware of the figurative meaning of his statements, and the treaty author is aware of the potential ambiguity of the document at hand.

It is in the rhetorical strategist’s dual awareness – of the figurative meaning of his or her statements, and also of the addressee’s immediate inability to realise that there is, indeed, a figurative twist to the literal – that makes Signifyin(g) a “trope-reversing trope.” The rhetorical strategy is based on a deconstructive understanding of itself which, in turn, is used to block the deconstructive efforts of the addressee. Thus, the Signifying Monkey is well aware of the tropic nature of his statements; similarly, McKenzie’s reading of the Treaty of Waitangi suggests that the authors of the Treaty of Waitangi may have been well aware of the

\textsuperscript{12} Chapter 3 explores a definition of utterance, which is then employed towards a proposition of a triad of
"indeterminate relation between indexical sign and symbolic meaning"; an indeterminacy which, in being denied later, allowed the expropriation of the "complicated configurations" (McKenzie) out of its "natural rules of discourse" (Foley).

The aim of the rhetorical strategists is two-fold. The first is to manoeuvre a reification of the utterance (e.g., fooling the Lion into complaining to the Elephant, or leading the Maoris into "signing" the Treaty) in a manner that is pre-determined by them and which is beneficial to their cause. The second aim is to operate at the level of "text"-creation (e.g., at the level of reporting to the Elephant, or, in the case of the Treaty, documenting for posterity), which is the second level of reification, so as to execute a consolidation of the authorial cause (e.g., the inclusion of the Monkey's stories in Afro-American "oral writing", or engineering the authority of the Treaty as an instrument of annexation).

However, I would argue, by reverting to McKenzie's example, that even if the Treaty drafters had not been aware of the ambiguous textuality of the Treaty, and had acted in good faith, the "indeterminate relation between indexical sign and symbolic meaning" (McKenzie) would still have precipitated a rupture in textual negotiations between the Maoris, the British and the Treaty itself. McKenzie's political claim – based on a brilliant and now famous employment of textual theory – is that the Treaty drafters were aware of the tropic potential
of the “text” – as enabled by the “indeterminate relation between indexical sign and symbolic meaning” – and that they had subsequently used it to their advantage. My purpose – in referring to McKenzie – is to illustrate the process of expropriation and fetishization by which textuality itself becomes a trope; the tropic potential of “texts,” when recognized by manipulative authors/addressers, can then be manipulated to wreak “havoc upon the signified” and upon the readers of the “text.”

While McKenzie’s reading of the Treaty of Waitangi illustrates the allegedly deliberate use of ambiguous textuality by the initiators of textual negotiation to wreak “havoc upon the signified,” I remember a harmless, inconsequential, but nonetheless related, instance of ruptured textual negotiation from my own childhood, which illustrates an accidental tropification of text. I spent my childhood in Calcutta, a dusty, grimy, Jackson-Pollock-jazz-smattering of diverse faiths where we waited every December in frenzied expectation of cotton-wool snow, rag-doll Santas, plastic firs and Christmas. Banners and hoardings, advertisements and announcements, greeting cards and pamphlets screamed the arrival of “X-mas.” Surrounded by these proclamations, I believed that Christmas was also called X-mas (pronounced, Ex-mas).
It did not occur to me that the ‘X’ in question was referring to the cross which, in turn, signified the “Christ” of “Christmas.” Even though I was more than familiar with Bible stories, as I was with Hindu and Islamic tales from bedtime sessions with my grandmother, my lack of exposure to the cross as an icon or a symbol led to my inability to recognise the graphic significance of the ‘X’ in X-mas. As a non-Christian, I was not intuitively familiar with Christian icons. To put it differently, and to use a perversion of Bakhtin that must, of necessity, use contradictory etymology to challenge a neat “text”/“graphic” binary, I was not part of the iconic heteroglossia of Christianity, until I actually started attending a Jesuit school. In a process of reasoning that ran parallel, though in the opposite direction, to that of the Maoris confronted by the Treaty of Waitangi, I read the graphic and the symbolic in terms of the alphabetical index and therefore spent some of my earliest Decembers wishing everybody “Happy Ex-mas.”

My misreading was a result of my inability to anticipate the co-existence of “graphic” (‘X’) and “text” (‘mas’), and a subsequent intuitive insistence on conducting textual “negotiations” (McGann) in literate and literal terms. My emphasis on the literate, in negotiating textuality, followed the dynamic of Foley’s fossilization of the “natural rules of discourse”: the sound became a mark, and the mark was, therefore, translated literally back into sound. My own literate and literal bias abstracted the ‘X’ out of its “natural” place in Christian iconography, and fetishized it into a sound that corresponds directly to a letter of
the Roman alphabet. Within my narrow and young world, this fetishized, re-"text"-ed ‘X’
then assumed far higher status – by virtue of its irrefutable place in the alphabetic set – than
the cross which influenced its use in this particular instance.

2.2 Hypertext

The expropriative process that enabled my “ex”-ing of Christ, as well as the Treaty
executors’ signifyin(g) upon the Maoris, found a pivot in what McKenzie, in writing about
the role of orality and literacy in engineering the endorsement of the Treaty of Waitangi, calls
“the fixed text”:

As Jane McRae reminds me, [even in our own time] there are few Maori writers and very
few who write in Maori, but the tradition of oral composition and exposition continues, it
is the only tradition with ‘literary’ structures or styles, and the ‘sound’ text is usually all
there is to be read. Even within University Departments of Maori Studies, the book is
suspect. Manuscripts and printed texts in libraries, publications by Europeans on
Maoridom, are seldom consulted; oral etiquette, debate and transfer of knowledge on the
marae are what matter. Such conditions encourage the spontaneous, orally improvised,
dramatic recreation of shared stories for themes and an evolutionary concept of texts; the
fixed text, catching in print an arbitrary moment in the continuum of social exchange, demands a different sense of history and its own literal re-play. ("Oral Culture," 19).

As discussed earlier, the expropriative process relies on the authorial manipulation of allegedly irreconcilable binaries such as "text" and "graphic," "linguistic" and "plastic," "oral" and "literate," most of which contribute, in some way, to a notion of a "fixed text"—an attempt to capture "an arbitrary moment in the continuum of social exchange." Indeed, in making his argument against such an "arbitrary moment," McKenzie almost echoes Ong's complaint against writing as being an attempt to reductively commit the undetermined ephemerality of the "event" of sound to the limited determinability of a "thing" in space.

What makes hypertext particularly susceptible to the process of expropriation and fetishization is not only its resistance to "the fixed text," and its sublation of two highly influential binaries, but its doing so in a textual universe so dominated by binary definitions of "text" that it has to challenge a binary view of textuality to which even Ong and McKenzie seem to subscribe as they protest the tyrannical power of one component of the pair over the other. While Nelson's "body of written or pictorial material" (Nelson, "File Structure," 96) refers to hypertext's inclusion of both "text" and "graphic," the linking of hypertext to the "secondary orality" of Walter Ong brings hypertext close to what Gates so wittily calls the "oral writing" of the Signifyin(g) tradition. And it is the "oral writing" of hypertext—which
is different from a conventional understanding of “secondary orality” – that raises the issue of hypertext’s association with one of the most powerful binaries to have influenced our textual negotiations since Socrates’ complaint against the written word in the *Phaedrus*, and perhaps earlier – the issue of textual body and soul.

“Secondary orality” normally refers to a recorded, deferred or spatially dispersed orality which, in its documentation, deferral, and/or spatial dislocation, emulates aspects of chirography even as it remains oral in its use of sound, as opposed to visual marks. An example is found in the telephone, and in the ubiquitous voice-mail of our day. However, the “secondary orality” of hypertext does not relate to its use of sound, but is based in its use of interconnections, which are perceived as creating a discursive framework similar to that of the oral, and which, in turn, ensure the hypertextual sublation of the “situational”-“categorical” binary that forms the basis of an important section of Ong’s discussions in *Orality and Literacy: the Technologising of the Word* (1982).

In this section, I shall not only discuss the “secondary orality” of hypertext, but also illustrate the process by which the “secondary orality” of hypertext, through its sublation of the “situational”-“categorical” binary, achieves a reconciliation of the influential “body”-“soul” dichotomy within the hypertextual environment. As noted in Chapter 1, the issue of the textual “body” has been particularly important in our textual negotiations, from Chaucer’s
"litel bok" to Pavic's amputated Khazar envoy; indeed, Hayles finds a certain "corporeal anxiety" – the text's fear of losing its own body – in this "late age of print" when bodies of print and human bodies are "understood less as incorporations in physically durable substrates than as flows of information" (801). The question of textual corporeality, and our concomitant assumptions, will gain further importance in the discussion of hypertext disorientation in terms of the molar/molecular dichotomy (borrowed from Deleuze and Guattari's book, *A Thousand Plateaus*) in the last two chapters of the dissertation.

In *Orality and Literacy: the Technologising of the Word*, Ong explains his theory of oral situationality and chirographic categories through an anecdote about a "25-year old [illiterate] peasant" who regards the hatchet as the odd object/member in a series comprising *hammer, saw, log, hatchet*. The log is linked to the hammer and the saw, in terms of the peasant's particular "situational" notion; the "situation" here being chopping the log for which the hatchet is not particularly well suited (51). Ong argues that in a chirographic culture where a "text" is an organisation of visible, or potentially visible, material, such a mode of thinking would have given way to "categorical" thought and choices. Hence, the odd object/member in the series would have besen the log.

The governing logic of writing, according to Ong, encourages, and even works on the basis of, categorical choices. Thus one finds the arrangement of words into sentences, and of
the contents of a book into separate chapters, and later, in a further sophistication of categorical logic, the development of the notion of an Index. While the Index literally situates the reader in a word, the word itself becomes a category that is devoid of situational context outside the textual domain. Hence the way in which certain word was used in one particular page of a particular book may not have any situational link (of the sort displayed in Ong's anecdote about the peasant) in the use of the same word in another page of the same volume, although both page numbers will be listed, in numerical order, under the Index entry of the word in question.

However, the orientation of thought in oral culture is, as Ong explains, “situational” rather than “categorical” (52); the latter being a product of the technology that enables us to visualize a word on page and thereby leads us to believe that “a word is a thing, not an event, that it is present all at once, and that it can be cut up into little pieces.” As Ong explains:

Sound ... exists only when it is going out of existence. I cannot have all of a word present at once: when I say 'existence', by the time I get to the '-tence', the 'exis-' is gone. The alphabet implies that matters are otherwise, that a word ... can be written forwards and pronounced backwards. : 'p-a-r-t' can be pronounced 'trap'. If you put the word 'part' on a sound tape and reverse the tape, you do not get 'trap', but a completely different sound, neither 'part' nor 'trap'. (91)
The chirographic belief in the spatial divisibility of utterance, in a word as a “thing, not an event”, raises the question of corporeality in the reification (literally, “thing”-ification, following Ong’s terminology) of an “event” into “text,” or what McKenzie calls a “fixed text.” And it is Ong’s repeated emphasis on the seemingly reductive corporeality that enables chirographic categories – in staunch opposition to spontaneous oral situationality – that links the application of the situational-categorical dichotomy to the powerful conflict between body and soul within the classical Western philosophical tradition.

In the *Phaedrus*, we hear Socrates complaining that while we may expect written words to “understand what they are saying, ... if you ask them what they mean by anything they simply return the same answer over and over again” and that, when asked a question, they “maintain a solid silence” (97). The suggestion is that the written word is an exterior supplement which, even as it aids documentation, threatens to weaken a pure oral, authorial intelligence which alone understands the (pre-determined) relationship between meaning and sign, and which alone can answer for itself within an inviolable and infallible framework of authority.
In *Grammatology* (1967), Derrida\(^{13}\) nails his famous and clear challenge to the papacy of Saussurian linguistics. And just as the 16th century professor of Biblical exegesis did not seek to destroy God's house even as he nailed his ninety-five theses to the church door at Wittenberg, so does Derrida, in *Grammatology*, not totally reject Saussure's contribution to linguistic theory, but makes some clear and severe demands for reform within the faith:

Saussure's vehement argumentation aims at more than a theoretical error, more than a moral fault: at a sort of stain and primarily at a sin. Sin has been defined often — among others by Malebranche and by Kant — as the inversion of the natural relationship between the soul and the body through passion. Saussure here points to the inversion of the natural relationship between speech and writing. It is not a simple analogy: writing, the letter, the sensible inscription, has always been considered by Western tradition as the body and matter external to the spirit, to breath, to speech, and to the logos. And the problem of soul and body is no doubt derived from the problem of writing from which it seems — conversely — to borrow its metaphors. (34-5)

\(^{13}\) Please note: My citation of Derrida here, or in the previous chapter, does not imply that I am proposing to use a “Derridean” approach to explore user-disorientation in hypertextual environments. On the contrary, the literary theorists and philosophers who support my central argument — of hypertext disorientation as a crisis in textuality — may well be considered, by some critics and academics, to have views that are out of synch with Derrida’s own thoughts and arguments about language. I have quoted Derrida, in both chapters, fairly innocently: to shore up support for my prefatory review of the history of binaries that have marked our relationship with “text.”
In his complaint against Saussure, Derrida finds an argumentative pivot in the traditional question of the body. The moral argument that Derrida challenges is rooted in the myth of a body/soul dichotomy; when he refers to Kant and Malebranche, his complaint is against the description of moral failure in terms of an “inversion of the natural relationship between the soul and the body through passion.” In Derrida’s view, the link between the “problem of body and soul” and the “problem of writing” is so strong that they have held up metaphorical mirrors, and mirrored metaphors, to each other. But the “problem of body and soul” is not confined to the interior/exterior “problem of writing.” When extended to the issue of simulation – the transmigration of the creative essence of one “natural” body to another, “external” framework of production – the “problem of body and soul” relates to Hayles’ notion of corporeal anxiety which, in the context of the virtual incorporeality of hypertext, becomes a source of fear and “irreality” for Heim (see Chapter 1).

As Derrida indicates – through his reference to Malebranche and by Kant – the issue of simulation is hardly new or unique to our time. However, the issue the transmigration of the creative essence of one “natural” body to another “external” framework of production, gains importance in the light of an electronic, hyperlinked “text” which not only lacks a body, but also gains its functional mandate from the very principle of transmigration (of the reversible flow of creative energy between easily malleable contexts) that is mentioned by
Derrida in his complaint against the logocentric ideal in *Grammatology*, and lamented by Schiller in a work that pre-dates our use of the term hypertext by a century-and-a-half.

In his treatise, “On Naive and Sentimental Poetry” (1795-6), in which he writes at length about our love of nature “because it is nature,” Schiller reminds us of Kant's reflection (in the *Critique of Aesthetic Judgment*) on how the song of a nightingale, when simulated to perfection by a human being, will accord the listeners the utmost pleasure, but only until the simulation is exposed and the illusion of the “natural” is shattered (93). Not only is the mechanism of sin a result of the “inversion of the natural relationship between the soul and the body through passion,” but it is also caused by the simulation of one creative soul by another, non-corresponding body, “an archetypal violence: eruption of the outside within the inside, breaching into the interiority of the soul” (Derrida, 34).

In Schiller’s use of Kant towards the furtherance of the Naïve/Sentimental binary, simulation is identified as the cause of a moral rupture, which can only be redeemed by a return of the deceived consciousness to the original which, in being “natural,” is also “naïve” in that its existence within, and relationship with, nature have not been sullied by a corrupt, mediating idea. The anxieties of Schiller find an echo in our day in Michael Heim's fear of
“irreality” – “reality that is not formal, bona fide reality” – as articulated in The Metaphysics of Virtual Reality (135) and as discussed in Chapter 1.

Ong’s concerns about a literal imagination superseding the “naturally” oral process of language are based on the very properties of “virtual reality” and meta-corporeality that lie at the root of Heim’s concerns, and also in the transmigration of creative energy between easily malleable contexts that finds disapproval in Schiller. To Ong, the spatial divisibility of speech through the “technology” of writing is, in itself, analogous to what Heim calls the “irreality” of the “virtual”: the claims of the chirographic (e.g. “a word is a thing, not an event”) are illusory, and can only lead to a deceptive “irreality” of expectations of chirographic textuality.

In describing categories as being the governing logic of chirography, Ong supports his claim by the potential corporeality of the written word, the conceptual divisibility of what was once an “event” and is now a “thing.” This conceptual divisibility is not only the result

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14 Heim’s late-twentieth-century fears find powerful dramatisation in Marlowe’s 16th century play in which, as long as Faustus sees his simulations as the cheap tricks that they are (the horse he conjures turns into straw, the castle in the air is explained by him to be no more than an illusion) Hell remains a mere “fable” and no threat. It is only when Faustus succumbs to illusion in his desire to kiss the simulated Helen, that her “lips suck forth” his soul, and he is tortured at the gates of a fabulous Hell quite explicitly borrowed from Morality plays. Four centuries after Marlowe, Heim’s 20th century fear remains rooted in the possibility of being sucked in by the sophisticated “irreality” of cyberspace.

15 “By contrast with natural, oral speech, writing is completely artificial. There is no way to write ‘naturally.’” (Ong, 82)
of reification, but, as implied by Ong, also follows the principle of simulation that is disapproved for permitting the false transmigration of creative energy between contexts that the "technology" of writing has made easily malleable. While one may argue that the creation of any meaning, in any context, is always "situational," Ong's anecdote about the illiterate peasant illustrates his understanding and use of the notion of oral situationality (which he places in opposition to chirographic categorisation) as being analogous to an understanding of the soul as the "natural" and final cause of a corresponding creative corpus, in the same way as the nightingale's song (to Kant and Schiller) belongs to the bird, and the bird alone16.

Following Kant's (and Schiller's) examples of the nightingale, Ong's view of orality is opposed to the reduction of the soul to a body, and to the appropriation of the soul of one body, through simulation, by another, non-corresponding body. In Ong's oral world, a situation, by its very definition, is the uncategorisable intelligence and soul of the oral event. The soul knows, and can answer for itself. The body is base and spiritually bankrupt without the soul. Without a body, there is no category. Without a soul, there is no situation. The body promotes categorisation and is, in itself, a category, for only categories may allow their own fragmentation; the soul remains unique, unitary and irreproducible.

16 Keats' famous ode, in allowing a reading of the nightingale's song as an emblem of the Naïve consciousness that is carefully placed in opposition to the speaker's Sentimental anguish, upholds a similar understanding of situationality as defined in terms of the "natural." It is the preservation of the "natural" relationship between the determined body and the infinite determinability of the soul that makes the nightingale Naïve, whereas the speaker's loss of such a "natural" relationship causes him to feel "forlorn."
However, even as hypertext lacks a body, its visibility allows the conceptual and operational divisibility of words – the word as a “thing” and not an “event” – that Ong attributes to chirography; moreover, in its very definition as a network of links, it is bound by the principle of interaction and transference of information flows between easily malleable and non-durable substrates (Katherine Hayles, see Chapter 1), which, in sharp opposition to Socrates’ complaint against the dumb silence of the written word, allows the “text” to know and answer for itself. Indeed, as “a collection of distinct nodes of information connected via a network of links” (Csinger, User Models, 72), hypertext allows readers an opportunity to match their situational needs with the entire spread of information across the network. Thus hypertext, whose simulative operability causes Heim’s fears of irreality, derives the power of knowing and answering for itself (thereby gaining a “soul,” unlike Socrates’ paintings) from its ontological dependence on the very transmigration of creative energy between easily malleable contexts that finds disapproval in Schiller and Ong.

This distribution, malleability and inherent framework for (often real-time) response grants hypertext a unique spot between oral situationality and the spatial categorisation of utterance which, according to Ong, is a fundamental functioning principle and cognitive contribution of chirography. For, while hypertext works on the basis of a spatial categorisation of information – Ted Nelson’s “body of written or pictorial material interconnected in ... a complex way” (96) – it also requires spatial dispersion and
interconnection between the different segments of information in such a way as to specifically allow the negotiation between an individual's immediate needs and the existing network of interconnections. As in oral discourse, the flow of information on a hypertextual network is not necessarily unidirectional but allows instant response. This may either be direct critical response, as in a CNN message board or other discussion group, or indirect, as in giving one the option of several links to follow, thereby drawing one's own chart of textual navigation.

Hence, even while hypertext upholds one of the key features of oral discourse by permitting “one operation (such as composing a text) to be instantly transformed into an exchange and annotation of that text by others,” thereby allowing for the “collaborative operations of review and re-visioning,” it also roots itself in the fundamental chirographic principle of a spatial dislocation of utterance, even to a point where, on seeing “an individual working at a stand-alone hypertext or hypermedia system,” Barrett feels “the same shock St. Augustine reports he felt the first time he saw someone reading silently to himself beneath a tree” (my italics, Barrett xvi).

This unique duality of hypertext is made possible by the intangibility of its network of visual material which, unlike a book, or a poster, denies its readers full conceptual control over the spatial distribution of the entire information spread. While hypertext allows the user
to “categorise” not only words, but also graphics and such graphic manipulation of words as possible through customisable font types, sizes and colours, it never allows the user full and complete control over the entire network.

Unlike hard copy, which one may hold and conceptualise in its entirety, an open hypertextual network only reveals itself in parts and seeks to marry its self-knowledge with the user's interests and needs to create a collaborative intelligence, which presents itself as a force-field within which meaning can only be generated through a play of assumption and erasure. Just as the singer of oral tales performs through an interactive chemistry between his or her repertoire, and a situational response to the audience's perceived interests, so does hypertext respond to the situational demands of the user, through the interactive intelligence of its own networked textuality.

In being visible and divisible in space, hypertext pays deference to the corporeal logic of chirography. In being elusive, flexible and transient in its individual manifestations, and in the irreducibility, irreproducibility and permanence of the logic of its defining structure, which finds self-knowledge in the synergy of its linkages, it is (unlike Socrates' paintings) analogous to the soul. And just as Gates' juxtaposition of the words “oral” and “writing” emphasises the double-subversion (“trope-reversing trope”) of a powerful binary by the

17 I shall discuss this in detail, with reference to Deleuze and Guattari's “molar”-“molecular” binary in Chapter 66
Signifying Monkey, so does the reversible and malleable body-soul of hypertextual “oral writing” – through its popular and powerful association with such dominant and allegedly irreconcilable binaries as “text” and “graphic,” orality and writing, “linguistic” and “plastic,” and “body” and “soul” – make this new medium particularly susceptible to tropification, either engineered, or accidental.

The manipulative power of the process of abstraction and fetishization lies in positing an allegedly irreconcilable pair which is subsequently fetishized into reconciliation, and then re-fetishized into a position of authority. In Marlowe’s 16th century play, Hell is a “fable” to Faustus as long as the Doctor refuses to succumb to the alleged crisis of an alleged heaven/hell binary. It is only upon his surrender to the illusion of Helen that Hell becomes a painted, garish opponent of Heaven, with its demons on one side, and winged angels on the other. Once the binary is accepted, it invades the cognitive process – Hell’s mouth gapes wide – and the individual intelligence, torn between alleged opposites, craves the authorial intervention of a transcendent, redemptive force.

The process of expropriation and fetishization is powerful when deployed in the realm of textuality. Indeed, within the framework of our cognitive biases and convenient ambiguities, the process may be accidental (as in the instance of my mis-reading of “X-

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4, when considering user-disorientation in navigating hypertextual environments.
mas”), or engineered by an author seeking to trap us in the liminal spaces created by our ambiguous perception of textuality. Either way, it leads to disorientation, which – as I shall argue and illustrate in Chapter 4 – is a crisis in textuality precipitated by a series of binaries, such as linearity/non-linearity, rhizome/root, molar/molecular, bibliographic/electronic, that dominate our cognitive process. Disorientation, in short, will be argued later in the dissertation as a crisis in the “textual condition” of networked information spaces. However, in order to make such an argument, it is first necessary to understand the “textual condition” of networked information spaces. The exploration and establishment of a theory of the hypertextual condition – through an examination of hypertextual communication in relation to a proposed triad of textual states – is therefore the primary aim of the next chapter.
Chapter 3: The Hypertextual Condition

The central thesis of this project is that hypertext disorientation is a crisis in textuality precipitated by ruptures in our negotiation of the "textual condition" of networked, electronic information-spaces. The "textual condition," as explained by McGann in his famous work that bears the same title, involves "negotiations [which] are carried out as textual events[,] ... as spoken texts or scripted forms" (3). The primary purpose of this chapter is to lay the groundwork for my argument and illustration of the central thesis of this project (in Chapter 4) by exploring a theory of what – in deference to McGann's famous term – may be called the hypertextual "condition."

The very definition of textuality – as argued and illustrated in the last two chapters – is about "negotiations"; so much so that a rupture in negotiations often results in a collapse of communication, indeed in betrayal and manipulation, as illustrated by McKenzie's reading of the Maori "signatures" appended to the Treaty of Waitangi in 1840. If the Maoris at Waitangi thought their marks on paper to have been "representations of natural features of the tribal lands" (McKenzie, 33 – 35, see Ch.2.1), and if the imperialists insisted that these same marks were "signatures" that constituted an irrevocable seal of approval on an instrument of annexation, then the crisis is one of textual significance, located in textual negotiations, and
involving different conceptions of textuality: “In such signs we can see the idea of place ... rising, as it were, to textual significance. ... what constitutes a text is not the presence of linguistic elements but the act of construction” (McKenzie, 33 – 35, see Chapter 2).

“All the argument,” one might say, after the sneering Thersites in Shakespeare’s *Troilus and Cressida*, “is a whore and a cuckold – a good quarrel to draw emulous factions and bleed to death upon” (II, iii). The “emulous factions,” in this case, are the author and the reader, both of whom seek an adulterous appropriation of the text, which is then fetishized and legitimized into a textual “fossil.” Once fossilized, the textual relationship becomes proprietary, and neither author nor reader wishes to be cuckolded out of his or her interpretative grasp over the text. In a game of double-bluff, the author wishes the reader to believe in the stability of the relationship between reader and text – much as the Lion believes the Monkey in Gates’ example – only to use the reader’s assumption of a stable, faithful textuality to subvert the process of communication to authorial advantage. Herein lies the cuckoldry and the process of double-tropification whereby a text – such as the Treaty of Waitangi – becomes a “trope-reversing trope” (Gates, 52).

The object of the negotiations is an attempt by the various negotiating parties – the “emulous factions” – to impose their own definitive textuality upon the Treaty towards capturing what McKenzie describes as “an arbitrary moment in the continuum of social
exchange" ("Oral Culture," 19); such an attempt raises two important issues, both of which will be explored in greater detail in this chapter. The first issue relates to the definition and understanding of "text" and textuality as a function of time. The second issue relates to what the computer scientist, in discussing the operational context of "intent-based [hypertextual] authoring," calls "authorial intent" (Csinger, User Models, ii)

While McKenzie refers to Barthes' broad requirement of the presupposition of a "signifying consciousness" and to the Latin texere ("to weave") to further his argument in favour of an inclusive definition of "text" — "what constitutes a text is not the presence of linguistic elements but the act of construction" — his reference to the "arbitrary moment" raises the important issue of "text" and textuality as a function of time (Bibliography, 5, 35). To phrase it in the form of a question, one may inquire into our very understanding and use of the word "text": is all that we call "text," even in its most liberal scope, as discussed and advocated in Chapter 1, not necessarily a retroactive and retrospective act, as is the reifying process discussed in Chapter 2?

Thus, to argue by example, let us consider my buying a dozen mangoes in an Indian bazaar. In such an event, my entire conversation with the vendor, my communicative experience, which may include an elaborate ritual in haggling, would be carried out in a matter of minutes. We would conduct a transaction on the basis of our conversation. We
would both understand each other, or assume that we understand each other, and in our understanding or creative misunderstanding, we would negotiate each other's communicative intent. Upon retrospection, we would be left with mere scraps of our conversation, most likely reconstructed and modified in our memory, and a subsequent critical-theoretical evaluation of the "text" of our negotiation would be an evaluation of the modified and reconstructed account of my negotiation with the fruit seller.

On the other hand, my wife might record, on camera, the entire episode in the bazaar for the purposes of a documentary film. Given that the very intent of her exercise is retrospective and evaluative (i.e., an audience removed in time, and probably in space, would view and therefore evaluate the event of my buying a dozen mangoes in an Indian bazaar), it would be possible to analyse the "text" of our discourse, produced retroactively and bound by the frame of the video monitor or by the parameters of the screen, devoid of smell and touch, but replete with whatever colour, angle and sequence of action may be allowed by the editor of the relevant footage. The video camera would become the instrument of expropriation and fetishization, within which my conversation with the mango seller would be (a) extracted from its historical time-place, (b) reified into "text," and (c) re-reified in analysis upon viewing the footage in a different historical time-place.  

18 The process is well described by the medieval poet Jean de Meun (d. 1305) in his discussion of the properties of "mirrors and glasses" in the second part of the Roman de la Rose (1275–80). De Meun's emphasis is on distances and proportions, on the property of "glasses" to bring stars closer, and to make them appear smaller, of mirrors to objectify characters and to achieve critical distance. The process of expropriation, reification and
While Chapter 1 served to establish the video footage as "text," and Chapter 2 explored the process of dual reification by which the video footage became "text," this chapter will examine the reifying process whereby a "signifying consciousness" is resurrected and textualized over time. In seeking to understand the hypertextual "condition," this chapter will further explore the tension arising out of our attempt to capture what McKenzie describes as "an arbitrary moment in the continuum of social exchange" ("Oral Culture," 19) within the continuing "act [or process] of construction" (Bibliography, 35) that underlies McKenzie's (and Ong's) more inclusive definition of text. I shall employ this line of exploration towards a theory of the hypertextual condition because – contrary to the traditional "fixed text" that is the object of McKenzie's protest – the secondary orality of hypertext, as discussed in Chapter 2, sublates the situational and the categorical in defiance of an "arbitrary moment," while its network of linkages emphasizes, and is ontologically dependent on, a "continuum of social exchange" over time.

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re-reification follows the dynamic of abstraction of the "glass" which, in bringing stars closer and making them smaller within the physically ineffectual parameters of its lenses, takes the body out of its sphere and away from its relative position to the other stars or clusters of astral bodies. The star captured within the lenses becomes the counterpart of Foley's textual "fossil" (see Chapter 2). This extraction of the observed body from its definitive position in the sky, and its subsequent fetishization, then allows the second process of manipulative re-definition – the creation of yet another, new fetish out of that which had once occupied a place in a completely different relational chain. This second, re-fetishized body is then lavished far more attention, in art and criticism, and is thus, through enhanced creative and critical engagement, allowed a position of perceived higher authority than the original star in the sky. The camera, by which my wife might film my buying mangoes in Calcutta, becomes the equivalent of de Meun's reifying lens.
It is to this end that this chapter will explore the distinction between different levels of communication, crudely reduced, for the sake of expediency, to the immediate (which I shall call the pre-textual) and the retroactive (which I shall call the post-textual) communicative experience. “Text” – as I shall illustrate with brief reference to Christopher Nolan’s film Memento (2001) – is more than signifying consciousness: it is the signifying consciousness operating within an assumption of being resurrected over time, and across what, following Gadamer’s discussions in Truth and Method (1960), could be termed the interpretive horizon.

In the concluding part of the dissertation, comprising the next two chapters, I shall explain hypertext disorientation in terms of ruptures in the process of the predetermination of “authorial intent” by negotiators of hypertext. It is in anticipation of such a discussion that this chapter will seek to explore “authorial intent” in terms of narrative “voice” operating within time. In his paper, “Point to Point: Why Broadcast is (finally) Dead,” Andrew Csinger, a Public Key Infrastructure specialist at InterSpect Consulting, notes:

The world is facing the wrong direction as it anticipates the arrival of the New Age on the Information Superhighway. Bemused by the falsehood that content is what drives the information society, we turn reflexively to where we have always turned for content … [W]e’ve been led to imagine that when it comes to content, more is better. But it’s not
about content. It has never really been about content, and the people who should know this, don’t. Suffering from content-fetishism, they just don’t get it.

It’s really about intent, the message behind the content. (Lecture)

In *User Models for Intent-Based Authoring* (1996), his doctoral dissertation for the Department of Computer Science, UBC, Csinger states that “intent-based [hypertextual] authoring” seeks to shift the emphasis away from content, and towards the “message behind the content.” In his dissertation, Csinger uses what he calls a “typical dictionary definition” of an “author’s intent” (*User Models*, 9). The loose definition – “which offers as synonyms: *intention, intent, purpose, design, aim, end, object, objective*” – serves him well in his project, with its operational emphasis on technology. However, the central purpose of my dissertation is to argue that hypertext disorientation is less a result of limitations in technology, and more a crisis in textuality, and to explore the ruptures in textual negotiations that underlie hypertext disorientation, so as to place hypertext disorientation within the continuum of our ambiguous relationship with “text.” As such, this chapter will re-address and explore the question of authorial intent from the point of view of textual scholarship, albeit applied within the framework of a project in Human Computer Interaction.
Having proposed a triad of textual states at the beginning of this chapter, I shall discuss the relationship between authorial intent and utterance, towards arguing that the authorial "voice" – manipulative or otherwise – helps fulfil the addressees' need to find in an utterance an identifiable unity in the structure of interests that are immediate to its inception towards establishing – within one time and one place (Genette's diegetic universe, discussed later in the chapter) – a "provisional sense of truth" (Rushdie, *The Moor's Last Sigh*, 272). I shall then apply my discussion of authorial "voice," utterance and intent towards finding the place of hypertext in relation to the proposed triad of textual states.¹⁹

¹⁹ In my discussions throughout this chapter, I shall make the following assumptions, based on a pragmatic theory of meaning, as outlined in a cursory exploration of Speech Act theory in Appendix A: "Strategy, Meaning, Intent":

(1) The meaning of an utterance is a derivative of the rate of change in desired effect to explicit intent, within a certain context assumed to be true by the initiator of the utterance. Meaning is not identical to intent and the assumption of the context within which the utterance is strategised is open to challenge by the addressee.

(2) Interpretation relates to meaning. Interpretation is the "(pre)determination" (Fish) of the play between explicit intent and desired effect within a given context, by the addressee (who may or may not agree with the contextual assumption of the speaker). In the absence of any strategy, or a (pre)determination of it, interpretation and meaning give way to experience and significance. A word or a symbol by itself may fulfil a significatory role, but in the absence of a strategy will not yield any interpretive meaning. Thus, when Hirsch, in his book *Validity in Interpretation* (1967) says, "Crisp air reminds me of my childhood in Vermont" (quoted by Fish, 309; Hirsch 218-219), Hirsch's statement may be interpreted to generate meaning(s), while the crisp air, by itself, will only create a significatory link between the moment of utterance and the speaker's childhood in Vermont. On the other hand, a lone word or symbol may well constitute an utterance that does yield meaning(s) in interpretation, if used strategically, or if (pre)determined by a reader/audience to be the result of a strategy conceived and executed within a "structure of interests" (Fish, 311).

(3) In the absence of an audience, either assumed or real, immediate or delayed, there can be no critical (albeit intuitive) response to the strategic play between explicit intent and desired effect, and no "(pre)determination" or reconstruction of the speaker's "structure of interests"; therefore, in the complete absence of an audience, there can be no production of meaning.
In exploring authorial "voice" and its relationship to utterances, I shall borrow from the theoretical framework of narratology, most notably Genette, and shall further illustrate my discussion with examples from Victorian dramatic monologues. My reference to narratological principles, as part of a study in Human Computer Interaction, is inspired by narratology's systematic extension of the tools of rhetorical analysis towards a delineation of the negotiations between different parties – ranging from author and reader, to narrator and "voice" – within a critically evaluated framework for negotiations, comprising a number of factors – from fabula and story, to utterance, diegeses and narrated time – both within and outside a narrative. Moreover, the narratologists' focus on the text – a reifying process in itself – is particularly resonant with a thesis that has, at its very base, the process of expropriation and reification by which an utterance becomes "text" (see Chapter 2).

My use of dramatic monologues is based on their constructive emphasis on the narrative "voice," a play of structures of interests and (often manipulative) communicative strategies; each of these factors being a theoretical axis upon which I shall move my discussion of utterance, authorial intent and "voice." My preference for the Victorian monologue is founded on my hope that their continued popularity, coupled with their

The discussion that comprises Appendix A was initially an integral part of the dissertation. It was later edited out to minimize digression from the central purpose of the project. However, the discussion has been appended to the dissertation to help support the assumptions and claims that drive some of the salient points of this chapter.
acknowledged historical contribution towards the canonization of the dramatic monologue as a poetic form (within the world of English letters), will enhance the effectiveness of the illustrative tool, through our general and critical familiarity with these pieces.

3.1 Pre- and Post-textual Communication

The question of “text” as a strategic, communicative act\textsuperscript{20}, operating within the assumption of a resurrection of the signifying consciousness over time, has been recently presented to us in Christopher Nolan’s \textit{Memento} (2000), a brilliant and highly acclaimed film in which the main protagonist, Leonard Shelby, suffers from a rare medical condition—anterograde memory-loss—that affects his capacity for short-term memory. Shelby’s ability to form “new memories” stops with a blow that he suffers when intervening in a brutal attack on his wife, by a stranger. Shelby believes that he can remember his life up to that point; however, since the attack on his wife and the blow to his head, he cannot “make” any more memories. If he starts a conversation that goes on for too long, he cannot remember the beginning. If he meets people, he can neither remember meeting them, nor know who they are, days, or even hours, later: the attendant at his hotel stares at him in disbelief, even though he knows about Shelby’s “condition,” each time they meet and Shelby starts re-introducing himself. Neither can Shelby remember his actions for more than a few minutes. When he is

\textsuperscript{20} Please see Appendix A: “Strategy, Meaning and Intent” for a fuller discussion of meaning as a derivative of the rate of change in desired effect to explicit intent, within a certain formulative/interpretive context.
provoked by “Natalie,” his new confidante, into hitting her in the face, she walks out of the
door only to return a few minutes later, to tell Shelby that the bruise that she has suffered in
her face is the result of being beaten up by drug dealers; Shelby does not – cannot –
remember that it was *his* own blow to her face that had caused the bruising only a few
minutes earlier, in the same spot in her living room where he now stands, examining the
bruise and swearing revenge on the assailant.

However, despite his handicap, Leonard Shelby is determined to seek out his wife’s
killer. And so he devises a system of documenting events as a substitute for the short-term
memory that he has now lost: each time he meets a person, or commits a definitive act (such
as moving into the Discount Inn, where he lives for the greater part of the film, or gagging a
person and locking him in a closet), Shelby takes a Polaroid photograph and scribbles
relevant notes (the person’s name and corresponding observations such as “Do not believe
his lies”) at the back. The “facts” (Shelby uses this word throughout the film) that Shelby
deems to be most fundamental to his existence (reminding himself of his mission, i.e., to kill
his wife’s assailant, or key instructions to himself, such as never to answer the phone), he
tattoos on his body; like the Khazar envoy in Pavic’s novel, Shelby’s body becomes the
repository of what he believes are the fundamentals of his history.
The two axes on which the film—and Shelby’s life—turns are first, his documentation of life (the Polaroid shots, the tattoos, the hand-written notes), and second, his complete faith in his system of documentation as being the only valid record of his life. Thus, even as he argues that the world continues to exist although he might close his eyes, or that his avenging his wife’s death would have meaning, although he might not remember it, Shelby equates “fact” with the notes and photographs: the system of documentation that he has undertaken as a substitute for his short-term memory. If he cannot match a face or a place to his collection of Polaroid shots, notes or tattoos, he does not consider them to be valid “facts”: in Shelby’s post-traumatic life, the absence of documentation equals the non-existence of “fact.” When Shelby suspects that he might have been manipulated into killing someone who was not his wife’s killer, he destroys the photograph and erases the “fact.”

Shelby’s notes are hyperlinks: points where he can connect the various points of his life. They are also triggers to reconstructed memories and calls for action. When he meets someone he cannot remember or recognize, but who claims to have met him before, he checks his notes and matches photograph to face. He then looks behind the photograph for a descriptive (e.g., denoting someone as a liar) or prescriptive (“Kill him”) comment that outlines the context within which the photograph ought to be interpreted, and subsequent action taken. Shelby’s notes are also a communicative act directed towards an internal audience (Shelby communicating with Shelby) separated from itself (Shelby from Shelby).
over time, through the loss of memory. As both addresser and addressee, Shelby not only needs to take pictures and notes, but he also needs to document his communicative strategy – the context within which the photograph was taken and within which he expects the photograph, as well as his very act of having taken the photograph, to be interpreted in the future – in order for his system to work. When he fails to note the strategic context, the system fails and ruptures in communicating with himself leave him disoriented, with Christopher Nolan powerfully dramatizing his character’s existential disorientation by placing him in physical loci that have lost their axes for the protagonist.

When Shelby hits “Natalie” in the face, he commits an act. But the act remains ephemeral in his failure to document it: Shelby cannot find a pencil and his memory fades by the time “Natalie” returns to tell him that she has been beaten up by drug dealers. Shelby’s utterances, in such instances when he does not – or cannot – document them, do constitute a “text.” However, in the absence of a recording device – the pencil or the Polaroid camera, which become the instruments of reification – and the subsequent possibility of etching the conversation in Shelby’s mind (the will to reify), there is no apprehension of any future reconstruction of the communicative act and therefore, of any further critical intervention, on the part of either the addresser (Shelby) or his addressee (for the most part, Shelby himself). Having served its purpose – a minor monologue about what he is doing, whisky bottle in

21 This is akin to Lacan’s example (discussed in Appendix A: “Strategy, Meaning, Intent”) where the initiator of
hand, in a washroom in someone else’s residence – the text of Shelby’s utterance will be expected to undergo erasure. And even though it will not be without its traces, it is the absence of a reifying will that would enunciate the expectation of erasure. This is not a result of orality, for many an oral performance (either elaborately pre-designed or extemporaneous) is produced with the expectation of future recall which is, by necessity, a critical intervention by the agent of retrieval. The absence of any critical apprehension is a result of the strategic context within which the statements are made: in this case, neither Shelby the speaker nor Shelby the listener expects any reason to remember the text of the utterance or conversation. In the absence of such an expectation, the statements will remain in a state of extreme ephemerality, i.e., the text will undergo such quick erasure in time that it will not get to the state where the signifying consciousness out of which it arose will ever be resurrected for critical interrogation.

If Peirce felt that “great errors in metaphysics are due to looking at the future as something that will have been past” (Peirce, 9), I contend that ephemeral textuality is a result of not looking at the present as something which, in the future, will be remembered as having been past. When Shelby omits to take note of a statement, a person, a place or an event, it is either because he is incapable of doing so (for instance, when he could not find a pencil), or because he does not look at the present circumstance as worthy of being encountered and

an utterance mistakes the strategic context within which the play of intent, effect and meaning would unfold.
evaluated in the future as something that was a part of his past. For “text” is produced – as dramatized in *Memento* by the Polaroid photographs, tattoos and notes – not simply by a signifying consciousness operating in the present (Shelby ranting); “text” is produced only when that signifying consciousness is confronted in the future as “something” (my italics) of the past (the tattoo, the photograph, the hand-written note), be it immediate, recent or ancient, trivial or momentous, archived or scattered in individual or collective memory.

I propose to call the ephemeral textuality of communication that is unrecorded, or not expected to be resurrected in the future, the pre-textual communicative experience, and would emphasise that my use of the term “pre-textual” is only for the sake of theoretical expediency, to explain why most communicative acts in which we engage everyday – such as my conversation with a mango seller – are different from a historical document, or an oral narrative handed down through generations. “Pre-textual” does not, in any way imply that the statements, such as Shelby’s undocumented rant in the washroom, at the time of their utterance, were not “text”; instead, the term is meant to emphasise the extreme ephemerality of their textual state.

It is also important to note that what I call the pre-textual communicative experience is not determined by whether the future recollection or reconstruction of the text is exact.
Oral narratives change with time and with different speakers, but the very act of reconstruction and the continued process of critical revision removes them from the realm of ephemeral textuality, even as those same revisions emphatically deny the forced fossilisation of the text. The ephemerality, and hence the pre-textual condition, lies only in the absence of any expectation of future critical intervention and is not a function of verisimilitude or space, but of occurrence and of time. When I speak to a mango seller, or when Shelby says “Thank you” to a waiter who brings him a Manila envelope that he had left on the table, neither speaker and neither listener expects to critically evaluate either conversation or utterance in the future. However, if I see a play whose script I have never read, I might expect to recall the production in the future for any number of reasons. It is my expectation of a resurrection of the signifying consciousness over time that removes this play from the operational and conceptual parameters of pre-textual communication, even as the ephemerality of Shelby’s brief “thank you” or my potentially long conversation with the fruit seller remain ephemerally pre-textual.

If, however, in my buying mangoes at a Calcutta bazaar, something unusual does happen, or if my wife videotapes the event – much like Shelby’s taking Polaroid shots – or if she happens to find something amusing (that I do not) which she hopes to remember (even though I may not) and relates it to a friend, then, in my reconstruction of the statements, or in our act of documenting the event, or in my wife’s relating the (reconstructed) statement to a
third person, or to me or to herself, we realise the textual promise of the communicative act by resurrecting it over time. This is the second state in my proposed triad of textuality: the possibility of a resurrection of a signifying consciousness of, and from, the past, thereby establishing as “text,” in the future, what was once in a pre-textual state. Indeed, my current proposition invites a consideration of Foucault’s celebrated question, in his essay “What Is an Author?”, first published in 1969, four years after Searle’s “What Is A Speech Act?”:

If we wish to publish the complete works of Nietzsche, for example, where do we draw the line? Certainly, everything must be published, but can we agree on what “everything” means? ... [W]hat if, in a notebook filled with aphorisms, we find a reference, a reminder of an appointment, an address, or a laundry bill, should this be included in his works? (Foucault, 118)

If one modifies Foucault’s question ever so slightly to suit the present question, one will shift the focus from “the problematic nature of the word ‘work’ and the unity it designates” (Foucault, 119) to the nature of the word “text.” Before the unity of the collected “works” of Nietzsche or anyone else is designated by the critical intervention of the editor of the collection, it would be important to recognise the textual nature of the material at hand. In Nietzsche’s jotting down “a reference, a reminder of an appointment, an address, or a laundry bill,” all or any one of these jottings would have created the possibility of a resurrection of
the signifying consciousness, operating within what, following Fish, may be called a "structure of interests" (Fish, 311), thereby redeeming them of their pre-textual ephemerality. This would, no doubt, lead to the present reader's confronting the signifying consciousness of the past and then, depending on the critical agenda of the reader in the future-present, the text may or may not be included in the editorial "unity" of the "works." The possibility of such a critical confrontation over time is what determines the textual nature of an utterance.

Neither is such a possibility limited to chirographic or typographic documents. When the Mahabharata, the longest poem in history, was handed down orally for generations, it was still in a textual state. The classical Indian principles of sruti (hearing) and smriti (memory) ensured the possibility of a critical response to a signifying consciousness over time. The critical confrontation itself, be it in the editor's inclusion or exclusion of some of Nietzsche's jottings from his collected works, or in scholars' debates over the various versions and nuances of the Mahabharata in a Sanskritic school, in either medieval or contemporary Varanasi, leads to the third state which I shall call the post-textual communicative experience.

After the possibility of a resurrection of a signifying consciousness of the past has been realised, and the textual state of an utterance has been confirmed, the exegetical treatment of the text is what I propose to call the post-textual communicative experience.
Thus, in showing a video of my conversation with the mango seller, my friends and I may engage in a discussion of the event. Or in relating to a friend what I may have said to the mango seller or what the mango seller may have said to me, we may enter into a similar discussion on the “text” of the statements. In doing so, we cross what Gadamer, in his *Truth and Method* (1960) calls the temporal horizon and in this relation of temporal difference, we acknowledge that “texts do not ask to be understood as a living expression of the subjectivity of their writers” (356). The temporal horizon may span centuries, decades, years, months or days. Or it could be a matter of hours or even minutes or seconds, should there be a significant change in what Genette calls the diegetic universe within which the signifying consciousness had first manifested itself, and that within which it is later resurrected.

To revert to *Memento*, Shelby’s tattoo reminding him to avenge his wife’s death spans a horizon of several weeks, and possibly months. On the other hand, the picture of “Natalie” that he takes, as she walks out of the house, reaches a post-textual state in a matter of minutes: the erasure of memory is so quick that the strategic context of the textual state is lost, and Shelby has to critically engage in the photograph across the interpretive horizon to negotiate its meaning. It is in the very existence of a horizon that needs to be crossed, and in the very act of a critical evaluation of a signifying consciousness over such a horizon, that we undergo a post-textual communicative experience; “post” because, after the redemption of the statement(s) or utterance(s) from an ephemeral textuality (the pre-textual communicative
experience), and the subsequent establishment of their textual state through the agency of memory (be it within writing or the oral tradition or both), the exegetical "fusion of horizons" far diminishes the degree to which the text may be the "living expression of the subjectivity" (Gadamer, 358, 356) of its initiator.

"Text," I would contend in summary, is more than signifying consciousness: it is the signifying consciousness operating within an assumption of the future play of memory, in an expectation of retrieval and a resurrection of the signifying consciousness; a process which is, by necessity, a critical act. Text is an act which presupposes critical intervention and is, in fact, directed towards a critical audience, immediate or delayed, real or assumed, subconscious or external, accidental or foreseen. The definition of text therefore hinges on two conditional nodes: first, the evidence of a signifying consciousness, and second, the expectation of critical intervention through storage and retrieval. In the absence of any expectation of future critical recall, through the agency of memory, an utterance remains in a state of ephemeral textuality which, in the absence of any possibility of a future realisation of its textual state, I propose to call the pre-textual communicative experience. After the realisation, through the agency of memory and over time, of the textual state of an utterance, the exegetical assessment of the text introduces the interpretive horizon which, in its socio-temporal distance from the original structure of interests of the signifying consciousness, I propose to call the post-textual communicative experience.
3.2 Utterance and Authorial "Voice"

In his influential piece, *Narrative Discourse: An Essay in Method*, first published in *Figures III* in 1972, Gerard Genette writes that a "narrating situation is, like any other, a complex whole within which analysis, or simply description, cannot differentiate except by ripping apart a tight web of connections among the narrating act, its protagonists, its spatio-temporal determinations, its relationship to the other narrative situations involved in the same narrative, etc." (215). Thus, given the narratologist’s analytical prerogative, Genette proposes three levels of "narrative," as recounted by Paul Ricoeur in the second volume of *Time and Narrative* (1984):

Genette’s three levels are determined starting from the middle level, the narrative statement. This is the narrative properly speaking. It consists in relating real or imaginary events. ... The narrative statement, in its turn, stands in a twofold relation. In the first place, the statement is related to the object of the narrative, namely the events recounted, whether they be fictitious or real. This is what is ordinarily called the ‘told’ story. (In a similar sense, the universe in which the story takes place can be termed ‘diegetic’.) Secondly, the statement is related to the act of narrating taken in itself, to the narrative ‘utterance.’ (For Ulysses, recounting his adventures is just as much as action as is
massacring the pretenders.) A narrative, we shall therefore say, tells a story, otherwise it would not be a narrative. And it is proffered by someone, otherwise it would not be discourse. (81-2)

Genette further states that “any event a narrative recounts is at a diegetic level immediately higher than the level at which the narrating act producing this narrative is placed,” even as it “is in the nature of immediate speech to preclude any formal determination of the narrating instance in which it occurs” (228, 230). Thus Genette uses the following terms to establish the different levels of narration: intradiegetic (e.g., Ulysses, in Books IX to XII of the Odyssey where the narrator, Ulysses, is “within” the narrative) and extradiegetic (Homer, in the other books of the Odyssey where Homer is “outside” the narrative); homodiegetic (Ulysses in Books IX to XII, where the narrator tells his own story) and heterodiegetic (Sheherazade, in the Arabian Nights, where she tells others’ stories); and, in a combination of narrative levels, extradiegetic-heterodiegetic (Homer, who is not “within” the narrative and tells others’ stories), extradiegetic-homodiegetic (Gil Blas, who is not “within” the narrative, but tells his own story), intradiegetic-heterodiegetic (Sheherazade, who is “within” the narrative, but tells others’ stories) and intradiegetic-homodiegetic (Ulysses, who is “within” the narrative, and tells his own stories) (Onega and Landa, 186).
In extending Genette’s narrative temporal levels to the triad of communicative experience, I would contend that Genette’s notion of an utterance, or “the act of narrating taken in itself” (Ricoeur, 82), is akin to the pre-textual communicative experience. The mango seller in Calcutta may tell me, “It was a very bad season for mangoes.” In the absence of any expectation on either the mango seller’s part or in myself to commit the utterance to memory, “the act of narrating taken in itself” shall remain in a state of ephemeral textuality. In my recounting the statement, some time later, I shall redeem the utterance from its ephemerality, and establish its textual state by resurrecting the signifying consciousness (in this case, that of the mango seller) from the past. This is the “narrative properly speaking” that “consists in relating real or imaginary events” (Ricoeur, 81); the “real or imaginary” clause being most important given that the resurrection of the signifying consciousness may not be entirely faithful to the original utterance or to its context. Finally, in my discussing the mango seller’s statement with a friend, we resurrect the object of the narrative, and in our exegetical creation of the “diegetic” universe of the “told story” (Ricoeur, 81), we participate in post-textual communication.

However, the discussion of narrative levels in terms of narrated and narrating time gains further importance within the current project in helping to distinguish between an utterance within the “told story” and the “told story” as an utterance in itself. While Genette and Ricoeur, in their theoretical discussions, consider “dialogic” (Bakhtin) narratives, my
concern is with individual utterances within the diegetic universe of the “told story.” Thus, in seeking to define an utterance in terms of a communicative act, I would narrow the parameters down to what Bakhtin, in *The Dialogic Imagination* (circa 1930, trans. 1981), calls the “concrete utterance of a speaking subject,” and would restrict the scope of a communicative act, to the “concrete utterance of a speaking subject” within the diegetic universe of the “told story” (Ricoeur, 81).

To put it in terms of the triad of communicative experience, I would want to restrict my definition of an utterance within the parameters of pre-textual communication. In discussing authorial intent, I would therefore exclude Dostoevsky, author of *The Brothers Karamazov*, and instead focus on the “individual utterance” (Bakhtin) of, say, Ivan Karamazov within the diegetic universe created by the Dostoevskian narrator; and I would do so in support of Genette’s observation that it is “in the nature of immediate speech to preclude any formal determination of the narrating instance in which it occurs” (230). Within the diegetic universe of the specific chapter or page in the novel, the utterance in question remains (within the imaginary world of the novel, as well as the “here and now” of the situation of its enactment) in a pre-textual communicative state. This is what Genette means

22 My emphasis on the “concrete utterance of a speaking subject” does not in any way suggest that such an utterance is confined to what Bakhtin calls “unitary language” (272). In fact, as Bakhtin writes, every “concrete utterance of a speaking subject serves as a point where centrifugal as well as centripetal forces are brought to bear ... Every utterance participates in the ‘unitary language’ (in its centripetal forces and tendencies) and at the same time partakes of social and historical heteroglossia (the centrifugal, stratifying forces).” (272).
by “immediate speech” and, for the purposes of this project, I shall define utterance as “immediate speech” which, while it may contain implicit or explicit references to the “knowledge of another situation” (Genette’s definition of metalepsis, 234), would be enacted within the assumption of one diegetic universe.

Moreover, the strategy of an utterance will seek to place the play between its explicit intent and desired effect within the parameters of the structure of interests that are immediate to its inception, i.e., the utterance will act upon the assumption of a context that is immediate to, rather than removed from, the conditions of its inception. An utterance, for the purposes of this dissertation, will therefore be taken as being intradiegetic and without radical metalepses; as a communicative act, an utterance is based on a single strategy (though potentially aimed at realising multiple “consequential effects”) which is contemplated and executed within one temporal “situation” (Genette). For instance, Homer’s telling us the story

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23 I would modify “situation” to “plane.” Metalepsis occurs when the narrator suddenly betrays knowledge of the reader whose existence is beyond the pages and therefore on another plane. The knowledge of another situation may be metadiegetic, as in Ariadne’s remembering her sadness, in a metadiegetic past, in the mist of Thetis’ celebrations. However, the metadiegesis is on the same plane as the diegesis of Ariadne’s current sorrow, even as it constitutes knowledge of another situation. I further elaborate on the differences within and outside diegetic levels in discussing supradiegetic shifts in Chapter 4.

24 Genette’s example of metalepsis – Sterne’s asking the reader to either close the door or let Mr. Shandy sleep – is an instance of utterance (234-5). The individual speaking subject (the extradiegetic Sterne) becomes intradiegetic and attempts to draw the reader, too, into the diegesis of the novel. The immediate level at which the utterance is made is, therefore, not metaleptical, for the strategy of its inception and execution has already drawn the reader into the diegetic space of Tristram Shandy. While metalepsis is achieved in terms of the chapter or novel as a whole, the immediate level at which the utterance is acted out is without any radical rupture in diegetic settings, as Sterne, and his targeted readers enter the “universe” (Genette) of the novel at the moment of the utterance.
of the *Odyssey*, is, according to Genette, an utterance. However, for the purposes of the present project, Homer’s “narrative statement,” while an act of communication in the broadest sense, is not an utterance in the sense of a single strategic communicative act (as discussed earlier) for it comprises several, indeed, hundreds of individual utterances by speaking subjects, each of which is uttered (though not necessarily received) within one specific narrative situation and is, in its own strategic deployment, an individual communicative act. On the other hand, when Ulysses narrates his own story in Books IX to XII, his narration may, when displaying a unity of a structure of interests, and when in the absence of metaeleptical transgressions at the immediate level of a statement, be termed an utterance. Thus, a dramatic monologue such as Browning’s “My Last Duchess” may be an utterance through the unity of its structure of interests and assumptions, and by the intradiegetic strategy of its execution, even as Dostoevsky’s *Brothers Karamazov* will remain a discursive collection of utterances, each one of which would yield well to an examination of itself as a communicative act but which, in its dialogic relation to the rest of the utterances in the novel (both the characters’ and the narrator’s), will sabotage any attempt at identifying a communicative intent arising out of a unified structure of interests.

What, then, of the author, the initiator of the utterance? If an utterance, for the purposes of this project, is defined as (1) having an identifiable unity in the structure of
interests that are immediate to its inception, (2) having a single communicative strategy, albeit aimed at a multiplicity of “consequential effects” (Austin, 102), and (3) being intradiegetic and without radical metaleptical transgressions, then the initiator of the utterance would be Bakhtin’s “speaking subject,” real or fictitious, in whom the structure of interests finds its unity and yields its strategy, and who inhabits the diegesis or the “universe” of the communicative act. Thus, when buying mangoes in a bazaar, it is the mango seller who is the author of his or her utterances. In reading The Brothers Karamazov, it is, at any given point in the narrative, any of the characters, or the narrator, who is the initiator of an utterance within its immediate diegetic setting, and hence the author of that particular communicative act.

However, in reading Tennyson’s “Ulysses,” it is hard to ascertain whether it is Tennyson, the Poet Laureate, or Ulysses, the aging hero, who is the initiator of the utterance. While the title of the poem suggests the Homeric hero, it presupposes both the reader’s familiarity with the convention of the dramatic monologue and the reader’s knowledge of the Homeric epic. These conditions frame the assumed context of the strategy of the utterance, within which it will be interpreted. But in the absence of either or both of these conditions, the assumption will prove false and a “mispread”-ing (Fish, 311) will lead to the production of a different meaning from that intended by Tennyson, the historical author (the intended meaning could lie in, say, the irony achieved by the subversion of the reader’s
mental image of the legendary Ulysses of numerous adventures, now resting by a “still hearth” and “[m]atched with an aged wife”, ll. 2-3). Moreover, the misprereading in this case will also result in the failure to locate the “speaking subject” (Bakhtin) whose structure of interests would have been the immediate cause of the utterance. Thus readers of Tennyson’s poem shall, in the absence of any knowledge of the Homeric epic or of the Victorian dramatic monologue, interpret the utterance on their own terms, and part of the interpretive process will include an assumption of the “speaking subject” (Bakhtin), the “signifying consciousness” (Barthes, quoted by McKenzie, Bibliography, 33-35), the author.

In his essay, “Spoken Action” (1899), the Italian playwright Luigi Pirandello states that “every action (and every idea it contains) needs a free human personality if it is to appear live and breathing before us. It needs something that will function as its motor pathos, to use Hegel’s term — character, in other words” (Pirandello, 156). This “free human personality” is more than a locutionary agent. As noted with reference to Tennyson’s “Ulysses,” the identification of the speaking subject is, in itself, part of the strategy of the communicative act. For, in keeping with Genette’s proposition that “any event a narrative recounts is at a diegetic level immediately higher than the level at which the narrating act producing this

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25 This is unlike Stanley Fish’s example in his celebrated essay “Is There a Text in this Class?” (1980), where the speaking subject is clearly identified. Fish initiates his discussion with an anecdote of a student who asks her teacher “Is there a text in this class?”, to which the teacher responds, “Yes; it’s the Norton Anthology of Literature,” thereby prompting the student to clarify, “No, no, I mean in this class do we believe in poems and things, or is it just us?” (305). Appendix A: “Strategy, Meaning, Intent” further discusses Fish’s example.
narrative is placed,” even as it “is in the nature of immediate speech to preclude any formal
determination of the narrating instance in which it occurs,” part of the interpretive process
lies in locating the diegetic level of an utterance.

In the absence of a clearly identified “speaking subject,” the initiator of the utterance
will be located at a diegetic level closest to the “structure of interests” (Fish, 311) of the
addressee. Upon confronting Nietzsche’s laundry bill, and in the absence of any indication
that this bill is Nietzsche’s, a reader in, say, India, with little or no idea of German currency
or prices, might assume that the bill is fairly recent, and that it may have travelled to India in
the wallet of some foreign tourist. On the other hand, the Indian reader might not be at all
able to identify the document as being a laundry bill, and a speaker of German might use it
deceptively, to convince the Indian that it is a line from a German poem. To use Searle’s
example (229-30) of an American soldier in WWII – captured by Italians and using the one
line of German poetry he remembers from school in the hope of convincing the Italians that
he is German – one may note that the communicative strategy assumes that, in their
ignorance of the German language, the Italians will be unable to locate the “speaking subject”
(Bakhtin) and the “signifying consciousness” (Barthes) anywhere outside the immediate
diegetic level of the utterance. Indeed, the success of the communicative strategy will depend
on the assumption (and, therefore, re-creation) of an intradiegetic “author” (namely, the
American soldier) by the Italians as a result of their inability to access the grammatical and
semantic structure (the G-S structure) of the line, "Kennest du das land, wo die Zitronen bluhen?"

Actual speech, at its pre-textual state, occurs within the here and now of a given place and time, thereby minimizing the diegetic ambiguity of an utterance, and usually identifying the speaking subject. On the other hand, the post-textual communicative experience, which can occur only after the resurrection of a signifying consciousness between diegetic levels, demands a certain sharing of conventional knowledge between the addresser and the addressee. For one to know that in a dramatic performance, it is the character who speaks and not the actor in his or her personal capacity, one must be familiar with the norms of drama\textsuperscript{26}. Similarly, to put the title of Tennyson’s poem and the words together as speaker and utterance, one must have an understanding of the dramatic monologue, or of its Victorian incarnation, and of Ulysses of the Homeric epic.

This is what Altheide calls “format” which, in \textit{Media Power} (1985), he explains as being the “logic and procedures ... [that] provide for the transsituational arrangement of symbols that define time, place, and manner of a social occasion” (Altheide, 38), and which,\footnote{An example of diegetic conflation, used to comic purposes, may be found in the third \textit{Blackadder} series. While watching Caesar being murdered on stage as part of a play, the hilariously vacuous Prince Regent thinks that he is witnessing a real murder. Upon being informed of what Genette would have called diegetic levels, the Price Regent then mistakes an anarchist’s real bomb as being part of the show.}
in *Media Worlds in the Postjournalism Era* (1991), Altheide and Snow describe as “a media strategy for presenting particular subject matter” (Althiede and Snow, 18). Thus, in watching the masked actors of *Oedipus Rex* today, we are not at a lack of any generic understanding necessary for the production of meaning because the typification of Attic tragedy and its norms has extended from Sophocles’ time to ours and has carried with it a knowledge of masks. This is the transsituationality to which Altheide directs us: in the absence of a clearly identified “speaking subject,” the author (the initiator of an utterance) will be pre-read in generic terms, according to the addressees’ transsituational familiarity with the format. And so if I may stumble upon the performance of a play, written by a contemporary Canadian author unidentified to me, and if the actors use masks and employ a chorus, I may well believe that I am watching a play by an ancient Greek tragedian. This is because of three factors: first, my unawareness of a contemporary play that uses masks; second, my awareness of my lack of reading of the entire corpus of Attic tragedy; and third, my generic knowledge of the fact that the format of Attic tragedy involves the use of masks.

Similarly, in seeking to write a parody of Tennyson’s “Ulysses” in which Tennyson is nowhere mentioned, I would direct it principally towards those who know the original poem and who would immediately identify the historical author of the original piece; however, even those who have never read that particular poem, but have some basic familiarity with
the format of the Victorian dramatic monologue, should be able to identify the "voice" (Chapter 5, *Narrative Discourse*, Genette) that I seek to parody.

An author is the "voice" that yields an utterance. In the absence of a clearly identified "voice," addressees make an assumption of the "voice" according to the diegetic knowledge most readily available to them. The "voice" thus becomes part of the "format," either as a cause, or as a consequence of the "strategy for presenting particular subject matter" (Altheide and Snow). This manipulated and/or manipulating "voice" then helps fulfil the addressees' need to find in the utterance (1) an identifiable unity in the structure of interests that are immediate to its inception (this assumed structure of interests may not be historically true, but assumed by the addressee), (2) a single communicative strategy (as read by the addressees from the "consequential effects" on them), and (3) intradiegesis and the absence of radical metaethical transgressions, thereby allowing, within a time and a place, a "provisional sense of truth" (Rushdie, *Moor*, 272), which remains, for that time and that place (Genette's diegetic universe), the meaning of the utterance.
3.3 Authorial Intent and Interpretive Horizons

In seeking to understand the hypertextual condition – the "negotiations [which] are carried out as textual events" (McGann, 3) – one faces two important challenges. The first challenge, in seeking to understand the "negotiations" which underscore the hypertextual condition, lies in locating the authorial "voice" within or between identifiable diegetic levels. The second challenge involves the issue of corporeality and ephemerality, as outlined and discussed in Chapter 2.

The two challenges are interdependent. The issue of corporeality and ephemerality posits a challenge to an easy delineation of the hypertextual condition because the chief distinction between a pre-textual communicative experience, the realisation of a textual state, and a post-textual communicative experience, lies in the agency of memory operating over time, so as to erase or resurrect a "signifying consciousness" over diegetic horizons. The placing of any communicative experience in relation to the triad must therefore call into question the role of textual corporeality for – while it is true that oral utterances may be "text" and, as in the example of the mango seller discussed in the last chapter, even enter an exegetical post-textual diegetic universe – chirography is, in itself, a guarantee on the part of the "signifying consciousness" (and often on the part of the recipient critical consciousness) of the will to document, as well as a corollary will to retrieve. Thus, in *Truth and Method*, Gadamer proclaims:
A written tradition is not a fragment of a past world, but has always raised itself beyond this into the sphere of the meaning that it expresses. It is the ideality of the word, which raises linguistic objects beyond the finiteness and transience of other remnants of past existence. It is not this document, as coming from the past, that is the bearer of tradition, but the continuity of memory. Through memory tradition becomes part of our own world, and so what it communicates can be directly expressed. Where we have a written tradition, we are not just told an individual thing, but a past humanity itself becomes present to us, in its general relation to the world. (Gadamer, 352)

The trans-diegetic textual guarantee that Gadamer sees in the “written tradition” is tied in quite firmly with our cognitive expectation of the corporeality of the written word, thereby recalling the old question of the body which, as discussed in Chapter 1, goes back to predominantly oral times, making its way through the residual orality in Chaucer, into Katherine Hayle’s reading of “corporeal anxiety” in Bolter’s “late age of print,” in Pavic’s novel – written in our time – about a Khazar envoy from another world.

The issue of “authorial intent” is linked to our textual expectations of corporeality and ephemerality because “authorial intent” – as I shall argue in this section – is the strategic force that seeks to determine the particular diegetic setting within which an utterance will be
evaluated as a communicative act. Moreover, as I shall illustrate with reference to three well-known Victorian dramatic monologues, the reification and re-reification of that utterance from the pre-textual to the post-textual state traverses several diegetic horizons, and consequently poses a significant challenge to any attempt to force the addressees’ fore-meanings, operating within the interpretive horizon of the addressees’ diegetic level, into the “structure of interests” (Fish) and diegetic parameters of the “speaking subject” (Bakhtin).

While an utterance may have been defined – for the purposes of this project – as being intradiegetic, an attempt at understanding authorial intent would require a consideration of the play between diegetic levels as it relates to the interpretive process: the play between times, places and time-places that create what Gadamer calls the fusion of interpretive horizons in his influential work, *Truth and Method* (1960). What Fish calls “(pre)determination” and “(mis)preread”-ing (311), Gadamer further elaborates in his theory of “fore-knowing” which he develops in response to Heidegger’s discussion of the “fore-project” in the latter’s celebrated work, *Being and Time*:

What is true of the fore-meaning of usage, however, is equally true of the fore-meanings with regard to content with which we read texts, and which make up our fore-understanding. Here one must likewise ask how one can possibility expect to escape from the circularity of one’s fore-understanding. Certainly it is not a general presumption that
what is said to us in a text adapts flawlessly to one's ideas and expectations. On the contrary, what another person tells me, whether in conversation, letter, book or whatever, is generally thought automatically to be his own and not my opinion; and it is this that I am to take note of without having necessarily to share it. But this presupposition is not something that makes understanding easier, but harder, in that the fore-meanings that determine my own understanding can go entirely unnoticed. (237-8)

Gadamer's concerns about the conflict between the addressee's (usually "unnoticed") fore-meanings, and the general supposition that "what another person tells me ... is generally thought automatically to be his own and not my opinion" find illustration in examples of Victorian dramatic monologues. For instance, in reading of Browning's "My Last Duchess," one finds a remarkable instance of the conflict arising out of the demands of the addressee's fore-meanings wrestling with a supposition of the autonomy of the addresser's core, determinate meaning. I chose Browning's monologues to illustrate my point because of their popularity and because they fit well with my proposed definition of "utterance" within the scope of this dissertation. Moreover, they find a happy common ground between Gadamer's "conversation, letter, book or whatever."

"My Last Duchess" is a monologue by a Duke (more specifically, the Duke of Ferrara, should one delve beyond the parameters of the poetic text as provided by Browning)
to a messenger who comes to negotiate a matrimonial match between the Duke and a Count’s daughter. The Duke tells the messenger about his “last Duchess painted on the wall” and how and why he “gave commands” to kill her. The Duke’s explicit intent is a condescending reminiscence of his deceased wife prompted by her painting on the wall (as noted in the first line and repeated references to the painting); his desired effect (should we pre-determine his “structure of interests”) presumably being the clarification, through harsh example, of his feudal-patriarchal expectations of modesty from any woman who would bear his “gift of a nine-hundred-years-old name.” The confusion arises out of the meaning derived from the play between the explicit intent and the desired effect, given the context of fore-meanings.

The debate between two of Browning’s critics, B.R. Jerman and Laurence Perrine, illustrates the importance of fore-meanings in the perlocutionary success or failure of a communicative strategy.

In “Browning’s Witless Duke” (pub. 1957), Jerman argues that the Duke reveals to Browning’s Victorian readers more than he had intended, and thereby exposes himself as cowardly. Through the metadiegetic communication of his utterance, Browning’s Duke stumbles upon the fore-meanings of his Victorian audience who, given their contemporary norms, may have found the Duke’s act of killing and his narrative gesture of threatening, dastardly. Thus, the post-textual communicative experience would cause a perlocutionary
failure of the pre-textual utterance through its metaleptical transgression that allowed, as it were, the winds of one diegetic universe to blow out the pre-suppositions of another.

Perrine, in his essay, “Browning’s Shrewd Duke” (pub. 1959), refutes Jerman’s argument by noting that, within the diegetic parameters of feudal Ferrara, the messenger – the addressee of the “speaking subject” – would not have seen as much cowardice in the Duke as we may. Indeed, we have an even greater privilege of retrospection over Browning’s contemporaries being at least another diegetic level further from a Victorian English audience. The messenger shares the Duke’s diegetic universe and is therefore much more in awe of a “nine-hundred-years-old name” than Browning’s age may have been. For us, the feudal vintage may seem even more irrelevant in the light of the Duke’s cruelty than it may have to Browning’s contemporaries. To the messenger, the Duke may emerge as an impressive, authoritarian figure that finds its correlative in the bronze figure of Neptune taming a sea-horse. To us, he may seem dastardly in the light of our standards of human conduct.

Browning’s virtuosity thus lies in his constant manipulation of the interpretive horizon, thereby achieving an unending pattern of subversion of expectations: just as we begin to feel comfortable in our judgment of the Duke, we think of the messenger and the impression of the Duke’s utterance on him; yet, as soon as we have satisfied ourselves with
such a transposition of temporal horizons, we cannot but acknowledge our own fore-meanings. The cycle repeats itself endlessly, and it is the acknowledgment of this cycle that becomes all the more important to a consideration of authorial intent in the light of its illustration of an indeterminable signifying consciousness. For if Browning were to be regarded as the stable and fixed initiator of the utterance (i.e., the poem), then one could fix the parameters of one's fore-meanings according to one's historical knowledge of the Victorian poet, just as, in the absence of any notion of Homer or Ulysses or the Odyssey, but in the light of one's historical knowledge of Tennyson, one could read Tennyson's "Ulysses" as the utterance of a Victorian Poet Laureate. On the other hand, if the Duke were to be determined into the authorial role, then one's knowledge of his feudal universe would make the predetermination of the structure of his interests easier. However viewed, the conundrum ensuing from the ambiguity in narratological "voice" threatens the perlocutionary success of the communicative act.

To explore the issue of ambiguous "voices" further, one may turn to the tenth section of Browning's The Ring and the Book in which the Pope begins his argument with the story of Formosus and Stephen:

Eight hundred years exact before the year
I was made Pope, ...
...there was a ghastly trial once

Of a dead man by a live man, and both Popes (554)

He relates, on the basis of Sigebert's chronicle, the macabre tale of the "trial" and "punishment" of the deceased pope, Formosus, by Stephen who, in a fit of vengeful rage, had the corpse of the "unpoped" Formosus thrown into the Tiber to be eaten by "Christian fish." The corpse was subsequently recovered by fishermen. Both the body and the name of the disgraced pope were restored to honour by a later prelate. The debate over the alleged guilt of Formosus and the judgment of Stephen continued long after both were dead. A perverse cycle of vindication, charge and apology dragged the corpse, once disgraced, once restored, back into the river, and out yet again.

Browning's Pope finds a parallel between his own situation and that in the chronicle: Count Guido Franceschini, having been condemned to death by the Court for the murder of his wife Pompilia and her parents, has made an appeal to the pontiff for pardon. The pleas and counter-pleas have been heard, the verdict decided and read. Now, only Pope Innocent retains the power to save the Count. Faced with the prospect of having to decide between the life and death of a condemned man, the Pope finds himself unable to arrive at an absolute truth that does not merely justify a point of view, but actually proclaims itself as a total and irreducible axiom of human conduct:
... Man must tell his mate

Of you, me and himself, knowing he lies,

Knowing his fellow knows the same -- will think

"He lies, it is the method of a man!"

And yet will speak for answer, "It is a truth"

To him who shall rejoin, "Again a lie!" (Browning, 557)

Browning first published *The Ring and the Book* in four volumes which appeared successively in November and December, 1868, and January and February, 1869. The text is divided into twelve sections based on the "pleadings and counter-pleadings, the depositions of defendants and witnesses," as they appeared in a "parchment covered book" which the poet had bought at the Piazza San Lorenzo, in Florence, for eight pence (Browning, 414). The death sentence passed on Guido Franceschini was executed on 22 February, 1698. More than a century and a half later, Browning recreates the trial through a sequence of dramatic monologues alternating between justification and condemnation of the murder. His purpose, as he writes in the very opening lines of the introductory section, is to achieve a "repristination" of the truth. Thus, while Browning's Pope finds a parallel to a contemporary debate in a controversy current eight centuries before his time, we, as readers of Browning's book, discern a similar parallel to our own situation in the very act of our reading and
discussing the text. The dispute over the innocence or guilt of a corpse, and later, a couple of
corpses, seems meaningless to Browning's Pope. As readers of Browning's book, we may
find ourselves in much the same position: we seek to establish or deny the guilt of Guido,
through our reading of the text, long after Guido, the Pope and the historical Browning are
dead.

The Ring and the Book is important to the present discussion in two respects: first, the
basic facts of the case remain undisputed by all, and second, the poet does not seem to arrive
at any particular irrefutable truth, but only at a serial and "provisional [rhetorical] sense of the
truth" through his "inventive commitment to the infinite malleability of the real" (Rushdie,
Moor, 272). Count Guido confesses to the murder of his wife and her parents; in fact, he
never sought to hide it. That Pompilia had conspired with Caponsacchi to escape from
Arezzo to Rome is acknowledged by all, including herself. The Ring and the Book remains a
series of monologues, each of which offers the reader a deep insight into only one of the
characters in this drama of deliberation and excuse. None of these monologues gains textual
or moral superiority over the rest. Moreover, while the case, as a whole, places each of these
monologues in a dialogic framework, none of the pieces is actually spoken as a direct
response to any other; hence they remain monologues. Each piece commences its argument
from a rhetorically stylized "middle" and forces the reader to enter the diegetic universe of
the individual speaker. Artistically, each remains an extreme exercise in the creation and
maintenance of this universe; the process enforced not only by the opinion of the “speaking subject” (Bakhtin) on the case, but also by an insight into his or her idiosyncrasies, strengths and weaknesses. Archangelis, Pauperum Procurator and defender of Guido, not only presents his proposed argument before the Court, but also casts himself as a dry pedagogue, devoid of creativity, by seemingly translating verbatim from the magisterial Latin which tires him. Dr. Bottinus, his opponent, shows himself as a natural orator; the performative authority of the speaker entices him:

I rise, I bend, I look about me, pause
O'er the hushed multitude: I count – One, two ... (540)

As in “My Last Duchess,” Browning creates a cycle of subversions of fore-meanings across interpretive horizons; the difference between the two works lying in the self-consciousness of such an exercise that Browning displays in the longer piece. While “My Last Duchess” leaves the identification of the “voice” to Browning’s readers, both contemporary and in the future, The Ring and the Book brings the question of the “signifying consciousness” and the “speaking subject” to the forefront by its very organization and artistic enterprise.
However, the subversion of interpretive horizons by authorial ambiguity is not only restricted to long works employing multiple monologic “speaking subjects.” Between 1842 and 1863, Browning wrote “Porphyria’s Lover” and “Johannes Agricola” and gave them the joint title “Madhouse Cells.” The title was removed in 1863. Like *The Ring and the Book*, “Porphyria’s Lover” had its source in the record of a crime though, in the latter case, Browning does not acknowledge his source within the poem. In 1818, *Blackwoods* magazine published an article called “Extracts from Gosschen’s Diary,” by John Wilson. The “Extracts” purported to be the transcripts of the memoirs of a German priest called to the death cell of a young man condemned for the murder of his mistress. Like Porphyria’s “lover,” the young man describes his crime:

> Do you think there was no pleasure in murdering her? I grasped her by that radiant, that golden hair, I bared those snow-white breasts, – I dragged her sweet body towards me, and, as God is my witness, I stabbed, and stabbed her with this dagger, forty times through and through her heart. ... [T]he balmy breath came from her sweet lips no more. My joy, my happiness, was perfect. (Wilson, quoted by Mason)

“Porphyria’s Lover” echoes the “Extracts”: “She never so much gave one shriek” (“Extracts’”); “No pain felt she; / I’m sure she felt no pain ...” (“Porphyria’s Lover”), and so on. What the eight-pence book bought at Florence is to Browning’s epic, John Wilson’s
article is to his sixty-line poem. The protagonist of “Porphyria’s Lover” is dramatic and describes a crime of passion in graphic detail. However, unlike the characters of The Ring and the Book, the young murderer does not debate a moral issue, but only describes his crime. He tries to arouse our sympathy by seducing us into the perverse and exclusive space of his diegetic universe. There is no inner debate – as in the Pope’s monologue in The Ring and the Book – or any larger comparative framework of eleven other “voices,” albeit all monologic. Yet there is an attempt by the “speaking subject” to subvert our fore-meanings; it is this attempt to force the addressees’ fore-meanings, operating within the interpretive horizon of the addressees’ diegetic level, into the “structure of interests” and diegetic parameters of the “speaking subject” that I propose to call “authorial intent.”

Earlier in this chapter, an utterance was defined as a communicative act based on a strategy governed by the intradiegetic assumptions of a particular social context, and the author, or the initiator of the utterance, was defined as the identifiable or ambiguous “voice” that helps fulfil the addressees’ need to find in the utterance an identifiable unity in the structure of interests that are immediate to its inception. “Authorial intent” is subsequently defined as the strategic force that seeks to determine the particular diegetic setting within which the utterance will be evaluated as a communicative act.
In *User Models for Intent-Based Authoring* (1996), his doctoral dissertation for the Department of Computer Science, UBC, Csinger describes the “author’s intent” as “an arbitrarily complex communicative goal analogous to the notion of illocutionary force in the literature of *speech-acts* ... but can be safely interpreted in the context of this dissertation in its typical dictionary definition, which offers as synonyms: *intention, intent, purpose, design, aim, end, object, objective.* ... The author’s intent is a (possibly abstract, very high-level) communicative goal.” (Csinger *User Models*, 9). While the simplicity of Csinger’s definition – “its typical dictionary definition” – of authorial intent is necessitated by the computer scientist’s emphasis on the operational and the immediate, the textual exploration of authorial intent in this section hoped to illustrate that it is not so much an “author’s intent” that is an “arbitrarily complex communicative goal,” but that it is the predetermination of the author’s context by the addressee that may be unpredictable. While “authorial intent” may be understood as the strategic force that seeks to determine the particular diegetic setting within which an utterance will be evaluated as a communicative act, the identification of authorial intent is no more stable than the location of the author, as the illustrations from Browning show so well. Format, genre and other parameters of fore-meanings play an inescapable role in the exercise, and the final analysis often involves what Gadamer calls a “fusion of horizons” (358) in the establishment of a provisional sense of the truth of the condition postulated by an utterance.
Such a textual reworking of our understanding of authorial intent – within the parameters of Human Computer Interaction scholarship – is fundamental to this project, which argues that hypertext disorientation is primarily a crisis in textuality, rather than a result of technological limitations. While a “typical dictionary definition” of authorial intent – “which offers as synonyms: intention, intent, purpose, design, aim, end, object, objective” – would suffice the immediate, operational needs of a computer scientist seeking a technological solution to address the problem of user-disorientation, an understanding of authorial intent in terms of “textual negotiations” is crucial to a project that seeks to reveal the ruptures in our negotiation of the “textual condition” of networked, electronic information-spaces.

3.4 Utterance, Intent and Hypertext

In the specific context of delineating the hypertextual condition, both issues – that of locating the authorial intent and that of corporeality – find a unique place in the “secondary orality” (Ong) of hypertext. As elaborated in Chapter 2, the secondary orality of hypertext does not relate to its use of sound, but is based in its use of interconnections, which are perceived as creating a discursive framework similar to that of the oral, and which, in turn, ensure the hypertextual sublation of the “situational”-“categorical” binary that constitutes an important theoretical axis in Ong’s Orality and Literacy: the Technologising of the Word
(1982). On the one hand, hypertext lacks tangibility, and in its pre-corporeality, resists being pigeon-holed into a post-textual state. On the other hand, its visibility allows the conceptual and operational divisibility of words – the word as a “thing” and not an “event” – that Ong attributes to chirography, and its inherent promise of the resurrection of the “signifying consciousness” allows textual realization, as well as post-textual exegesis.

As “a collection of distinct nodes of information connected via a network of links” (Csinger User Models, 72), hypertext is bound by the principle of interaction and transference of information flows between easily malleable and non-durable substrates (Katherine Hayles, see Chapter 1). In permitting “one operation (such as composing a text) to be instantly transformed into an exchange and annotation of that text by others,” thereby allowing for the “collaborative operations of review and re-visioning” (Barrett xvi) – be it through the reader’s ability to negotiate the hypertextual path through a selection of hyperlinks, or the capacity to customize font size and colour – hypertext challenges the easy location of the “signifying consciousness” and of authorial intent by constantly shifting the point of origin of the utterance – the intradiegetic communicative act with an identifiable unity in the structure of interests that are immediate to its inception.

Within the framework of the “secondary orality” of hypertext – which challenges both the easy location of authorial intent, as well as the question of oral “situationality” and spatial
“categorization” (Ong), as discussed in Chapter 2 – we might seek to locate hypertextual communication in relation to the triad of communicative experience, as follows:

1. Each individual frame by which hypertextual information reveals itself to its users is an utterance. It not only exists in its own diegetic universe, but it also invites the user to define the parameters of critical negotiation without metaleptical transgressions\(^{27}\) or any violation of the unity of the structure of interests that define its context. Moreover, it aids the user’s predetermination of a single communicative strategy, not only by its focus on an individual frame, but also by its invitation to the user to modify the diegetic level by \(a\) being the outcome of a link selected by the user; and \(b\) technologically allowing the user to change the appearance of the information on the screen, thereby, in a sense, allowing a re-production of the communicative act in terms of the user’s needs.

2. In the logic of its defining structure which operates through linkages, the virtual entirety of which must always lie beyond the reach of the user, hypertext places each utterance in a dialogic relationship with its network of utterances, thereby

\(^{27}\) While hyperlinks on a certain webpage reveal knowledge of other planes, and may therefore seem to contradict my claim for the absence of metaleptical transgressions, the act of selecting one such link will include the other plane within the customised text-path of the particular user. This would modify the transgressive potential into a conciliatory, dialogic relationship between the two hypertextual “utterances.”
transcending (like a novel or any other dialogic text) the individual communicative act and comprising metalepses and trans-diegetic discourse which (as in a novel) prevents the identification of a unified structure of interests or a single communicative strategy that may be linked to authorial intent.

3. However, in the "publication" of hypertextual material on the Internet, or simply in the creation of a visual web of information, the "signifying consciousness" guarantees the "continuity of memory" (Gadamer, 352), thereby removing any fear of the ephemeral textuality of pre-textual communication. And yet, it is the very ephemerality of the appearance of the information on an interactive screen, that invites and enables a reconstruction of the work of the "signifying consciousness" into the customised text-path created by the individual user, thereby recalling the trans-diegetic, critical reconstruction that defines post-textual communicative experience.

It is this constant shift in the location of authorial intent in hypertextual communication that allows what Csinger and other HCI scholars call intent-based authoring, wherein "the author [the original creator/publisher/compiler of hypertext] supplies at compile-time a communicative goal, or intent" which "defer[s] content-selection decisions until run-time when they [the intent-based authoring systems] refer to models of both author
and reader(s)”; all this, even as “techniques from artificial intelligence can be developed and used to acquire, represent and exploit such models” (Csinger User Models, ii). While Csinger focuses on manipulative “techniques from artificial intelligence” in his doctoral work in Computer Science, my project – in seeking a textual theory of hypertext disorientation – is to locate a counterpart to the addresser’s assumption of a strategic context in Csinger’s definition of a user modeling system as “a representation of the reader’s attributes relating to his or her information-seeking needs and objectives in consulting the system”:

A user modeling system may attribute to a user assumptions at different levels of abstraction: while watching a video of a dinner being prepared by a chef, for instance, if the viewer is also ex hypothesis a chef, the system might assume that the user believes that chicken marinara is being prepared. If the viewer is a typical North American fast food junkie, the system may attribute the belief that the dish involves chicken and some sort of sauce. (User Models, 100-101)

The user model is “acquired both explicitly and implicitly ... Explicit acquisition takes place when observing the interaction of the user with a description of the user model. Implicit acquisition takes place when observing the interaction of the user with the presentation” (Csinger User Models, 101). The “acquisition” of user models (especially at the “implicit” level), to which Csinger refers, finds support in the format theorist’s proclamation of “the
pregivens that set the temporal and spatial parameters for the configuration and meaningfulness of *all* forms of communication" (Altheide, 38). The process of "acquisition," both "explicit" and implicit," seeks to understand the nature and degree of an individual’s, or group’s, familiarity with such a convention, "pregiven" or context.

Our location of hypertextual communication in relation to the triad of communicative experience – on the basis of our understanding of the "oral writing" (Gates) and "secondary orality" (Ong)\(^{28}\) of hypertext – also helps us place the constant shift in the location of authorial intent in hypertextual communication within what Csinger, borrowing a metaphor from the literary theorist, sees as the tension between the surface structure (the individual frame accessed by the user) and the deep structure (the hierarchy of networks that governs the system of linkages) of the network of ideational nodes.

From the user’s point of view, the tension caused by hypertext’s vascillation between pre- and post-textual communication, may be well illustrated by the now hackneyed question: does one write or speak on e-mail? While e-mail is not necessarily hypertextual, it is an Internet application and shares the property of malleability with hypertext. The malleability of e-mail arises out of its curious place between an oral (potentially) pre-textual utterance and its display of a documentary (and resurrective) will in the very act of typing.

\(^{28}\) See Chapter 2 for a discussion of both “oral writing” and “secondary orality.”
Whereas a letter may involve a hierarchy of semantic possibilities, an oral utterance, such as the mango seller's statement of the price of a dozen mangoes, may seek to operate only on the most immediate level of phonetic interpretation. The post-textual communicative experience involves a trans-diegetic consideration of the semantic hierarchies. The ephemerality of pre-textual communicative experience, on the other hand, restricts interpretation to the most immediate semantic level. However, in actual oral discourse, the continuous negotiation between different speakers and utterances creates an automatic mediatory mechanism whereby interruptions, responses and the dialogic relationship between the different speakers and utterances guides the flow of the conversation through a natural negotiation between different interpretive "fore-meanings" within similar (if not the same) diegetic levels.

In a letter (or in a Victorian monologue), the consideration of the different interpretive levels (either by the author, before "sending" the letter, or by the reader as shown in the instance of the monologues, discussed above) allows for a negotiation between different interpretive horizons. But e-mail is curious in that it is denied the spontaneous negotiation between different interpretive "fore-meanings" of oral discourse, by the spatio-temporal distance between addresser and addressee; even as the spontaneous click of the mouse on the
"send" button, as well as the conventional brevity of the e-mail message (with its unifying structure of interests, and absence of severe metaleptic transgressions) tempts the sender away from a consideration of different interpretive levels that is afforded by both the act of documentation, and the spatio-temporal distance between sender and receiver.

The "secondary orality" of hypertext (as discussed in Chapter 2) creates a similar tension between the single frame that is visible to the user, and the extensive and hierarchical network of ideational nodes, whose virtual entirety remains beyond the grasp of the individual user. This is one of the primary reasons for disorientation in hypertextual space, and the following chapter will explore this problem in terms of the molar/molecular dichotomy proposed by Deleuze and Guattari in their book A Thousand Plateaus (1980, trans., 1987).

Moreover, in their negotiation of the networks, users may be led to believe that the hyperlinks (and the reified "non-linearity") give them control over the extensive and hierarchical network when, in fact, the links themselves, as they appear before the user, are part of the superficial frame, and are supplied by "the author [the original creator/publisher/compiler of hypertext] ... at compile-time [as] a communicative goal, or intent" (Csinger). This is akin to the deconstructive reader's resistance to the reification of the text, even as the very acknowledgment of the text, through the act of deconstructive
reading, is a reification (at a preliminary level) of authorial intent. And just as the best
deconstructionists acknowledge this aspect of their critical efforts, so do the most
experienced “hypernauts” (Nelson) acknowledge the illusory promises of a medium which,
even as it claims to allow its users control over an extensive and hierarchical network, as
expressed in the spatial metaphor of navigation, continue to constrain the users within the
limitations of the bibliographic metaphor that is exemplified by the operational parameters of
the webpage. This leads to a conflation of the bibliographic and the spatio-electronic
navigational metaphors, as I shall discuss, in reference to the considerations of this chapter,
in exploring user-disorientation the next part of the dissertation.

In this chapter, I hope to have interrogated some of the salient principles of
narratology, from the perspective of a project in Human Computer Interaction, to explore
how hypertext challenges the easy location of the “signifying consciousness” and of authorial
intent by constantly shifting the point of origin of an individual utterance – the intradiegetic
communicative act with an identifiable unity in the structure of interests that are immediate
to its inception – thereby making it particularly susceptible to disorientation. Having thus
placed hypertext within the framework of an exploration of textual negotiations, this chapter
identified two important aspects of the hypertextual condition that I shall explore further in
discussing user-disorientation in the next two chapters: first, the tension between the
hypertextual surface, at which the user views the information in a single frame, and the
invisible depth of its extensive and hierarchical network of ideational nodes; and second, the conflations of cognitive metaphors, such as the bibliographic and the spatial, that govern our negotiation of the hypertextual environment. In discussion of user-disorientation in the next chapter, I shall place both of these aspects of the hypertextual condition within the theoretical premises of this chapter, to argue for two main types of user-disorientation: the diegetic and the vectoral.
Chapter 4: Disorientation

The issue of user-disorientation in hypertextual space – the central issue of this dissertation – has been raised repeatedly and consistently by scholars in the field of Human Computer Interaction (HCI), from Mantei in 1982 to Dillon, McKnight and Richardson at the Human-Computer Interaction Seminar at Cambridge in 1990, and in continuing debates within HCI circles, both in academia and in industry29.

In their essay, “Extending hypertext for learning: an investigation of access and guidance tools” (1989), Hammond and Allinson note that the many problems faced by hypertext users include getting lost and finding it “difficult to get an overview of the material”; even when users “know specific information is present they may have difficulty finding it” (294). In their survey, “Navigation in Hypertext: A Critical Review of the Concept” (1990), Dillon, McKnight and Richardson reiterate the opinions of Conklin and McAleese who contribute to the “striking consensus among many of the experts in the field that navigation is the single greatest difficulty for users of hypertext” (587). They cite studies by Hagelberger and Thompson (1983), and Canter and Storrs (1985) to prove that users

29 As a member of the Usability Professionals Association and a strategy consultant specializing in online operating processes and environments, I have found myself in the thick of the user-disorientation debate for the past two years. For more information, please visit, www.upassoc.org, www.useit.com, and www.phase-5.com.
repeatedly “lose their way in the maze of information,” and refer to research by Tombaugh and McEwen (1982), and Lee, Whalen, McEwen and Latremouille (1984) that “indicates that the actual to minimum ratio for screens of information accessed in a successful search is 2:1, i.e., users will often access twice as many menu pages as necessary.” According to Dillon, McKnight and Richardson, subjects “in the linear condition (paper and word processor versions) seemed much happier to browse through the document to find information, highlighting their confidence and familiarity with the structure presented to them” (589).

While computer scientists and industrial psychologists tend to contribute to the bulk of HCI scholarship on user-disorientation today, my project is to address the issue of user disorientation in hypertextual environments from the textual angle. As a literary scholar, my argument – based on the critical engagement of non-electronic texts – is that the problems of hypertext disorientation lie in issues of ambiguous textuality and its manipulative potential which, whether latent or actually realized by the author, precipitate a crisis in textuality and textual experience which, in turn, leads to disorientation.

It is towards laying the groundwork for such an argument that I commenced this dissertation by illustrating – in the first two chapters – how our textual complacency, partially as a result of our axiomatic insistence on binaries such as “text” and “graphic,” “linguistic” and “plastic,” “oral” and “written,” leads to ruptures in what Foley calls the “natural rules of
discourse” (91). A consequence of these ruptures is the potential for manipulative textuality, as I illustrated through McKenzie’s reading of the Maori “signatures” appended to the Treaty of Waitangi. In seeking to locate hypertext within our evolving notions of textuality, I discussed the “secondary orality” (Ong) of hypertext as a sublation of hitherto axiomatic binaries that have informed our textual negotiations within the Western philosophical tradition.

In the third chapter of the dissertation, I extended the first two chapters’ consideration of the relationship between ambiguous textuality and manipulation to an understanding of the hypertextual condition. I began by exploring a triad of textual states, proposed on the basis of an understanding of textuality as a function of communicative strategy operating across temporal “horizons of interpretations” (Gadamer, 358). Having placed hypertext within the framework of textual negotiations, through an interrogation of some of the salient principles of narratology, the third chapter explored how hypertext challenges the easy location of the “signifying consciousness” and of authorial intent by constantly shifting the point of origin of an individual utterance, thereby making it particularly susceptible to disorientation. In examining the discursive framework of the hypertextual environment, I sought to describe the hypertextual condition by locating hypertext in relation to the proposed triad of textuality.
Having thus laid the theoretical framework within which to assess and appraise the hypertextual condition, I shall now devote this chapter and the next – which comprise the concluding part of the dissertation – to addressing the issue of user disorientation in a hypertextual environment by elaborating on two important aspects of the hypertextual condition, as identified at the conclusion of Chapter 3: first, the tension that arises out of negotiating the visible individual hypertextual frame, without full conceptual access to the extensive, hierarchical network of ideational nodes, whose virtual entirety remains beyond the grasp of the individual user; and second, the conflation of cognitive metaphors, such as the bibliographic and the spatial, that govern our negotiation of the hypertextual environment.

In seeking to explain hypertextual disorientation as a crisis in textuality in the present chapter, I shall propose two kinds of hypertextual disorientation: the diegetic and the vectoral. Based on these two categories of disorientation, the next and final chapter of this dissertation will explore a new geography of hypertextual space.

While the first part of this dissertation addressed the concepts of textual substance on the basis of a “signifying consciousness” (Barthes, quoted by McKenzie, *Bibliography*, 33-35) operating within real or conceptual textual spaces, and the second part sought to define the textual condition according to the communicative experience within time, this chapter
will address the textual and hypertextual conditions primarily in terms of place, or what Janet
Giltrow, in a paper discussing the Virtual-U ("a server-based multimedia software system for
customised design, delivery, and enhancement of education and training courses delivered
over the World Wide Web") calls "speech places" (Online: Internet).

Of course, time and place can never be kept too far apart in a critical consideration of
either dimension.

What the map cuts up, the story cuts across. In Greek, narration is called "diegesis": it
establishes an itinerary (it "guides") and it passes through (it "transgresses"). The space
of operations it travels in is made of movements: it is topological, concerning the
deformations of figures, rather than topical, defining places. (De Certeau, 129)

The intersection of time and place, as it applies to textuality, led to the proposition of the
triad of textual states, in relation to which, the last chapter sought to locate the hypertextual
condition.

In this chapter, I shall further consider the issue of time-place intersections in exploring
instances of reader-disorientation in canonized, non-electronic texts, such as George Crabbe's
*The Borough* (1810), towards the proposition of two broad textual categories: the line-text
and the grid-text. While these two broad textual categories – developed with reference to Deleuze and Guattari’s *A Thousand Plateaus* (1980, trans., 1987) – will help formulate my argument for vectoral disorientation, the reference to non-electronic texts will further another purpose. Given our historical familiarity with so-called “traditional” (i.e., typo/chirographic) texts, they will illustrate that the fundamental dynamics of user-disorientation in hypertextual environments are not new, even though the medium and format within which they manifest themselves might be unique to our time and use. The reference to “traditional” textuality in seeking solutions to user-disorientation in hypertextual environments is, I believe, an important contribution of this study.

4.1 *Supradiegesis*

Hovering over Calcutta in a 747, the dusty, grimy, jagged metropolis looks as smooth and calm as a silent screen saver floating in another world separated by a high-tech, low-res screen. The rough edges that make and mark this pitted, potted city are relegated to the detached and indifferent domain of the virtual. At 15,000 feet, I find it difficult to relate to the million minute realities that were my own for so many years in that city, at street level. I forget the power-cuts, the sooty makeshift kitchens in landings between flights of stairs and behind doors, the lime flaking off the walls, the slow whirring of the ceiling fans in the heat, the thousand alleyways, puddles and drains, the intricate maze of bends and curves, of angles
and circles and tea-stalls that one must navigate each and every day in the sprawling city of my birth. Altitude has airbrushed everything into smoothness. The aeroplane’s window, like a computer screen, allows me a gracious scan of India’s former imperial capital, lying in a neat pattern of gray and lush green by an ancient, scoliotic river. I feel powerful; I have the entire teeming city in one frame. From where I sit, it seems impossible for anyone to get lost down there: right now, everything below bends to fit the parameters of my conception.

And yet, in a few minutes, when I land, I shall be in the heart of a most fantastic, rough-hewn mosaic. The smoothness will disappear with a gentle thud and a rolling of wheels on an old airstrip wanting repair. The neat aerial map will not come to my aid for I shall be within the city that will now only reveal itself in parts. And having been away for so long, I may well get lost in the maze. But hanging in the clouds over the city of my infancy and earliest youth, I think of Dylan Thomas’ Reminiscences of Childhood, opening with street-level memories of his “ugly, lovely, town ... crawling, sprawling, slummed, unplanned, jerry-villa’d ... where truant boys and sandfield boys and old anonymous men, in the tatters and hangovers of a hundred charity suits, beachcombed, idled, and paddled.” I think of how, at the end of the piece, the little boy flies in his fantasy into an aerial dream:

... I flap my arms like a large, stout bird and slowly leave the ground, only a few inches at first, then gaining air until I fly, like Dracula in a schoolboy cap, ... over the trees and
chimneys of my town, over the dockyards, skimming the masts and funnels ... over the trees of the eternal park, where a brass band shakes the leaves and sends them showering down on to the nurses and the children, the cripples and the out-of-work. This is only a dream. The ugly, lovely, at least to me, town is alive, exciting and real though war has made a hideous hole in it. (93)

Thomas’ dream and the 747’s dreamlike reality place us in our most cherished strategic fantasy: of wanting to have our cake and eat it, too; of our ardent desire to be both part and whole, both locus and map, simultaneously, in supernatural (Thomas’ child-Dracula) omnipotence. I call this fantasy strategic because, in our analysis and interpretation (be it intuitive, accidental or the result of extensive pre-mediation) of the world, we create meaning out of a pre-determination of the contexts within which our worlds utter themselves to us. In such a constant exercise, our strategic advantage lies in having full control over the (formulative/interpretive) context, so that we may be correct in our determination of authorial intent, which we may then choose to subvert or respect, on our own terms as addressees30.

30 Please refer to Appendix A: “Strategy, Meaning, Intent,” for a fuller discussion of a pragmatic theory of meaning:, which postulates that an utterance is an act – a pre-mediated (by the addresser) or pre-determined (by the addressee) production of a communicative strategy with a view to “consequential effects.” The meaning (M) of an utterance is the ratio of the change in the desired effect (E) with respect to changes in explicit intent (I), when the context (C) = c; which may borrow the following notational framework from calculus for analogical, illustrative purposes:

$$M = \left(\frac{\Delta E}{\Delta I}\right)_{C=c}$$

It is when C changes from c to c that one has a rupture in the strategy.
To use an older example from our civilisation, our absence of any empirical proof of God leads our genius to draft our own text to “justify the ways to God to men” (*Paradise Lost*, I, 26). The pragmatics of our negotiation of utterances lead us to turn our ignorance of authors and of authorial intent into our strategic advantage through a “(pre)determination” (Fish, 313) of both authors and their intent. In the case of religion, one resorts to faith, which by definition, is beyond reason and the empirical. And so, in our lack of proof of divine authority, we may and do assume both godly and human contexts and justify our own ways to ourselves, thereby legitimising our “(mis)predetermination” by seeking to ensure, at one and the same time, the unity of the “structure of interests” of a grand and definitive utterance, and also our control over its “consequential effects” (Fish) upon the addressed collective. To put it in terms of a pragmatic theory of meaning, operating strategically between intent, effect and context, we define and dictate the context in the hope of gaining full strategic control of our utterance by ensuring an unambiguous and infallible correlation between desired effect and explicit intent. In being both God and human, we play both author and addressee and, in our narratological omniscience, hope to define and fix the strategic context of religious utterance, thus holding explicit intent and desired effect in an agreement so harmonious that we deem it divine. In seeking to be both map and locus, we want full power over both arrangement and detail. This is our fantasy.

31 Please refer to Appendix A: “Strategy, Meaning, Intent,” for a fuller discussion of Fish’s example.
In our negotiation of contexts that are much larger than our immediate perceptual realm, we resort to the extra-rational, much like faith, to “justify the ways of God to Man,” or like Thomas’ child conquering both street and sky in his Reminiscences. We strive to achieve this fantastic strategy by legitimising our pre-determination of the (formulative/interpretive) context of an utterance (which masquerades as the restorative utterance of Milton’s “One Greater Man,” or of Nietzsche’s Superman-Zarathustra, of whom we have little or no empirical knowledge) by a chain of negative reference that gives a particular diegetic level validity by referring to, and at the same time negating all the claims of, its preceding “worlds” (Genette) and levels of perception:

Just as Machiavelli could regard the state as a work of art as soon as the medieval order had been scrapped by the new speed-up of Gutenberg technology, so our political structures become “works of art” as they are scrapped by new technology. The movie has become a work of art since TV. The planet has become a work of art since the satellite, i.e., the planet in the sense of “Nature” has been scrapped and we now confront it as an art problem in the name of “pollution.” (McLuhan [Letter to J.M. Davis, Office of the Prime Minister, March 2, 1970] 401).
McLuhan does not claim that new technology makes the old obsolete. McLuhan’s point, at least as I see it, is that the emergence of new technology leads to the creation of new perceptual parameters which, in the narratologist’s terms, form the basis of a new grand diegetic level within which various dominant narratives may play themselves out. However, this new level gains its validity by referring to and, at the same time, reducing to “works of art” the fundamental assumptions of its preceding levels of perception. Thus, according to McLuhan, “the new speed-up of Gutenberg” allowed Machiavelli to “regard the state as a work of art,” much as Milton’s articulation of “God’s ways to men” in *Paradise Lost* took us a great step forward in shifting the terms of addressing and appraising religion.

Neither of these examples proves that the old becomes obsolete in the presence of the new, but that there is a shift in the relationship between grand diegetic levels whereby, the emergence of a new dominant level of perception causes the older level to redefine its parameters so as to be able to coexist with the assumptions of the new. After all, the state continued to exist after Gutenberg and will probably exist well into the days of a truly universal Internet revolution. Similarly, religion exists in our world with much the same force that it had in worlds before ours, even though it is now not uncommon to find among devout Christians those who are willing to accept the creationist claims of the Book of Genesis in allegorical terms, albeit tempered with the fire of divine sanction. At the same time, the Internet relies on references to print for some of its most basic operations ("webpage", 135
“iBook”, etc.), and an appraisal of Paradise Lost or Michelangelo’s masterpiece in the Sistine Chapel requires knowledge of grand Christian narratives. The very process of reduction of the older diegesis into a figurative “work of art” requires both a reference to it and a subversion of its fundamental ontological and perceptual assumptions.

I propose to call this shift in grand diegetic levels a supradiegetic shift in perception, thereby differentiating it from metadiegesis by which I shall take to mean shifts in diegetic levels within one grand or dominant diegetic frame. Genette defines metadiegesis in terms of narrative degree, whereby an explanatory, thematic or analogical relationship exists between “the events of the metadiegesis and those of the diegesis” (232). Thus Genette’s examples of metadiegesis include “the Balzakan ‘this is why,’ but taken on here by a character, whether the story he tells is his or some else’s” (at another diegetic level), as well as “the deserted Ariadne’s unhappiness in the midst of Thetis’ joyous wedding,” and Amram’s recounting the story of Abraham’s sacrifice in response to Jocabel’s hesitation towards a divine command in Moyse sauvé (232-33). In all these instances, the events in the metadiegesis are examined within the same perceptual parameters (be they causal, thematic or analogical) as the events in the diegesis. Had the events in the metadiegesis been reduced to “works of art,” then Balzac’s ‘why’ would not have been satisfied; neither would Ariadne have had any cause for pain in the midst of Thetis’ celebrations.
However, when Auden, in *Mimesis and Allegory*, says that in "primitive societies the incantation of a curse is believed to be practically as effective as a stab with a knife, ... [but] aesthetics only begins when it is realised that one man curses another because he knows that he is unable to murder him" (Bayley, 145), he refers to a supradiegetic shift in the manner of McLuhan in his letter. Metadiegesis refers to a distance in spatio-temporal degree, but works on the basis of a positive chain of reference. Ariadne remembers the sad events of the metadiegesis without negating their claim; indeed, that is why they still make her sad. Supradiegesis, on the other hand, refers to the events of another (possibly older) diegesis on the basis of negating the assumptions of the other diegetic level of perception. Thus, the "incantation of a curse" in a "primitive" society becomes, through a supradiegetic shift, an aesthetic function in ours, although it was equivalent to the stab of a knife in a different and older world.

Metalepsis, or the "transition from one narrative level to another ... [by] introducing into one situation, by means of a discourse, the knowledge of another situation" (Genette, 234), may well be an agent of a supradiegetic shift, provided that the knowledge of the other "situation" that transgresses into the current diegesis does so on the basis, and with the aim, of subverting the set of assumptions that defined the perceptual parameters of the other diegesis. One of Genette’s examples of a narrative metalepsis is Sterne’s entreating the reader to either close the door or help Mr. Shandy get back into bed; in this instance one finds an
“intrusion by the extradiegetic narrator or narratee into the diegetic universe” (234-5). But this is not indicative of a supradiegetic shift. Had the extradiegetic narrator intervened to remind the reader that Mr. Shandy is but a fiction, a product of the author’s imagination, then the metaleptical transgression would have subverted the assumptions of the supradiegetic universe of the novel and, in so doing, would have engineered an instance of supradiegetic shift.

In terms of a pragmatic theory of meaning, supradiegesis is of utmost strategic importance because it allows conflicting (formulative and interpretive) contexts of communicative utterances to exist in parallels; in much the same way as Milton and other verbal and visual artists have (willingly or unwillingly) made it possible for Christianity to exist in post-Enlightenment Europe, or as Dylan Thomas’ reminiscences have made it possible for him to romanticise the town of his childhood (the erasure of unpleasant detail in nostalgia finding a counterpart in the child’s fantastic wings which, in turn, find a literary echo in Baudelaire’s poet’s wings in Les Fleurs du Mal) even as he feels compelled to recall the “hideous hole” that war has made at street-level.

Supradiegesis is our answer to wanting to be cozy inside an aircraft that makes pothole-pitted Calcutta a sublime work of art while, at the same time, wanting to lay claim to the dusty, grimy reality on the ground. Like the parallax vision offered by a camera,
supradiegesis allows us two (or multiple) simultaneous levels of perception. At one level, we have the image as seen through the lens of the camera, that will become the "work of art," or the photograph composed in a frame; at another level, we have the image as seen through a separate view-finder. At the time of taking the photograph, the latter view is part of our diegetic universe and subverts the promise of the "work of art" held in the lens's frame. However, at a later date (say, a century after the photograph has been taken), the work of art may well subvert the assumptions of the diegetic universe within which it was created; this would be akin to an aging photographic portrait of a happy family that perpetuates the assumption of happiness long after the family is dead, even though the circumstances within which the photograph was taken were not only unhappy, but based on diegetic assumptions of social and familial content and discontent that may have been completely at odds with the values and assumptions that mark the photograph's reception in a supradiegetic world.

Diegetic disorientation in negotiating a narrative may be understood in terms of the difference between the two grand diegeses that are held together in a subversive, supradiegetic relationship of reference. To extend the analogy of the parallax in a camera, the difference between the view of an object as seen through the picture-taking lens and the view as seen through a separate viewfinder would mark the scope of potential disorientation in negotiating the parallel images. The disorientation results from not being able to choose between the two parallel frames to decide upon the diegetic level that we, in referring to our
supradiegetic universe (our framework of perceptual assumptions), tend most commonly to call "reality":

Drugs. The clue is in the prohibition of the 20's. Booze was not new. It was the panic that was new. So with drugs today. It is the panic that is new. The new radio environment of the 20's created a new primitivism and tribalism which we associate with the jazz age. Tribal people cannot abide booze. It sends them berserk. They are already excessively involved in each other without stimulants. The Wasp, on the other hand, needs gallons of booze in order to be sociable. In the 20's the Wasp had gone tribal and booze began to terrify him.

The key to the drug panic is TV. TV intensifies the already numerous forms of inner-tripping. Colour TV is psychedelic input. The kids are simply putting jam on jam when they take to drugs. They seem to imagine that it helps them to relate to an electric speed world, whereas they are quite unable to relate to the fractured and fragmented specialities of a pre-electric school and goal and job system. (McLuhan [Letter to J.M. Davis, Office of the Prime Minister, March 2, 1970], 401).

McLuhan's "jam on jam" is disorientation resulting from an inability to recognise, accept or negotiate a supradiegetic shift so that one grand diegesis emerges as contributing to our set of
fundamental assumptions even as the others co-exist as “works of art.” Just as the “psychedelic input” of the electronic age confounds the mind when compounded with drugs, so would aesthetics be terrifying to us if we still believed an incantation to be capable of causing physical and bodily harm. As our world (like all other worlds) utters itself to us through communicative acts, falling between the cracks of a supradiegetic parallax leads to disorientation of time, place and person:

Time, Place and Person are indeed indexed in language, through diegetic expressions and in other ways: statements date, locate and address themselves. At the same time, speech styles will reflect the Time-Place-Person formulations typical of the speech situations in which they occur. (Giltrow, Online: Internet)

While Giltrow specifies Time-Place-Person formulations in language and speech, I would extend her comment to all communication32; indeed, time, place and person are the primary vectors of all diegetic shifts. The “formulations” to which Giltrow refers – which form the basis of diegetic assumptions and shifts – find a counterpart in De Certeau’s dual-principle of guidance and transgression in the time-place-person intersections in classical narrative: “What

32 My extension of Giltrow’s comment on Time-Place-Person formulations in language and speech to all communication is analogous to McKenzie’s extension of the definition of “text” to include “verbal, visual, oral and numeric data, in the form of maps, prints, and music, of archives of recorded sound, of films, videos, and any computer stored information, everything in fact from epigraphy to the latest forms of discography” (Bibliography, 5).
the map cuts up, the story cuts across. In Greek, narration is called ‘diegesis’: it establishes an itinerary (it ‘guides’) and it passes through (it ‘transgresses’)" (De Certeau, 129).

The inability to fix the parameters of a supradiegesis on the basis of time, place, person and their fundamental assumptions, leads to what Vaclav Havel – in describing the 20th century’s inability to find irrefutable truths in either science or religion – has called “a crisis in narrative” (Postman, 23). Diegetic disorientation is a crisis in narrative caused by the simultaneous existence of conflicting supradiegetic sets of perception and assumption. Just as the inability to choose between the two images offered by the parallax of a camera would throw the photographer into a crisis in graphic narrative, so would a fundamental re-arrangement of “speech places” result in disorientation by causing a crisis in the cognitive metaphors that form the grand diegetic contexts of our communicative acts.

Thus it is not surprising that one of the causes of user-disorientation in navigating hypertextual environments is the ubiquitous conflation of, and conflict between, the bibliographic and the electronic metaphors which exist in a supradiegetic parallax before hypertext users today. On the one hand, hypertext users are offered such spatio-navigational metaphors as “Netscape Navigator,” “Internet Explorer,” “Web-site,” “site map” and “surfing.” On the other hand, the same user is asked to extend the bibliographic metaphor as used in the “desktop,” to negotiate “Web-pages,” “documents,” “files” and “folders.” Instead
of creating a dominant spatial metaphor for navigating the network of what Barrett calls "ideational nodes" (xvi), the current cognitive paradigms of negotiating hypertextual environments lead users into expecting the operational parameters of "hard copy." The inability to place the finite and comprehensible corporeality of "hard copy" in a supradiegetic relationship to the seemingly infinite and unconquerable incorporeality of hypertext leads to what Hayles calls the "corporeal anxiety" experienced in the "late age of print"; in this anxiety lies the gap in the supradiegetic parallax to which one may trace the roots of user-disorientation in navigating hypertext.

The difficulty faced by most users of hypertext is the almost total absence of a viable cognitive map of hypertextual space. Following the molar/molecular binary of Deleuze and Guattari (A Thousand Plateaus, 1980, trans., 1987) to which I shall revert in the next section of this chapter, one may note that a book is molar – i.e., it pertains to a body of matter as a whole – while hypertext is molecular. Unlike a book, which one may see, imagine and hold in its entirety, hypertext only reveals itself in parts. Unlike a book, which allows one to gauge the relative place of a piece of information (a word, a line, a paragraph, chapter or entry) within the spatial context of the whole, it is hard for one to estimate the volume of information conveyed in hypertextual formats. In the case of the World Wide Web, it is simply not possible to quantify the total amount of information available. Moreover, without search engines, which are often rather inadequate in themselves, it is not even possible to
gain an idea of the diversity of information present at any given point in time. However, even
with closed hypertexts, such as CD ROMs, it is difficult for lay persons to gauge the volume
of information contained, or one's relative position within it at any given point in the reading
process. While it is possible to quantify the size of closed hypertextual spaces (e.g., CD
ROMs), or hypertextual segments of an open system (e.g., specific 'sites' on the World Wide
Web) in terms of bytes, non-specialists would find it hard to translate the numeric quantifier
(in bytes) into a viable visual indicator of size or locus.

This is partly due to a cognitive gap that remains to be bridged, a result of what
Hoekema calls the “phenomenological dimension of computer use ... which seems vaguely
like the process of learning the customs of an unfamiliar culture” (Heim, 200). If one were to
mention the size of a book in terms of pages, most literate persons would have an immediate
visual idea of the thickness and weight of the book in question. Indeed, one would even form
an assumption of the length and breadth of the pages, according to the most popular formats
in the market (pocketsize, coffee-table, etc.) or on the basis of one's reading habits. If one
were then to refer to a page number, even in the absence of a book, it would not be hard for a
literate person to visualise the thickness of the collected pages before and after the page in
question, thereby allowing one an idea of the spatial negotiation required to access specific
information within the book.
However, measuring hypertextual information in bytes is analogous to measuring the size of a book in terms of the amount of newsprint or paper used in the manufacturing process. In the absence of specific and specialist knowledge about printing, font-size, illustrations, and different types of paper, it is impossible to guess the size of a book, and more importantly, the amount of information in it, from such data. Similarly, when dealing with hypertext, the knowledge of bytes of information precludes any idea of the amount or kind of graphics, fonts, or other interconnected “written or pictorial material” (Nelson, see Chapter 1) used. While one may, through repeated exposure to books, develop a cognitive map of bound and printed text, one is left without such a framework when it comes to the virtual space that stores hypertextual information.

Because most users of hypertext are familiar with books, Benest, in his paper “A hypertext system with controlled hype” (1989) proposed an electronic book emulator that would provide an easy cognitive prop to novice users. This emulator would display two pages at a time on the screen, with clickable links to notes and other pages, as well as display the collective thickness of the pages preceding and following those displayed on the screen. However, to such visionaries of hypertext as Nelson, such a model may well be unacceptable for it would only encourage the biblio-categorical organisation of information, which would then continue to influence and govern the navigational choices its readers. This specific arrangement, in spite of the clickable links, would tend to determine one’s cognitive map of
the presented information in bibliographic terms, thereby destroying the situationality that is the defining feature of hypertext. Instead, it would return users to what Ong describes as a categorical organisational logic that has informed chirographic consciousness ever since the spread of literacy and, later, print.

The heavy intrusion of the bibliographic metaphor into the digital world of networked information results from the inability to choose between cognitive metaphors from two different sides of a supradiegetic shift. The intrusion is akin to a novelist's constantly reminding the reader that the characters are a fiction; this is in direct contrast to Genette's citing Sterne's metaleptical invitation to the reader to enter the diegesis of the novel by getting directly involved in Shandy's life. The supradiegetic metalespsy of the bibliographic into the networked digital world is one of two important reasons for "getting lost in hyperspace" (Dillon et al, 587); this is because such an intrusion constantly resists the creation of a new geography, one where time, place and person no longer coincide in ways in which they did before; much in the way that a writer's constant reminder of the fictional nature of his or her characters would subvert the new Time-Place-Person formulations of the story, perhaps even to the point of precipitating a "crisis in narrative" (Havel, quoted by Postman, 23).
While paying lip service to the conquest of time and space through the new electronic media, we continue to use bibliographic metaphors to aid the fundamental processes of our digital conception and navigation. Thus, an e-book is usually mostly a book that may now be read on a screen and where the turning of pages is executed by mouse-clicks rather than a licking and rubbing of fingers. And, as illustrated by the earlier example of Benest’s book emulator, we are quick turn to the bibliographic when forced to confront our lack of intuitive familiarity with hypertextual space.

4.2 The Hypertextual Trope

The conflation of cognitive metaphors – between the bibliographic and the spatial – exacerbates the tension arising out of negotiating the visible, individual hypertextual frame, without a visible overview of the extensive network of hypertextual links. In our typical negotiation of Web-based hypertext environments, we tend to use spatial metaphors to denote the invisible network of interconnected material. Thus, when referring to the Internet as a whole – the system of linkages that places each individual hypertextual frame in a dialogic relationship with its network of other frames – we use words like “surf,” “Explorer” or “Netscape.” However, when referring to the visible, individual hypertextual frame, we tend to borrow from a bibliographic terminology: we use words such as “page,” “read,” “write,” “delete,” “erase” and “edit.”
The cognitive metaphor employed by the individual Web page does not allow any serious system of reference to the cognitive metaphors of the extensive, underlying network. While individual hypertextual frames (or pages) comprise hyperlinks to other pages – indeed, that is what makes each frame hypertextual – there is no conceptual mechanism for assessing the relational scope or size of the network as a whole. Indeed, the act of viewing a single Web page on screen, and attempting to conceptualize the scope and size of the entire Web site on the basis of the hyperlinks visible on that particular page, is akin to standing in a subway station and trying to access – on the basis of the intersection of tracks visible from the station in question – a bird’s eye view of the entire city. A book, as mentioned earlier, does not pose this problem. Just the mere act of holding a book open at a certain page allows the reader a spatial overview of bibliographic information. Within the bibliographic diegesis, readers negotiate information according to one cognitive “itinerary” (De Certeau, 129) that is not repeatedly in conflict with another. The book remains explicitly or implicitly consistent in its use of bibliographic metaphors. A subway system, too, remains explicitly or implicitly consistent in the use of spatial metaphors; that is why one tends not to attempt a bird’s eye view of entire cities on the basis of a partial view of intersecting tracks visible from platforms at major subway junctions.
In the case of books and subway systems, cognitive metaphors derived from other diegeses exist in a relationship of supradiegetic shift. Thus, for instance, when a book refers to "going" from one page to the other, the verb does not imply a move as drastic as, say, the Australian aboriginal's walking the length of a song (a "text," as established in Chapter 1), as described in Bruce Chatwin's *The Song Lines* (1987). The diegetic environment of the book, and its corresponding formulations - alphabets and, more importantly for this example, pagination - subvert the verb "to go" sufficiently to ensure that it refers to no more than the negotiation - through a flipping of pages - of a numerate (as in the case of pagination) or alphabetical (as in the case of an encyclopedia or index) principle of bibliographic organization. The supradiegetic shift from a nomadic spatio-oral textuality (as in the case of the Song Lines) to the codex ensures that the reference to the other diegesis negates its "formulations" (Giltrow) sufficiently to prevent a conflation of supradiegetic itineraries.

This is not the case with hypertext in its most commonly accessed form on the Internet today. When we use the terms "read," "edit," "click" and "surf" with reference to Web *pages* and *Netscape*, we do not subordinate one set of cognitive formulations to another on the basis of a supradiegetic shift. Instead, in according equal conceptual importance to "page" and "scape," to "read" and "surf," and to "click" and "go," we conflate cognitive metaphors that exist on different sides of a supradiegetic parallax. At the same time, we are not permitted a clear mechanism by which the relationship between the two grand cognitive
diegeses are linked. As mentioned earlier, the surface of the hypertextual system – the individual frame or page – exists in its own diegetic universe, without metaleptical transgressions or any violation of the unity of the structure of interests that define its context; in this, it is equivalent to an individual utterance (see Chapter 3). And while we place the hypertextual surface within the bibliographic diegesis, it offers us no conceptual mechanism for assessing the relational scope of the underlying network, which we place within the spatial diegesis.

By continually using metaphors that exist on either side of the supradiegetic parallax, we deny users what Mantei, following Flavell (1976), calls meta-knowledge, or “the knowledge that people have about the knowledge they possess” (Mantei, 36). While using the cognitive assumptions of one grand diegesis – say, the bibliographic, while negotiating the hypertextual surface – users are drawn away from noting the deficiencies in the accessibility of the underlying, invisible network. This is because the network of linkages uses the cognitive assumptions and terminology of a different grand diegesis and, as in the parallax view offered by the camera, it is easy to forget the view through the picture-taking lens when focusing on the view through an unconnected viewfinder.

Consequently, the user’s predetermination of a single communicative strategy, based on a negotiation of the individual hypertextual frame, is formulated on the basis of the visible
hyperlinks, which lead the user to believe in an interpretive context that allows and, indeed, invites the user to modify the diegetic level of the utterance. However, the constantly elusive nature of the underlying network subverts the promise of a user’s interpretive assumption by an occult intelligence that excludes the same user, and thereby contains and controls that user’s interpretive parameters. The scope of the user’s interactivity is thus pre-determined by what is shown on the individual frame, and the modification of diegetic levels is permitted only so far as authorial intent – the strategic force that seeks to determine the particular diegetic setting within which an utterance will be evaluated as a communicative act – permits.

In the absence of a clear view of the underlying structure that determines and even defines hypertext, the hypertextual surface impedes the user’s assumption of interpretive context. Given that, within the framework of a pragmatic theory (see Appendix A), the meaning of an utterance turns on the pivot of the strategic assumption of an interpretive context – so much so that whoever controls the interpretive context, is favoured by the practical consequences of the utterance – the individual hypertextual frame (or page) becomes a manipulative trope.

Moreover, in its promise of allowing the user interpretive control of the utterance, even as it subverts that promise, the individual frame becomes what Gates describes as a
“trope-reversing trope” (Gates, 52; see Chapter 2). The individual frame becomes the counterpart of the Signifyin(g) Monkey’s mischievous utterance which, when interpreted by the Lion without the benefit of the knowledge of the innuendoes that underlie the surface of the utterance, leads the Lion to believe that he has full control over the interpretive process. However, when the Lion speaks to the Elephant, he realizes the tropic nature of the Monkey’s utterance. In the absence of a system for conceptualizing the relational scope of a hypertextual network, and in the conflation of supradiegetic metaphors that serves to keep the underlying structure hidden, and which subverts the user’s meta-knowledge (users forget that they do not know what they do not know), the hypertext user is without the fabled Elephant. In attempting to exist on either side of the supradiegetic parallax, hypertext becomes a “trope-reversing trope.”

4.3 Diegetic Disorientation

In her doctoral dissertation, “Disorientation Behaviour in Person-Computer Interaction” (1982), Marilyn Mantei writes:

It is not clear what a person means when they say they are lost or feel lost, but for purposes of this study, an individual’s verbal report of their degree of “lostness” or
disorientation is used. Disorientation, in this work is then an awareness that humans have that they are mentally lost – regardless of some external condition of lostness. (2)

Mantei’s comment raises some important points to be considered when discussing disorientation in an electronic environment. Etymologically, the word “disorientation” supposes an external anchor by which to determine one’s “orientation” or “disorientation,” to decide whether one is lost or not, and if one has indeed strayed, how far one has wandered in the wrong direction. “The east orients,” writes Rushdie (The Ground Beneath Her Feet, 176) with a characteristic play of words which, even as they are delightfully poetic, reiterate the nature of locating oneself by means of an external anchor (“Where was that star you followed to the manger?” Rushdie, Ground, 176) that gives definition to what Mantei calls “the condition of lostness.” When reading a book, the corporeal totality of the volume acts as an anchor. Thus, if I lose my “place” in the book, I can scan the pages until I arrive at the point where I had left off. The data is encoded spatially, from page 1 to page $n$ and the numerical hierarchy, compounded with an access to the complete scope of the data-field (the whole book, which I hold in my hand) helps me re-orient myself. However, as mentioned earlier, hypertext not only denies us access to the entire data-field all at once, but it actually compounds the problem of disorientation by introducing bibliographic metaphors which provoke the user’s cognitive mechanism to expect a bibliographic encoding of data in space:
It is not the external-measurable inability to find one’s way but the failure of the attempts to find one’s way that cause individuals to state that they are lost. These attempts manifest themselves as path memorisations or as reorganisations of environmental data into an abstract structure. Their failure leads to disorientation. ... [Disorientation] is the failure of the cognitive skill acquisition mechanism to use an appropriate representation for encoding spatial data and the individual’s recognition of this failure. (emphasis added, Mantei, 34)

While Mantei explains disorientation as “an awareness,” rather than an “external condition,” disorientation in navigating hypertextual environments may well find an “external” register or gauge in the information that is being sought by the user. Indeed, user-disorientation in human-computer interaction is mostly discussed in terms of obtaining specific information: scholars lament that even when users “know specific information is present they may have difficulty finding it” (Hammond and Allinson), that users repeatedly “lose their way in the maze of information” (Dillon, McKnight and Richardson, citing Hagelberger and Thompson, and Canter and Storrs) or that research “indicates that the actual to minimum ratio for screens of information accessed in a successful search is 2:1, i.e., users will often access twice as many menu pages as necessary” (Dillon, McKnight and Richardson, citing Tombaugh and McEwen, and Lee, Whalen, McEwen and Latremouille, emphasis added). Mantei writes in her dissertation that when, in her experiments with human
subjects, "rules were able to incorporate goal information from the local environment, lower lost scores occurred and subject decisions were less random" (v). While Mantei's "goal information" incorporated into "rules" is not the hypertext navigator's Polaris, it may well be a compass (albeit of limited abilities) whereby one may gauge how near or how far one is from the "goal." At the very least, a knowledge of goal information underlies the acquisition of meta-knowledge – "the knowledge that people have about the knowledge they possess" – which is crucial to the realisation of disorientation: "Not only must the spatial data-encoding mechanisms fail to provide adequate navigation information, but, to be lost, individuals must be aware of this failure" (emphasis added, Mantei, 36).

The spatial-encoding mechanism is, as mentioned above, quite well developed in the bibliographic media. In her dissertation, Mantei cites the example of "cities laid out in grid-like fashion" as examples of structures that allow a certain "pre-organisation to the user" (35). The example of the city helps to emphasise the two-fold problem of spatial encoding in hypertext. In Mantei's city the "encoding organisation algorithm" (35) is the grid; in the book it is the pagination which further helps the spatialisation of such ideational divisions as chapters and sub-chapters. However, perusing a book for specific information is akin to conducting an aerial search over a city: like Calcutta sprawling under the porthole of a 747, the entire book bends to fit the parameters of my conception. However, hypertext, in its most common current forms, allows neither encoding nor a simultaneous view of the whole. Being
non-bibliographic, it cannot allow pagination without becoming an electronic parody of the codex; a parodic counterpart being found in filming plays acted out on stage, and then screening them under the name of cinema. On the other hand, negotiating hypertextual information is akin to being restricted to street-level. At any given point in time and in hypertextual space, one may only view a part of the network. Search engines are akin to telephone directories, or more specifically, Yellow Pages, that stack up addresses without allowing what Hammond and Allison call “an overview of the material” (294) translated, visually, in spatio-navigational terms. This does not make hypertext dysfunctional, but it does make it tremendously difficult: “The lack of an encoding organisation algorithm does not mean that an individual will fail to acquire information about the environment. It means only that the information will not be organised adequately for wayfinding” (Mantei 35).

The information that we tend to acquire about the hypertextual environment is, as mentioned above, confused by two conflicting supradiegetic metaphors. The fundamental assumptions of time, place and person that mark a supradiegesis underlie the “skill acquisition mechanism” that allows us to negotiate the supradiegesis of our inhabitance for information, knowledge and experience. Thus, in viewing an operatic rendition of Ariadne’s story by Monteverdi, Handel, Milhaud, Martinu or numerous other composers, we shall have to believe in the Cretan princess, the daughter of Minos and Pasiphaë who loved and was betrayed by Theseus (who had slain the Minotaur), and who was later married to the god
Dionysus, with whom she had a son Oenopion who happened to be the first to learn the art of wine-making from Dionysus. And so on. What Coleridge calls the “willing suspension of disbelief” (264) is the readiness to concede one’s supradiegetic assumptions to those of another supradiegesis for a limited period of time; a concession without which our “skill acquisition mechanism” (Mantei, 39) will continually fail to develop an intuition for negotiating the new supradiegetic environment. As a result, the various events played out at the different diegetic levels within the supradiegesis will fail to relate to one another or to co-exist with the supradiegesis of the world beyond the page, the screen or the stage. This may lead to the dwindling of the entire experience into the absurd, the terrifying or both: either the Minotaur will seem completely stupid or a poetic incantation will seem as lethal as the stab of a real knife.

In spatial terms, the absurdity would lead to a failure in navigation strategies, just as it would in a game of Dungeons and Dragons if one of the players refused to believe in the fantastical space negotiated by the characters in the game on the grounds that it was neither rationally nor phenomenologically credible. If disorientation is first, “a failure of the skill acquisition mechanism which, in turn, causes the navigation strategies to fail and, finally, a recognition of the navigation strategy failure,” then it is our supradiegetic assumptions of time, place and person which inform what Mantei calls our “meta-knowledge of the inadequacy of the ongoing spatial learning for a particular task” (39). Diegetic (hypertextual)
disorientation is the failure of navigation strategies that results from conflicting interpretive assumptions drawn – by users of hypertext – from two grand diegeses that are held together in a subversive, supradiegetic relationship of reference.

4.4 Linearity, Simultaneity and the Navigational Path: line-texts and grid-texts

Caught in the thick of diegetic disorientation, we tend most commonly to express our awareness of navigation strategy failure in terms of the linear/non-linear dichotomy. A book, we most commonly agree, is linear because the pages run from 1 to n, alluding to the vectoral corporeality\textsuperscript{33} of hard copy which, like a directed line segment, has both computable magnitude and explicit direction. But the problem of user-disorientation in navigating hypertextual environments is not one of simple vectoral linearity as it is one of a lack of any viable “encoding organisation algorithm” in hypertextual space. Indeed, it may be argued that, even in our negotiation of hard copy, our expectations (at least within the Western intellectual tradition) of textual linearity find their origin in a work that argues passionately against writing, although the commitment of sound to space within the chirographic tradition has done its rigorous part in enforcing an intuitive “cognitive skill acquisition mechanism,” based on expectations of what we call linear, in our regular negotiation of texts.

\textsuperscript{33} A vector is a quantity with both magnitude and direction; it may be represented by a directed line segment.

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In Plato’s *Phaedrus*, where Socrates complains about the unanswering silence of the written word, the ancient master of dialectic also outlines the structure of the ideal thesis: a statement of facts, supported by the evidence of witnesses, followed by indirect evidence and arguments from probability, followed by proof and supplementary proof, then refutation and subsidiary refutation, before concluding with recapitulation in a summary (85). The expectations of linearity, taught in essay-writing classes in schools and colleges, have, in fact, little to do with the technicalities of pagination, but more with an organisational prescription found in some of the earliest works of dialectical rhetoric. The vectoral magnitude is not one of physical substance, but what Mieke Bal in *Narratology*, calls fabula and which Onega and Landa paraphrase as “a bare scheme of narrative events which does not take into account any specific traits that individualise agents or actions into characters and concrete events” (Onega and Landa, 7). “A narrative text,” writes Bal, “is a text in which an agent relates a narrative. A story is a fabula that is presented in a certain manner. A fabula is a series of logically and chronologically related events that are caused or experienced by actors.” (Bal, 5)

Bal’s “story” and Socrates’ “thesis” are akin to a vector in which the fabula (Bal) or the purported facts (Socrates/Plato) provide the vector with magnitude, while the “certain manner” (Bal) in which a fabula is presented in a story, or in which the purported facts are presented as proof, evidence, refutation and supplementary evidence, provide vectoral direction. The “if ... then” formulation used in computer scripting (e.g., in Director’s Lingo)
is an example of such direction and might be regarded as a modern derivative of the Socratic prescription. And just as Socrates was not commenting on spatial encoding, so is an "if ... then" statement not necessarily a command in or about space. In the absence of any spatial relation, what we call linearity manifests itself as a logical relationship. It is the logic that determines the order of appearance and implies a causality in arrangement which creates a (carefully constructed or accidental) series. This series then becomes the default encoding algorithm to guide the navigational path. When thought and sound are committed in writing, the path becomes spatially encoded and visible, much like a line segment with Cartesian coordinates.

However, even if the encoding algorithm is vague and insufficient (say, the pagination is the only code), the corporeality and conceptual totality of the chirographic or typographic text make navigation relatively easy for the user. Thus, even in a badly written book, where one may find it hard to follow the links between the different G-S structures ("grammatical and semantic structures", Landesman, 21, see Appendix A), one may be able to locate a word or a paragraph on a particular page which, in turn, will determine its place relative to the other pages and to the book as a whole. We tend to attribute this ease to what we commonly call linearity, although the only linear condition in this case is the serialised page numbers running from 1 to \( n \). What really aids us in the case of a book that does not "flow" is its corporeality collaborating with serialised pagination. If the page numbers were
accidentally scrambled, then the linearity of a book would depend on the narrative direction, the “certain manner” in which a fabula is presented in a story.

Indeed, if the experience of reading from the first digit \( (d_1) \) to the last \( (d_n) \) were the only condition of linearity, and linearity (so understood) were to be considered the most important aid to textual navigation, then there would be no real problem of user-disorientation in navigating hypertextual environments. This is because any experience of reading is linear in time as well as in space. Words exist in linear arrangement, be they horizontal, vertical or diagonal, unless the alphabets are “broken apart” into “graphics,” to borrow from the operational terminology of the animation software Flash, and as the Language Poets have experimented in their highly visual attempts to diffuse (if not, at times, obliterate) the operational dichotomy of “text” and “graphic” (see Chapter 1).

And yet, disorientation in the absence of a clear organisational pattern is experienced not only in virtual networks of hypertextual information, but also in highly sophisticated chirographic works (which are both corporeal and encoded spatially through pagination) as Denman’s 19th century response to Crabbe’s *The Borough* illustrates so well. George Crabbe (1754–1832) and his reception by his contemporary reader is particularly relevant to the current discussion on textual disorientation as the historical period of their writing is generally regarded as a golden age of chirography and typography in England. The neo-
classical literary revival by Dr. Johnson (1709–84) and his fellow ‘Augustinians’ had at their
core an extremely conscious critical and rhetorical agenda which resulted not only in the
highly celebrated chirographic prescriptions of the ‘Augustinian’ literary elite, but which also
collaborated with the technology of the printing press to set the stage for journals of such
high literary calibre as Defoe’s *Review* (1704–13) and Swift’s *Examiner* (1710–11), and even
such society periodicals as the *Tatler* (1709–11) and the *Spectator* (1711–12) of Addison and
Steele. Denman’s disorientation, as evident in his response to *The Borough*, becomes all the
more interesting in the light of such a sophisticated environment of written and printed
textuality.

In 1780, barely five years before the founding of the *Times*, George Crabbe left the
life of a medic behind to come to London in pursuit of a literary dream. Here he found a
friend and benefactor in Edmund Burke who enabled the publication of *The Library* (1781).
1807 saw the publication of *The Parish Register* (a work to which Denman alludes in his
commentary) and *The Borough* was published in 1810, leading Denman to label Crabbe “the
However, even as Denman’s comparison of Crabbe’s work to painting echoes Byron’s
description of Crabbe as “nature’s sternest painter, yet the best,” there is clearly an awareness
of a failure of narrative navigational strategies on the part of *The Borough’s* contemporary
reader:
The want of arrangement and connection is more striking in this poem than in any other of equal length that we remember. We absolutely see no reason why any considerable passage in the whole course of it should occupy its particular place; and if we ... read the books regularly backwards, or in any other order whatever, it would be impossible to increase the confusion. In The Parish Register, the several subjects were certainly united by a very slender thread [:] ... the village-anecdote of a pastor who was personally interested in the welfare of all his flock: but here, who writes the letters, who receives them, and why or on what occasion they are composed, are questions to which no answer is attempted. (Pollard, 80)

Denman raises several points. First, in comparing Crabbe to Hogarth, he suggests a comparison between two traditionally (operationally) different media of expression – the graphic and the verbal – painting and poetry; an issue discussed by Crabbe himself, in The Borough. Next, Denman criticises the structure of the “Poem in Twenty-Four Letters”: Denman is dissatisfied by the arrangement of the “letters.” He recalls The Parish Register and its “slender thread,” but more importantly, its narrator (“pastor”) who unites the several anecdotes within the accepted premise of his own narrative diegesis. The reader is unable to find a satisfactory navigational strategy and his awareness of this failure leads to textual disorientation. Finally, Denman seems perplexed by the very epistolary nature of the poem.
The relationship between writer and reader, sender and receiver, is, to Denman's mind, most inadequately presented, if at all. While Denman's questions, and the modern reader's response to them, may well enhance our understanding of Crabbe's descriptive style through a consideration of *The Borough*, the following are points that remain particularly interesting in the light of the current discussion:

1. The comparison of Crabbe to Hogarth is not merely praise for the poet's descriptive powers, but a clear endorsement of his narrative skills. Hogarth was celebrated not only for his skilful use of the visual medium and its materials, but also for his use of the medium towards narrative purposes. The paintings *Before* and *After* are popular examples of Hogarth's employment of images in the relationship of narrative causality that I discussed earlier in terms of vectoral linearity. The paired titles, by themselves, suggest an act and hold promise of a story; the paintings fulfil this promise and anchor the speculative mind of the viewer in images that pair into a narrative.

2. Denman's seeking a narrative "thread," however "slender," may be read as the 19th century critic's need for a relationship of vectoral causality between the twenty-four letters that comprise the particular poem in question.
3. The questions raised by Denman about the production, distribution and reception of the letters ("who writes the letters, who receives them") raise concerns about what we may, following Hayles, call the anxieties of a distributed network in Bolter's "late age of print" (Bolter, 2). The author and reader are not clearly identified. Like packets of e-mail intercepted mid-stream while passing through random routes over the networks, the twenty-four letters of The Borough seem to be floating without either a causal reference to each other or an operational relationship to an identifiable sender or receiver.

However, before linking Denman's concerns to our own hypertextual experiences, let us consider the structure and arrangement of The Borough which, according to Denman's allegation, one may read in any order and still receive the same textual import. I would contend, on the basis of the following reading of The Borough that Crabbe's poem is not lacking in structure or arrangement; indeed the ordering of the "letters" in the work is based upon a very careful and sophisticated pattern which, in itself, may be loaded with interpretive potential.

The Borough starts with the "General Description" and then proceeds to describe "The Church" (II), which is the centre of the community in question. This is followed by
"The Vicar" (III), who is the keeper of the church and its link with the society it serves. The next "letter" is on "Sects and Professions in Religion" (IV), in which the narrator/correspondent criticises the false multiplicity of religious orders. He presents the Calvinist enthusiast and the Armenian teacher of the "older Flock." Here, one is directed from the piety of the church of the previous "letters," to a manipulative secularisation of religion. Vested interests and social games find their place in the next piece, "Elections" (V), which encompass the entire borough community. This finds a natural sequel in "Professions" — Law and Physic (VI and VII) — before one goes a step down in the social hierarchy to " Trades" (VIII), which recall "Amusements" (IX), and lead to "Clubs and Social Meetings" (X), "Inns" (XI) and "Players" (XII). One now climbs down a further rung to "The Alms-House" (XIII) and the three subsequent "letters" present three inhabitants of the house. This is followed by "The Hospital and Governors" (XVII) which leads to an even lower stratum in "The Poor and their Dwellings" (XVIII). The next four letters portray four of the borough's outcasts — the Parish Clerk, Ellen Orford, Abel Keene and Peter Grimes. The penultimate "letter" reports the deepest pit of social hell — "Prisons" (XXIII) — before ending with "Schools" (XXIV) which suggests hope and redirects a vertical hierarchy, degenerating from hope ("The Church") into despair ("Prisons"), to a cycle of rejuvenation.

The sequence not only seems well-ordered, but also suggests serial logic derived from the Christian Fall. The very first "letter" is about artistic creation which, to the Romantic
faith, is perhaps the closest human approximation of divinity. The next two sections — “The Church” and “The Vicar” — present communal innocence, though the seed of subsequent fall lies in the church garden itself: in the lie engraved on Jacob’s tombstone and in the actual vice of his avarice. The piece on religious sects marks a definite fall and the downward movement continues through “Elections” to “Prisons.” “Schools,” with its sudden suggestion of hope, may well allude to redemption and also return us from the marginal members of the borough to the centre of the community, thereby uniting circumference and centre in a Christian subversion/redemption of vertical hierarchy through faith, hope and salvation.

As the above reading of The Borough may argue, Crabbe’s poem is not only based upon a carefully contemplated arrangement of its constituent sections, but it may, in fact, have borrowed the logic behind its arrangement from a grand cultural narrative. The scheme of the grand narrative provides the “reason why any considerable passage in the whole course of it [the poem] should occupy its particular place.” However, Denman’s confusion stems from three causes that are of particular relevance to our discussion of disorientation in negotiating textual spaces.

34 “A poem is the very image of life supported,” writes Shelley in “A Defence of Poetry” (281). The Borough was published twelve years after the publication of the first edition of Lyrical Ballads, usually regarded as the most important publication event in the history of English Romanticism, and ten years after the publication of the second edition of the Ballads to which Wordsworth had added his celebrated essay on poetics, arguing for a new diction and meter in English poetry.
1. The arrangement of the constituent segments of *The Borough* does not make the encoding principle clear to its readers, but rather relies on the latter to discover the logical glue that holds the constituents in their place in the sequence determined by the author and presented to the reader in hard copy.

2. Denman seeks clues to the organization of *The Borough* in the twenty-four letters that are most readily accessible to him. However, in the letters' exclusion of any explicit cues as to the underlying structure that underscores the organization of the narrative, Denman feels disoriented: "if we ... read the books regularly backwards, or in any other order whatever, it would be impossible to increase the confusion."

3. While maintaining the vertical linearity/ies of a hierarchical society, any communal structure, in reality and in any given point in time, works through the simultaneous functioning of all its components. Though the Doctor, Peter Grimes and the "Truant-boy" belong to different social *strata*, they all exist simultaneously in the borough/Borough. By this logic one may accept Denman's view that any passage may be removed from "its particular place." Collective existence is simultaneous; yet its production in art requires a sequential order to meet our own limitations of perception.
Perception does not allow detail and simultaneity, the molecular and the molar, all at once. The 747’s porthole allows me a scan of Calcutta so that I may have a simultaneous view of the diverse domains of all the constituent social groups of the city, existing in several vertical hierarchies that intersect at crucial nodes, in one large and essentially two-dimensional frame. And yet, if I were to want to explore a particular geographic segment (say, a neighbourhood) or experience an ethno-specific industry (say, all the Bhutanese restaurants in Calcutta), I would have to limit myself to one part of the city (physically and/or demographically) at a time. Detail requires fragmentation and fragments demand arrangement, however determined or accidentally achieved, in art. Thus the fabula – the “bare scheme of narrative events which does not take into account any specific traits that individualise agents or actions into characters and concrete events” (Onega and Landa, 7) – is worked into a story and the story becomes a narrative. People become citizens who are then placed on both horizontal and vertical planes that intersect to create the narrative matrices of the city or the borough.

At any given point in time, when they are all alive, the Parish Clerk, Ellen Orford, Abel Keene and Peter Grimes all simultaneously inhabit the horizontal plane in the borough. At that same point-in time, they also have their places along a vertical hierarchy that places them in relation to other members of the community and to each other. And it is at the point
of intersection between the horizontal and the vertical planes that we find the matrix of a particular story that finds its place in *The Borough*. However, it is difficult for the author to do justice to the complex matrices without seeking the active participation of the reader who may, through "fancy" (Crabbe), add a new axis of perception that will collaboratively allow an exploration of both the horizontal and the vertical, of both surface and depth. Thus, in attempting to respond to a demand to describe the city — the very first "letter" of *The Borough* is titled "General Description" and opens with an almost abrupt, external demand, "Describe the Borough," to which the poem is a response — the author must, like Crabbe, reply, "This cannot be ...

...yet, moved by your request

A part I paint — let Fancy form the rest" (I, 5-6).

The artist's difficulty lies in designing and executing an encoding organising mechanism that must perform a dual function. First, it must take into account what de Certeau, in *The Practice of Everyday Life*, calls the pedestrian rhetoric of the city (91-110), the horizontal simultaneity (of the lives of its many citizens) that subverts the vertical hierarchical forces of order and discipline. At the same time, the encoding mechanism must also make navigation easier for readers/visitors so that they do not get lost in the various intersections.
It is not as if Crabbe’s poem or, to use a more modern example, Joyce’s *Ulysses*, lacks inspired arrangement. If one finds the Christian scheme of Fall and Redemption underlying *The Borough* (and some may argue against such a reading, offering instead their own interpretations or flatly arguing against the need for any such reading at all), one finds a more explicit source of schematic inspiration in Joyce’s novel. Indeed, in the case of *Ulysses*, one may argue that the title plays the role of the legend of a map, pointing readers towards the spatial encoding so that, in their session with the text, they would not feel the disorientation that Denman feels upon reading *The Borough*. Crabbe’s poem lacks such a legend and, as a result, leads to Denman’s complaint of disorientation. However, had the narrative thread of *The Borough* followed an explicit straight line, say in the manner of the picaresque or the bildungsroman (in the former case, moving from point *a* to point *z* in the protagonist’s journey; in the latter case, moving from the protagonist’s childhood to his or her adulthood or death) Denman may not have had cause for complaint, even if Crabbe’s title had not employed Joyce’s naming strategy, or if there had been no other legend to aid the reader in textual negotiation.

It is with Denman’s complaint in mind that I shall propose two broad categories of text, divided on the basis of the way in which they seek to influence the navigational agenda of the reader: the “line-text” and the “grid-text.” I would also emphasise that, like any
category, this binary is an only an approximation. Indeed, it is common knowledge that texts, like people and cultures, cannot be neatly pigeon-holed and put away. Most texts straddle a number of different categories, themselves formulated according to different sets of assumptions and towards several ends. However, as the central theme of this chapter is an enquiry into the navigability of textual spaces, I shall use the line/grid binary to further explore the question of linearity, simultaneity and the navigation path, towards the proposition of the second type of hypertext disorientation: the vectoral.

I would suggest that Fielding's *Joseph Andrews*, Dickens' *Great Expectations* and Flaubert's *Madame Bovary* belong to the former group, i.e., the category of “line-texts.” The narrative, in this case, is set out on a line that is to be followed by the reader from start to finish; the line itself is plotted by the author on a grid, be it provincial France or industrial England. The reader perceives the grid through the line; indeed the line defines its coordinates in reference to the grid at every point visited by the reader. However, the grid remains “read-only,” to borrow a term from PC terminology. The reader sees the grid that has already been negotiated by the author. While the reader may interpret the whole grid, or at least the coordinates that mark the locus of a particular point along the narrative line, differently from the author or from other readers, the navigational path followed by the reader is defined by the line that has already been plotted by the author. The grid of provincial France may generate different meanings to different readers. One may read the grid as being
geographic, while another may see it as sociological. One reader may find potential for exploring gender-relations in its coordinates, while another may find unbridled scope for a study of class interactions and hierarchies. Yet another may find both, as well as a surrogate to the experience of actually visiting France. On the other hand, a group of readers may well accept Dickens’ grid of industrial England, but might choose to read the coordinates of the different points of the line (Pip’s relationship with his sister, Miss Havisham’s strange obsession, and so on) very differently from each other, agreeing in places and disagreeing at others.

But even as the grid may generate different meanings for different readers, depending on the play of “fore-meanings” (Gadamer) and contexts of “(pre)determination” (Fish), the operational axes of the grid remain pre-defined by the author. Thus there is no getting away from the time-line of Pip’s life set against the conditions of industrial England, even though these conditions (or their production in Dickens’ narrative) may be interpreted differently by diverse readers. In practice, the seduction of the pre-laid path often serves as a disincentive to readers to look beyond the line and upon the grid of line-texts. While all reading is critical to a degree (the very play of explicit intent and desired effect upon an assumed context, whether pre-meditated, intuitive or accidental, being a critical act in its resurrection and engagement of what Barthes calls a “signifying consciousness,” from the past), what we commonly term
critical reading often starts with having to resist the seduction of the pre-determined navigational path in order to examine the grid upon which a line-text is laid.

In "grid-texts," on the other hand, authors present readers with a grid with dots marked on it. The readers' task is first, to join the dots and then, to decide if they recognise a pattern in the line or, if they do not, to consider re-joining the dots differently. Thus, unlike a line-text, a grid-text makes explicit critical demands on its readers and, historically, grid-texts have not enjoyed popularity amongst readers even as they have been received with critical acclaim on the pages of literary journals and in the halls of the academy. Crabbe's *The Borough*, Browning's *The Ring and the Book* and Joyce's *Ulysses* are grid-texts. Crabbe gives us twenty-four "letters" that dot the grid of the borough/Borough, while Browning gives us a series of monologues – twelve sections based on the "pleadings and counter-pleadings, the depositions of defendants and witnesses" (414) – upon the grid of a historical event, a murder that is well-documented and undisputed. In *Ulysses*, Joyce presents us with the pub, the newspaper office, the beach and sundry other places dotting the grid of Dublin.

Crabbe's "letters," Browning's monologues and Joyce's "episodes" are the fragments, the dots that the authors of these texts have shored up on the grid which, unlike in the "line-texts," is no longer "read-only." The reader has to join the dots to forge a viable navigational strategy and a failure to do so will result in disorientation. However, this category of texts,
i.e., the “grid-text,” may be further divided into two sub-categories: the defined grid and the undefined grid. *Ulysses* is an example of the former, while *The Borough* falls in the latter sub-category. *The Ring and the Book*, on the other hand, may be seen as either. On the one hand, Browning’s narrator’s story about the “parchment covered book” which he had bought at the Piazza San Lorenzo, in Florence, for eight pence, collaborates with his promise of a “repristination” of the truth (in imitation of a cleansing procedure employed by Etruscan goldsmiths) to create the title of the work. Thus, Browning’s title, like Joyce’s, may be seen and used as a defining legend by which to understand the navigational environment and formulate a clear strategy. On the other hand, the “parchment covered book” and the Etruscan practice do not provide Browning’s work with the same schematic consistency as the Homeric epic does for Joyce, or even as the grand Christian scheme of Fall and Redemption may be seen as offering Crabbe. Browning’s title may, in the end, seem the result of a collaboration of two fabulous conceits which, nonetheless, fails to provide a navigational clue to the textual environment.

In *Ulysses*, Joyce’s schematic adherence to the Homeric *Odyssey* pre-defines the $x$ and $y$ axes of the grid. Thus, even as the dots are not joined for the reader, the locus of each “episode” is well defined by co-ordinates referring to the two axes, one of which may be called the Dublin axis and the other, the Homeric. Thus one may draw up a complete correspondence along the two axes, in the manner of the following pairs:
Dublin Axis  Homeric Axis

The Newspaper Office  ⇔  Aeolus Episode

Ormond Hotel  ⇔  Sirens Episode

Nighttown  ⇔  Circe Episode

This correspondence may be represented on the grid as follows:

Figure 2: The Dublin and Homeric axes in *Ulysses*
The result of such plotting as illustrated (in approximation) in the diagram, is the acquisition of a navigational strategy by the reader of the text. Indeed, if one were unable to read the legend, then the axes would remain undefined and the pub, the beach, the hotel, the newspaper office and all the sundry parts of Dublin visited by Joyce’s characters in the different “episodes” of *Ulysses* would be fragments of a city, which would seem as aimless as Denman had found Crabbe’s fragments of the borough/*Borough*. This may have led to a failure to understand the textual environment in navigational terms and subsequently, with an awareness of the failure (like Denman in his letter), to disorientation.

Unlike *Ulysses*, Crabbe gives his readers an undefined grid. There is no legend that defines the axes that would define the coordinates of the different narrative fragments, the “letters” which (according to Denman) he places in a seemingly random series arranged in a linear continuum only by the operational mechanics of the book that contains them in space. To Denman’s mind, the graphical representation of the constituent sections of Crabbe’s borough/*Borough* may look akin to the following diagram:
Figure 3: The Borough (1)

This would, of course, not make a lot of sense, for the navigational path adopted by the reader in negotiating the narrative, would be led by the seeming randomness of the narrative fragments themselves; thus:
The above diagram shows only two (the firm line and the dotted line) of the many possibilities of random linkage between the different fragments in an undefined grid. Such a reading, while potentially confusing, is true to the pedestrian rhetoric and the horizontal plane of the city. Indeed, such a reading reiterates Deleuze and Guattari’s postulation in *A Thousand Plateaus* that “assemblages” are not only “strata” but that they are “complexes of lines” (505-6). However, there is a marked difference between the meandering lines of Denman’s reading and the confident line segment that marks the navigable path of Joyce’s educated reader, or the pre-determined path of the picaresque or the bildungsroman. The
difference is best explained in terms of the two different kinds of line – the molar and the molecular, the arborescent and the rhizome – that Deleuze and Guattari discuss in *A Thousand Plateaus*:

We can identify a first state of the line, or a first kind of line: the line is subordinated to the point; the diagonal is subordinated to the horizontal and vertical; the line forms a contour, whether figurative or not; the space it constitutes is one of striation; the countable multiplicity it constitutes remains subordinated to the One in an always superior or supplementary dimension. Lines of this type are molar, and form a segmentary, circular, binary, arborescent system.

The second is very different, and of the “rhizome” type. The diagonal frees itself, breaks or twists. The line no longer forms a contour, and instead passes *between* things, *between* points. It belongs to a smooth space. It draws a plane which has no more dimension than that which crosses it; therefore the multiplicity it constitutes is no longer subordinated to the One, but takes on a consistency of its own. These are multiplicities of masses or packs, not of classes; anomalous and nomadic multiplicities, not normal or legal ones; multiplicities of becoming, or transformational multiplicities, not countable elements or ordered relations; fuzzy, not exact aggregates, etc. (505-6)
Surface travel creates a molecular impression of space. Thus, sailing on the Pacific from Vancouver to Calcutta, the position of the ship and the experience of the distance between the two points vary continuously: the navigational path on the captain's charts is experienced by the passenger through such "multiplicities of [spatial] becoming" as the passage of days and the gradual change in climate and diurnal cycles. And just as "the earth deterritorialises itself [for the nomad], to such a degree that the nomad reterritorialises on deterritorialisation itself," and as the land "ceases to be land, tending to become simply ground or support" (Deleuze and Guattari, 381), so does the ocean deterritorialise itself for the sailor, the water providing a supportive dimension without demanding territorial subordination. Like the rhizome, the line that connects the spaces "no longer forms a contour, and instead passes between things, between points ... the multiplicity it constitutes is no longer subordinated to the One, but takes on a consistency of its own." The passenger on the ship feels the passage through spaces in having to continually change the clock, negotiate different temperatures and winds, experiencing "multiplicities of becoming, or transformational multiplicities" that are "not countable elements or ordered relations; fuzzy, not exact aggregates" (Deleuze and Guattari, 505-6).

Air travel, on the other hand, encourages a molar impression of space. Places become digits placed along a line that "forms a contour, whether figurative or not." Thus an economic correlation may put London next to Singapore given the collaboration between their stock
exchanges. A historical co-relation may put London next to Calcutta, given Calcutta’s former imperial status in the British empire. An airline collaboration, on the other hand, may put Accra, London and Cairo next to each other in that order, if the cheapest and most efficient way of flying from Accra to Cairo is through London, even though both Accra and Cairo are in Africa, whereas London is situated in Europe. The “countable multiplicity” (countable for there are only as many states as there are digits) that the line constitutes “remains subordinated to the One in an always superior or supplementary dimension,” the “One” being the pre-defined relationship (economic, historical, or touristic as in the instances of London, Singapore, Calcutta, Accra and Cairo) that places the digits in sequence to form a functional contour. Unlike in sea travel, time does not change gradually and continually in the experience of flight. The speed of the aircraft allows the air traveller to adjust his or her watch only once, usually upon arrival at the destination.

The navigational paths of line-texts are akin to the molar and the arborescent. The fabula is subordinated to the story which, in turn, is subordinated to the narrative. The contour of subordination is pre-defined and forms an easy navigational path. Like buying air tickets at a travel agent’s, the origin and the destination are stated and the number of finite states, through which one must pass, discussed, ordered and executed. A grid text, on the other hand, provides the reader with states which, in not being “countable elements or ordered relations” do not add up to an “exact aggregate” that may serve as the navigational
path. A defined grid-text, such as *Ulysses*, helps the reader make sense of the traversed space much as the charts of a sea captain contain lines that find neat representation on a grid. An undefined grid-text, like *The Borough* leaves it up to the reader to first define the grid and then draw up the chart.

It is important, at this point, to note that the navigational lines on a captain's chart, once drawn (be they drawn from scratch as in an undefined grid-text or following the legend of a defined grid) may look like the arborescent line that marks the navigational path of a line-text. And it is this example which leads us back to the dilemma of the author seeking to produce a rhizome, but having at his or her disposal, a medium that demands a root or a tree. Thus Crabbe has to place his letters one after the other, *as though* there were the same kind of narrative causality between them as there is between, say, the various chapters of *Great Expectations*. Faced with a medium that demands the subordination of the narrative line to the “One” schematic order, and a subject that defies any such demand, Crabbe is forced to employ an ordering scheme that pays deference to “an always superior or supplementary dimension.” Thus the analog is digitised, and the molecular, molarised, to accommodate the cognitive demands of the readers of the text.
For the molecular fragments of a grid-text to be intelligible to us, they have to be joined together on the grid so that we may have a recognisable pattern that will serve as our navigational path.

Figure 5: Molecular fragments
Figure 6: Paths joined in a molar arrangement

However, just as the experience of sea travel is markedly different from that of air travel in that the sailor is forced to pass between “transformational multiplicities” whereas a passenger on an aircraft hops between finite spatial states (airports and terminals) without having to confront the continuous variables of spatial “becoming,” so is the experience of reading line-texts and grid-texts markedly different, as Denman’s comments illustrate, for the process of narrative deterritorialisation that makes nomads of the readers of grid-texts is fundamentally different from the carefully planned itinerary of the navigator of the line-text. If the goal is to prevent disorientation, then the rhizome must be made as directionally understandable as an arborescent line. This would, of course, only be an illusion, just as a
sea-captain's chart may look molar, even as the experience of the voyage remains molecular. If, on the other hand, the aim is to deliberately disorient the traveller/reader so as to lead him or her along a path preferred by the author, then the authorial strategy will lie in creating the illusion of a rhizome even as the navigational path is already subordinated to the "superior" and "supplementary dimension" of authorial will.

4.5 Vectoral Disorientation

Hypertext, as we know it today, lies at the intersection of the rhizome and the root. Straddling both the electronic and bibliographic supradiegeses, it raises conflicting expectations and provokes conflicting navigational strategies. On the one hand, the bibliographic supradiegesis prompts expectations of molar totality, subordinated to the actual or figurative corporeality of the finite and determinable operational compass of the "document"; a "document," as defined by Ted Nelson as "an information package with a point of view" (Xanadu Ideal, Online: Internet). On the other hand, the electronic supradiegesis – which prompts spatial metaphors – elicits expectations of rhizoid flexibility. An example of an expectation of rhizoid flexibility is found in what Ted Nelson, in his Xanadu Manifesto, calls the "docuverse," which operates on the principle of "transclusion" whereby "a part of a document (call it A) that happens to be stored as part of another

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35 Deleuze and Guattari explain the rhizome/root binary in detail in the introduction to *A Thousand Plateaus.*

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document (call it B) is brought from that other place in B whenever A is sent for" (Xanadu Ideal, Online: Internet). The objective of Project Xanadu is to "preserve integrity, copyright and royalty for digital materials, yet allow everyone freely to re-use these materials, which would retain their identity at all times." The "new ground," writes Nelson, "becomes the issue of CONTEXT RELINQUISHMENT — the publisher's willingness to allow the material to be used in unpredictable contexts, in return for royalty, credit, and the immediate availability of the original contexts for further purchase, inspection and comparison" (Transcopyright, Online: Internet). What Nelson calls "context relinquishment," Deleuze and Guattari call nomadic deterritorialisation "to such a degree that the nomad reterritorialises on deterritorialisation itself" as the navigated surface ceases to be territory but, instead, becomes a platform of mobility: "The land ceases to be land, tending to become simply ground or support" (381).

However, the precarious perch of hypertext within the supradiegetic parallax of the electronic and the bibliographic creates a distributed set of documents that raise questions quite akin to Denman's concerns about the narrator and/or author of the twenty-four "letters," and their recipient, in Crabbe's poem. Letters always suggest a movement from one physical and intellectual space to another. A letter recognises the existence, and meets the demand, of the outer, which begs some knowledge of the inner. "Describe the Borough" is a command from the outer, the non-borough, the 'other.' Thus, the borough's river is described not so
much by its own character, but as "the strongest contrast to that stream" (I, 35) which one finds in pastoral convention ("Where the Reeds whisper when the Zephyrs blow") or in some other physical space that is external to the borough. The narrator — the author of the letters — is essentially an insider, one who knows both the streets and the stories, just as Chaucer's teller of the *Canterbury Tales* is an intrinsic member of the group of pilgrims and, therefore, a legitimised receptacle of their experiences. And as Chaucer's narrator is a part of the continuous journey, so is Crabbe's letter-writer an insider to the continuous history of the borough.

The insider status of the writer of the letter creates what Nelson would call the "context" of a document which is, in each letter, presented through the insider-writer's "point of view." And as no description is ever complete without establishing the uniqueness of its subject, without a margin that stops any spillage from, or into, the outer, so is a document sealed against other documents by the uniqueness of its context which prevents it from being "transcluded" in a general Nelsonian "docuverse." The unnamed exterior, to which *The Borough*’s "letters" are addressed, defines the borough/*Borough* by its exclusiveness as a successful community (of verse). In his first "letter," the writer repeatedly refers to other scenes, which suggest not only different physical conditions but also other literary modes.
Could he, who sang so well the Grecian Fleet,

So well have sung of Alley, Lane or Street? (I, 9-10)

or

That winding streamlet, limpid, lingering, slow,

Where the Reeds whisper when the Zephyrs blow ... (I, 29-30)

allude to the epic, the pastoral and even the Romantic. By contrasting its own images and style to other modes, to which it refers, *The Borough* distances itself from most received conventions of poetic composition. Thus, like the community described, the poem/community of verse too, is exclusive and defined by the uniqueness of its (and the writer’s) point of view.

However, even as the epistolary *Borough* follows the exclusionary rhetoric of what Nelson calls a document, its refusal to mark the boundaries of exclusion by naming the author and/or the recipient creates an impression of rhizoid deterritorialisation and transclusive context relinquishment. The rhizome, write Deleuze and Guattari, “has neither beginning nor end, but always a middle (*milieu*) from which it grows and which it overspills” (21). *The Borough*’s letters, in seeming to float without either a causal reference to each other
or an operational relationship to an identifiable sender or receiver, exhibit the rhizoid
deterritorialisation of electronic information floating in transclusive interconnectivity over
the networks. Like a rhizome, the letters, unbounded by receiver and sender, seem to be
“always a middle (milieu) from which it grows and which it overspills.” And yet, in being
presented as separate letters which, on the one hand, carefully establish their boundaries of
exclusion and which, on the other hand, have no apparent relationship of transclusive
interconnectivity between each other, they lead to Denman’s confusion over the ontological
status of the epistolary unit and to the “meta-knowledge” (Mantei, 36) of his failure in trying
to navigate the textual environment.

Denman’s confusion over the letters in *The Borough* illustrates the second level of
disorientation – which I propose to term vectoral disorientation – that users experience when
navigating hypertextual environments. Earlier in the chapter, I discussed diegetic
disorientation occurring as a result of users’ having to negotiate the chasm between two
conflicting supradiegeses. Frustrated by diegetic disorientation, which not only confuses us,
but also subverts the scope of our meta-knowledge of our confusion, we tend most commonly
to express our awareness of navigation strategy failure in terms of the linear/non-linear
dichotomy. However, as I argued at length, there is considerable difference between
operational linearity (e.g., through pagination) and a series (through narrative causality). The
heart of the matter lies in our search for *direction* as part of our predetermination of
communicative strategies; in short, the challenge lies in finding an easily discernable vector that gives direction to the magnitude of the communicative act. When such direction is not easily discernible, we suffer from disorientation, as illustrated by Denman’s contemporary criticism of Crabbe.

Line-texts offer textual negotiators a clearly discernable vector; the trade-off in return for navigational direction and ease is the containment of the reader’s potential for predetermination of authorial strategy – the assumption of the interpretive context – by the author. The grid, upon which the narrative line is pre-plotted, is, as mentioned earlier, “read-only” in the case of line-texts. Grid-texts, on the other hand, provide textual negotiators with narrative magnitude, but fail to provide clearly discernable direction. Grid-texts may be of two kinds – those which offer textual negotiators limited direction, as in James Joyce’s Ulysses, and which may be called defined grids; and those which offer textual negotiators minimal or no direction at all, such as Crabbe’s The Borough, and which may be termed undefined grids.

Grid-texts operate on the basis of a nomadic, itinerant textuality; they rely on the process of deterritorialization, whereby the nomadic textual negotiator “reterritorialises on deterritorialisation itself.” Hypertext, like grid-texts, offers users the option of defining the axes by which to plot their navigational paths. In so doing, hypertext is rhizoid rather than
arborescent. In the case of hypertext, reterritorialization through deterritorialization is achieved through what Nelson calls “context relinquishment,” whereby the process of textual negotiation invites, and even requires, “unpredictable contexts.” What I term vectoral disorientation is the crisis in (hyper)textual negotiation that occurs as a result of such unpredictable contexts, which are themselves, the result of the lack of subordination “to the One [directive element] in an always superior or supplementary dimension” (Deleuze and Guattari), which, in the case of line-texts, adds direction to narrative magnitude.

4.6 Conclusion

Hypertextual disorientation is a crisis in textuality. The crisis may have two fundamental roots. First, it may be the result of two conflicting supradiegeses jostling for domination and, as a result, trapping the negotiator of the text within the parallax of their difference. Second, disorientation may arise from our perceptual limitations that compel us to choose between the molar and the molecular, between the whole and the part, the arrangement and the detail, even as we are led to believe that we are in control of both dimensions of the pair. And, in the conflation of the electronic and the bibliographic metaphors of hypertextual cognition and navigation, the two types of disorientation find themselves in a causal relationship. While the bibliographic and the electronic confuse the
user with their respective molar and molecular expectations, they find themselves in a conflict as a result of a failure, on the part of the creators of the technology, to recognise and defer to a supradiegetic shift in the medium of the narrative.

Based on a consideration of our relationship with texts, and our negotiation of the textual condition (Chapters 1 through 3), I argued that crises in (hyper)textuality are consequent to the inability of the hypertext user to successfully predetermine the strategic communicative context. The first level of crisis – diegetic disorientation – occurs as a result of the hypertext user’s falling between the concurrent assumptions and assertions of two competing supradiegeses that co-exist in the cognitive metaphors that guide our negotiation of hypertextual environments. Diegetic disorientation not only precipitates failures in what Mantei calls navigational strategies, but it also curtails our meta-knowledge of our failure: “Not only must the spatial data-encoding mechanisms fail to provide adequate navigation information, but, to be lost, individuals must be aware of this failure” (emphasis added, 36).

The association of one set of supradiegetic cognitive metaphors with the visible hypertextual surface, and a different set of supradiegetic cognitive metaphors with the underlying structure, of hypertext perpetuates the subversion of the knowledge of our failure.

The second level of crisis in (hyper)textual negotiations – vectoral disorientation – stems from the process of “context relinquishment” (Nelson, Transcopyright, Online: 193).
Internet), which forms the ontological basis of hypertext, as a form of grid-text. While the process of "context relinquishment" is an inherent strength of hypertext, vectoral disorientation results from the lack of a defined grid; much in the same way that Joyce's *Ulysses*, although a grid-text, and a difficult text to negotiate, reconciles the concurrent demands of pedestrian simultaneity and textual serialization in a way that is easier for the reader to follow than, say, Crabbe's *The Borough*. The lack of definition of the underlying networked synergy that informs hypertext with its unique environmental and operational intelligence is, in itself, a result of two factors. First, diegetic disorientation precludes the possibility of a mechanism for making the organization of hypertextual linkages perceptible and comprehensible to the hypertext user. Second, as illustrated by the instance of *Ulysses* and *The Borough*, the rhizoid has to be made as directionally understandable as an arborescent line that is encoded in space, just as the rhizoid experience of a sea voyager is rendered arborescent on a navigator's chart. While hypertext remains ontologically rhizoid and molecular, the process of textual negotiation remains dependent on an expectation of the arborescent and the molar.

The second factor raises an important point of difference between navigational strategy and the experience of traversing space. While the experience may be rhizoid, molecular and analog, the strategy must be conceivable in terms of the arborescent, the molar and the digital. Thus, even as the experience of sea travel is different from that of flying, the
navigational strategies of both must mark the origin and destination as digits on a grid; even if the grid itself is open to definition. Because hypertext, as we currently know it, straddles the conflicting supradiegeses of the bibliographic and the electronic, hypertextual authors would have to choose either of the following options in order to prevent user-disorientation in navigating hypertextual environments:

1. If the goal of the hypertextual author is to strategically disorient the traveller/reader so as to lead him or her along a path preferred by the author, then the authorial strategy will lie in creating the illusion of a rhizome even as the navigational path is already subordinated to the “superior” and “supplementary dimension” (Deleuze and Guattari, 505) of authorial will.

2. If, on the other hand, the goal is to prevent disorientation, then hypertext creators must have to contemplate a new geography of hypertextual space; one that is capable of making the ideational linkages understandable to the user in spatio-navigational terms, even as it respects and responds to the rhizoid nature of the greater network itself to create the transclusive docuverse of Nelson’s Xanadu.

The key to minimising disorientation in navigating Web-based environments is akin to realising the fantasy of Thomas’ child-Dracula in the 747’s aerial scan of a teeming,
bustling metropolis. In negotiating hypertext, even in Nelson's utopian docuverse, readers will always have to engage in the molecular, just as, even in reading a book, one is, at any given point in time, focused on a paragraph or a page. However, the new geography of hypertextual space should have to take into account the navigational advantages of the molar in creating a browser that will allow users a spatio-ideational concept of the web of information. The coexistence of the molar navigational aid and the molecular textual experience can be set in terms of a supradiegetic shift, whereby the fundamental assumptions of the older supradiegesis (the bibliographic) will be subordinated to the demands of the new (the electronic).

In reflecting on a model for a browser for "hypernauts" of the future, in the following chapter, I shall borrow my visual markers from the point of intersection of the central issue of this project in HCI, with certain theories of cartography, cognitive mapping, and what has been called the "architectural mnemonic" (Carruthers, 71-79) of rhetoricians of Roman antiquity. Indeed, I shall refer to actual features used by three existing software packages – Thinkmap, SemioMap and Themescape – that use cartographic concepts in their attempt to achieve a spatio-visual organization and presentation of information. The basis for the visual interface will be (a) Mantei's experimental finding that when "goal information" is incorporated into the "rules" of navigation, users tend to score lower on a register of "lostness" and (b) what Soja, in *The Political Organisation of Space* (1971), calls the
“portable territory” in reference to the “bubble” of personal space (20), a concept developed by geographers (most notably by Edward Hall) which, I believe, finds a strong and useful echo in the situationality (Ong) and ideational linkage (Barrett) of hypertext.
"The act of walking," writes Michel de Certeau in *The Practice of Everyday Life* (trans., 1980), "is to the urban system what speech act is to language or the statements uttered" (97). According to de Certeau, the "approach to culture begins when the ordinary man becomes the narrator, when it is he who defines the (common) place of discourse and the (anonymous) space of its development" (5).

In discussing hypertextual disorientation in the previous chapter, I had mentioned de Certeau's insistence on pedestrian rhetoric that constitutes the practice of everyday life. People meander. Discourse meanders. And, in the networked space of hypertext, the act of navigating and the act of communicating merge, even to a point where the very definition of hypertext depends on the merger of space and discourse, so that hypertext constitutes what Alan MacEachren calls "information spaces" (Online: Internet). The hypertext user, like de Certeau's "ordinary man" defines, within the network, which is "the (common) place of discourse," the meandering individual text-path, or "the (anonymous) space of its [discourse’s] development."
The merger of navigation and communication, of space and discourse, is largely a result of what, following Ong, has been called the “secondary orality” of hypertext, discussed in some detail in Chapter 2. On the one hand, the spatial dimension of hypertext allows what may, following Ong, be regarded as a counterpart of chirographic categorisation. On the other hand, the network of links that underscores the operability of the spatial dimension of hypertext allows for what Ong calls oral situationality. Thus a category, defined and determined in space, may become situational through the infinite determinability of that space by the individual user. Linking Ong to de Certeau, through the happy reduction of a colloquialism, one may then say that hypertext users, much like their urban counterparts in real space, walk the talk.36

But the pedestrian reader-narrators of hypertext often get lost in their meanderings. The two primary reasons for hypertextual disorientation, as discussed in the previous chapter, are (a) diegetic disorientation, which occurs as a result of the hypertext user’s falling between the concurrent assumptions and assertions of two competing supradiegeses that co-exist in the cognitive metaphors that guide our negotiation of hypertextual environments, and (b)

36 Even as the discourse generated at the most immediate level, by the individual hypertext user’s customised text-path, is a result of the ephemerality of the appearance of hypertextual information on an interactive screen, so does the network of individual utterances continue to adumbrate hypertextual space well after the user has logged off. Just as the roads of a city continue to mark urban space even after the pedestrian reaches the end of his or her individual path, so is the discursive (hyper)text-path ephemeral, even as the network of linked utterances guarantees the continuity of the signifying consciousness in cybernetic memory.
vectoral disorientation, which stems from the process of “context relinquishment” (Nelson, Transcopyright, Online: Internet) that forms the ontological basis of hypertext, but which – in the absence of a mechanism for making the underlying organizational grammar of hypertextual linkages perceptible and comprehensible to the hypertext user – often places the user within “unpredictable contexts” (Nelson, Transcopyright, Online: Internet), and fails to provide the hypertext user with a sense of direction to aid the process of predetermination of communicative context.

The conclusion of the previous chapter, following some reflection on Deleuze and Guattari’s discussion of the molar/molecular binary (which, I argued, underscores our inability to comprehend hypertextual space in easily navigable terms), was that, for pedestrians to prevent themselves from getting lost in the space of their wandering, the route of their meandering must be made comprehensible in molar and arborescent terms, even as the actual experience of meandering remains molecular and rhizoid. The challenge in seeking to confront the issue of vectoral disorientation is that even as hypertext users experience the “anomalous and nomadic ... transformational multiplicities” of a molecular and rhizoid space, the new geography of hypertext would have to consider the navigational advantages of the molar in allowing users a spatio-ideational concept of the web of information. At the same time, the need to confront the issue of diegetic disorientation would prevent us from
reverting to a complete surrender to the bibliographic – as in Benest’s “book emulator” proposal – in our quest for a balance between molar representation and molecular experience.

In this chapter, I shall explore some ways in which these issues may be taken into consideration in developing what Alan MacEachren, in “VISUALIZATION – Cartography for the 21st Century” calls “appropriate metaphors for navigation in these complex information spaces”; metaphors that will allow the pedestrian hypertext user of the future to define “the (common) place of discourse and the (anonymous) space of its development” (de Certeau) but not get lost in the sheer enormity of the space, in the process:

As the World Wide Web and related technologies provide a mechanism to link geoinformation in complex ways, there is a critical need for research directed to methods that facilitate navigation through that web of information. Potentially productive approaches involve the development of appropriate metaphors for navigation in these complex information spaces and the spatialization of non-spatial information as a method to identify relationships among information objects. (Online: Internet)

The establishment of a new geography of any space requires at least two fundamental steps: first, an understanding of how the space may be sectorised, or broken up, and second, how the newly sectorised space may be made visually comprehensible to the navigator. In
keeping with these two steps, I shall start with a section on the territorialisation of hypertextual space, in which I shall explain the sectoral logic of the web in terms of what I shall – later in the chapter – propose to call a hypertextual proxemic bubble. I shall then discuss issues of spatialisation and visualisation, before making note of some existing software – Thinkmap, SemioMap and Themescape, which, as their names suggest, use topographic and cartographic concepts in their spatial organization and presentation of information – to consider ways in which hypertextual proxemics may be made comprehensible to the hypertext user by embedding what Mantei calls “goal information” into the “rules” of navigation (see Chapter 4). I shall end with reflections on a Graphic User Interface (GUI) for future hypertext browsers, based on my arguments, and on the strength of features used by Thinkmap, SemioMap and Themescape, in the world of public and commercial computing.

5.1 A Portable Geography: Territoriality and Context

In his study, The Political Organisation of Space (1971), the noted geographer Edward Soja writes:

Research into personal space has shown that each human being is surrounded by a series of portable space “bubbles” which affect interpersonal communications and behaviour
and in certain circumstances (such as seating arrangements in a library or cafeteria) may work to regulate spacing and density. This portable territory, moving with the individual, has been found to exist in both man and animals. Its dimensions vary in shape and size (i.e., it may differ in extent in front, behind, and to the side of an individual) from situation to situation and, with human beings, from culture to culture. (Soja, 20).

Soja draws his inspiration from the work of anthropologist Edward Hall who, in his influential work *The Hidden Dimension* (1966), introduced and developed the term “proxemics” for “the interrelated observations and theories of man’s use of space as a specialised elaboration of culture” (Hall, 1).

Both Soja and Hall refer to actual physical space, and to the territorial behaviour of humans that leads to a cultural realisation of that space. However, Soja’s “portable space” and Hall’s notion of proxemic “bubbles” are also particularly relevant to the exploration of the various possibilities of mapping the virtual space of hypertextual networks. Territorial behaviour, as commonly understood, is related to “dominance behaviour” (Sommer, 12), and personal space is explained by Sommer in *Personal Space – The Behavioral Basis of Design*, in territorial-dominant terms, as an area with invisible boundaries, which serve as a defensive parameter against aggression. And because people are not stationary, but very mobile in their
practice of everyday life, so is this personal territorial space, called a “portable territory” by Soja.

However, in an individual’s negotiation of hypertextual space, the issue is not protection against intrusion upon an individual by another person. The only time that question arises is in a social situation in actual physical space. Thus, two or more people in a cyber-café or a computer lab may jostle for control over a particular computer. However, when one individual has gained control of the machine, and is then successful in accessing hypertextual space, the issue of territoriality is quite severely altered.

“Hypernauts” (Nelson), negotiating hypertextual information and navigating through the networks, are faced with matching their own situational needs with the ideational linkage provided by the network. But because individual users cannot view the network as a whole, they are limited to guessing, by a process of induction, the nature of a greater network from the cluster of hyperlinks provided in the space of the individual page that flickers on their screen at that moment. The hypertextual territoriality of an individual cannot be conceived in terms of external transgression. It is not as though, in the course of navigating the network,

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37 There are issues of aggression in virtual space as well, such as a fear of, and protection from, hackers through a “firewall.” However, in discussing hypertextual proxemics with a view to defining a new hypertextual geography, the issue is not security violation, but an appropriation of the network of links according to one’s needs and preferences. It is the size and spatial incomprehensibility of the network itself, and not an intruding user, that is pitted against the individual in question.
the individual user needs to describe an area around his or her text-path so that other users’
paths do not collide with this pre-determined space. However, given the infinite
determinability of hypertextual space, the hypertext user does need to realise an individual
geography in order to achieve a spatio-ideational concept of the web of information, and to
orient this newly spatialised environment of information towards one’s own preferences and
needs. Given the differences between individuals, as well as the difference in the various
situations that prompt an individual to navigate information in any medium, and in any
circumstance, this new geography must therefore vary from user to user, and also from
situation to situation, for one and the same individual. The territorialisation of hypertextual
space is thus both conditional and, to use Soja’s term, “portable.”

I use the term “territorialisation”, not just in deference to Hall, Sommer and Soja, but
also with respect to my reflections on Deleuze and Guittari’s discussion of the “two kinds of
lines,” the root and the rhizome, in the last chapter. In *A Thousand Plateaus*, the authors
write:

... [N]omads have no points, paths, or land, even though they do by all appearances. If
the nomad can be called the Deterritorialised par excellence, it is precisely because there
is no reterritorialisation afterward as with the migrant, or upon *something else* as with the

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38 See previous note.
sedentary ... With the nomad, on the contrary, it is deterritorialisation that constitutes the relation to the earth, to such a degree that the nomad reterritorialises on deterritorialisation itself. It is the earth that deterritorialises itself, in a way that provides the nomad with territory. (381)

As discussed in the previous chapter, with reference to Crabbe and Joyce, the readers of grid-texts are akin to nomads. The texts deterritorialise themselves for the reader, in a way that provides the readers with territory. And yet, as evident in Denman's praiseful criticism of Crabbe, not every reader is able to reterritorialise "on deterritorialisation itself." Indeed, in the case of hypertext, which remains the largest and most complex of grid-texts in the history of textuality, the process of nomadic deterritorialisation often leads to disorientation. This is why I had argued, in the last chapter, for a distinction between the itinerant experience and the navigational strategies of rhizoid space.

In proposing a conditional and portable territorialisation of hypertextual space, I hope to find a compromise between a molecular and rhizoid experience, and a molar and arborescent strategy. Being conditional and portable, any attempt to fix the territorial bubble in permanence will be subverted by hypertext's ontological dependence on a rhizoid network of links. At the same time, as both territory, and the process of territorialisation, the proxemic
bubble of the individual hypertext user ought to enable one to achieve the two main conditions that Mantei, following other HCI scholars, argues as being essential to reducing disorientation:

1. a mechanism for encoding spatial data, and

2. the cognitive skill acquisition mechanism of the individual to comprehend the spatial data-encoding.

The creation of the proposed proxemic hypertextual bubble also allows for what de Certeau, in linking walking to speech acts, calls the triple "enunciative" function of pedestrian behaviour:

[I]t is a process of appropriation of the topographical system on the part of the pedestrian (just as the speaker appropriates and takes on the language); it is a spatial acting-out of the place (just as the speech act is an acoustic acting-out of language); and it implies relations among differentiated positions, that is, among pragmatic "contracts" in the form

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39 See discussion in Chapter 4.
of movements (just as verbal enunciation is an "allocution," "posits another opposite\textsuperscript{40} of the speaker and puts contracts between interlocutors into action). (97-8)

Hypertext navigation, like walking, is a "spatial acting-out" of hypertextual space. But the creation of an individual proxemic bubble, a conditional and portable hypertextual geography on the basis of Ong's situationality and Barrett's ideationality, allows "relations among differentiated positions" that are, themselves, the result of "a process of appropriation of the topographical system" on the part of the pedestrian-navigator. Just as the urban walker "creates a discreteness, whether by making choices among the signifiers of the spatial 'language' or by displacing them through the use he makes of them," so does the hypertext navigator create a "discreteness" in defining a proxemic bubble, by situationally determining the overwhelming network of ideational links to suit his or her own needs. "He condemns certain places to inertia or disappearance and composes with others spatial 'turns of phrase' that are 'rare,' 'accidental' or illegitimate. But that," writes de Certeau, "already leads to the rhetoric of walking" (98-9). In enabling the appropriation of the network's "topography" by the individual "hypernaut," hypertextual proxemics – "the use of [hypertextual] space as an elaboration" (Hall, Hidden Dimension, 1) of the individual's situational or cultural needs – leads to a rhetoric of navigation, and to the contemplation of a rhetorical geography of hypertext.

\textsuperscript{40} De Certeau quotes from Emile Benveniste's Problems in General Linguistics (Paris: Gallimard, 1974), II, 79-208
In *The Political Organisation of Space*, Soja outlines the four principle functions of animal territoriality. The first of these principles is the “Security and protection for territorial inhabitants”:

Occupation of a particular territory enables an animal to develop a detailed knowledge of its environment and at the same time to construct an inventory of reflex responses to landscape features and environmental cues ... which facilitate quick and effective responses to danger and attack. Combined with what may be psychological advantages, this produces the familiar “home base” effect in which weaker animals are able to defend themselves against stronger opponents when they are in their home territory. ... (22-3)

While Soja is writing about animal territoriality, the “home base effect” plays an important part in hypertextual navigation as well. As mentioned earlier, hypertextual territoriality is not a result of the fear of another transgressive user-inhabitant of the networked space. Hypertextual territorialisation is a response to the need to appropriate some of the networked “topography” so that it may be less disorienting to the individual user. In hypertextual space, the transgressor may be an unwanted piece of information that threatens to block and confuse what ought to be a smooth navigational path; an example of such
unwanted nodes is found in multiples of search results, which violate the situational demands of the user, and ultimately result in disorientation.

While animal proxemics are directed towards keeping transgressive competitors away from the defined space, hypertextual territoriality is aimed at keeping the territory unassailed by unwanted additions and complications. The animal territorialist stands within the defined territory and looks outwards. The hypertext territorialist stands outside the territory and looks inwards. The animal seeks to protect the marked ground from others. The hypertext navigator seeks to protect the defined territory from its own deterritorialising potential. If the “portable bubble,” as it relates to social interaction, is defined by Soja as being the basis for “interpersonal communications,” then hypertextual proxemics are a way of breaking up hypertextual space, and a hypertextual proxemic bubble is a way of regulating the interspatial relations that result from such sectorisation. And, having defined an individual hypertextual proxemic bubble, the user may benefit from “a detailed knowledge of its environment” and from constructing “an inventory of reflex responses to landscape features and environmental cues.”

A detailed knowledge of the environment, defined carefully by the user, allows for what Mantei calls the cognitive skill acquisition mechanism of the individual to comprehend
spatial data-encoding. Just as a knowledge of “landscape features and environmental cues” helps animals to formulate “quick and effective responses to danger and attack,” so does a customised environment help a navigator re-gain his or her locus in the event of being confronted with the occasional unwanted and potentially disorienting obstacle in the navigational path. Thus the hypertext user creates a “home base,” a portable proxemic bubble, which allows one to defend oneself against the overwhelming potential of the network as a whole. Since the danger to the hypertext user is posed not by another competitive user, but by the deterritorialising potential of the space itself, the “predators” who may threaten the expansion of the proxemic bubble lie embedded in the millions of links that constitute the network.

My proposition of the hypertextual proxemic bubble is based on the need for a customised context within which the network of links may be appropriated and mapped by an individual user. The individual bubble is a sector of the whole network. It is this sector that an individual user may regard as a “home base.” Of course, the idea of customisation is not new to the Internet. It may be said that when one types in keywords in a search engine, one is defining one’s preferences and situational needs. And when the engine yields its search results, the list is a sort of navigational bubble. However, there are two problems with the example of the search engine.
First, the search engine yields its results as a chirographic list, or index, which, as discussed in the last chapter, does not allow a spatio-ideational concept of the web. The proposed hypertextual proxemic bubble is the sectoral basis for a GUI that will aid “navigation in ... complex information spaces and the spatialisation of non-spatial information” (MacEachren). The GUI will allow a visual conception of the bubble which, in turn, will make it easier for the user to interact with other bubbles on the web. As the Web is sectorised into bubbles, for each navigational session, it will be easier to maintain consistency in the spatial data-encoding of the web. The common search engine’s lack of any such spatialising potential is its first major difference with the proposed hypertextual proxemic bubble.

Secondly, the search engine operates in a low-context situation. In his *Handbook for Proxemic Research* (1974), Hall describes high- and low-context situations:

High-context (H/C) situations are characterised by a minimal flow of information (I) and therefore either great speed of transmission or very small channels. Low-context (L/C) situations are the reverse. H/C situations are quite stable and require considerable time in which to build the context either into the culture over time or into the memory drums of individuals within the culture. Nonverbal systems are high on the context scale – much higher – than symbolic systems. For example, time and space, as a rule, perform
important contexting functions. It also follows that H/C cultures would attach more importance to those cultural systems, such as proxemics, that are concerned with or perform contexting functions. L/C cultures, on the other hand, will tend to minimise or to selectively disregard the contexting aspects of culture while attaching more importance to those systems that are concerned with information. (emphases removed, 18)

The Internet presents us with a conundrum. On the one hand, the goal of the Internet is to “build the context either into the culture over time or into the memory drums of individuals within the culture” so that the World Wide Web becomes a H/C environment that allows a diverse range of users – from diverse linguistic, social and other cultures – to conduct hypertextual negotiations on the basis of common standards, conventions and protocols. However, to the individual user, the popular and freely available search engines on the Internet today are L/C because they do not intuitively grasp the situational needs of the instance of use. Indeed, it may be said that to the individual user – caught between a vectoral crisis precipitated by a visible surface and an invisible underlying network, and the diegetic tension of the spatial and the bibliographic, perpetuated by the same standards and protocols that seek to make the World Wide Web H/C – the World Wide Web is, in itself, L/C. This is part of the experience of rhizoid space. This is unlike a book on one’s shelf, which defines a context and a textual culture for the user – ranging from memories associated with its acquisition, to actual notes in the margin – and is extremely H/C to the individual who owns
the library. Moreover, the “cultural systems” of bibliography – ranging from pagination to the operation of indices – makes the book H/C to the community of readers at large, without risking a diegetic crisis. The book is an example of extreme textual territorialisaton. The Internet, on the other hand, is open and the individual text-path, often temporary. To the individual user, an open hypertextual system remains an extremely L/C example of deterritorialisaton, which nonetheless seeks to sustain an illusion of H/C through standards and conventions that use mixed cognitive metaphors and contribute to diegetic disorientation.

The proposed hypertextual proxemic bubble would create a H/C situation for an individual user, and would, in turn, find visual representation, in spatial terms, in the GUI. If the aim of proxemics, as defined by Hall, is a “specialised elaboration of culture” (*Hidden Dimension*, 1), and if the role of any “culture” is the creation of context, then the aim of hypertextual proxemics is the specialised elaboration of an *individual* hypertextual culture, and the aim of the GUI is to represent this specialisation in space. If there is “no such thing as meaningful information without context” (*Hall, Handbook*, 18), then the hypertextual proxemic bubble is the context, predetermined by the user, to help the individual navigator interpret the “information space” (*MacEachren*) of the hypertextual network. In concluding this section on the territorialisaton of hypertext, it may then be stated that:
1. Hypertextual proxemics are a way of sectorising the "information space" of the hypertextual network, so that the rhizoid, deterritorialising impulse of the network may be provisionally checked, with a view to reducing disorientation in hypertext navigation.

2. A hypertextual proxemic bubble is a H/C individual sector that acts as a situational interface between the user and the L/C "ideational" (Barrett) linkage of the network as a whole.

3. To facilitate hypertext navigation, and to reduce disorientation, the proxemic bubble must find visual representation in spatial terms, so that non-spatial information is spatialised and an appropriate metaphor is used for "navigation in these complex information spaces" and "to identify relationships among information objects" (MacEachren).

5.2 Visualisation and Spatialisation

The underlying argument of this dissertation has been that hypertext is a form of textuality that incorporates elements of both oral situationality and chirographic categories, and which employs its own textual rhetoric to build creator-user relationships; disorientation
in navigating hypertext can be understood in terms of a crisis in textuality and textual discourse, and its solution may be explored, found and proposed in response to such a crisis. That the visual is a fundamental part of textuality was explored, in some detail, in the first chapter. It was noted, with reference to Havelock, that the word “idea” shares its root with the word “video” (“I see”), and that “text” derives from the Latin “texere,” meaning “to weave,” thereby emphasising the importance of the visual to both oral and literate cultures. Based on the long line of argument, developed over the last four chapters, the previous section (of this chapter) proposed a consideration of ways in which a hypertextual proxemic bubble – as a customised sector of, and gateway into, the total network of information – may be made spatio-visually comprehensible to the individual user.

However, it is important to note that cognitive psychologists specializing in the visualization of space point out that the visual cognitive dimension is not the same as the spatial. If the visual is related to pictures, then the spatial is related to images, prompting one to ask, following John Anderson in *Cognitive Psychology and its Implications* (1980), “If an image is not a picture, what is it?”:

This is an issue about which many cognitive psychologists have strong opinions but little evidence. ... However, even if we are unable to define imagery representation precisely, we can specify some of the properties of images:
1) They are capable of representing continuously varying information.

2) They are capable of having operations performed on them that are analogs of spatial operations.

3) They are not tied to the visual modality but seem to be part of a more general system for representing spatial and continuously varying information.

4) Quantities, such as size, are harder to discriminate in images the more similar they are.

5) Images are more malleable and less crisp than pictures.

6) Images of small objects are segmented into pieces. (84-5)

Following Anderson's list of properties of images, which he bases on the work of such scholars as Brooks (1968)\textsuperscript{41}, Carmichael, Hogan and Walter (1932)\textsuperscript{42}, and Reed and Johnson (1974, 1975)\textsuperscript{43}, one may revert to the word processor's operational distinction between “text” and “graphic,” as discussed in Chapter 1. While it would be reductive to simply categorise


"text" as "image," and "graphic" as "picture," it may be argued that the letters of the alphabet are indeed closer to the six "general properties of images" that Anderson notes in his book. Thus, a letter, as an instrument of committing sound to space, is "part of a more general system for representing spatial and continuously varying information." A letter, as "part of a more general system," is "more malleable and less crisp than pictures." The operability of the letters of an alphabet makes them "capable of having operations performed on them that are analogs of spatial operations." A letter leaves room for variance within space. Handwritings differ, as do fonts, but one may read another's letters. And even though letters are not "abstract," but are "tied to visual properties" (Anderson, 82), in that they are visually recognisable as proportional shapes, they seem arbitrary in their relationship to the sound(s) they represent everyday, in our own world. The sound of, say, ‘c’ does not explain our use of the crescent mark that we make on paper, or in our mind, to represent it. A letter, unlike a picture, is a system of committing sound to space.

However, the very fact that we do associate a definite shape with the sound, ties the letter to "visual properties." This is not unlike a picture that has reached iconic status, such as the Mona Lisa or Charlie Brown. Indeed, it would not be surprising if some children, on hearing the word "peanuts," would not link the sound to Charlie Brown’s face or to peanut butter, before considering the possibility of the actual nuts, which they may have never seen.

44 The shape and form of letters is not arbitrary, but follows a history of evolution. However, I am referring to
Similarly, an iconic familiarity with da Vinci's painting will allow us to recognise cartoonish parodies, advertisement cameos, pot-smoking posters, and all other recurrences of la Gioconda in our world, even though we may never have seen the original, or a photograph of the original painting in the Louvre. Like Charlie Brown, or the letter 'c,' the basic shape and proportions of Mona Lisa are retained in our minds as images.

At the same time, the letters of an alphabet cannot be "distorted by general knowledge" as images may be. As Anderson reminds us, Carmichael, Hogan and Walter's relate an experiment with diagrams showed that the same figure, e.g., two circles connected by a short line, may be reproduced differently, depending on different associations. In the experiment, subjects were shown figures accompanied by cue words (e.g, the same figure for eye glasses and dumbbells, another for the crescent moon and the letter 'c'), and were then asked to reproduce the figures in response to the cue words. "[W]hen asked to draw the objects from memory, their drawings were distorted in the direction of the named category. For instance, given eye glasses, the subject might put a bend in the shaft, but given dumbbells, a subject might put a double shaft between the two circles" (Anderson, 83). While handwritings may differ, the operability of alphabets assures a certain correlational convergence between the visual mark and its corresponding sound; such a sign cannot be "distorted by general knowledge," or else the system would collapse. And it is this property

our relationship with the letters as we have received them in this, our own point in time.
of alphabets that excludes them from the realm of cognitive images, as they are defined and
described by Anderson.

However, as discussed in Chapter 4, when a person refers to, say, the “middle” of a
book under discussion, then the various addressees, who may never have seen the book, have
an idea of where the “middle” may be. Indeed, if the speaker were to further specify that the
book in question is a paperback, or a coffee-table edition, then the addressees may have an
even better idea of the “middle.” This idea of the “middle” of the book will be “abstract” and
conditional upon such “general knowledge” as the nature of the book (e.g., paperback,
coffee-table, etc.). The spatial conception of the size of the book, and of the spatial
negotiation required to arrive at the section in question, will be a cognitive image. But if this
spatial understanding were to be made accessible to an external audience, then it would
require visual representation and even a certain degree of conformity. The image could not
remain spatial, but would have to be visual as well. To use the cognitive psychologist’s
distinction between “image” and “picture,” the image would have to be pictorialised. An
example of such pictorialisation of images may be found in the use of “icons”\(^45\) to display
“desktop” functions by computers. Thus the wheel of Netscape Navigator may be seen to

\(^45\) Please note that have put the word “icon” in quotation marks because I have borrowed its use here from
common computer jargon. Following Peirce and subsequent semiotic theory, a signifying relationship can be
termed “iconic if the signal bears a physical resemblance to some aspect of the object: e.g. outside language, a
diagram or map, or, in language, an example of onomatopoeia.” The Concise Oxford Dictionary of Linguistics,
represent a game about ships to the improbable computer user who has never come across the Netscape browser. On the other hand, to the experienced user, the wheel represents (a) a browser to surf the Internet and (b) a browser that is separate from Microsoft's Internet Explorer. While "text" and "graphic" (as termed by the word processor) are both spatio-visual, the "icon" strikes a balance between the cognitive psychologist's distinction between "image" and "picture" by allowing the user the flexibility of an image, the particularity of a picture, and, as a result, the standardisation of a recognisable logo.

Because virtual space, unlike Euclidean space, cannot be perceived by the natural senses, it must be made comprehensible to the user in spatio-visual terms. At the same time, all users would have to agree to certain common dimensions, unlike the case of the unseen book in which each addressee may have had a different image of the "middle" of the volume in question. This is why the proposed GUI for hypertext browsers will not only need cognitive maps, but also a cartographic environment, comprehensible in external terms, not unlike Euclidean space. I use the term "external" in deference to Tolman's definition of cognitive maps as "internal representations of the spatial layout of one's environment," in his classic paper, "Cognitive Maps in Rats and Men" (1948), as quoted by Anderson (86).
In his essay, “Cognitive Maps in Perception and Thought” (1973), Stephen Kaplan writes with uncanny foreboding about the importance of cognitive maps as “a possible mechanism for handling the sorts of knowledge required for survival” in a “nonplanar networklike structure”:

In such a structure, any point will in general be connected to numerous other points; each of these other points is in turn still connected to still other points. Thus the structure is an approximation to continuity. There will in general be several (if not many) different routes or paths between any two points. A network of this kind has a meaningful distance metric since each point is separated from any other point by a path that passes through some number of intervening points. “Direction” is also a meaningful concept here, since it is possible to move toward or away from any given point, with reference to other points in the net. Similarly, a “region” can be defined as a collection of closely associated points.

Clearly if an organism has stored in his head many possible situations and the relations between them, he has a cognitive map. (74)

It is difficult to provide a better description of a hypertextual web than that offered by Kaplan in describing his “nonplanar, networklike structure.” Indeed, what Kaplan does, in describing
The first task of the GUI, in creating a customised proxemic sector of the network as a whole, would be to allow a spatio-visual standard by which to conceive of the virtual hypertextual space. In *Cognitive Psychology and its Implications*, Anderson explains:

Nowadays it seems clear that ... humans make important use of cognitive maps for guiding themselves through their environments. Often these cognitive maps are formed from memories of “paper” maps. A recent surge of research has been concerned with the nature of these cognitive maps and the ways in which people use them as well as the ways in which people use real paper maps. (86)
Anderson refers us to a very important aspect of cognitive maps that has particular significance to the current study. He relates cognitive maps to “memories” of “paper” maps. While cognitive maps are spatial, and based on images, paper maps, with their history of elaborate drawings, tend heavily towards the pictorial. And yet, not only do paper maps affect our processes of cognitive mapping, but they are also often, in turn, pictorial representations of our cognitive maps. Thus, when asked to draw a map of my neighbourhood for a dinner guest, I may draw a map based on my understanding of the space that surrounds my home. In doing so, I may emphasise certain landmarks, omit others, make one block look longer than another, even though that may not actually be the case on the ground. In drawing such a map, albeit pictorially, on paper, I am representing my own cognitive map of my neighbourhood. The map on paper is a result of my mental image of my experience of walking home from, say, the bus-stop. If one part of the road follows an upward gradient, which causes me to feel a little fatigued at the end of the day, then I may represent that section as being longer than another on my rendition of that space on paper.

Thus the “memories” of “paper” maps work both ways. The “memories” influence our cognitive maps which, in turn, re-influence our own drawing of paper maps. In rendering the virtual space of hypertextual networks in a cartographic environment, it would therefore be useful to start with some standard spatial assumptions (the equivalent of the “paper” maps).

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46 Politically, a lot has been said and written – both seriously and satirically – about how the Mercator cartographic system has biased world maps, as we know them, towards making wealthier, northern countries appear larger than poorer southern states.
which, in turn will influence the cognitive maps of individuals. The last point, relating to the standardisation of the cognitive spatial image through graphical representation leads to the question of "route maps" and "survey maps," which inform our cognitive process of spatialization.

"There is evidence," writes Anderson, "that as children develop, their cognitive maps progress from what are called route maps to survey maps" (89). According to Anderson, the most important factors in "spatial reasoning is the importance of landmarks, or reference points" (88). Dillon, McKnight and Richardson, in their report on "Navigation in Hypertext" (1990) cite both Anderson and Wickens\(^47\) to explore route maps and survey maps:

[I]n the first instance we represent knowledge in terms of highly salient landmarks in the environment such as buildings, statues, etc. ...

The next stage of development is the acquisition of route knowledge which is characterised by the ability to navigate from point A to point B, using whatever landmark knowledge we have acquired ...

The third stage involves the acquisition of survey knowledge. This is the fully developed cognitive map that Tolman (1948) described. (587 - 588).

In *Cognitive Psychology* Anderson gives the following example of a route map:

1. Go two blocks south on Amberson.
2. Turn right on Fifth.
3. Follow Fifth for a mile or so until the road forks.
4. Turn left and go two or three blocks.
5. After the Playhouse turn right.
6. Go a block and turn right onto the Boulevard of the Allies.
7. Follow the Boulevard for about a mile and a half.
8. Turn right on the Cross-Town Boulevard and follow it for maybe a quarter of a mile.
9. Chatham Center has been reached; follow directions for parking. (90)

The directions, cited above, are what Anderson says he may have “memorised for getting from my home to Chatham Center in Pittsburgh.” This, writes Anderson, is a route map:

Using this information alone, are you able to determine the relative direction from my house to Chatham Center? If you try to calculate the direction, you will probably judge
that it is north by northwest. In fact, Chatham Center is almost due west but slightly southwest. (Some of the roads take jogs, and some turns are not 90°.) There is no way of determining this fact from a route map. One would need at least some survey-map knowledge of Pittsburgh to be able to determine this direction. (90)

The "survey-map knowledge" that Anderson advocates in this passage is akin to the "memory" of "paper" maps that he had earlier claimed as being the basis of the formation of cognitive maps. In the case of the 3-D cartography of hypertextual space, the system of arranging nodes of information according to length, breadth and depth will provide the "survey-map knowledge" which, being a navigational standard, will help the user "determine the relative direction" between points. However, the route map will be equally important because the user will get to choose and define the "landmarks" and "reference points" for each navigational session. To relate hypertext's need for both route and survey maps to Ong's situational-categorical dichotomy, one may state that the system of spatial categorisation of hypertext will require comprehension through a survey map, while the promise of situationality will be fulfilled by the users' individual route maps. Indeed, each proxemic bubble will be based on a route map of individual preferences, and immediate situations. Thus, unlike Euclidean space, which is hard to manipulate, the situational variability of hypertextual space will allow the landmarks to be changed, while the spatio-visual format of the GUI will maintain the integrity of the relational logic of the "survey
map" of the environment. Like Altheide's "formats" (see Chapter 3), the GUI will provide the "transsituational" basis for defining the "time, place and manner" of the interpretive "occasion" (Altheide, 38), even as the subjects of interpretation are changed, situationally, by the user.

In discussing the concepts of route maps and survey maps in the light of hypertextual spaces, it is helpful to consider Downs and Stea's notion of "direct" and "vicarious" sources of spatial information. In his report, "Real and Virtual Spaces: Mapping from Spatial Cognition to Hypertext" (1990), Simon Shum writes:

Downs and Stea ... distinguish between different sources of spatial information, labelling them direct and vicarious. Direct sources refer to experiences at 'ground level' (experiencing the world at first hand) which are generally a reliable source of information about the environment. Compared to 'learning by doing,' vicarious sources are second-hand descriptions of places, such as verbal reports, maps, brochures, and television. According to the purpose of the communication (e.g. tourism; civil engineering; a military operation), each source abstracts over different kinds of information so that only appropriate kinds are left, targeting a specific audience.
In hypertext, the acquisition of information via direct sources corresponds to personal interaction with the hypertext, whether navigating at ‘node level’ (inspecting the contents of nodes and following links) or at ‘browser level’ work when only the titles of nodes are displayed (the more common mode of working when manipulating structure). The characteristic of a vicarious source is that it is a view of the environment through another’s eyes — detail has been filtered. In this sense, graphical browsers of the structure may fall into this category, as users acquire map knowledge without having to actually visit the places themselves. (140-1)

Shum’s reading of Downs and Stea not only bridges the theory of route maps and survey maps to hypertext, but it also reiterates the difference between the direct/“node level” experience and the vicarious/“browser level” experience; a difference that I had considered, in Chapter 4, with respect to the example of flying. While being at ground level gives one a direct understanding of the “ugly, lovely” (Thomas) details of a city, it is the aerial view that allows one an airbrushed, relational overview of the space in question. While the route map, with its emphasis on landmarks, is part of the direct experience, the survey map, with its production of spatial relations that filters out all details, is vicarious.

If I were to revert to the instances of line-texts and grid-texts (discussed in Chapter 4), I would suggest that Crabbe’s The Borough is an undefined grid-text because it lacks a
survey map. Crabbe’s readers must rely on direct experience and, in negotiating the space of the *Borough/borough*, are left without a spatial overview that would map the relations between the different narrative nodes visited by the reader. Underlying Denman’s complaint against a lack of arrangement is his call for a vicarious source of spatial information; the vicarious sources, in this case, being the author and the narrator. Joyce’s *Ulysses* has Homer’s epic as a vicarious source of survey-map knowledge, although, as a grid-text, it also relies heavily on a combination of the user/reader’s direct experience and the resultant route map to forge the connections between the (vicarious) Homeric and (direct) Joycean axes. And such connections are fundamental to the successful navigational strategies that may underlie a reading of *Ulysses*. In its provision of vicarious survey information, however sparse, *Ulysses* falls under the sub-category of defined grid-texts. In contrast, a line-text such as *Great Expectations* or *Madame Bovary*, in setting out a less flexible narrative route, would minimise the need for survey-map knowledge. The route provided would be vicarious, and the survey-map knowledge of industrial England, provincial France, familial or social relations would be provided by the authors and narrators as a “read-only” grid (see Chapter 4) against which the route would be pre-mapped. The “read-only” grids of line-texts are the counterparts of powerful “paper maps” that the user is not allowed to discard completely in negotiating the narrative space of the text, and the “cognitive maps are [then] formed from memories of [these] paper maps.”

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Anderson's comment on the "memory of paper maps" relates to the notion of vicarious spatial information. A paper map is "a view of the environment through another's eyes" in which "detail has been filtered." This is unlike direct experience which, being at "ground level," includes details. And disorientation, at one important level, lies in not being able to reconcile the two sources of spatial information, in not being able to be Dylan Thomas' child-Dracula with enviable command of both street and air (see Chapter 4). The importance of detail lies in the cognitive importance of experiential "landmarks," while navigational ease demands an organising structure:

Assuming the existence of internal representations of spatial knowledge, researchers have understandably been interested to try to elicit and analyse them. In his seminal work on cognitive maps, Lynch ... obtained inhabitants' sketched maps of cities, and analysed them in terms of landmarks (salient visual features), paths (traversable routes), nodes (path intersections), districts (geographically defined regions) and edges (visibly defined boundaries to districts). Whilst the first three of these will be strikingly familiar to the hypertext community, districts with boundaries are less so. It is not always easy to explicitly mark regions on graphs or hierarchies, even if it makes sense to demarcate different sections. Given that regions clearly play an important role in everyday chunking of spatial information in memory — for instance, structuring concepts such as downtown, south of the river, second floor, top shelf, left margin — it should be of some concern to
hypertext designers tackling disorientation problems to capitalise on this human propensity to impose structure.

In some task domains, a graphical metaphor is one means of introducing regions unobtrusively: a medical hypertext could make natural use of the human body as the top level map, in which the head, torso and limbs form explicit regions which group related information; the same might be said of a car, or building. If, however, [the] material is of an abstract nature, the author does not have resources to create a graphical interface, or different views of the information are required for which the boundaries are unsuitable, the solution is less obvious. (Shum, 141-2)

Shum’s example of the “graphical metaphor” of the human body to aid the spatial cognition of a medical hypertext finds a very early precedent in what Mary Carruthers calls the “architectural mnemonic” of Roman antiquity (71-79), the organisational scheme of places and images recommended by the unknown author of the Rhetorica ad Herennium and by Cicero, among others. The “architectural mnemonic” is a “graphical metaphor” that provides a spatial schema for organising information in memory. In her classic study, The Art of Memory (1966), Frances Yates writes that the “clearest description of the process [of spatialising memory] is that given by Quintilian” in his Institutio oratoria, XI, ii, 17-22:
In order to form a series of places in memory, he says, a building is to be remembered, as spacious and varied a one as possible, the forecourt, the living room, bedrooms, and parlours, not omitting statues and other ornaments with which the rooms are decorated. The images by which the speech is to be remembered ... are then placed in imagination on the places which have been memorised in the building. (2-3)

Moreover, the unknown author of *Ad Herennium* writing around 86-82 B.C., almost echoes Anderson's emphasis on landmarks:

> The artificial memory is established from places and images ... A *locus* is a place easily grasped by the memory, such as a house, an intercolumnar space, a corner, an arch, or the like. Images are forms, marks or simulacra ... of what we wish to remember. (Yates, 6)

The importance of landmarks is related to the importance of “regions,” stressed by Shum as playing “an important role in everyday chunking of spatial information in memory,” and defined in Kaplan’s description of a “nonplanar networklike structure” as being “a collection of closely associated points.” If regions are important to the spatial organisation of information, then territorialised regions would provide the user with a double benefit. First, as an identifiable landmark, or set of landmarks, it will help users’ navigational strategies by relating to their direct experience of the space, and thereby corroborating their route maps.
Second, as part of a personal proxemic bubble, a territorialised region, defined in terms of one's own interests and needs, will have all the advantages of territoriality, from the "home-base" advantage and the protection of the ideational species, to the preservation of structure and cohesion, and the regulation of spacing and density.

A closed hypertext, with a graphical navigational metaphor, defines its territory and context. The graphical metaphor controls the regionalisation of information, and, as a territorialised region that is H/C, allows the user far greater control over the spatialisation of information. Thus, following the logic of the Roman rhetoricians, a modern medical hypertext may use the human body as "the top level map, in which the head, torso and limbs form explicit regions which group related information." The human body becomes the equivalent of the "spacious house" proposed by Quintilian in the first century A.D.:

Places are chosen, and marked with the utmost possible variety, as a spacious house divided into a number of rooms. ... The first notion is placed, as it were, in the forecourt; the second, let us say, in the atrium, the remainder are placed in order all around the impluvium, and committed not only to bedrooms and parlours, but even to statues and the like. This done, when it is required to revive the memory, one begins from the first place to run through all, demanding what has been entrusted to them, of which one will be reminded by the image. (Institutio oratoria, III, iii, 4, quoted by Yates, 22).
In the case of developing a browser interface for hypertext, one may then externalise the internal “image” proposed by Quintilian, by means of a “graphical metaphor.” Using modern hypertext-authoring software, one may well create a programme called, say, Quintilian’s Castle, in which information may be posited in a series of virtual spaces according to the ancient principle of divisio (dividing texts into short segments for memorising) and compositio (ordering the segments). As a comprehension aid, the design would prompt the division of, say, an educational text into different conceptual parts, each of which would be posited in a part of the “castle.” On “walking” through the “castle,” users would be able to retrieve selected bits of information, or they may use a “walk-through” to help them assimilate the text for learning purposes. As a presentation aid, users could organise data into a viable presentation (say, an argument/thesis) with the help of the architectural logic of the “castle.” In attempting to assimilate (or present) a complex set of information, modern users (say undergraduate students) could then apply the principles of architectural mnemonics to aid them in their comprehension (or composition) of a paper or an essay. Through the use of the “graphical metaphor” of a castle, the programme would allow users a survey map (the design/s of the “castle”) to explore virtual (spatial) environments, while their own interactions with the design would accommodate their direct experience of the “information space” and allow them to customise their own organisational “regions.” Such a programme could be used to aid the organisation, assimilation and presentation of information, and to
help create an organisational metaphor for use in a home computer (replacing, say the "desktop"), and for interacting with more complex databases.

However, as in the case of the medical hypertext, a programme like our hypothetical Quintilian's Castle will be best suited for a closed and defined hypertext environment (e.g., a medical hypertext on CD-ROM or Intranet, or an educational software using the metaphor of the castle). As Shum warns in his report, the promise of such definite graphical metaphors becomes somewhat limiting when the "material is of an abstract nature, [and] the author does not have resources to create a graphical interface, or different views of the information are required for which the boundaries are unsuitable." A programme like Quintilian's Castle, or the human body for the medical hypertext, would rely on a graphical metaphor that would have to be very well defined in order to make the survey knowledge intuitively comprehensible to the user within a H/C situation. At the same time, the rigidity of the definition would prevent the use of the metaphor for the open web which, like Kaplan's "nonplanar networklike structure" is three-dimensional, continuous and variable. It is this continuity, variability and use of depth that will have to underlie the new environment for hypertextual space.
5.3 A New Cartography: Review and Reflection

Borrowing from Kaplan’s description of his “nonplanar networklike” space, one may list the following characteristics as being salient to the proposed hypertextual cartographic environment:

1. The space described is three-dimensional. Being nonplanar, the space uses length, breadth as well as depth, a dimension that is seldom used in computer applications other than games. The use of depth will make “Direction” a “meaningful concept,” as advised by Kaplan, since it will be “possible to move toward or away from any given point, with reference to other points in the net.” The computer “desktop” is based on 2-D space. However, as evident in the highly sophisticated use of depth in games, the technology for using 3-D environments in navigating hypertextual networks is already current and prevalent in certain popular areas of computing.

2. The space described is continuous, a point that is made by Kaplan in the passage cited above. The continuity may be made visually comprehensible as a function of screen depth.

3. The space is variable. Given the situationality of hypertext, the different points will always shift in accordance with the needs of the individual user. This may be enabled
by differing the arrangement of “points,” sometimes removing some of them, and at
others, highlighting them. The grouping of “points” will result in a “region,” which is
defined by Kaplan as “a collection of closely associated points.” The re-grouping of
“points” will result in a change of “regions” which, in turn, will underlie the
variability of hypertextual space.

Assuming hypertextual space to be “nonplanar” and “networklike,” and keeping its
three salient features in mind, I shall briefly discuss three software packages that have most
inspired my reflections on a new browser interface for hypertext navigation. The software in
question are Thinkmap™, SemioMap™ and Themescape™, and each package has a fundamental
design principle which, I believe, would contribute to a successful GUI for Nelson’s next
generation of “hypernauts.”

I first encountered Thinkmap through the Plumb Design Visual Thesaurus, “an online
experience that is both an exploration of the English language and a demonstration of Plumb
Design's Thinkmap software” (Online: Internet). The Thesaurus may be found at
http://www.plumbdesign.com/selected_work/visual_thesaurus (1 June, 2002), and readers of
this dissertation are strongly encouraged to visit the site and experience the Thesaurus at first
hand. Using data from the WordNet database developed by the Cognitive Sciences
Laboratory at Princeton University, the Visual Thesaurus uses a dynamic interface, so that
users “encounter a swirling nebula of words connected by a series of fine lines that represent sense relationships.” Users click on words to call up related words from WordNet, thereby “creating a web of relationships that demonstrate linguistic associations and dependencies.” The Thesaurus gives users the option of 2-D and 3-D spaces, in which “[w]ord forms that are more related become brighter and closer, those that are less related disappear from the display” (www.plumbdesign.com/projects/thesaurus.html, 20 February, 2000).

The Visual Thesaurus is created by Plumb Design\textsuperscript{48} and was launched on the Web in February 1998. The visual technique of the Thesaurus displays the brilliance of Thinkmap, a tool that has been used by Plumb Design to create navigation aids for such sites as the Smithsonian’s Institution’s “Revealing Things” exhibit, the Smithsonian’s first exhibition to be created specifically for the Internet (www.si.edu/revealingthings, 1 June, 2002). Among their more commercial sites, Plumb Design used Thinkmap as a navigational tool for the Bacardi site, at www.bacardi.com. However, it is the Visual Thesaurus that demonstrates the display technique of Thinkmap most comprehensively:

Thinkmap\textsuperscript{TM} is a powerful tool for displaying complex information. It makes a collection of objects or information into a striking animated display that encourages interaction.

Although Thinkmap generates graphical representations of data, it does not produce static

graphs, but rather kinetic displays of multidimensional information that link directly to complex data sources. Thinkmap gives users the ability to understand complex interdependent information.

Thinkmap is responsive. Users click on objects and the display changes instantly. There are a number of possible user interactions. Users can click on any visible item in the display, which pulls in more data. The item chosen becomes the display center, instantly changing the balance of relationships throughout the graph. Users can also search the data displayed by using a simple form. ("What is Thinkmap?", www.thinkmap.com, 20 February, 2000)

The primary reason for my interest in Thinkmap is that the display technique is based on an acknowledgment of a continuous information space, the first condition derived from Kaplan’s description of his “nonplanar networklike structure.” By using screen depth to achieve “kinetic displays of multidimensional information,” Thinkmap first recognises the need to develop a visual space within which to present information-loci (“A locus is a place easily grasped by the memory,” Yates paraphrasing the Ad Herennium, quoted earlier), and then qualifies this space as being nonplanar, networklike and continuous.
By acknowledging "a number of possible user interactions" so that the "item [of data, or information-locus] chosen becomes the display center, instantly changing the balance of relationships [between the "center" and the other information-loci] throughout the graph," Thinkmap upholds the principle of situationality that underlies the variability of hypertextual
space. Indeed, Thinkmap operates on the basis of accommodating a user’s direct, situational needs within standard spatialised relations, by allowing the individual user the power to define a route map within the external logic (or “survey-map knowledge”) of the information space:

Although the universe of information might remain the same, every user action can alter the position and strength of object-relationships. The relationships between items in the database are not absolute and over-determined, but dynamic and subjectively conditioned by the viewer. …

Thinkmap does not require the publisher/author to make a-priori decisions about the data structure. Thinkmap develops organizational structures through an algorithm that calculates object positions depending on the rules defined by the creator. Each item of data is a self-acting object that determines its position in two- or three-dimensional space through comparing its position to other items in the visible data set. …

With Thinkmap, both the creator/publisher and user/observer are able to adjust the behavior of the graph. The creator/publisher defines the basic structure, the user/observer can re-weight elements of the graph in real-time. This control allows for different levels of control depending on the desires of a user. By re-weighting the information, a user can

Thinkmap’s weighting technique corresponds to the definition of a hypertextual proxemic bubble, whereby, on switching on a Web browser, the individual user will be entering his or her own sector of the Web. By defining the “basic structure” at set-up level, the user, like the Thinkmap’s current users at the publishing level, will be able to set up the parameters of the individual, customised “bubble.” “By re-weighting the information” and thereby bringing “a new understanding to the data at hand,” the user can then use the bubble to navigate the open web of information with relative ease.

However, while Thinkmap provides us with a powerful display technique that remains a good example of what a future generation web browser may look like, there are a couple of important factors that would prevent its being used as a general web browser in its current form. First, the display takes into account the need to visualise relations between information-loci, but does not necessarily provide a complete overview of the information spread. This is akin to providing one with a great map of the neighbourhood, while failing to back it up with a map of the town or the city, should the navigator have need of the latter. This makes the Thinkmap a very useful tool for closed webs, but limits its power in the realm
of the open network. In fact, even in a closed web such as the Visual Thesaurus, the size of
the WordNet database is not made intuitively clear to the user.

This leads us back to the molar/molecular problem discussed in the previous chapter.
While a "hard copy" version of the WordNet database would give users an idea of the size
and the spread of the entire datafield, and therefore an idea of the spatial negotiation required
to obtain a particular piece of information, the Visual Thesaurus gives the user a molecular
view of the connections between the various data-loci. Of course, unlike "hard copy," the
Visual Thesaurus constantly, and instantly, changes the spatial logic so that the nature of the
molecular network, displayed on the screen, may vary from moment to moment. In a "hard
copy" dictionary or an encyclopaedia, the relational logic between information-loci is fixed
(usually in an alphabetical order), and therefore the space of negotiation and navigation
remains unchanged. However, given the size of an open web, and the contribution of the
tension between molar and molecular perception to disorientation (see Chapter 4), there
remains a need for an "overview" display technique to augment the current display technique
of Thinkmap, in considering it as an inspirational model for a general browser interface for
the Internet.

Moreover, even as Thinkmap makes the "center" and its links to other data-loci very
clear, and gives the user the opportunity to define the visual depth of the space by setting the
“horizon,” it does not allow one to conceptually determine the horizon beyond which the display would fade. It is with respect to the lack of an explicit logic of distance, that I shall briefly refer to CZ Web, a graphical navigational tool for the World Wide Web intended as a companion to Netscape Navigator\(^9\). In their paper, “A Distorted-View Approach to Assisting Web Navigation,” Gérald Collaud\(^{50}\), John Dill\(^{51}\), Christopher V. Jones\(^{52}\), Paul Tan\(^{53}\) describe CZ Web:

Our prototype displays a network in a rectangular 2-D display space. The display space is sub-divided recursively into smaller rectangular areas, thereby creating a hierarchy of nested rectangles. The hierarchy results from imposing a hierarchical organization on the nodes of a network (or graph, in graph-theoretic terminology). We define two types of node: clusters and pagenodes. A pagenode represents a Web page in a document icon. A pagenode is unique and is recognized by its URL. ... A cluster is a combination of pagenodes and possibly other clusters [.] (Online: Internet)

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\(^9\) I mention CZ Web only to draw attention to issues of the spatial representation the degree of importance (DOI) and a priori importance (API) of displayed nodes of information. As a navigational aid that works within the current bibliographic metaphor of “pages,” as a companion to Netscape, CZ Web falls in a somewhat different category than the proposed interface inspired by Thinkmap, SemioMap and Themescape.

\(^{50}\) Faculty of Business Administration, Simon Fraser University

\(^{51}\) Graphics and Multimedia Research Laboratory, Center for System Science, Simon Fraser University

\(^{52}\) Management Science Department, School of Business Administration, University of Washington

\(^{53}\) Graphics and Multimedia Research Laboratory, Center for System Science, Simon Fraser University
While CZ Web does not use screen depth or 3-D space to fully explore the relationship between complex information-loci in a network, the authors of the paper on CZ Web make the logic of the distance between pagenodes clear:

Not all nodes need be visible at all times. We use ... three strategies [...]. First, CZWeb distorts a portion of the image depending on the number and location of foci of interest. ... Second, we fade those parts that are progressively less important [...]. Third, different levels of abstraction range from a gray rectangle (closed cluster) to a full page representing a web site.

All of these methods depend on the degree of interest of each pagenode. The degree of interest (DOI) of a pagenode x is a function of the a priori importance (API) of x and of the distance (D) between x and the focus:

\[ DOI(x) = API(x) - D(x,f) \]

The degree of interest thus increases with API and decreases with the distance.

In a graph, \( D(x,f) \) has two natural representations. One is the number of pagenodes that must be traversed to go from the foci to x. The other one is the Euclidian distance
between x and the focus. In a first step, our prototype will implement only the first solution.

\[ API(x) \] is determined by up the number of visits a user makes to pagenode x during a session. (Online: Internet)

However, even as the Thinkmap Thesaurus uses sophisticated graphics to create a sense of depth (the “horizon”) to represent the relationship between the different “word forms” in terms of distance, it does not make the relationship between the DOI and the API of each “word form” (and its subsequent translation into distance) clear. The user does not even get to choose how the conceptual depth may be determined by, say, the number of related words (the Thesaurus’ equivalent of CZ Web’s “number of pagenodes that must be traversed to go from the foci to x”). The “horizon” becomes more of a visual aid than a visual tool.

Finally, as evident in the Thesaurus, the constant movement of the words (the information-loci) has some potential for confusion. The user is tempted to chase and catch the word of choice, instead of navigating at his or her chosen pace. The “striking animated display” that underlies the “kinetic” visual logic of the Visual Thesaurus, powered by Plumb Design’s Thinkmap, creates the impression of being in a vehicle that cannot stop moving. Much like a helicopter that needs to keep its rotors turning if it has to pause in mid-air, the
Thesaurus keeps swirling its words before the user's eyes. A hypertext browser must give the user occasion to pause and consider. In this, the browser ought to be more like a car that may be parked at the side of the road for the driver to be able to consult the map, and survey the route taken so far. While a navigation bar at the bottom of the Visual Thesaurus generates a string of words covered in the session, there does not seem to be any display mechanism that allows the user to revisit the navigated route. The string of words at the bottom of the screen forms an index (like the conventional search engine's yield-list), but does not visually replicate the networked relationships (the path) that prompted the user to choose the particular route(s) over others.

Unlike the Visual Thesaurus, SemioMap presents users with an overview of the information spread and includes a search trail to help users re-assess the navigational strategy. SemioMap is a "text mining software" developed by Semio Corporation (www.semio.com). The Semio engine yields taxonomic results, rather than directories:

Most of us have used Yahoo. Yahoo features a directory that categorizes URLs into groups that meet their users [sic.] needs. These directories are built manually by examining URLs and determining where in the directory they fit. Directories categorize known things into groups. Taxonomies feature a structure that looks Yahoo-like but is built upon concepts. A directory of annual reports might categorize these reports by year
and by SIC code. A taxonomy would categorize the concepts in these reports into a
browseable hierarchy. While both directories and taxonomies serve a useful purpose,
most corporate portals are focused on taxonomies because the underlying information
content is not known. ...

Semio’s principal offering is a service based upon its patented software that automates
the linking of concepts to customer-defined taxonomies. (www.semio.com 20 February,
2000).

The Semio engine also differentiates between “documents” and “concepts”:

While taxonomies are inherently about concepts, most of the current manual
implementations are limited to classifying documents within the taxonomy. This is a
matter of practicality rather than preference. There are simply not enough resources in
most organizations to attempt to identify all of the concepts within a document. The
resulting taxonomies, however, do not achieve the goal of allowing users to quickly
locate the information they need. There are also a few computer-based solutions that use
documents as the element of classification within the taxonomy. These solutions, while
offering some relief from the burden of doing things manually, suffer from the same
drawbacks as document-oriented manual systems. In contrast, Semio’s technology is
unique in its ability to classify concepts in a browseable hierarchical taxonomy. This approach allows users to find the information they need quickly and effectively. (www.semio.com 20 February, 2000)

Figure 8: Screenshot of SemioMap

(http://www.semio.com/img/semiomap.jpg; 2 June, 2002)
While Semio's search algorithm claims corporate mileage for going beyond keyword parsing and relevance ranking, it is the technique employed by SemioMap to display search results that is of particular relevance to the current consideration of graphic browsers. SemioMap "graphically presents how the key concepts in the text are related" in order to "[u]ncover the 'narrative' in an unstructured mass of text" (www.semio.com 20 February, 2000). The "text mining software" retrieves text, HTML and PDF documents and then displays them as a visual pattern of "nodes," "relationships," "clusters" and a "search trail." Nodes represent concepts; a deep node offers additional, and usually more specific information, while a shallow node offers no additional concepts. Relationships show links or connection lines between nodes, and a cluster is a network of nodes that are directly or indirectly related. The search trail charts the user's navigational path, thereby allowing an overview of the route(s) taken in a particular navigation session.

SemioMap is part of a new line of software that presents information as "topography." This allows users an overview of the information spread and reduces disorientation. The value of "topography" to present customised information is made explicit by the "landscape" metaphor used by Themescape:54

At the time of writing the first draft of this chapter (February, 2000), Themescape was a product of Cartia (www.cartia.com). However, at the time of the present revision (November, 2001), I could not find Cartia at www.cartia.com. A Google search revealed several cached references to Cartia's Themescape, notably on academic sites referring to Themescape's principle of presenting an "overview." Further investigation revealed that Cartia Themescape is now Aureka Themescape. However, the passage quoted above was taken from the www.cartia.com site, a site that no longer exists. An equivalent passage on the Aureka Themescape page is: 251
Using ThemeScape is like looking at information from 30,000 feet; it shows you what information is available in a collection of documents before you start reading. Every document and web page is organized onto a topographical map based on the information it contains, so you can immediately zero in on areas of interest. (www.cartia.com/products/index.html, 20 February, 2000)

The power of Themescape lies in “creating an information landscape that conveys a tremendous burst of information” (www.cartia.com, 20 February, 2000). The “tremendous burst” is a result of the “overview” of the information spread that the landscape metaphor allows the user. As the following screenshot shows, Themescape does emulate a conventional map in presenting its yield of information. The aerial metaphor used in Chapter 4 finds graphical realisation in Themescape’s display technique.

“To achieve a 30,000-foot view on innovation assets, the Aureka platform offers a powerful text analysis tool that generates topographical maps based on the words contained in a large collection of patents and other non-patent documents. ThemeScape allows you to quickly zero in on those documents worth further study. It recognizes and presents the most frequent word patterns in the collection, as well as the relationships among documents, as a topographical map.” (http://www.aurigin.com/aureka.html#themescape, 1 June, 2002).
The organisational principle is remarkably simple: documents with similar content are placed together, and a cluster of closely related documents results in a “peak.” The higher the concentration of topics, the higher are the “peaks.” The “topic labels” may be elaborated to reveal the specific bits of information. “Document points” show unclustered documents in the “valley” between “peaks,” while blue dots mark query results, numbered dots represent top documents and flags mark the location of important documents in the map.
Figure 10: Screenshots of Themescape (2) (www.cartia.com; 20 February, 2000)
The landscape metaphor used by Themescape helps users navigate by incorporating “goal information” into the navigational “rules,” one of the suggestions made by Mantei in her dissertation (see Chapter 4) to reduce disorientation. The use of a clear metaphor creates a spatial encoding system that the user can comprehend intuitively and which therefore reduces the risk of getting lost or confused.

However, while SemioMap and Themescape are great providers of the “overview” of the information-spread, they do not share Thinkmap’s visual acknowledgment of the nonplanar network, or the quick variability of the information space by a constant re-definition of landscapes, clusters and regions. While Themescape uses relief as a visual indicator of relations, Thinkmap’s use of screen depth (the “horizon”), however sparsely defined, holds promise of a spatio-visual representation of the condition of nonplanar “continuity,” as stated by Kaplan in describing his “structure.” With its exceptional use of screen space to explore the dynamic relationships between information-loci, and by allowing the user to see the immediate and dramatic result (in visual form) of altering the relationships by re-defining the “center,” Thinkmap creates a direct, “ground-level” navigational experience. SemioMap and Themescape, on the other hand, give users the hypertextual counterpart of an aerial view; a metaphor that is explicitly used by Themescape’s “information from 30,000 feet.”
While all three of the programmes are vicarious sources of information, in that they may filter out detail and provide information through a point of view not that of the user’s natural perceptual equilibrium (see Shum, cited above), Thinkmap creates an impression of being a more direct source of navigational information, by placing the user in the perceptual “center,” than Themescape, which positions the user a figurative 30,000 feet above the information spread. Given the fundamental properties of Thinkmap, SemioMap and Themescape, and the need to incorporate both direct, “ground-level” perception and an aerial “overview” or survey knowledge to aid navigation, I shall conclude my dissertation by reflecting upon the idea of a GUI for hypertextual webs, based on two simultaneous visual metaphors: the windscreen view and the bird’s eye view.

In reflecting on a GUI for “hypernauts” of the future, I shall focus on the possibility a practical framework that would allow browsers to emphasize the spatio-visual dimension of hypertext. The shift in cognitive emphasis from the individual document to the network, from the bibliographic to the spatial, in negotiating hypertext, will reduce the potential for diegetic disorientation by removing the bibliographic from its current position of supradiegetic equivalency with the spatial; instead, users will operate within a spatial supradiegesis, and any reference to the bibliographic will be as diegetically non-intrusive as any reference to “going to pages” is to our act of negotiating the codex, today (see Chapter 4). By changing the corresponding vocabulary to reflect the spatial supradiegesis, and by locating the users in
a spatio-visual framework, the emphasis of hypertext negotiation will shift from the visible, individual frame at the hypertextual surface, to the organizational grammar of its linkages. In reflecting on a GUI for hypernauts of the future – based on two simultaneous visual metaphors: the windscreen view and the bird’s eye view – I shall seek to match features drawn from Thinkmap, SemioMap and Themescape, with my own theoretical propositions, to focus primarily on the pedestrian rhetoric of hypertext navigation.

A good example of the windscreen view may be found in the Plumb Design Visual Thesaurus. As the name suggests, the computer screen would be the counterpart of the windscreen of a vehicle, so that upon entering one’s personal portal, or hypertextual proxemic bubble, one would be perceptually aligned with the “centre,” just as, in driving, one would have a focal point looking out of windscreen of the car. In the place of a homepage, the bubble would present a visual environment. This “centre” would operate as the homenode and would be pre-defined by the user. The related nodes would be arranged individually, or in clusters, depending on similarity and the relationship between the different information-loci. The arrangement of the other nodes of information would be in relation to the “centre” and would extend all around it, as well as behind it.

The distance and position of each node would be a function of its degree of interest (DOI) which, in turn, would be determined by a combination of the a priori interest (API), as
determined by the information publisher at "compile time," and the situational interest (SI), as determined by the user at two levels. The first level would be that of setting the parameters of the proxemic bubble. Thus, a user may choose to weight India over the United States as a general principle, because of personal associations with the country and the culture. At the second level, which would be more immediate to the search, the user may specifically search for software manufacturers, which would weight Bangalore (the silicon capital of India) over, say, Varanasi (a pilgrimage and tourist destination). As the spatial environment is nonplanar, the windscreen view would be akin to being within a spherical atmosphere. Thus nodes may be arranged all around the "centre," and, upon selecting a node, the user would bring it to the "centre" which, in turn, would re-align the relational space of the nodes around it.

The depth of the screen would be determined by a "horizon" beyond which the nodes would fade completely. The last visible nodes (at the "horizon") would be called "outposts." As a visual conceit inspired by Gadamer's use of the word, the GUI's "horizon" would be the point beyond which the automatic interpretation of the immediate context (the screen/bubble) would cease. In order to move beyond the "horizon," the user would have to navigate forward. This would result in a re-interpretation of the context, so that if one were to choose a node that was above and beyond the "centre" (c), this node would then become the second "centre" (c2). While (c) may have been a node on, say, software developers on Bangalore, (c2) may have a "topic label" (Themescape) proclaiming information on software retailers in
Bombay. While (c) was the focal point, the “outposts” may have been about software developers in other Indian cities that are part of the industry, but do not share Bangalore’s lead. Upon bringing (c2) into central focus, the “outposts” may address topics about retailing culture in different parts of India. Thus, the “outposts” directly behind (c2) may deal with software retailers in Indian cities other than Bombay, while other nodes and clusters surrounding (c2), both at the same depth level, and tending further back towards the “horizon,” may contain information about retailers of other commodities. By choosing (c2), the user would cause a shift in the “horizon” which is both an operational term (as used by the Thesaurus) and a visual conceit borrowed from Gadamer’s use of the term to explain contextual limits in interpretation. While drawing inspiration from Thinkmap, the windscreen view of the proposed GUI would differ from the Visual Thesaurus in that the various “word forms,” representing the nodes, would not be in constant motion. Motion would be achieved by a mouse-click on a particular node, which would then re-position itself in the “centre,” thereby re-aligning the other nodes and causing a shift in the “horizon.”

Upon right-clicking on a particular node, the user would be presented with a short “taxonomy” (SemioMap) of specific information under the “Topic Label” (Themescape). I emphasise the brevity of the taxonomic list because a long list would defeat the purpose of the spatio-visual user interface. Moreover, I would propose that each item on the taxonomic list be qualified with one or a combination of four icons for: high verbal content, high audio
content, high pictorial content, and movie files. The labelling would not be a function of the author/publisher, but of the retrieval programme which would decide on a quantitative threshold (in bytes) for words, audio, static pictures and movies. If the selected bit of information crosses the threshold (either set as a default, or customised by a knowledgeable user), of any one category, the relevant icon would accompany its heading.

Because the "horizon," "centre" and "outposts" could be shifting constantly, in accordance with the immediate needs of the user, and because the windscreen view would only offer the user a view of the immediate navigational space, it would aid route map knowledge, while denying the user an "overview" of the space traversed, and therefore any "survey-map knowledge" (Anderson) of the information spread. It is to fill this need that I propose a corresponding bird's eye view which, following Themescape, would allow the user a topography of the information space, even as it would borrow the "search trail" from SemioMap's display technique. The idea of a dual-display is already current in aviation where a navigator lacks visible landmarks (route map information) to help steer the craft to

55 While this method of indexing is more quantitative than qualitative, and does not solve the problem of finding a way to index pictures at source, and does not account for a calligram (see Chapters 1 and 2 for a detailed discussion of calligrams), it is a compromise that enables the users to make broad qualitative judgments about a piece of information that has already been situationally qualified in a spatio-visual environment. Moreover, while indexing is an integral part of ensuring the inclusion of "goal information" into navigational "rules" (Mantei), this dissertation (without the practical support of a technical team in Computer Science to back up ideas with concrete applications) can only propose ideas, based on a philosophy of disorientation and navigation (based on textuality and discourse), further backed by evidence of technological feasibility as evident in programmes currently in public or commercial use. Therefore, it is not possible, at this stage, to address such detailed questions about computing, as the qualitative indexing of images at source would raise.
its destination; the absence of landmarks, and near total lack of route map knowledge is mitigated by GPI and other systems. In navigating hypertext through the proposed GUI, the user would not lack landmarks. However, the sheer volume of possible nodes within a fairly small screen might make it difficult to keep track of one’s navigational path. While the search trail would be operational in the bird’s eye view, it could also work, through colour codes, in the windscreen view. Thus, while gray lines might announce links, a red line might display a navigated link. By highlighting the actual line, connecting two nodes, the GUI would shift the cognitive emphasis from documents to relations. Indeed, by emphasising the environment, based on a spatio-visual rendition of the relations between different information-loci, the new GUI would seek to achieve a cognitive shift from the bibliographic to the spatial, thereby truly justifying the term “navigation.”

5.4 Conclusion

In his paper, “Using Fish Eye Images in an Ipix-Free Manner” (4 July 1999), Ken Turkowski writes:

In 1986, Ned Greene published the seminal paper on environment mapping, Environment Mapping and Other Applications of World Projections, in IEEE Computer Graphics and Applications, November 1986, vol. 6, no. 11, pp. 21-29. In this paper he describes the
generation of such environment maps both synthetically and captured with a fisheye lens. He further uses these environment maps in two ways within a 3D graphics system: (1) to render an infinitely far away backdrop, and (2) to render realistic reflections off chrome-like objects closer to the viewer.

With Greene's preferred representation of the environment map as a polyhedron, it was possible to use a special-purpose 3D computer, such as those manufactured by Silicon Graphics or Evans and Sutherland, to display polygons, texture-mapped with the environment map, at interactive rates. These computers used a variety of input devices, such as a joystick or a trackball, to control the view (i.e. pan, tilt, roll, and field-of-view). Greene espouses the use of cubic environment maps over the more obvious latitude-longitude spherical parametrization found in fisheye projections, because of their better fit with the capabilities of these widely available 3D graphics workstations.

The speed of computers has advanced (100-fold) to the point today where much of this interactive 3D viewing can be done on personal computers. Witness the largest demographic group of 3D users: computer game players. Modern 3D computer games are richly adorned with texture-mapped surfaces making up a space that the player navigates throughout. (Online: Internet)
As Turkowski notes, the consideration of 3-D environments in computing is not new. Indeed, Ned Greene’s paper pre-dates VRML (Virtual Reality Modelling Language) by eight years. Joysticks and trackballs are quite common today and the current power of computing allows us to experiment with a variety of 3-D environments as a cognitive aid to virtual space.

The aim of this chapter was to discuss ways in which virtual space may be divided so that the pedestrian rhetoric of hypertext navigation does not lead to disorientation. Having discussed the sectorisation of hypertextual space, the next step was to consider ways in which the sectoral logic could be made spatio-visually comprehensible to the user. The underlying philosophy was the need to shift the cognitive emphasis from the individual document to the network, from the “page” to the information space, from the enclosure to the path, the individual utterance to the dialogic sphere. If a “format” is a standardised interpretive context, then the aim of the spatio-visual GUI of future hypertext browsers would be to emphasise the spatial format of the environment rather than the individual document.

At the same time, the sectorisation of hypertextual space into individual proxemic bubbles would permit the user to counter the content creator’s rhetorical force through the mediation of an individual H/C interface that would determine the interpretive context, operating on a visual conceit based on Gadamer’s “horizon.” Moreover, if the search engines
flag high verbal, pictorial, audio and video content for the user (who may change the threshold for such a flag), it becomes more difficult for the manipulative content creator to use traditional textual tropes. Thus, in searching for company reports, a user may choose to avoid high graphic content sites, because of the manipulative possibility of the visual image. On the other hand, if looking through legal sites relating to, say, mortgage rates, a user may well choose to avoid confusing, prolix sites in favour of those with graphs and charts. The individual interface would allow the user to ‘talk back’ at the author/publisher, thereby letting the user define “the (common) place of discourse and the (anonymous) space of its development” (de Certeau).

In discussing ideas for a future GUI for web browsers, I wanted to recognise the variability and continuity of hypertextual space. While the variability of hypertext is a result of its situationality, it is the spatial continuity of hypertext that allows its “ideational” “malleability” (Barrett), which in turn, makes the spatial categories closer to oral discourse. A closed web, such as a medical hypertext, while being flexible, is akin to a compound, while the open web is akin to a city. The rigid definition of a closed web would limit the situational possibilities, whereas it is the continuity of the open web that allows the malleability of spatial categories which, in seeming less rigid, subsequently prompt such terms as the “secondary orality” of hypertext.
In the previous chapter, I had noted that the two main types of hypertext disorientation are diegetic and vectoral disorientation. The aim of this, the concluding chapter of this dissertation, has been to argue that it is possible to minimise the use of the bibliographic metaphor, in favour of the spatial, given computing tools that are already in commercial use. Unlike tools such as CZ Web, which are proposed as being companions to existing browsers such as Netscape, I am arguing for a radically different interface that relegates the bibliographic "document" to a much lower level than it is today.

By pushing "documents" below a heading that is already grouped with other headings under the "Topic Label," which marks a node, and which, in its own turn, exists in spatial relation to other nodes in a 3-D spatio-visual environment, the importance of the bibliographic metaphor may be reduced to the point of non-interference. Moreover, the sectorisation of hypertextual space into an individual proxemic bubble would also cause a shift from the document (homepage) to the environment (homenode which exists at the "centre" of the information space). By allowing a dual view (windscreen and bird's eye), the user would be allowed the molecular experience of landmarks, while being able to gain survey-map knowledge of the environment. The "goal information" may therefore be embedded in both the "ground level" and the "overview" "rules," and one's position may be checked against both route and survey information.
If flying and walking simultaneously is the solution to hypertext disorientation, then that is precisely what the “hypernaut” must be able to do. A GUI that takes all these issues into consideration would give users wings and feet, so that they may, like Thomas’ child-Dracula, fly high over the streets of their chosen part of the virtual city, even as they may be aware of each and every pothole on the “ugly, lovely” ground of their meandering.
Afterword

In the course of my work as a management consultant, specializing in online environments, and the management of strategic online processes, I often have the opportunity of observing or conducting usability tests of our clients’ actual or proposed Web sites. The tests are usually conducted one-on-one; i.e., respondents, recruited on the basis of a variety of criteria, including level of Internet use, are observed interacting with a site, in a structured manner, as determined by a usability guide that is at the disposal of the researcher. Depending on the status of the interface being tested (a paper prototype, a partially functional online prototype, a full alpha version, etc.), these tests are often conducted on the basis of use-cases, involving goals; i.e., respondents are asked to use the site to achieve a goal (say, calculate the amount of savings required for retirement, or investigating mortgage rates, should the site be financial) that resonates with their user profile. The substance, nomenclature, taxonomy, design, lay-out and other elements of the site are then discussed and probed in the context of the individual respondent’s experience of the site in pursuing a series of goals.
At a recent set of tests for the Web site of a major Canadian bank, several respondents—whose level of Internet use was less than four hours a month—mentioned that the Home Page was cluttered. When asked what they would like to do next—should they want to use the site to achieve a goal—all of them mentioned that they would search for an overview of the information that was available on the site. When asked what the "overview" would look like, they all said that it would be a "page" with a list of all the links that one could click on the site. However, none of them clicked on the "site map" link that was visible on the Home Page. Upon probing, almost all of these respondents—who were novice Internet users—mentioned that they believed the "site map" link would lead them to a "page" that listed all the different branches of the bank, throughout Canada. They expected a map of Canada, and possibly the world, and a corresponding location of "sites" (i.e., branch offices).

While the issue in this anecdote here pertains to nomenclature—and involves novice Internet users—and is not particularly dramatic, it raises several important points.

First, the respondents' expectation of a list of links as an overview of the site was a result of the bibliographic metaphor employed by the Web page. Bibliography uses lists. When actually shown the list of links on the site map, virtually all respondents repeated their

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56 This is an anecdotal instance of disorientation, drawn from a corporate scenario, but which, I believe, serves to illustrate some of the theoretical claims made in this dissertation. Because the situation involves human subjects (for whom I do not have the clearance of the University Ethics Committee), as well as my clients (whose permission I have not sought in making this a formal case study in disorientation), I can only highlight a particularly benign instance of user-disorientation in negotiating a Web site in the most general, anecdotal terms; consequently, I have included this section in the Afterword rather than in a core section of this dissertation.
earlier complaint of too much information making the page cluttered. *What the respondents asked for was a clarification of the relationship between the links.*

Secondly, the respondents’ lack of familiarity with the vocabulary of the Internet — all of them used the Internet for less than four hours a month — resulted in their inability to comprehend the term “site map.” The subsequent confusion stemmed as a direct result of diegetic disorientation, as described in Chapter 4. Caught between the bibliographic and the spatial supradiegeses, they read the word “site map” in the most obvious, superficial terms. Because they were on a web page, they expected the overview to be a list. The spatial dimension of being on a web site — from which the term “site map” is drawn — was lost upon them, even as the list confused them and they wished for an elaboration of the relationship between the different nodes of information that comprised the information space circumscribed by the virtual domain of the site. The cognitive metaphor employed by the hypertextual surface blocked off the underlying, organizational grammar upon which the comprehension of the term “site map” relied.

While the anecdote related a comparatively harmless example, it is noteworthy that the respondents’ inability to find an overview — first in their incomprehension of the term “site map,” and then in their inability to delineate the different links between the links listed
by the "site map" - did result in their repeated failure to achieve their goals, and in their
going lost within the site. Moreover, as was clear from the tests, respondents - unless
informed by the researcher - were simply unaware of whether they had, at any given point,
succeeded or failed to achieve their goals. In their inability to relate the term "site map" to the
spatial cognitive metaphor, the respondents gave us an example - albeit, undramatic - of
diegetic disorientation; in their inability to comprehend the relationship between the different
links, once they arrived at the "site map," we find an instance - again, undramatic, but
nonetheless telling - of vectoral disorientation.

In order to remedy the situation, the Web designers were, of course, unable to change
the term "site map," given its conventional status among Web users. In a situation like this,
there are two broad types of solution that are sought by site designers to address the two
types of disorientation.

1. The spatial is completely suppressed in favour of the bibliographic. In suppressing the
spatial, in terms of the bibliographic, a Web designer would typically "clean" the list
of links that comprise the site map, and group them under topics on the basis of
taxonomy generated by users, through a variety of exercises and projective
techniques. The heavy - if not, sole - reliance on the bibliographic reduces the
possibility of diegetic disorientation, while the "cleaner" lists address the issue of
vectoral disorientation, by adding some direction to the process of negotiating the site.

2. Having suppressed the spatial, one relies on convention to erase all references to it through familiarity and non-engagement. Thus, one hopes that the respondents’ increased use of the Internet would engender familiarity with terms such as “site map,” to a point where the term would be recognized as a matter of habit, and its spatial origins would, as a consequence, not be questioned or even considered.

The suppression of the spatial by the bibliographic severely curtails the potential of hypertext, as discussed with reference to Benest’s proposal for a book emulator, and Nelson’s Xanadu “docuverse,” in Chapter 4. Indeed, as mentioned earlier, a parodic counterpart to such a process can be found in filming plays acted out on stage, and then screening them under the name of cinema. Such a move also enhances the manipulative potential of the hypertextual medium. Because the negotiator of hypertext is unaware of the invisible, underlying network of hypertext, they rely solely on the hypertextual surface, i.e., the individual page. The “publisher” of hypertextual information, on the other hand, is fully aware of both the surface and the underlying network of linkages, and can deploy this knowledge towards manipulative purposes.
The long-term solution – as argued in Chapter 5 – lies in contemplating a spatio-visual framework (for negotiating hypertext) that would enable the shift in cognitive emphasis from the individual document to the network, from the “page” to the information space, from the enclosure to the path, the individual utterance (see the location of hypertext in relation to the proposed triad of textual states in Chapter 3) to the dialogic sphere, from what Nelson calls the “document” to the “docuverse” of the Xanadu ideal. This might call for a radically different browser interface from what we use today; but the proposition is not unrealistic, as evident in the brief review (in Chapter 5) of software that already exists in the public and commercial domain.
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Appendix A: Strategy, Meaning and Intent

Note: The discussion that comprises this appendix was initially an integral part of the dissertation. It was later edited out to minimize digression from the central purpose of the project, which is — after all — not so much a consideration of Speech Act theory as it is an exploration of a particular issue in the field of Human Computer Interaction. As such, the following review does not claim to be a comprehensive elaboration on Speech Act Theory, but is intended to serve as the historical and theoretical context for some of the claims made on behalf of meaning and interpretation in the dissertation.

Speech Act theory, initiated by John Austin in How To Do Things With Words (1962) and extended by John Searle, among others, seeks to draw the context(s) of utterances, as well as the relationship(s) between speakers and listeners, into the study of language and communication. The very inclusion of the word “acts” in the naming of the theory helps define its emphasis on what Austin calls the “consequential effects” (102) of an utterance, and a speech act is conditional upon three fundamental factors: the context of an utterance, the intention of the initiator of the utterance, and the effect of that utterance on the addressee. Consequently, the three basic speech acts as discussed by Austin and Searle are the
locutionary act, which is an instance of communicative activity; the illocutionary act, which outlines the intentions of the speaker; and the perlocutionary act, which emphasises the effects of an utterance on the listener or the addressee.

However, before discussing the different types of speech acts in *How To Do Things With Words*, Austin makes "three rough distinctions between the phonetic act, the phatic act and the rhetic act" (95). The phonetic act, according to Austin, "is merely the act of uttering certain noises. The phatic act is the act of uttering certain vocables or words, i.e., noises of certain types, belonging to and as belonging to, a certain vocabulary, conforming to and as conforming to a certain grammar. The rhetic act is the performance of an act of using those vocables with a certain more-or-less definite sense and reference" (95). In crudely generalised terms, one may say that the phatic act is locutionary, while the rhetic act is either illocutionary or perlocutionary, depending on whether the "sense and reference" are derived from the intention of the speaker or whether they communicate the effect of the utterance on the listener or the addressee. While the phoneme is a unit of sound, the pheme, according to Austin, is a unit of language, whereas the rhyme is a unit of speech. And even as Austin flounders about such vague qualifiers as "certain" and "more-or-less," he makes clear his emphasis on, first, the relationship between utterance, context, intention and effect, and, second, a distinction, however "rough," between erratic sound ("if a monkey makes a noise indistinguishable from 'go' it is still not a phatic act"), a linguistic and grammatical register,
as well as a context of "sense and reference"; all of which, playing between intention, effect, context and convention ("belonging to and as belonging to, a certain vocabulary, conforming to and as conforming to a certain grammar") places the analysis of the utterance within the parameters of its "meaning."

In his essay "What is a Speech Act?" published in 1965, three years after Austin's classic work, Searle, too, raises the question of "meaning" in communication:

Speech acts are characteristically performed in the utterance of sounds or the making of marks. What is the difference between just uttering sounds and making marks and performing a speech act? One difference is that the sounds or marks one makes in the performance of a speech act are characteristically said to have meaning, and a second related difference is that one is characteristically said to mean something by those sounds or marks. (228)

In this passage, Searle agrees with Austin in that a speech act ought to be performed within the parameters of a communicative standard. This standard was identified by Austin as being verbal, grammatical and contextual. But Searle raises an important point: a game, say chess, may have a communicative standard as defined by its rules which, in turn, are articulated in terms of the verbal (the terminology, the words and phrases used to define the pieces and the
moves), the grammatical (the functions of the various pieces and the rules of their engagement) and the contextual (the players and the specific game). However, Searle points out that the “pieces in a game of chess are not characteristically said to have any meaning” (228) and, in seeking an answer to what it is “for one to mean something by what one says” Searle refers to Paul Grice’s essay, “Meaning,” first published in the *Philosophical Review* in 1957 (Searle, 228).

According to Grice, to say that $A$ meant something by $x$ is to say that “$A$ intended the utterance $x$ to produce some effect in an audience by means of the recognition of this intention” (Searle, 228). Searle’s argument against Grice’s explanation of “meaning” is grounded in Searle’s need to establish the different nuances of “intention,” and the different ways in which this intention may be communicated to “produce some effect in an audience by means of recognition of this intention.” Thus if $A$ says $x$ in French, then $A$’s intention could be two-fold depending on the context. First, to a Francophone audience, the utterance will be recognised in terms of its verbal content and grammatical arrangement and will communicate a message whose comprehension will specifically require familiarity with the verbal register and grammar of the language in question; the communication will thus be based on what Charles Landesman, in his book *Discourse and its Presuppositions* (1972), calls “the grammatical and semantic structure (the G-S structure)” (21) of $x$. However, to an audience without any knowledge or understanding of French, but who can identify $A$’s
utterance \( x \) as being French simply from the way it sounds, the effect may be completely different: they may be led to believe that \( A \) is French or that \( A \) knows French, but the words and grammar (the G-S structure) of the utterance will not convey a message any more specific to the listeners.

While Searle uses the line of reasoning, as sketched above, to show the limitations of Grice's proposition and to claim that meaning "is more than a matter of intention, it is also a matter of convention," (230) I would argue that Grice's emphasis on communicative intent is not to be undervalued. According to Searle, a deceptive intent, which produces an effect that is radically incongruous with the G-S structure of an utterance, is not loyal to what Searle seems to perceive as "meaning" in linguistic communication. Searle uses the following example to make his case. An American soldier in WWII is captured by the Italians. In wanting the Italians to believe that he, the American, is really a German officer, he recites the only line of German that he knows, say, from a poem that he remembers from high-school (Searle chooses "Kennest du das land, wo die Zitronen bluhen?") in the hope that the Italians will not know the language and thus assume that the meaning of his German utterance is that he, the captured soldier, is really a German officer. Now, even if he is successful in achieving his communicative intent, Searle notes that it does not follow from the efficacy of his intent that "Kennest du das land, wo die Zitronen bluhen?" means "I am a German officer" (229-30). I would disagree with Searle's position and, in the next few paragraphs, shall attempt to
align meaning, not only with intent, but with communicative strategy. I shall revert to Searle's objection to Grice (on the basis of the G-S structures of statements) in the light of Ziff and Landesman later on in this section. But, for the time being, I shall focus on communicative strategy and deception.

Deception is a fundamental aspect of communicative strategy and, I would contend, a factor that plays heavily in speech acts. When Grice explains that to say that A meant something by x is to say that "A intended the utterance x to produce some effect in an audience by means of the recognition of this intention," his conception of meaning is based quite heavily on communicative intent; the play of that intent, within a certain context, and within the parameters of the communicator's knowledge of, or assumptions about, that context, being the communicative strategy of the initiator of the utterance. Thus, on the one hand, to say that A said x to B within the context C would mean that A wanted B to believe that x is true. On the other hand, A might say x to B in order to make B believe that y is true, should the context change from C to C'. This is not to say that the G-S structure of x will produce the meaning y in an audience reading the utterance in purely linguistic terms, just as in Searle's example, "Kennest du das land, wo die Zitronen bluhen?" does not translate, either grammatically or semantically, into "I am a German officer." But then, if the audience is able to read the utterance according to its G-S structure (i.e., in Searle's example, if the Italian soldiers speak or understand German), then the context itself has changed and the
strategy fails as the meaning changes. But given the context of the utterance, the initiator may use his or her knowledge or assumption of the context to plan a strategy such that the utterance will have an intended effect on its audience, deceptive or otherwise.

The utterance will be intended to "mean" something, i.e., bring about a belief in the audience that a certain state is true. The meaning of the statement will not lie in a "truth" or "falsehood" quotient attached to the "fact" argued by the grammar and semantics of the linguistic utterance and presumably verifiable by some register of "truth" or "falsehood" or "fact"; the meaning of the statement will lie in the fulfilment of the persuasion of the addressee into believing that the condition suggested by the utterance, within the assumed context, is true. In other words, meaning is not dependent upon the "truth-value" of an utterance but is instead the product of what Rushdie, in his novel *The Moor's Last Sigh* (1997), calls the communicator's "inventive commitment to the infinite malleability of the real" (272); this "malleability", as in the example of Searle's American soldier, is wrought by a strategy which is, in itself, dependent upon an assumption of the communicative context, and which seeks to establish only a "provisional sense of truth" (Rushdie, 272).

If speech is an "act," then communication is performance and meaning is more than "a matter of convention" as Searle argues; it is, I contend, above all, a matter of manipulation. The initiator of an utterance seeks to manipulate the audience into believing in
an intended state. The desire to manipulate, or what Grice calls the intent to “produce some effect in an audience by means of the recognition of this intention” (Searle, 228) is not always elaborately pre-meditated, but is mostly intuitive, and the process of “recognition” by which the addressee derives meaning(s) may well be based on a strategy of deception on the part of the initiator of the utterance. Thus Lacan, in his essay on “The Agency of the Letter in the Unconscious or Reason Since Freud,” first delivered as a lecture in 1957, the same year that saw the publication of Grice’s essay on “Meaning,” writes of “the sad plaint of the Jew to his crony: ‘Why do you tell me you are going to Cracow so I’ll believe you are going to Lvov, when you really are going to Cracow?’” (173).

Lacan’s example raises a “paradox of belief” as outlined by Landesman in Discourse and its Presuppositions. If $S$ makes a statement $T$ to $L$, say, “the cat is on the mat” (Landesman’s example), then there are, according to Landesman, “so far, two beliefs of primary importance”:

1. The cat is on the mat ($p$).
2. $S$ believes that the cat is on the mat.

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57 Please note: My use of this example from Lacan is purely opportunistic, as it illustrates Landesman’s “paradox of belief” better than any others that I have found. In exploring user-disorientation in navigating hypertextual environments, I have not interrogated Lacan’s theories and philosophy of language in any detail.
In making the statement $T$ to $L$, $S$ “intends to bring about that”

(a) $L$ believes that $p$,
(b) $L$ believes that $S$ believes that $p$,
(c) $L$’s reason for believing that $p$, is his belief that $S$ believes that $p$.
(d) $L$ believes that $S$ intends him to believe that $p$ on the basis that $S$ believes $p$.

(Landesman, 65-6)

However, what if $S$ says to $L$, “The cat is on the mat, and I do not believe it?” Then, following the logic of the former schema (“If $S$ states to $L$ that $p$, then $S$ intends to bring it about that $L$ believes that $S$ believes that $p$”), one deduces a paradox: “$S$ intends to bring about that $L$ believes that $S$ believes and does not believe that the cat is on the mat” (Landesman, 67-68). This is what Landesman calls the “paradox of belief.”

While Landesman’s statement (“The cat is on the mat and I do not believe it”) is hypothetical and frankly quite improbable, Lacan’s example craves analysis within the schema of intention, proposition, belief, recognition and effect. Thus, if $A$ says $x$ (“I am going to Cracow”) to $B$ in the hope of producing the effect $y$ (“I am going to Lvov”), then one may have the following schema:
(A) 1. $A$ is going to Cracow ($x$).

2. $A$ believes that $A$ is going to Cracow ($x$).

3. $A$ believes that $B$ believes that $A$ is lying; i.e., for $x$, $A$ believes that $B$ believes that $y$ ($A$ is going to Lvov).

It may then be said, in the light of the circumstances, that:

(A,) $A$ intends to bring about that:

(a) $B$ believes that $y$.

(b) $B$ believes that $A$ believes that $y$.

(c) $B$ has as a reason for believing that $y$ because $A$ has stated $x$.

(d) $B$ believes that $A$ believes that $B$ believes that $x$ (i.e., $A$ intends to bring about that $B$ believes that $A$ does not know that $B$ knows that $A$ is lying).

$A$ and $A_1$ show a communicative strategy based on the intent of the initiator of the utterance. Lvov and Cracow are not the same place; neither does the statement "I am going to Cracow" necessarily mean "I am going to Lvov," just as Grice, in his essay, points out that one's putting on a tailcoat does not necessarily mean one is going to a dance; for that matter, putting on a tailcoat does not have to mean anything at all (Grice, 216). The speaker
understands the context of the utterance (e.g., A3, in the schema above) and then manipulates it to produce a certain effect on the addressee “by means of the recognition of this intention.” Thus A assumes that B will recognise A’s intention to be y if A states x; and given that A wants B to believe y, A states x. It is in B’s knowledge of A’s strategy that A is shown not to have understood the context properly. The condition on which the strategy was formulated (A3) has changed and, as a result, objectives A1(c) and A1(d) are not fulfilled. Hence A fails to manipulate the context and is strategically defeated by B. The meaning of x is now generated by B’s strategic advantage; but it is still grounded in a response to A’s intent and contextual assumption.

A’s assumption that B will believe that A is lying is the context (c) within which A strategises the production of meaning. A’s strategy involves a play between A’s expressed intent (I) and desired effect (E), whereby A assumes, within condition C = context c, that E is a function of I, thus:

\[ E = f(I). \]

A’s strategy, like any communicative strategy, assumes that, within C = c, for any change in I, there will be a corresponding change produced in E. The meaning (M) of A’s statement, which is a performance, an act, a production of A’s communicative strategy with a view to
“consequential effects,” is the ratio of the change in E with respect to changes in I, when C = c; thus:

\[ M = \left( \frac{dE}{dI} \right)_{C=c} \]

It is when C changes from c to c_n that one has a rupture in the strategy. Thus, in the case of Lacan’s example, if C had been equal to c (i.e., condition A3 had been true), then the statement “I am going to Cracow” would have meant “I am going to Lvov”; similarly, the statement “I am going to Warsaw” may have meant “I am going to Cracow,” and the statement “I am going to Prague” may have meant “I am going to Warsaw.” To use a mathematical analogy, for every change in I (i.e., expressed intent, in this case, the name of a city) the desired effect E (in this case, the name of another, corresponding city) would be different and, on a graph, would have suggested movement along a curve. However, the change in C produces a different meaning \( M_x \) for statement \( x \) than that intended by the speaker, even though I still corresponds to E (i.e., “I am going to Cracow” still corresponds to “I am going to Lvov,” even though, in the addressee’s knowledge of the speaker’s strategy, the meaning changes). This is analogous to a shift of the curve itself (as opposed to a movement along the curve); indeed, it suggests a new curve altogether.
But $M_x$ is still a result of the communicative strategy that involves the play of expressed intent and desired effect in terms of the ratio of change in $E$ with respect to $I$, within a condition $C$ which as changed from $c$ to $c_n$.

Since meaning, intent, effect and context are not mathematical quantities, they obviously cannot be assigned numeric values and the notational representation of the relationship between meaning, intent, effect and condition/context, though borrowed from calculus, is only meant to serve as a conceptual model to establish the derivative nature of meaning within the strategy of an utterance. And while the emphasis on strategy tempts a
connection with some of the rudimentary principles of game theory, it is important to note that, as an utterance is devoid of mathematical quantities, and because it is free of absolute "truth" or "falsehood" quotients, it is, at this stage, best to distance a theory of meaning, in non-numeric communication, from any proposition or system that is the product of an exact science. Cracow does not universally mean Lvov, nor does any line of German poetry grammatically mean "I am a German officer." But for the statement \( x \), within the condition \( C \), the ratio of change in the desired effect \( E \) with respect to the explicit intent \( I \) produces a meaning which creates an equivalence between "Cracow" and "Lvov." The equivalence thus created is not mathematical, grammatical-semantic or indexical; it is performative and strategic, and the strategy and its assumptions are, in their turn, most often intuitive and extemporaneous. I would call the creation of this equivalence by an utterance, the meaning of that utterance.

To continue my argument in favour of meaning as a result of a strategic play between explicit intent and desired effect within an assumed context, and to further examine indeterminacy within such play, I would cite Stanley Fish's example from his celebrated essay "Is There a Text in this Class?" (1980). Fish initiates his discussion with an anecdote of a student who asks her teacher "Is there a text in this class?", to which the teacher responds, "Yes; it's the Norton Anthology of Literature," thereby prompting the student to clarify, "No,
no, I mean in this class do we believe in poems and things, or is it just us?” (305). Fish writes:

She [the student] tells him [the teacher] that he has mistaken her meaning, but this is not to say that he has made a mistake in combining her words and syntax into a meaningful unit; it is rather that the meaningful unit he immediately discerns is a function of a mistaken identification (made before she speaks) of her intention. (311).

If one compares Fish’s anecdote to Searle’s hypothetical situation in which an American soldier in the Second World War finds himself captured by Italians, then one can argue that, while in Searle’s example, the Italians’ assumed ignorance of German would aid the production of a meaning (“I am a German officer” or “I am German”) that is completely free of the G-S structure of the utterance (“Kennest du das land, wo die Zitronen bluhen?”), in Fish’s example the “trap” lies in the existence of “two (or more) possible meanings of the utterance” (Fish), both of which are bound by the G-S structure of the statement (“Is there a text in this class?”). According to Fish, the addressee in his anecdote “has not misread ... but mispreread” (311). And while Fish forwards his explanation of “mispreread”-ing from the point of view of the addressee, one may explain the situation in terms of communicative intent, much like my earlier discussion of Lacan’s example:
1. the initiator of the utterance misjudged the context within which the statement was meant to produce a meaning, the strategic context being what Fish calls the "structure of interests" from which the statement "arises" (Fish, 311); and

2. in this misjudgment lay the failure of the communicative strategy which produced a rupture in the differential relationship between expressed intent and desired (consequential) effect as conceived by the speaker.

The indeterminacy of the meaning of the statement lay in this rupture, as a result of the (failed) communicative strategy that involved the play of expressed intent and desired effect. In other words, indeterminacy, while valid, is not open, but operates within limits (however broad) that have been set upon an utterance by a communicative strategy and by the number of available contexts, one of which is assumed by the speaker, while the others are sprung upon the initiator of the utterance by the addressees. And the importance of these limits lies in the fulfilment of the three basic communicative conditions that Fish lists in concluding "Is There a Text in this Class?":

(1) communication does occur, despite the absence of an independent and context-free system of meanings, that (2) those who participate in this communication do so confidently rather than provisionally (they are not relativists), and that (3) while their
confidence has its source in a set of beliefs, those beliefs are not individual-specific or idiosyncratic but communal and conventional (they are not solipsists). (321).

Such is the method in the madness of variance and indeterminacy in meaning, and to further clarify Fish’s third condition, one may add that the “communal and conventional” beliefs are not necessarily related to the G-S structure of a language. In Searle’s example of the American soldier, it would be the Italians’ “communal and conventional” belief in matching a certain sound with a certain language (German) that would (in their ignorance of German) lead them to the production of a certain meaning. And in such an exercise in the “malleability of the real” (Rushdie), meaning will be ascertained by practical consequences arising from a “provisional sense of truth” (Rushdie, *Moor’s Last Sigh*, 272).

However, while I have attempted to elaborate Grice’s emphasis on intent into a pragmatic theory of meaning as a result of a strategic success or failure, it is important to note that in his essay “On H.P. Grice’s Account of Meaning,” published in *Analysis* 28 in 1967, Paul Ziff objects to an overly intent-based notion of meaning, presenting several examples to make his case. One of Ziff’s arguments is adapted by Landesman in *Discourse and its Presuppositions* to make the point that the meaning of a statement (say, in English) can be “directly determined by interpreting the sentence in the light of the knowledge of the English language; there is no need to make inferences to the speaker’s intentions”:

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Suppose S utters, "The cat is on the mat" on three occasions on the same day: on the first occasion he speaks it to himself, on the second to L, and on the third he speaks it while delirious with fever. On the first and third occasions, it is implausible to ascribe to S any of the aims listed in schema (A) [i.e., in "speaking the sentence T, S intends to bring about that: (a) L believes that p, (b) L believes that S believes that p, (c) L has a reason for his believing that p his belief that S believes that p"]], and yet one can say on all three occasions he has made the same statement. (Landesman, 65, 69)

Landesman uses this example to show that "meanings are objective and common and not a function of [the] present psychological states" of the speakers; indeed, this is why "speakers can understand each other" (Landesman, 69). However, there may be several ways of responding to such an objection.

First, one may say, in accordance with Fish’s anecdote, that speakers do not always "understand each other"; and furthermore, in the light of the example from Lacan, one may add that neither do they always expect each other to do so. To defend a theory of the production of meaning in terms of intent is not to say, in any way, that what an utterance means is what its initiator intended, or that it is possible or advisable to try to locate a centre of meaning in a supposedly faithful reconstruction of authorial intent. To develop a pragmatic
theory of meaning on the basis of intent is only to say that meaning is a derivative of the play between explicit intent and desired effect, where the desired effect is seen by the initiator to be a function of the expressed intent within a certain assumed context. If the assumption of the context proves to be true, then the meaning produced by the statement, by the rate of change in desired effect to expressed intent, will be favourable to the strategy of the speaker. If, on the other hand, the assumption fails, then so does the strategy, and (in the extreme case) this causes a rupture in communication. Indeed, one may even foresee a situation where the assumption is correct, but the strategy is inadequate or faulty. Thus, Lacan's speaker may well have known that his addressee knows that the speaker assumes that the addressee assumes that the speaker is lying. However, in strategising, he may have failed to keep track of the complex layers of assumptions and his statement was thus the result of a faulty strategy, which in analysis would seem an inadequate assumption of context.

To say that meaning is, above all, a result of intent is therefore not to say that it is identical to the intent (either the strategic or the explicit), but to establish the functional relationship between the various factors that collaborate in the production of meaning. This, as shown above, can be read from both the speaker's and the addressee's point of view: thus, in the example from Lacan, the speaker (the strategist) misunderstands the context (or develops an inadequate strategy that yields the same result as a misunderstanding of context), while in Fish's anecdote, it is the addressee who is said to have "mispreread" the statement;
the speaker’s strategising and the addressee’s pre-reading of that strategy (or, to use Fish’s term, the addressee’s “(pre)determination of the structure of interests from which ... [the statement] arises,” (Fish, 311) being the two sides of the same coin, each bearing a different stamp, but both attesting to the conveyance of the same value which, in this case, is the meaning of an utterance. This dual stamp of the illocutionary and the perlocutionary on the two faces of the coin of an utterance — the assumption of a context by the addresser and the predetermination of that context by the addressee — is further reiterated by Bakhtin’s discussion of narrative pragmatics in *Marxism and the Philosophy of Language* (1929, trans., 1973):

In point of fact, word is a two-sided act. It is determined equally by whose word it is and for whom it is meant. As word, it is precisely the product of the reciprocal relationship between speaker and listener, addresser and addressee. ... A word is a bridge thrown between myself and another. If one end of the bridge depends on me, then the other depends on the addressee. A word is territory shared by both addresser and addressee, by the speaker and his interlocutor. (Voloshinov, 8658)

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58 *Marxism and the Philosophy of Language*, trans., Ladislav Matejka and I.R. Titunik (New York, 1973) gives V.N. Voloshinov as its author. However, Bakhtin is now generally acknowledged as the author of the work, as evident in the attribution of excerpts to him in critical anthologies such as Patricia Bizzell and Bruce Herzberg’s *The Rhetorical Tradition: Readings from Classical Times to the Present*.
Moreover, by making explicit mention of the language of the statement ("in the light of the knowledge of the English language"), Landesman, like Searle, binds the creation of meaning and the scope of "convention" to the G-S structure of an utterance. Again, as discussed before, it ought to be stated that meaning may be produced by a linguistic utterance within a certain "convention" which lies outside the rigours of grammar and syntax. Thus, for Searle’s American to convince the Italians that he is German, he will rely on (1) the Italian’s ignorance of German, thereby divorcing them from any "convention" of grammar and syntax, and (2) on the Italians’ being able to recognise the sound of the utterance as being German, thereby drawing them into the "convention" of a collective phonetic experience of the language. For that matter, a television series like Hogan’s Heroes can use accents to create meaning. For, in this case, meaning is not only produced by the G-S structures of the statements, all of which are in English, but by the accent’s being recognised by the show’s (largely non-German-speaking) audience as being German (when spoken by the comic German officials). This is the context assumed by the actors/writers. If, however, certain members of the audience do not recognise the accent as being German, then many of the statements will fail to have the desired effect on them. This would not lead to a non-production of meaning, but as in the example from Lacan, or from Fish, the change in the context would cause a rupture leading to the production of a different meaning, perhaps completely devoid of the humour intended by the authorial ("auctor"-ial) strategy.
However, the most important point raised by Ziff and Landesman is that of the absence of an audience. If a statement is made in a delirium or in an empty room, then what is the intention and, by extension, how can there be a strategy? First, I would like to re-state that what I term strategy is not necessarily as elaborate as in the examples from Searle or Lacan. The strategy employed by the inititator of an utterance is mostly a result of intuition and spontaneity. It may also be purely accidental, so that, even when addressers have no idea of the context, their assumptions work in their favour. The converse may be equally true, so that Lacan’s speaker may well have based his contextual assumption upon prior knowledge, although his addressee had accidentally stumbled upon a piece of information (thereby falsifying the speaker’s assumption, changing the context, and subsequently destroying his strategy) just moments before the statement was made. In everyday speech, one creates meaning by intuitive and extemporaneous strategising just as, in talking aloud (or silently) to oneself, one intuitively assumes the existence of an audience and of a critical intervention that demands strategising:

Utterance, as we know, is constructed between two socially organised persons, and in the absence of a real addressee, an addressee is presupposed in the person, so to speak, of a normal representative of the social group to which the speaker belongs. The word is oriented toward an addressee, toward who that addressee might be: a fellow-member or not of the same social group, of higher or lower standing (the addressee’s hierarchical
status), someone connected to the speaker by close social ties (father, brother, husband, and so on) or not. There can be no such thing as an abstract addressee, a man unto himself, so to speak. ... Even when we sometimes have pretensions to experiencing and saying things *urbi et orbi*, actually, of course, we envision this “world at large” through the prism of the concrete social milieu surrounding us. ... 

Each person’s inner world and thought has its stabilised *social audience* that comprises the environment in which reasons, motives, values, and so on are fashioned. (Voloshinov [Bakhtin], 85-6)

While Bakhtin’s concern is the socio-hierarchical assumption of contexts, in strategising utterances, I would draw attention to his emphasis on the necessity of an addressee, either real or assumed, in formulating communicative strategy. Bakhtin’s comment on the social construction of the addressee focuses on the hierarchical nature of class-based society. However, it is his understanding of each person’s “inner world” as a communicative subject “oriented” towards an object in the outer world, that supports my own claim that the play between explicit intent and desired effect is not restricted to communication directed towards an external audience, but may well include the varied (and often unpredictable) contexts of one’s own psychological state within which an utterance (silent or spoken aloud) will generate meaning. Conversely, in speaking to one’s self in the
presence of an actual external audience, one may seek to define the terms of critical intervention by reconstructing one’s imaginary audience. Thus, if S utters “The cat is on the mat” to himself, there is no need to assume that S is not intuitively addressing an audience, even if that audience comprises only himself. And it is in relation to this audience that the play of desired effect and explicit intent will generate meaning(s) which, depending on various probable contextual fluctuations, may be quite unexpected, even to S. For instance, if we conceptually divide S into S₁ (the initiator of the utterance) and S₂ (the addressee), then, in imitation of Landesman, one could say that, in stating, “The cat is on the mat,” S intends to bring about that (a) S₂ believes that the cat is on the mat, (b) S₂ believes that S₁ believes that the cat is on the mat, and (c) S₂’s reason for believing that the cat is on the mat is S₁’s believing that the cat is on the mat.

The question may then arise as to why S would need to undergo such an exercise. First, given the intuitive and spontaneous nature of most speech, S may (like so many of us everyday) want to assert a point to himself; the assertion requiring an utterance and a critical evaluation (spontaneous and intuitive) of its strategy (also spontaneous and intuitive). This is, after all, one of the most common reasons for making statements aloud to one’s self. On the other hand, “The cat is on the mat” may be the line from a play in which S is acting, in which case S₁ will be the actor and S₂, the audience of the play and the rehearsal (and later, the play).

59 The discussion of the film Memento in Chapter 3 provides illustration to my argument.
will seek to convince the audience of the provisional truth of the condition suggested by the statement. For if the audience refuses to believe in the provisional world of the play, then there will be a severe rupture in the overall strategy of the actor/author which will, in the extreme, annul the very possibility of drama. But whatever the situation, the very act of one's making a statement to one's self may well be the result one's (usually intuitive and spontaneous) need for subjecting one's belief in the provisional truth of a certain condition or state to critical intervention which either reaffirms or modifies that provision through the production of meaning.

However, the case of S's statement in a delirium may require a further example to argue my case. Given that I am without any clinical understanding of a delirium (which may well postulate that the delirious person assumes the existence of an audience), let me offer the following scenario. A man is asleep beside his wife. In his sleep (note: I am not assuming that he is dreaming and therefore has an audience in his dream-world), he says aloud, "You know, you are a very remarkable person." His wife, who had been asleep, wakes up, remembers what he just said and assumes that her husband spoke to her. She discovers, of course, that he is sleeping and realises that he must have spoken in his sleep. Given such an accidental audience, and a speaker who is seemingly unaware of his having made a statement, what can be the strategy or the play of desired effect and explicit intent? In such a
case, one may revert to Fish's concept of pre-reading which is, as I argued earlier, the other side of the coin of meaning which has, on the one hand, the strategy of the speaker and, on the other, a reconstruction of that strategy and a pre-reading (or misprereading) of the speaker's structure of interests by the addressee, accidental or otherwise. However, the generation of meaning is still based on the (often intuitive) acknowledgement of a strategy based on the assumption of a context by the initiator of the utterance; this is what Fish calls pre-reading and which is illustrated so well by the example from Lacan. Thus, in the case of the man talking in his sleep, it is the wife's accidental pre-reading of a context that compensates for his supposed lack of an awareness of an audience, and his subsequent lack of assumption of a context.

But what if the man's wife had not been sleeping beside him? What if he were alone, sleeping and talking? I would argue that, in the absence of a recording device, or of his speaking to an audience in a dream (in which case, he would have resorted to the same strategic play as in his waking state), the question of meaning does not arise. For one to know that S stated "The cat is on the mat" in a delirium, there must have been an audience (immediate or delayed) who registered the statement. For there to be meaning, there needs to be an act and therefore a critical audience towards whom the play of explicit intent and desired effect is to be directed. Thus, to return to the old question, one may ask if a giant oak, falling in an absolutely empty forest, makes any sound. If the sound were analogous to
meaning, then I would argue that, in the absence of any audience, or recording device that might have documented the sound for future reconstruction (this may be a hypothetical device measuring airwaves and which, though silent, may allow a visual graph of the sound), there is indeed no sound. There is, of course, a fallen tree and a later visitor to the site might ascertain that a giant oak had indeed fallen and the visitor might then imagine what a sound the tree might have made in falling. Similarly, if one were delirious and all alone, there would be no production of meaning, for there would be no “act,” and the production of any meaning would only be possible by a reconstruction of the act within our knowledge and understanding of similar conditions: thus a doctor might later see the patient and assume that, in his or her delirium, the patient made several statements and then, upon further investigation into the patient’s background, the doctor may imagine the statements that might have been made and meaning would thus be generated by a post(pre)-reading, by a reconstruction of the play of desired effect and explicit intent within an assumed context. Given the indeterminacy of the speaker’s psychological state and of his or her strategy, the meaning generated will be antecedent, but indeterminate. In this I disagree with Landesman’s use of Ziff’s objection to Grice in an attempt to stress “the fact of the objectivity of meaning ... in the light of their [the words’] antecedently determinate meaning” (Landesman, 69). Even in the absence of so extreme a situation as a delirium, Fish’s simple anecdote poses several challenges to the question of determinacy, while at the same time establishing the antecedence of meaning.
Thus, to summarise the theses of this brief review:

1. The meaning of an utterance is a derivative of the rate of change in desired effect to explicit intent, within a certain context assumed to be true by the initiator of the utterance. Meaning is not identical to intent and the assumption of the context within which the utterance is strategised (Fish's "structure of intertests" within which the utterance is conceived) is open to challenge by the addressee.

2. Interpretation relates to meaning. Interpretation is the "(pre)determination" (Fish) of the play between explicit intent and desired effect within a given context, by the addressee (who may or may not agree with the contextual assumption of the speaker).

   a. In the absence of any strategy, or a (pre)determination of it, interpretation and meaning give way to experience and significance. A word or a symbol by itself may fulfil a significatory role, but in the absence of a strategy will not yield any interpretive meaning. Thus, when Hirsch, in his book *Validity in Interpretation* (1967) says, "Crisp air reminds me of my childhood in Vermont" (quoted by Fish, 309; Hirsch, 218-219), Hirsch's statement may be interpreted to generate meaning(s), while the crisp air, by itself, will only
create a significatory link between the moment of utterance and the speaker’s childhood in Vermont.

b. On the other hand, a lone word or symbol may well constitute an utterance that does yield meaning(s) in interpretation, if used strategically, or if (pre)determined by a reader/audience to be the result of a strategy conceived and executed within a “structure of interests.”

In the absence of an audience, either assumed or real, immediate or delayed, there can be no critical (albeit intuitive) response to the strategic play between explicit intent and desired effect, and no “(pre)determination” or reconstruction of the speaker’s “structure of interests”; therefore, in the complete absence of an audience, there can be no production of meaning.