Idea Spaces

Honors Thesis for Undergraduate Degree in

Humanities and New Technologies

By Matthew Shultz

Table of Contents

Introduction

As a mass medium, the World Wide Web is a very new phenomenon. Only in the last five years has it become a central fixture in contemporary experience. Of course, this is only the beginning. It is hard to imagine what even twenty years of further experimentation will bring; for the most part, the web is still a medium of experimentation. It is the first mass medium to fully implement an interactive hypertextual and hypermedial experience for millions of users, and the first medium offering open public authorship to such a wide audience. This media itself remakes the agency of its users, combining the practices of reading and viewing in an interactive context. Using the web is unique from both periodical and televisual mass media, for it combines a focus on verbal text with an interactive visual dynamism and the opportunity for multiple formats of visual mediation. Just as any new medium remakes communication, the message of the World Wide Web is one of non-linearity. Though concepts of non-linear media are not completely new, the web's revolution lies in making non-linear experience a defining fixture of our current moment.

The World Wide Web is a recent occurrence but the bases for its realization are not. The word 'hypertext' was coined by Ted Nelson in 1965, describing systems of non-sequential writing, "text that branches and allows choices to the reader." [1] Fundamentally, such situations arise from a very simple concept: the ability to forge a direct connection from one position in a text to another through an institution called the hyperlink. Figure 0.1 displays the most modern incarnation of the hyperlink; by clicking on highlighted text, the reader can follow the link,

---

[1] Cotton, Bob and Richard Oliver. *Understanding Hypermedia*. London: Phaidon Press Ltd, 1993 pg 24

3

Figure 0.1
A modern hyperlink on the World Wide Web

causing a new document to load into the previously occupied computer screen space. In the 1970's, Nelson extended his concept of hypertext to systems that would include multiple media; hypermedia, in its most general sense, describes nonlinear paths through images, sound, and text.[2] Research into systems realizing these ideas has been quite active since the early sixties, when computers became fast enough for interactive use. The first hypertext systems were built at Brown University, though their user interfaces were rudimentary. Perhaps the most important developments in the use of hypertextual and hypermedial systems took place in the 1980's. Systems such as KMS (Knowledge Management System), Hyperties, and Intermedia, developed respectively at Carnegie Mellon University, the University of Maryland, and Brown University, allowed verbal and visual elements within documents to be used as 'anchors' that functioned as hyperlinks when selected with the keyboard or mouse. Still, until at least the early 90's, the vast majority of developmental work in hypertext and hypermedia operated within a paradigm of private documents.[3] Hypertext fiction, multimedia CD-ROM encyclopedias, and even the hypertextual storage systems of libraries privatize the storage, retrieval, and authorship of hypertextual and hypermedial documents. Popular exposure to these nonlinear technologies required a mode of access that was public. To become elements of mass media, hypertext and hypermedia needed the Internet.

The growth of the Internet has occurred almost precisely in tandem with the evolution of hypertext and hypermedia. The Internet's first incarnation, the ARPANET, first came online in 1969, then only used for the experiment of its own realization. Still, by 1989 100,000 computers would be online, being used primarily by academia for sharing research documents. In 1990,

---

[2] ibid.

[3] Nielsen, Jakob. *Multimedia and Hypertext*. Boston: AP Professional, 1995.
  Picher, Oliver, Emily Berk, Joseph Devlin, Ken Pugh,. "Hypermedia". *Hypertext / Hypermedia Handbook*. New York: Intertext Publications, 1991.

NSFNET, a faster network funded by the National Science Foundation replaced ARPANET. As the number of networked resources increased, more attention was garnered by the problem of organizing this distributed information. Between 1990 and 1992, three important protocols addressing this problem were implemented: GOPHER, WAIS, and WWW. Of these three, WWW (World Wide Web) was the only one that mandated a truly hypertextual structure for both authoring and navigating documents. GOPHER implemented a hierarchical organization of internet documents and WAIS was mainly a search engine for words within bodies of text. Only the World Wide Web allowed authors to use hypertext to create their own connections between documents. From this starting point, the web has become an open arena; anyone who secures a computer with network access may view and add to its content. Though at first the Internet had not been particularly popular outside of academia, hobbyists took quickly to the World Wide Web. By the mid-90s, the media and business sectors were taking interest, and the web was experiencing massive growth. The development of web browsers, stand alone computer applications for viewing web content that supported graphical media, increased its popularity. The web moved from an exclusive focus on hypertext to a more general, hypermedial experience.[4] With increased speed, exponential growth in the total number of web sites, and ongoing improvement in the web's visual presentation, the web is truly becoming a mass medium. By joining the nonlinear communicative dynamics of hypertext and hypermedia with the Internet's means of mass communication, the World Wide Web actualizes hyperdocuments as defining elements in our cultures experience of expression.

Just as television became a defining experience of the mid and late 20th century, the World Wide Web sits at the fulcrum of the early 21st century and beyond. Understanding the

Berk, Emily and Joseph Devlin. "A Hypertext Timeline". Ibid.
[4]Zakon, Robert H'obbes..' *Hobbes Internet Timeline* [On Line] http://www.zakon.org/robert/internet/timeline/ 2001

experience of using the World Wide Web is paramount to understanding the state of communication in our contemporary society. Experiencing the web's vast network of media, however, is quite unique from television or the mass print media for several important reasons. As a hypertextual medium, the web communicates in terms of non-sequential linkages between fragments of verbal language. Reading such networks of text eschews traditional notions of linear writing. Further, the World Wide Web is also a hypermedial vehicle, offering connections not only between verbal texts but also between a wide array of visual media. The web combines multimedial presentations similar to magazines or newspapers with a dynamic visual flow that holds similarities with television. At the root of this hypertext and hypermedial environment resides the web's status as the first truly interactive mass medium. The experience of the web relies heavily upon the reader's participation; her reading is a navigation across a space of interrelating verbal and visual texts. Additionally, the World Wide Web is a distributed medium, meaning that no single entity controls its structure. Rather, hundreds of thousands of individual authors are responsible for the documents and hyperlinks that form the web. Though these features of the web are not completely novel as separate entities, their full combination forges a new medial environment. Communication in this environment does not take the same form as it does in television or print media; the World Wide Web demands extended theories of communicative structure. Ultimately, this communicative form evolves the nature of meaning itself. At the root of the experience of the web lies a weighty challenge to traditional expressive formats.

This study attempts to understand the experience of the World Wide Web by looking closely at the nature of the web's hypertext and hypermedia. Still, these terms are not sufficient

---

Leiner, Barry M. et al. *A Brief History of the Internet.* [On Line] http://www.isoc.org/internet/history/brief.html

for this discussion. They define structures of media, but not experiences. This study introduces the concepts of 'hypertextuality' and 'hypermediacy' to discuss specific aspects of the web experience. While the notion of hypermedia is defined most simply as an extension of hyperlinking to media other than written language, this analysis will give hypertextuality and hypermediacy more qualitative differences. Hypertextuality is characterized by the concept of verbal linkages, although it may be applied more generally to connections between any verbal or visual media affording a modern reading as a text. These relationships form multiple contexts that must be assimilated in parallel, the kernel of hypertextuality. Hypermediacy, however, focuses on the visual aspects of web media, following the interactions of visual media related by their simultaneous collage and montage. In such an environment, their activity as media become more immediate to the viewer than the situations they attempt to signify. Hypermediacy augments the experience of visual mediation by instancing these media as realities apart from their transparent referents. It should be made clear, however, that these definitions of hypertextuality and hypermediacy, while retaining potential for broad applicability, are put forth initially only as useful concepts within the limited investigation of this study. The words 'hypermedia' and 'hypermediacy' are used widely, often very different meanings. These meanings, some of which are discussed in chapters two and three, are consistent in a general sense but do not cohere into a meaning as easy to negotiate as the notion of hypertextuality. As this effort is concerned only with the World Wide Web, meanings for both have been chosen that remain compatible with the literature of hypertext and hypermedia while being specific enough to elucidate the web experience.

Hypertextuality and hypermediacy demand a new metaphor for the communication of meaning. As the web reader moves through hypertextual structures, the documents she

encounters are being continuously recontextualized by their relationships to other documents. The web reader exists in a medial ecology of multiple contexts and thus multiple meanings. Her interactions with verbal text in this environment must by their very nature be productive. Hypertext affords structures for reading, its hyperlinks do not supply the reader with singularly decodable readings. This experience allows for a various, though bounded, space of meanings to be constructed within the reader's own mind. These meanings have relationships to each other, but these meanings do not coalesce reductively. Further, this space of meanings is sensualized to the hypertextual reader by the hyperlinks themselves. These linkages serve as guideposts, connecting textual with conceptual terrains. Hyperlinks, thus, sensualize not only the connections between verbal texts, but also between networks of ideas themselves. The metaphor of 'idea space' serves well to describe this experience of hypertextuality. The idea spaces afforded by the web experience, however, are sensualized even further by the parallel experience of hypermediacy. Hypermediacy joins the web's multimedial presentation with the visual flow brought about by the reader's navigation between pages. This multimedial environment causes individual elements of media to be exposed as media; the immediacy which visual media typically leverage as a communicative device is replaced by a clear acknowledgement of their status as mediators rather than as immediate realities. As the reader generates a visual flow by activating hyperlinks, media become sensualized to her as immediate artifacts. Though as virtual entities they are only signs, the web experience replaces their immediacy of signification with an immediacy of engagement. The reader encounters these virtual artifacts in ways similar to her experience of physical entities. As such, her own reactive constructions define the meanings of these artifacts. Still, these artifacts remain media, and it is not them but the reader's ideas themselves which become most immediate. In hypertextual and hypermedial idea space, then,

the reader participate in a performance of interacting conceptual structures. These structures never resolve; rather, their constant play against each other fills the space and ultimately is the underlying device of meaning on the World Wide Web.

Experience, on the web or otherwise, describes the phenomenological mental reactions of a user of media. While the experience of idea space is argued in this study to be embedded in the medial architecture of the World Wide Web, it arises from precedents set in other, non-digital media. Works such as Mallarme's *Throw the Dice*, Cortazor's *Hopscotch*, and James Joyce's *Finnegan's Wake* celebrate the possibilities of multiple and nonlinear paths of reading.[5] The LANGUAGE Poets, a group active more recently in the 1980s, provide a contemporary expressive focus with similar goals, while also supplying an engaged theory of their work's interactivity with the reader.[6] It is for their specific focus on the word, on their conscientious resistance to transparent communication, that the LANGUAGE Poets are chosen for this study from the multitude of similarly oriented efforts from the twentieth century and earlier. Although reading texts in multiple perspectives is a common intellectual activity, these works go farther by embedding the reality of multiple readings in their uses of language and structure, making multiple readings institutional. Also experiencing a crescendo in the twentieth century where the multiple possibilities of communication presented by juxtaposing media of various types, both visual and verbal. Historically, Walter Benjamin's *Passagenwerk* provided perhaps the earliest archive of multimedial juxtaposition, suggesting the reader's own selection as the operative

---

[5] Joyce, James. *Finnigan's Wake*. New York: The Viking press, 1939.
  Cortazar, Julio. *Hopscotch* New York: Pantheon Books, 1966
  Mallarme, Stephan. *Throw the Dice*.
[6] Andrews, Bruce and Charles Bernstein, eds. *L=A=N=G=U=A=G=E Book, The* Carbondale, Edwardsville: Southern Illinois University Press, 1984.

device of medial experience.[7]   More currently, these interpretive concerns are manifest in magazine and newspaper composition, where graphic and layout designers attempt to organize multiple media into interactions of unity. Though modernist design has long touted the precise control of the reader's eye, analyses from the reader's perspective grant her more selective control over her experience.[8]   Developing more uniquely in the late twentieth century, television also characteristically leverages polysemic presentations. Television programming typically encodes several levels of meaning, contradicting itself often and without finality. In television, multiple meanings are used to facilitate the appeasement of a mass audience.[9] The readers discovery of multiple meanings depends very much on her level of engagement with the televisual text, but, importantly, these possibilities are structures of the televisual text itself. Though the notion of idea space grows organically out of these three types of medial situations, it exists as a conceptual overlay only. Meanings may exist in a network of relationships, these relationships are not foregrounded as they are on the World Wide Web. The web's innovation is the combination language, multiple media, and visual dynamism to create an immediate medial ecology of interacting meanings. Because the environment itself is immediate, it sensualizes the multiplicity of interpretation in a multidimensional space of meanings.

Though the productive construction of idea space is an overriding motif of the web experience, it is not the web's only communicative mechanism. Rather, the World Wide Web consists of at least two meta-discourses, often at odds with each other. One of these is the productive notion of idea space, where meaning is centered on the reader. The other is the

---

[7] Buck-Morse, Susan. *The dialectics of seeing : Walter Benjamin and the Arcades project* Cambridge, Mass. : MIT Press, c1989.
[8] Kress, Gunther and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design*. New York: Routledge, 1996. pg 218-219
 Jobling, Robert and David Crowley. *Graphic Design*. Manchester: Manchester University Press, 1996. pg 282-286
[9] Butler, Jeremy G. *Television : Critical Methods and Applications.* Belmont, Cal. : Wadsworth

consumptive participation of commodity. As a mass medium, the web is driven in significant means by commerce and advertisement. Advertisement, in particular, has considerable impact on the web reader's experience, with banner advertisements at the tops of web pages being the most ubiquitous example. In general, the meta-discourse of consumption is strongest in visual elements while idea space grows out of the experience of media as texts, verbal or visual. Consumption, however, has broader implications on the web than those arising exclusively from advertisement. Importantly, the paradigm of consumption is engrained in the presentation of images; it is the consumption of, rather than engagement with, media that poses the real threat to the web's constructive possibilities.[10] Though hypertextuality and hypermediacy demand active participation, they are in constant competition with consumptive media's desire to frame the reader not as an active participant, but as an active consumer absorbed in transparent signifiers. Still, the experiences of hypertextuality and hypermediacy offer at least the possibility of positioning this conflict itself as a factory for meaning. This study proposes that the very nature of the web, at least at its current state, resists a paradigm of consumptive experience.

Rigorous investigation of the experience of the World Wide Web is fairly lacking in the literature on hypertext and hypermedia. This is probably due in large part to the recent arrival of the World Wide Web as an important hypertextual and hypermedial mass medium. Much of the relevant writing is either of a fairly technical orientation or it concerns itself with private hypertexts. Most likely, the limited applicability of this literature arises largely from a process of obsolescence. In 1990, private hypertexts and hypermedia systems probably seemed like the wave of the future. Even into at least the mid 90's much of the literature seems to indicate a belief that privately owned CDROMs, which would be bought at physical stores, would

Pub. 1994. pg. 7
[10] Perloff, Marjorie. *Radical Artifice*. Chicago, London: University of Chicago Press, 1991 pg 60-74

popularize hypertext and hypermedia. *Understanding Hypermedia*, published in 1994, not only fails to define the World Wide Web in its hypermedia glossary, it does not discuss the web at all.[11] Books like Jay David Bolter's *Writing Space,* and *The Hypertext/Hypermedia Handbook*, both written in the early 90's, do not concern themselves with hypertext's future function as a popular mass medium.[12] The collection of essays *Hyper/Text/Theory,* and Michael Joyce's *Of Two Minds: Hypertext Pedagogy and Politics*, both published in the mid 90's, discuss important aspects of 'the new writing,' but they too focus on hypertext as a singularly authored, singularly structured medium.[13] The network environment that is becoming more and more commonplace had only begun to take hold. Still, this literature remains useful. The World Wide Web is a hypertextual system itself and understanding its dynamics necessitates a general understanding of hypertextual mechanics.

The major difficulty standing in the way of academic inquiry into the expressive functionality of hypertext and hypermedia seems to be the pace at which the technology itself is changing. Although a wealth of technical information is available, much of it is interesting for historical purposes only. Many articles from at least as recently as 1995 discuss technologies that are quite obsolete. The professional technical literature, such as the *ACM Hypertext Conference Proceedings* and the *ACM Siglink Newsletter*, has in recent years taken more note of the World Wide Web, but its archives remain only marginally useful even to a highly technical discussion.[14] Siglink, the Association for Computing Machinery's special interest group on hypertext, did importantly redefine its focus by renaming itself Sigweb, special interest group on

---

[11] Cotton and Oliver. pg 146-152
[12] Bolter, David. *Writing Space*. Hillsdale, New Jersey: Lawerence Erbaum Associates, 1991.
  Berk and Devlin, eds. *Hypertext / Hypermedia Handbook.*
[13] Landow, George P. ed. *Hyper/Text/Theory*. Baltimore: Maryland, 1994.
  Joyce, Michael. *Of Two Minds.* Ann Arbor, Michigan: University of Michigan Press, 1995.
[14] *SIGLINK Newsletter.* 1992-1998. New York, NY : ACM Press

the web.[15] Still, even the 2000 and 1999 hypertext conference proceedings do not discuss the web in specificity beyond a few papers.[16] Additionally, this literature's highly technical nature also marginalizes its usefulness to a discussion of experience. The World Wide Web Consortium's website provides a wealth of information about the technical implementation of the web, but lends almost nothing to understanding the communicative dynamics of these technologies.[17] Further, many books on hypermedia and multimedia, such as Jakob Nielson's *Multimedia and Hypertext: The Internet and Beyond* establish important principles for the design of hypermedia systems, but do not investigate the nature of the experiences they produce, let alone that of the web.[18] This more technical literature, again, provides necessary background but not the requisite building blocks to answer the question at hand.

The critical analysis of the experience of hypertext and hypermedia, particularly that of the web, has gone largely unexplored as both technical and academic research has necessarily focused on the future possibilities in the absence of a more established medium for critique. A few efforts, however, have begun the work of dissecting the nonlinear communicative mechanisms of the World Wide Web. *Remediation*, co-authored by Jay David Bolter and Richard Grusin, while not focusing specifically on the World Wide Web, does make a qualitative analysis of hypermedial experience. Still, Bolter and Grusin offers very little analysis explicitly about the World Wide Web, preferring instead a general survey of digital media. Their general theories on the representation of media, however, serve as important bases for the investigation

Hypertext '99 Proceedings. New York: Association for Computing Machinery, 1999.
Hypertext '00. New York: Association for Computing Machinery, 2000.
[15] *SIGWEB Newsletter*. 1998-2000. New York, NY : ACM Press
ACM Sigweb Web Site [On Line] http://www.acm.org/sigweb
Hypertext 2000 and 1999 proceedings.[16] 199 hypertext conference proceedings.
[17] *World Wide Web Consortium Web Site*. [On Line] http://www.w3c.org 2001
[18] Nielsen, Jakob. *Multimedia and Hypertext*. Boston: AP Professional, 1995
Gloor, Peter. *Elements of Hypermedial Design*. Boston: Birkhauser, 1997.

of the web's visual experience.[19] Additionally, John McCaid's essay *Breaking Frames: Hyper-Mass Media* in the *Hypertext/Hypermedia Handbook* is, by the standard of the other literature, somewhat early in attempting a more rigorous application of Marshal McCluhan's notion of media ecology to hypermedia.[20] Still, such analyses are not common in the literature. Examining the project of the World Wide Web is thus the contribution of this study.

This study focuses not on the future opportunities of hypertext and hypermedia but rather on the current realities of the World Wide Web experience. Visions for the future of popular media are traded for an understanding of contemporary experience. Still, this analysis attempts to be general enough to remain conceptually applicable even in the wake of the World Wide Web's inevitable evolution to more advanced forms. By analyzing experience rather than technology, this study avoids some of the inevitable obsolescence that can plague discussions of current media. Additionally, this study serves as an update, attempting to capture the most important aspects of the current state of popular hypertext and hypermedia. As one of the important developments of the web's public nature, the issue of commodity has important implications to this study's consideration of hypertextuality and hypermediacy. By considering commodity, this study extends the literature of hypertext and hypermedia into the public sphere. This study's focus on the experience of communication motivates an exploration coming largely from outside the various literatures on hypertext and hypermedia. This literature, while pertinent and useful to a large extent, simply is not yet sufficient to stand on its own as a basis for analysis. Accordingly, this effort splits the web into three main sections of experience: reading, multimedia, and visual flow. The web's presentation in each of these realms is placed in comparison to more established media. The correlations made apparent by these comparisons

---

[19] Bolter, J. David and Richard Grusin. *Remediation*. Cambridge, Massachusettes: MIT Press, 1999. pg. 20-50, 197-210

are used to build an understanding of the web experience and, ultimately, to define meaning in public, hypertextual and hypermedial space.

Exploring hypertextuality in terms of communicative experience demands a mode of discussion centered not in a formal mathematics of signs, but rather with roots in expressive form. As an expressive movement, the LANGUAGE Poets constructed both a radical poetry that challenges traditional signification and an explanatory theory of meaning that foregrounds reference but not the referent. Though this loosely knit group of individuals never offered a universally consistent set of views on poetry or communication, the analytical works of Charles Bernstein and Bruce Andrews, for instance, offer both a good characterization of the movement as well as important insight into the production of hypertextual meaning. In their introduction to The L=A=N=G=U=A=G=E Book, they frame LANGUAGE Poetry as an effort centered in "repossessing the sign through close attention to, and active participation in, its production."[21] The LANGUAGE Poets achieve these means using a variety of devices, some through the unintentioned play of syllables and some through heavy manipulation of syntax, a play of real words. This study directs its focus towards those poets which rely heaving on syntactic strategies, such as Micheal Palmer and Lyn Hejinain. Hypertext is joined with LANGUAGE Poetry by a focused, experiential concern for signs over signification. When an author joins two texts with link, she is driving a wedge between words and dictionary definitions, creating possibilities of referral but making the hyperlinked word's resolution as a sign increasingly undecidable.

In discussing the basic nature of meaning, both the LANGUAGE Poets and this study necessitate an appeal to a philosophical conception of communication. The LANGUAGE Poets,

---

[20] McDaid, John. "Breaking Frames: Hyper-Mass Media". *The Hypertext/Hypermedia Handbook*.
[21] Bernstein, Charles and Bruce Andrews. "Repossessing the Word". *The L=A=N=G=U=A=G=E Book*.

and especially Charles Bernstein, reject Derrida's infinite calculus of signs in favor of Wittgenstein's practical, empirical appeal to language games.[22] This study's analysis of hypertextuality follows their lead, though carrying out the analysis of meaning in networks of language in more explicit terms. Embracing Wittgenstein over Derrida is, in the literature on hypertext, significant. In most if not all efforts, Derrida's deconstruction is a popular format of address to the problems of hypertextual meaning.[23] This study attempts to replace the deconstruction inherent in infinite sign systems with a metaphor of constructive meaning bounded by practical communication. Still, some elements of deconstructive analysis remain useful and pertinent, but they are invoked more as obvious consequences than as suggestions of a Derridian philosophical system. The connections drawn between Wittgenstein, the LANGUAGE Poets, and hypertextuality also function in this first chapter to set up a context for meaning in the entire study. The practical concept of meaning as created by the interaction of communicative fragments is carried through the second and third chapters as well, although it is not discussed in terms as explicit as in the first chapter.[24]

The basic argument of the first chapter centers on the web as an archive of fragments. LANGUAGE Poetry and the World Wide Web are joined by examples which attempt to illustrate the fragmentary nature of both. The LANGUAGE Poet's expertise in using juxtaposed language objects as an expressive form is then leveraged towards understanding the explicit inter-textual connections afforded by hypertext. The conceptual notion of an archive of

---

[22] Bernstein, Charles. "The Objects of Meaning". *The L=A=N=G=U=A=G=E Book.* pg. 61
[23] Bolter, *Writing Space*.
  Landow, George P. *Hypertext 2.0* . Baltimore, Maryland: Johns Hopkins University Press, 1997. pg 35 for instance

[24] Kober, Michael. "Certainties of a World Picture". *Cambridge Companion to Wittgenstein* S Cambridge: Cambridge University Press: 1996.

fragments is presented as a vocabulary whose juxtapositional contexts give rise to the multiple perspectives of idea space. In defining both the content and structure of this vocabulary, the web's multiple authorship is discussed as an important factor. The Wittgensteinian concepts of language use and response are used to explicate a practical definition of meaning in the web's space of language; the use of a hyperlink, its connection between documents, is said to operate as meaning while the reader's activation of such a link in the requisite response for Wittgensteinian communication. Wittgensteinian certainties provide a general mode for discussing the complex interactions of context possible on the World Wide Web. The reader's hypertextual movements repeatedly violate discursive boundaries, leading her to question the very certainties that define communication in these formats. This constant challenge defines the experience of reading on the web as an ever broadening language game. Finally, this experience is framed as, fundamentally, a performance. The concept of performance is used both to explain the reader's institutionalized interactive role on the World Wide Web as well as to explain the practical borders of idea spaces as the finite character of the performance itself.

The second chapter's discussion of multimediacy in World Wide Web documents draws heavily on examples of actual documents, both physical and virtual. While hypertextuality can be understood from a structural standpoint, multimedia requires concrete examples. The communicative interactions between images, graphics, and text on pages from popular news magazines and newspaper are used as a starting point to discussing more variously multimediated web documents. *Newsweek* and *Time* are particularly useful since their layouts are deeply intertwined with a politics of both medial and monetary consumption. The immediate meaning of images competes with the more engaged meanings of verbal text, while advertisements attempt to reframe the entire context of magazine reading. The World Wide Web

is subject to these same competing discourses, though its more highly multimediated environment complicates the vectors of contention. Sample pages from the World Wide Web come from a variety of sources and are of a variety of types; the multimedial experience is not a stable entity defined by the World Wide Web, but rather is specific to each web site. Among those considered are news sites, entertainment sites, art sites, and sites for specific communities or web users. Additionally, some pages are chosen specifically for the medial elements they contain, for instance the presence of video or banner advertisements. These multimediating pages are analyzed in the language of graphic design and layout. A key text in this regard *Reading Images, The Grammar of Visual Design* by Gunther Kress and Theo van Leeuwen. Another is Jay David Bolter's discussion of medieval manuscripts in *Writing Space*. Further explication comes from basic graphic and web design manuals which supply basic concepts page structuring. Additionally, the specific communicative strategies of icons necessitate Kubler's *The Shape of Time*. In general, the sources for this chapter concern themselves with one main question: how mediating visual elements interact.

The second chapter focuses its discussion around the parallel construction of visual syntax and visual competition. Visual syntax describes the ways in which juxtaposed media participate communicatively; visual competition explains the frictions between these media within the same visual space. This chapter begins, however, not by immediately tackling the problem of images. The first significant motion towards understanding the World Wide Web as a visual multimedia is discussion of verbal text's visual forms. The typographic and layout decisions that the web affords verbal texts allow them to be considered as visual objects in parallel with their hypertextual experience. Following this discussion of visually enhanced verbal texts, the discussion considers the primary visual media that are presented on the World

Wide Web: photography, video, graphics, and animations. Each of these media are first considered separately and in terms of their own internal visual syntax. Then, they are analyzed both in their syntactic and competitive postures towards other media on the same multimediated pages. The overriding metaphor of the web experience is here posited as collage, and thus magazines and newspapers provide important inroads for understanding how communication takes place in such visual spaces. The perceiver's reactions are again the axis of meaning; the experience of multimedia is again presented as productive experience. Still, this chapter devotes significant energy to discussing the conflict between images' meta-discourse of commodity and the textual meta-discourse of idea space. In response, the claim is put forth that the medial structure of the web itself folds this conflict into a qualified productive experience. The chapter concludes by introducing the concept of 'hypermediacy,' that idea that web media, like hypertext, functions communicatively as sensualized objects rather than as transparent mediators.

The use of televisual literature in chapter three affords the same appeal to discourses of image and economic consumption as the second chapter's incorporation of magazine. Joseph Caldwell's *Televisuality* is especially useful in this regard; while it does not offer much in the way of understanding how a viewer constructs meaning from visual flow, it does offer an excellent basic framework for understanding the consumptive mass medial properties of television. More generally, televisual studies are leveraged towards understanding the viewer's experience of highly structured flows of visual experience. Leveraging the literature of televisuality frames the experience of the World Wide Web along similar lines as the mass medium that it challenges most directly, and thus begins a dialogue between these two literatures. Importantly, this application also expends televisual literature to a medium of interactivity, testing the degree to which interactivity does and does not change the experience of

visual flow. This chapter's final abstraction owes much to televisual literature which presents the experience of television, as both a watcher and as a active consumer, as one of drama. To ground this discussion of drama, Aristotle's initial constructions are referenced and expanded.

The argument of chapter three grows naturally out of chapter two, considering visual flow to complete the dual structure of hypermediacy. This chapter begins by considering the screen, whether computer or televisual, as a unique technology of immediate experience. Just as chapter two contemplates verbal text before discussing the web's array of visual mediators, this chapter begins by considering the web's visual flow of verbal text. Hyperlinks are made into sensualized visual objects by their presentation as vectors of visual flow. Montage, it is explained, constitutes a visual effacement which hypermediates both verbal texts and visual media alike. The common televisual constructs of interruption, programming, sequencing, and segmentation are expanded to the experience of the World Wide Web. This expansion is also a comparison which draws these two media together in terms of continuos experience and separates them along lines of production. The World Wide Web is presented as an environment which affords televisual immediacy to media themselves; it is an ecology of sensualized mediators. Indeed, the heart of chapter three considers the division and control of flow as crucial elements in the web's visual experience. Finally, this discussion draws together flow, multimedia, and hypertextual performance by extending television's dramatic format to a participatory paradigm. The web is presented as a grand drama of visual perceptions in which the reader plays a role which is both free and constrained. As an interactive media, the web hovers between mediation and reality.

Ultimately, the primary goal of this study is to begin a dialogue about how the World Wide Web affects the perception of ideas in our culture. The concept of idea space affords the

fragmentation of the web with a productive posture, rather than one of meaningless play. The web is not a conceptual exercise, but rather a medial reality. As such, it represents an archive of visual and verbal fragments which are communicative at many levels. The abstraction of idea space attempts to reconcile these interwoven mechanisms, allowing for the communicative experience of the World Wide Web to be understood as a cohesive environment with a definite communicative posture.

I. Hypertextuality

Communication in hypertext is essentially a question of referral. The addition of the hyperlink as a syntactic operator focuses increased attention onto signs. Yet this semiotic process functions in ways quite different from traditional concepts of signification. Signification posits a 'transcendental signified' as the object of language; the word 'cat,' for instance, points transparently to the Platonic form of a cat, or further, in some cases, a specific physical cat. Hyperlinks, however, point not to metaphysical images to be appropriated by the studious reader but to another text, further objects of language. Importantly, however, hypertext functions only to augment expressive mechanisms already available in language. A hypertextual document may contain apparently transparent verbal texts that aim to present descriptive images. Nevertheless, even in the simplest hypertextual system, a single document is referred to by a hyperlink in another document and in turn links to further documents itself. Even a single link explodes an enclosed notion of a text, allowing for rich reactions of recontextualization between documents. Communication, then, cannot help but depend strongly on signs, the hyperlinks that join texts together. These references eschew the identification of metaphysical signifieds. Hyperlinking clearly implies signification, but the reference of this signification remains undecidable. More specifically, a reader can never be precisely sure which aspects of the linked text these words or phrases are meant to stand in the place of, if any at all. Thus, such signs function in terms of referral, and yet refuse to reference a signified in the traditional sense. In hypertext, language objects maintain relationships and yet avoid a concrete, easily bounded subject. Thus, the investigation of how meaning is communicated through signs must begin anew.

This chapter begins by investigating the World Wide Web as a network of juxtaposed textual fragments. To gain an understanding of how communication takes place in such an archive of language, the poetic ventures and philosophical contributions of the L=A=N=G=U=A=G=E Poets are introduced. This radical poetry demonstrates the communicative possibilities of referral, while modifying traditional notions of transparent signification. Referral's role in creating structures of language is presented as central to both the experiences of LANGUAGE poetry and, through hyperlinks, the World Wide Web. With more help from LANGUAGE poetry, particularly the words of Lyn Hejinian, these structures are argued to be the genitors of the reader's experience of ideas. Structures of language generate ideas for vocabularies, instead of presenting vocabularies for ideas which exists before and outside of language. These relationships are shown to offer only the possibility of idea, however, with the crucial work of their construction relying on the reader's navigation of context and recontextualization. Specifically, the multiple authorship of the web as a single document is discussed to display the complex interactions of multiple subjects and perspectives. Ultimately, the guiding notion of the experience of reading such a text is one of idea spaces; internal understandings constructed in the reader's own mind. To understand how this abstraction functions, the philosophy of Ludwig Wittgenstein is discussed, focusing on the certainties and language games which offer a practical definition of meaning in his construction. These games and certainties describe discursive boundaries which the hypertextual nature of the World Wide Web repeatedly violates. As certainties are constantly challenged in a hypertextual navigation, the experience of reading on the web is described as one of an ever broadening language game. The concept of meaningful experiences of this sort is finally rectified by the notion of reading as a performance, rejecting the possibility of infinite interpretation. Drawing again from the ideas

of the LANGUAGE Poets, the chapter concludes by asserting that the reader's experience of idea space is bounded by the finite character of her performance itself.

At the most basic level, hypertext's offer of syntagmatic augmentation is a question of textual mechanics. The hyperlink allows for a rich inter-textual structure to be constructed by an author or authors. Links, then, allow for texts to grow into networks, going beyond the linear format of books and articles. Indeed, hyperlinks make concrete the conceptual notion of inter-textuality. References between documents are not simply implicit, as they may be in a library. They become fully explicit, laid before the reader's eyes as a clickable link. Thus, hypertext can make inter-textual structure part of the actual language used to write documents. This structure, however interesting and essential to an understanding of hypertext, is nevertheless not the issue of highest importance in investigating hypertextuality. The hypertextual structure itself is not important but rather the further role this structure plays in delineating meaning. The most crucial investigation is how hypertextuality influences the structure of ideas, how hyperlinking communicates meaning to the reader. Truly, referral becomes synonymous with meaning in hypertext; the reference between language objects is the meaning itself, a meaning without a signified or reducible, decidable metaphor. Showing that hypertextual reference functions meaningfully in this capacity is the task at hand. This meaning begins in the reader's experience of hypertextual space, the form which ultimately guides her experience of ideas.

Understanding hypertextuality as a communicative experience necessitates the election of a mode of discussion that begins in expressive form rather than with a full fledged departure into linguistic theory. The writings, both expressive and analytical, serve this purpose well. Working most vigorously in the 1980s, these poet-theorists constructed a radical poetry adds to the discussion of how reference functions expressively outside of the bounds of signification. As

Bernstein explains in his essay "The Objects of Meaning", such poetry intends to offer "referral without the finality of reference."[25] Bernstein here uses "reference" synonymously with 'signification,' that is, the presence of a signified. His suggestion is that it might be possible to offer a more free floating "referral" in the place of a distinct signified. The LANGUAGE Poets investigate the possibilities of referential language that have become institutionalized in hypertext. In both their poetry and their theoretical writings, they explore communication centered on signs rather than on signifieds. Still, the vantage point the LANGUAGE Poets offer on hypertextual communication does not imply that hypertext simply paraphrases LANGUAGE poetry or vice versa. The two are similar in communicative method, as will be shown, but they are far from identical. At a minimum, the media of their presentation, print versus electronic, makes them quite different. Even more crucial to this discussion of language, however, is the observation that while LANGUAGE poetry attempts to manipulate the syntax of established language, hypertext as a technology augments language itself. Presenting the technology of hypertext, then, against the form of LANGUAGE poetry may seem incongruous. Nevertheless, this difficulty dissolves when one recognizes the truly radical nature of LANGUAGE poetry. This poetry, like much other writing of the twentieth century, strives against the confines of printed language. At times it is successful, at other moments it is not, but this is what makes its theory applicable to hypertext. In many ways, hypertext is the technology that begins to solve the problems of reference confronted by the LANGUAGE Poets. It is the expressive form that truly allows authors to repossess the sign without letting these same signs "dissolve into an

---

[25] McCaffrey, Steve. "Michael Palmer: A Language of Language." *The LANGUAGE Book*. pg. 257

outward looking system of radar."[26] Connotation and verbal resonance are no longer formal tricks, but a rather incorporated parts of hypertextual syntax.

In establishing a theory of communication based on the sign rather than the signified, both the LANGUAGE Poets and this discussion of hypertextuality face much the same philosophical debt. In both hypertext and LANGUAGE Poetry, the primary philosophical problem is the definition of meaning. Indeed, a working definition of meaning is essential to making claims which assert the congruity of reference and meaning in hypertextual systems. For their part, the LANGUAGE Poets elected Ludwig Wittgenstein. On meaning, Wittgenstein writes

> For a *large* class of cases—though not for all—in which we employ the word "meaning,"
> it can be explained thus: the meaning of a word is its use in the language.[27]

Wittgenstein thus provides the LANGUAGE Poets with a practical, if somewhat ambiguous, definition of meaning. To Wittgenstein and the LANGUAGE Poets, meaning elicits a further response. Meaning is part of what Wittgenstein called a 'language game.' In a language game, communication takes place through a dialogue, an exchange of language objects. Language only has use, and therefore meaning, if its perceiver then has a reaction which itself generates a response. Of course, this perspective requires further refinement to make clear its application to written language, as opposed to conversation. In the case of reading a LANGUAGE poem, or for that matter navigating a hypertextual network, the required response does not take place aurally, but rather in the reader's mind. In hypertextual systems, the response goes even farther, becoming apparent in the reader's decision to click on a hyperlinked token on the computer screen. Thus, in examining hypertext, it makes sense to follow the LANGUAGE Poets' lead and

---

[26] Andrews, Bruce. "Text and Context". *The L=A=N=G=U=A=G=E Book*. pg. 31

[27] Wittgenstein, Ludwig. *Philosophical Investigations*. Trans. G.E.M. Anscombe. Oxford: Basil Blackwell, 1963. pg 43

adopt Wittgenstein as a guiding voice, even though his work, coming long before the computer age, does not explore the specifics of the hypertextual language game. Wittgenstein provides an adequate and robust practical framework for understanding meaning and for the further work of exposing the parameters of communication in hypertextual terrains.

Hypertextual language games function in terms of fragments; linking documents together, by nature, results in the juxtaposition of fragmentary language objects. Hyperlinks occurring in the middle of documents, such as those apparent in figure 1.1, act to further fragment these texts. Often, competing vectors of non-linear reading lead the reader to a new text before she has reached the end of the one she is engaging. Indeed, the web is an archive of language fragments. Memepool, a web site available at http://www.memepool.com, exemplifies this reality. This site, presented in figure 1.2, offers hyperlinks to a vast array of documents. These documents, however, do not participate together in any sort of grand or organized narrative. Memepool offers to structure these fragmentary documents in relationship to each other, while being itself a fragmented document. Each entry on this page is a separate piece of language placed in adjacent circumstance. Looking to less structured terrain, a query to a search engine like http://www.google.com, in figure 1.3, can return thousands of documents from the web's distributed fragmentary archive. These texts may be, for instance, news articles, personal journal entries, technical questions, or educational documents. Though some of these elements of language may be readable along the same lines as traditional articles, magazines, or books, their more important situation on the web is that they exist in relationship to each other. The occurrence of hyperlinks within a document's content, as apparent in both figures 1.1 and 1.2, often ensure that these documents are in fact not read in traditional linear fashion. Rather, reading is interrupted and fragmented by a reader's motivation to follow a hyperlink. The web,

Buenos Aires Ministerial Summit Faces Massive Demonstrations

UPDATE: This evening more than 10,000 people assembled in the streets of Buenos Aires to march from the National Congress building to the Sheraton hotel where the 6th Business Forum of the Americas is being held and the interest of international capital will be presented to the FTAA/ALCA negotiations. Over 10,000 mobilized and took action - diverse unions, farmers, student and parties of the left had converged without any hindrance at the fence surrounding the hotel. Here where the diverse columns of people met, the police began their repression, armed with tear gas, rubber bullets and water canons. The demonstrators were pursued and divided by the streets of the city, while the mounted police, assault cars and riot squads waited for opportunities to attack the protesters. Currently the numbers of arrests are unknown.

Compañer@s from Argentina, Brazil, Uruguay and Chile and elsewhere took diverse actions and were united in declaring "NO to ALCA/FTAA".
Updates will follow in the Argentina Indymedia newswire

As trade and finance ministers from 34 American governments gathered in Buenos Aires to finalize the text of the FTAA, activists prepared to confront them en masse at demonstrations planned for April 5, 6 and 7.

Activists oppose ALCA/FTAA, a thinly-veiled extension of NAFTA, which has given North American firms not only a giant market in which to sell their products, but also an inexhaustible supply of cheap labor, all supported by forms of semi-slavery (as in the "maquiladoras" of northern Mexico) and combined with brutal repression. All week they have been organizing info sessions, seminars, demonstrations and diverse actions, which will culminate in a grand March tomorrow. Large numbers of activists from other countries are expected as well, including several thousand from Brazil and Uruguay, where solidarity demonstrations will also be taking place. In addition, some groups and collectives will attempt to block the summit, they include Anticapitalistas de Lomas de Zamora, Bloqueoalca, Contraimagen, En Clave Roja/Jir-CI, Primavera de Praga OSL.

Figure 1.1 - http://www.indymedia.org

memepool

first on the scene - because we're the victim

Friday Apr 13, 2001

The cancellation of Doctor Who by the BBC over a decade ago has left fans of the series a bit hungry for more. Fortunately, people like The Federation have been making fan videos "since the Reagan administration". One of their recent efforts is to get some Doctor Who out on the web. "Make a 6 minute video and we'll put it on our website!" they say. And they have. Supposedly, one of them isn't even a complete joke. Personally, I recommend the 6 Minute Time Slacker video. If you're not screeching "FISHYSNAX" by the time it's over, there's something wrong with you.
to Television by dha

Thursday Apr 12, 2001

I'm not sure if Luddite is a real company or just a joke, but you've got to question a website that sells wooden computers and also gives you a list of the founder's other failed wood-related businesses.
to Computing by crikey

Some children take good care of their toys... and then there are those who like to take things apart. We could psychoanalyze these people all day and speculate on why the educators wait until high school to let people dissect small animals, but hey, I think we all have our own destructive urges to fulfill.
to Toys by lampbane

Damn! I broke a string on my oud. Perhaps I should switch to the saz or cumbus.
to Music by fatherdan

Wednesday Apr 11, 2001

Planning on executing someone? Do it the U.S. Bureau of Prisons way!
to Law by tregoweth

SMILE, Jesus! You're on Candid Camera! MessiahCam lets you be first on the scene of the Second Coming.
to Religion by fatherdan

Figure 1.2 - http://www.memepool.com

Google™

hypertext   [Google Search] [I'm Feeling Lucky]

Searched the web for hypertext.   Results 1 - 10 of about

Categories: Arts > Online Writing > E-zines > Fiction > Hypertext   Reference > Knowledge Management > Information Overload > Hypertext

HTML Home Page
... HyperText Markup Language Home Page. This is W3C's home
page for HTML. Here you will find pointers ...
Description: The W3C's HTML website.
Category: Computers > Data Formats > Markup Languages > HTML > References
www.w3.org/MarkUp/ - 41k - Cached - Similar pages

Style Guide for Online **Hypertext**
... Style Guide for online hypertext. ... The above lists all the parts of this
guide except for individual reader comments. To print this document. ...
Description: Defining terms such as "webmaster", the "www.xxx.com" convention, and a few basic...
Category: Computers > Internet > Web Design and Development > Authoring > Style Guides
www.w3.org/Provider/Style/ - 5k - Cached - Similar pages
[More results from www.w3.org]

Hyperizons: **Hypertext** Fiction
... What I'm onto here is writing and researching and thinking about hypertext fiction.
For those of you familiar with it already, enough said--you may want to go ...
Description: An index to hypertext fiction, as well as criticism and theory of the form.
Category: Arts > Online Writing > E-zines > Fiction > Hypertext
www.duke.edu/~mshumate/hyperfic.html - 12k - Cached - Similar pages

c.gp.cs.cmu.edu:5103/prog/webster
Similar pages

Hypertext Webster Gateway
Category: Reference > Dictionaries > Links and Resources
work.ucsd.edu:5141/cgi-bin/http_webster - Similar pages

Eastgate: **Hypertext** Resources
... past. ... Calendar. Tell Us About Other Hypertext Resources!
Send e-mail to info@eastgate.com. ...
www.eastgate.com/Hypertext.html - 19k - Cached - Similar pages

PHP: **Hypertext** Preprocessor
... Hypertext Preprocessor, ... Patch Level 1 released for
PHP 4.0.4. Due to two security issues found ...
Description: PHP is a server-side HTML embedded scripting language. It provides web developers with a full suite...

Figure 1.3 - results the search engine Google, at http://www.google.com

as a fragmentary archive, is thus realized on two levels: first as a collection of documents with various degrees of relationship, and second as a medium of interrupted reading.

Though the LANGUAGE Poets obviously did not deal with hyperlinks, one finds that the notion of a fragmentary archive is precisely the mechanism at work within their poetry. A quick look at a few lines from Michael Palmer's *On The Way to Language* exemplifies such a journey into the fragmentary archive. He writes "the answer was / the sun, the question / of all the fragrances undressed / by the rats in the Pentagon / is Claude's, little / memory jars / empty of their pickled plums . . ."[28] This poetry consists entirely of dislocated segments of language placed into juxtapositional circumstance. The reader may initially be disoriented by this barrage of fragmentary language, questioning the validity of the syntax that orders it. This questioning, however, is precisely the expressive device enforced by the LANGUAGE Poets. As the author's purpose in juxtaposing fragments remains unclear, the reader must explore all possible veins of connection. The curious experience of such poetry, explains Jackson Maclow, is that while each fragment registers linguistically in the reader's mind, the decidability of the relationships between phrases is perpetually uncertain. "If it's language, it consists of signs, and all signs point to what they signify," and yet the real heart of the matter, he claims, "is the lack of any obvious 'object of imitation' or 'subject matter.'"[29] The definitions of words, here, function as "external supports . . . feet, not roots"[30] In the fragmentary archive, in LANGUAGE poetry as in hypertext, words direct the meaning but do not define it. The reader may attempt to find a meaning, indeed this is the reader's proper role, but there is no expectation of reaching a correct

---

[28] Palmer, Michale.   "On the Way to Language". *Language Poetries*. Messerli, Douglas, Ed. New York: New Directions, 1987. pg 75

[29] Maclow, Jackson. "Language Centered" *In the American Tree*. Silliman, Ron, ed. Orono: The National Poetry Foundation, The University of Maine at Orono, 1986 pg. 492

[30] Andrews, "Text and Context". *The L=A=N=G=U=A=G=E Book* pg. 34

answer, of finding for certain the author's intention. In the fragmentary archive, there is no correct interpretation, no correct meaning, there are only relationships, and thus meanings.

The LANGUAGE Poets' excursions into the fragmentary archive apply directly to an understanding of hypertextual meaning. In hypertext, as in LANGUAGE Poetry, meaning takes the form of relationships between juxtaposed fragments. While the LANGUAGE Poets weave together their fragments with creative syntax, hypertext describes these vectors more explicitly with hyperlinks. Meaning, in this context, is the reader's own exploration of the range of possible meanings. Obviously, such exploration eschews the notion of a 'transcendental signified.' Still, this meaning is not random. According to Wittgenstein, the reader's attempt to reconcile two juxtaposed fragments into a cohesive meaning is the required response to such a language game. As the reader encounters further fragments, she attempts to fit them into her current understanding of the verbal text she is experiencing. One possible scenario on the web is as follows, and as diagrammed in figure 1.4. The reader starts at http://www.lemonyellow.com, reading "Thinking about book design . . . Black Sparrow does some of the most beautiful books and covers... Reading about Sheri Martinelli... to William Gaddis... to Stanley William Hayter... and finally to The Sibyl of Delphi. " and chooses to follow the link indicated by the word 'thinking.' Her web browser is then pointed at a site describing "Tschichold's Canon of Book Design." When she arrives at "Tschichold is also known for his remarkable typeface design Sabon, which he designed in the 1960s." in the text, she may further follow the link "Sabon" to Adobe's web site, where the font Sabon Roman can be viewed and purchased. Further links on this page can carry the reader farther into a web of exploration, but more importantly this is only one of very many possible navigations beginning with the initial text of Lemonyellow.com. Web sites such as Memepool obviously offer an even higher density of starting points to navigations

lemonyellow.com

RUN

04 April 2001

Thinking about book design. *Worterbuch der Redensarten zu der von Karl Kraus 1899 bis 1936 herausgegebenen Zeitschrift 'Die Fackel'* must have been one of the most perfect problems imaginable. I would like a problem like that. I would like to design Perec's intricately nested stories in *Life A User's Manual*... Maybe I will. I wonder if anyone will care. Black Sparrow does some of the most beautiful books and covers... Reading about Sheri Martinelli... to William Gaddis... to Stanley William Hayter... and finally to The Sibyl of Delphi.

March 2001

all contents © 1999- 2001 h.a. halpert

Historical Precedents to the GLaD Construction

Tschichold's Canon of Book Design

Jan Tschichold was one of the premier book designers of the twentieth century. In the 1920s in Germany, he championed a stark asymmetrical style of typography associated with the modernist and Bauhaus movements. Later he moved to Switzerland, where in the 1930s he rejected his earlier asymmetric experimentation and returned to classical (often center-aligned) models of typography. In the 1940s Tschichold was a design director for Penguin Books, where he designed the familiar penguin and puffin logos and reconfigured many books to incorporate the golden ratio in their page or text-block proportions. Tschichold is also known for his remarkable typeface design Sabon, which he designed in the 1960s.

Adobe everywhere you look▾

Store   Products   Support   Corporate   Search | Feedback
Products   Type   Plug-Ins   Upgrade Center   Shopping Cart
Customer Service   Your Account

● Adobe Store   ● Type Library

Adobe Type Library

Sabon Roman

next font ►

Buy this font as part of the package:
Sabon.

Classification: **See related packages:**
● Garalde Oldstyle   ● Sabon SC+OsF

Designer:
● Jan Tschichold

Typogr

ABCDEFGHIJKLM
NOPQRSTUVWXY

A descendant of the types of Claude Garamond, Sabon was designed by Jan Tschichold in 1964 and jointly released by Stempel, Linotype, and Monotype foundries. The roman design is based on a Garamond specimen printed by Konrad F. Berner, who was married to the widow of another printer, Jacques Sabon. The italic design is based on types by Robert Granjon, a contemporary of Garamond's. This elegant, highly readable typeface is excellent for sophisticated uses ranging from book design to corporate identity.

Sabon is a registered trademark of Linotype-Hell AG and/or its subsidiaries.

Figure 1.4 - http://www.lemonyellow.com

of the fragmentary archive.   The relationships between these fragments of language have no specific message, and yet they still have messages when viewed in sequence, in juxtaposition. As a body of fragments, they do not signify but they do interact.

As Bernstein writes "the distortion is to imagine that knowledge has an 'object' outside of the language of which it is a part."[31] In the fragmentary archive, knowledge, meaning, arises from the reader's engagement with language. In LANGUAGE Poetry, this engagement arises from decisions of syntax: language use outside of normal convention which requires the reader's active participation to gain understanding. Hypertext also engages the reader through a syntactic mechanism. The hyperlinks augments the syntactic possibilities of normal language, adding another way for language to function. By presenting the reader with a choice of hyperlinks to follow, hypertext institutionalizes the concept of open interpretation. Hypertextual LANGUAGE objects, thus, offer constructive possibilities through their syntactic structures of hyperlinks. Indeed, what Bernstein calls "knowledge," the realization of the text within the reader's mind, arises from vectors of referral between language objects themselves. In language poetry, Jackson MacLow writes, "the mind moves beyond the language elements themselves, impelled by a complex melange of denotations and connotation, of remembered language experiences and life experiences."[32] In both LANGUAGE Poetry and hypertext, structures of language provide a framework for the perceiver's idea space, and yet their role is to influence and not to dictate. Using its previous experiences, the mind grants meaning to associations between elements of language. As such, the experience of reading hypertext, as the experience of reading LANGUAGE poetry, rests upon the reader's own engagement in the interpretation of the signs placed before her.

---

[31] Bernstein, "The Objects of Meaning". *The L=A=N=G=U=A=G=E Book.* pg 60.

The structures of LANGUAGE poetry and of hypertext grow from largely preexistent raw materials of language. Many of the phrasal fragments of LANGUAGE poems arise directly from popular culture: commonly recognized phrases and situations, slogans, even movie titles. LANGUAGE Poets allow their poetry to leave the writer's private realm and begin, instead, in the culture of language in which the reader is already immersed. The function of such poems is to allow the latent communicative postures of these fragments to interact and recombine. Discussing Hejinian's long poem *My Life*, Marjorie Perloff writes that "Hejinian's strategy is to create a language field that could be anyone's autobiography," that drawing on common proverbs, aphorisms, and elements of media culture forms a kind of "collective unconscious."[33] Public language has experiential significance; it is chosen purposely for the subjective resonances it will have with individual reader. This appeal to the public domain is an essential part as well of the web's hypertextuality. Except for minimal number of cases, the web is a structure of public documents. As with LANGUAGE Poetry, these fragments of language already have latent communicative postures. Both LANGUAGE Poetry and the World Wide Web provide connections between these language objects, forcing the interaction of their individual resonances. The interplay that arises generates meaning in the reader's experience.

The expressive agency of structured public language rests in, as the LANGUAGE poet Lyn Hejinian puts it, generating "ideas for vocabularies" as opposed to 'vocabularies for ideas.'[34] Hejinian suggests that communication begins with the latent possibilities of language, rather than with the intention of the writer. The poet's work is to assemble these language fragments into a

---

[32] MacLow, "Language Centered". *In the American Tree* pg 494

[33] Perloff, Marjorie. "L=A=N=G=U=A=G=E Poetry in the Eighties." *The dance of the intellect: Studies in the poetry of the Pound tradition.* Cambridge: Cambridge University Press, 1985 pg. 222-225

[34] Hejinian, Lyn. "If Written is Writing". *The L=A=N=G=U=A=G=E Book.* pg. 29

structure that influences conceptual space; "The process is composition rather than writing."[35]

LANGUAGE Poetry arranges pre-existent vocabularies into structures that influence ideas within the reader's mind and do not relate an intention on the part of the author. As Bruce Andrews claims, "Secret meaning is not a hidden layer, but a hidden organization of the surface."[36] Such organization is paramount to hypertextuality. Hypertext extends Hejinian's perspectives on 'vocabularies' beyond the confines of phrasal fragments. The vocabulary of hypertextuality is not the language of pop culture, but rather the huge archive of hypertext documents which inhabit the World Wide Web. As a collection of hyperlinks, a single hypertext can be a nexus for a vocabulary of texts, of web pages. Such a text functions as a hub, as diagramed in figure 1.5, with each of its hyperlinks providing associations between the elements of this vocabulary. Correlations take place through this hypertextual hub; it functions as a locus of relationships between language objects. By joining vocabulary together, the hub structures language for presentation, providing within the reader's mind possible 'ideas' for the 'vocabulary' of fragmentary texts on the Internet. Protest.Net, presented in figure 1.6, serves as one very practical example of such organization. Containing links to a variety of sites detailing various anti-corporate protests around the world, this collection of documents creates an environment of possible meanings, depending both on the reader's attitude towards the topic and the interactions between these sites. This hub creates interwoven connections between trade organizations such as the FTAA, the World Bank, and the G8 as well as words such as "direct action," "non-violence," and "anarchism" to name a few. Memepool, in figure 1.2, provides perhaps one of the best example of hypertextual hubs. Each entry on this page weaves together an array of hypertextual fragments. As a whole, this structure does not present one cohesive idea, but rather

---

[35] *ibid.*, pg 30
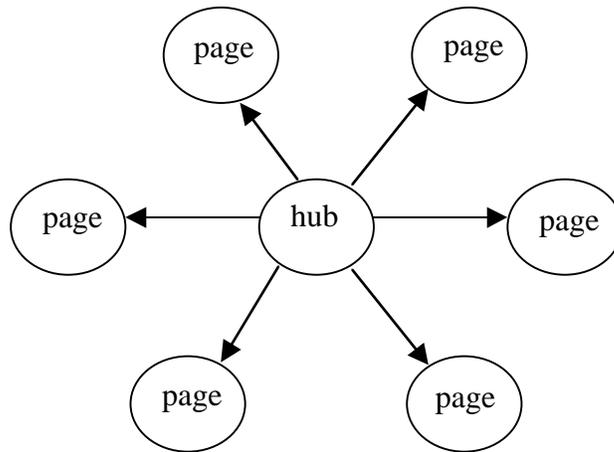
Figure 1.5

A hypertextual 'hub' and hyperlinking 'spokes.'

Figure 1.6 - http://www.protest.net
A site coordinating activism world wide

assembles a vocabulary of hypertexts in to a situational juxtaposition yielding a variety of subjective interactions. Going further, hypertextual environments extend far beyond the structure of figure 1.5. In hypertext, every document has the potential to be hub, as in figure 1.7, providing ideas for further vocabularies of hypertexts. Following one link from either Memepool or Protest.Net exemplify this readily. The authors of each distinct document work together indirectly, for they are not necessarily aware of each other's work, to create a vast environment of interpretations for the vast vocabulary of documents available through hyperlinking. This vocabulary of texts contains the raw material for the reader's own intellectual exploration; the links she follows determine both directions in the textual network and vectors in her own idea space.

While LANGUAGE poetry and hypertext share much in terms of their treatment of public vocabularies, the World Wide Web does not comprise a "collective unconscious" in the same way as Perloff asserts Hejinian's *My Life* does. They may resonate with the reader's own experience, as any document might, but web documents do not deliberately attempt to approach popular cliché as LANGUAGE Poetry often does. Still, Perloff's words remain useful. To begin with, positing *My Life* as "anyone's biography" implies a direct challenge to authorship that hypertext more than sustains. As the hypertextual author knits together vocabularies, she incorporates sites by many authors working independently of her own project. By adding hyperlinks to these sites, however, these documents are included in a single network text that the reader uses to construct idea space. Who can be called the author of this grand document? The reader finds no constant voice to guide her through the vocabulary that follows. By using fragments from popular culture, Hejinian plays at marginalizing her role as a poet; by linking to

---

[36] Andrews. "Text and Context" *The L=A=N=G=U=A=G=E Book* ". pg. 33
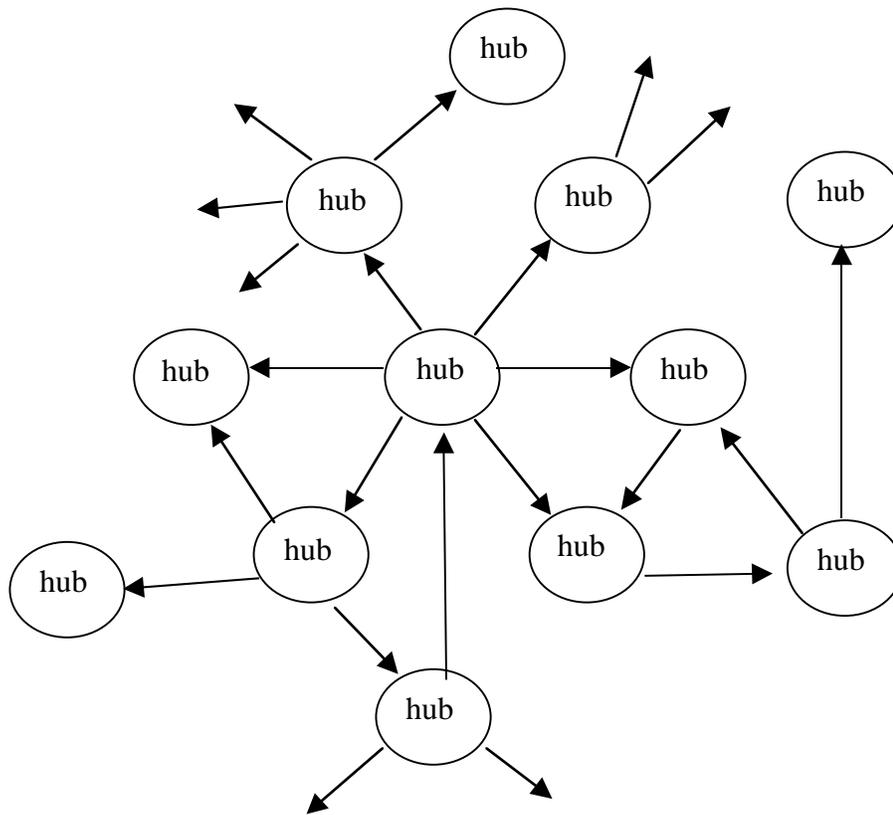
Figure 1.7

A more typical hypertextual structure for the web.

Figure 1.8 - http://www.slashdot.com

documents by other authors the hypertextual writer goes much further, dissolving the very boundaries of her own authorship. Perloff claims that *My Life* could be about anyone, that it relates to any individual's life. Hypertextual structures on the World Wide Web, however, begin to be about everyone simultaneously, though often within specific topical boundaries. Protest.net combines references to pages discussing both radical anarchism and civil disobedience, animal rights and labor organizing. Slashdot (Figure 1.8) links to documents discussing a wide variety of computer and internet related topics. While each document in these cases may have a specific subject, as a whole this terrain of fragments does not agree at the level of topic or semantics. Each language object functions within its own context. Originating in a public archive, hypertext on the web is not a collective unconscious, but rather a collective conscious, a meeting of cognizant, divergent perspective.

Though the productive hub providing hyperlinks between loosely related web sites is a common occurrence, it is not the only structural paradigm found on the web. The productive meta-discourse of ideas for vocabularies is countered on the web by the specific design of individual sties. It is the objective of commodity to constrain a web reader to a single group of pages, providing few, if any, links to documents of authorship not controlled by the establishment of a single site. Mainstream news sites, such at CNN (http://www.cnn.com) and the New York Times (http://www.nytimes.com) both, with the exception of hyperlinked graphical advertisements, stick to this formula exclusively. Their hyperlinks only turn inward, betraying the specific use philosophy of these collections of documents. *Web Site Engineering: Beyond Web Page Design* elucidates the controlled hypertextual structures implemented in web sites to purpose them for specific ends. Figure 1.9 displays some of these configurations; each

Linear

Linear with options
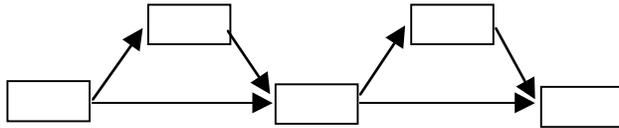
Hierarchy
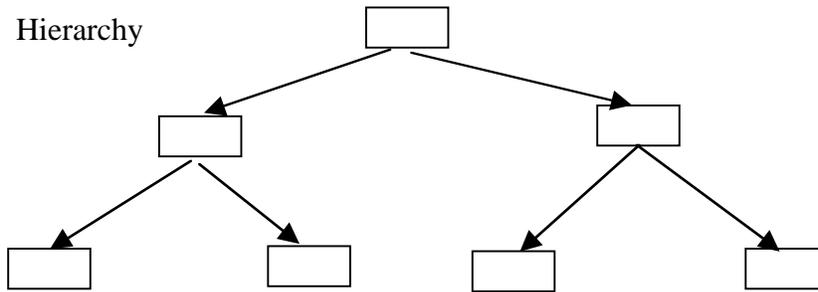
Grid
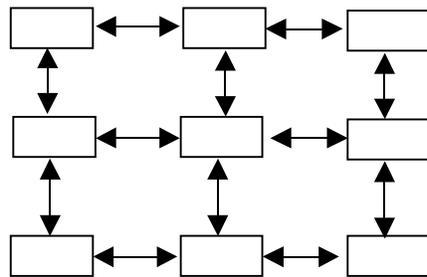
Figure 1.9 - Typical hypertextual structures

"Mommy, it's not my fault. I got bad grades because I watch TV and I'm not Asian!"
to Education by djinn

Figure 1.10 - a selection from Memepool.

arrow represents a reference from one page to another.[37] As shown, only the grid structure allows for both forward and backward navigation, but in practice all four structures may be implemented with either bi-directional or unidirectional qualities. All websites must have a design for the hypertextual presentation of their information, otherwise they cannot hope to communicate at all.[38] Still, some designs obviously attempt to manipulate the viewer more than others. Variations on the linear design are particularly focused towards very specific objectives, though even grid and hierarchical structures can be strongly purposed, depending on the ways that they are combined with the linear structure. A web site such as the University of Michigan Library (http://www.lib.umich.edu), for instance, is a hierarchy with a general purpose of supplying information through a variety of uncoordinated sources. The e-commerce site CDNOW (http://www.cdnow.com), uses a hierarchical structure to eventually lead buyers to a very specific linear transaction: the point of sale. Though hypertextual structures can obviously also be used to manipulate a web reader, she retains an important tool to counter these efforts. Web browsers always feature a 'back button,' an element of the interface that allows users to move backwards along the chain of hypertext pages that they have visited. Thus, a reader may always return to a productive hub of information such as the search engine results, as demonstrated in figure 1.3, that so often begin a hypertextual navigation; she cannot ever be unwillingly subjected to a site operating on a paradigm of consumption.

The internal structures of web sites insert themselves into the greater organization of the World Wide Web, creating a continuum of experiences from the meta-discourse of productive meaning to the meta-discourse of commodity. Even the most highly structured e-commerce sites, however, the productive mechanisms of hypertext retain a foothold. Though the productive

---

[37] Powell, Thomas A. *Website Engineering*. Upper Saddle River, New Jersey: Prentice Hall, 1998., pg 139
[38] ibid, pg 136

possibilities of juxtaposition may be subordinated to those of purposed use, they still remain the central operators of meaning. Even the links on CDNOW or Amazon.com's home pages provide a structure for navigating and connecting an archive of language fragments. Ultimately, this arises out of hypertextual meaning's deep reliance on context; operators of referral are devices of context. Within every text, a specific context guides the reader's understanding of the words she encounters. Hyperlinked words, however, extend the effects of contextualization. When a reader activates a hyperlink, its meaning in the text in which it resides brings a context to the text which it activates. Figure 1.10 demonstrates a hypertextual clip from Memepool, each hyperlink of which joins this whiny excuse with more serious analysis of success in school. Similarly, in figure 1.1 international trade organizations ACLA/FTAA and NAFTA are presented in a negative context. Yet, the pages these language fragments link to are the actual web sites for these organizations, which will obviously present these same terms in a positive context. From this, the contextual interactions of such situations are multiple. In addition to the contextualization afforded to a document by its activating hyperlink, the activated document also recontextualizes the language of the link itself, latent in the reader's mind. Essentially, these contextualizations are just functions of the more abstract relationships between the entire contextualized lexes of both documents. Beyond the context of a word, each document has an encompassing context which reciprocates with the context of the document linking to it, and vice versa. On the World Wide Web, meaning rises out of this contextual matrix. Ultimately, the web affords not only interactions between the contexts of individual documents, but also between groups of interlinked documents, structured language. Context occurs on multiple levels: words, documents, and structures of documents. The overlapping blocks of context provide a constantly changing array of possible meanings. The reader must recognize that the

format for discussion can always broaden, that the context of discussion is never constant, that the writers voice and identity can always change.

Though LANGUAGE Poetry is not as explicitly multi-authored as web networks are, the expressive power of multiple context remains one of its main concerns. In LANGUAGE Poetry, repetition and permutation investigate the thought structures of interacting contexts. Lyn Hejinian's *My Life* begins each of its two to three page section with a short, italicized inset. The words of each of these insets are repeated throughout the poem, but the precise meaning of these words is never clear. Rather, each repetition gives the words a new context, and the reader a new perspective. For instance, "As for we who 'love to be astonished'" appears later as "As for we who 'love to be astonished,' each new bit of knowledge is merely indicative of a wider ignorance" and is the further permuted in "As for we who 'love to be astonished,' McDonald's is the world's largest purchaser of beef eyeballs." In another case, "A pause, a rose, something on paper" reemerges as "For such words present residences on a brown ground. A pause, a rose, something on paper" and "What education finally serves us, if at all. There is a pause, a rose, something on paper."[39] As a hypertextual entity, *My Life* thus re-crosses itself many times. The reader is inclined to turn pages back to review the contexts of previous appearances of these fragments, and yet these clues can not aid the reader in an effort to define their meanings precisely and finally. Rather, they do just the opposite, for these fragments have different meanings at different loci. As the reader proceeds, she is forced to incorporate a growing matrix of context into her constructed understanding of the language field which confronts her. As these metastable contexts give rise to a variety of possible meanings, the reader must make comparisons not only between vectors of signification, but also between the areas of thought that

[39] Hejinian, Lyn. *My Life*. Los Angeles : Sun & Moon Press, 1987.

this undecidable signification affords. In different contexts, language objects have different meanings; LANGUAGE Poetry combines these contexts, permuting them in a language game of multiple outcomes. As the LANGUAGE poetry reader pieces together fragments she is, in a sense, establishing her own context, her own set of rules for understanding the language game presented to her. Communication, thus, eludes reducibility. Meaning slides under metaphor as contextual structures point in multiple directions simultaneously

Hyperlinks institutionalize the permutations of context and connections between areas of language that Hejinian's poetry suggests. While *My Life* must rely on repetition to link terrains of language, the institution of the hyperlink augments the syntax of language itself, embedding such relationships within the very language that participates in them. In this design, one region of language may reference another directly and explicitly. Further, as contributors to the context of the documents they point to, hyperlinks are in a sense part of both the document they reside in and that which they reference. The fragment that references one text from another serves to frame the reader's understanding of that text; the text, its language, is thus signified by this fragment. Writing on LANGUAGE poetry, Bruce Andrews offers in *Text and Context* that "Texts are themselves signified, not mere signifiers"[40] The acute applicability of these words to hypertext is fully apparent. Indeed, all of the words in a text signify that text to some extent; they *are* the text that they signify. The language object that refers to a text through a hyperlink is another of these elements of the text, elements that form its fabric as the reader encounters it. A single document's context, thus, is just the sum of the relationships of its language elements, the rules by which the document suggests its interpretation to the reader. Hyperlinks, as elements of language shared between two texts, thus define an overlap of these texts individual contexts, a

---

[40] Andrews. "Text and Context". *The L=A=N=G=U=A=G=E Book.* pg 34

comparison between structures of language within documents. As in Hejinian's *My Life*, the

thought structures which arise from these interactions are not encoded in the language that

defines them, but rather arises due to the reader's engagement with the permutative contexts

which they provide. Ultimately, the reader's constructed subjects combine and recombine in a

metastable negotiation of multiple meanings. She plays a language game in which her language

research manufactures a space of ideas.

According to Wittgenstein, in every communicative language game there exist rules,

certainties which guide communication. These certainties form the basis for a language game,

the criterion by which meaning and validity are evaluated. In *On Certainty* Wittgenstein writes

"If the true is what is grounded, then the ground is not *true*, nor yet *false*."[41] Michael Kober

interprets these somewhat vague words:

> My suggestion is that certainties are like the rules of games and belong to the constitutive
> rules of a (discursive) language-game. Certainties are neither true nor false, rather they
> define truth with regard to the epistemological aspects of a language-game.[42]

Indeed, certainties define the context of a specific language game. Context, as the language

mechanism that gives rise to a particular meaning, is just the set of assumptions about meaning

in a particular language object. When these assumptions are changed, the meaning that the

reader is able to construct from the language object's cues also changes. Using a language

element in multiple phrasal syntaxes and using this element as a hyperlink have similar affects.

In both cases, the reader is forced to restructure the certainties that she is currently using to

generate meaning. A certainty, thus, has only a practical value; it facilitates communication

within a specific language game, defining a starting point for further communication. When

those starting points change, meaning becomes unstable. The truly engaged reader recognizes

---

[41] Wittgenstein, Ludwig. *On Certainty.* G. E. M. Anscombe and G. H. von Wright. Eds. Denis Paul and G. E. M.
Anscombe trans. Oxford: Blackwell, 1969.   pg. 205

the conflicting interpretations available to her and must recognize their validity with respect to each possible language game. Wittgenstein's certainties simply indicate which moves are valid in a given language game.

While Wittgensteinian certainties structure communication within a specific context, hypertextuality foregrounds the breaking of such contexts. In both LANGUAGE Poetry and on the World Wide Web, as has been demonstrated, the violation of contextualized meanings is a matter of course. Wittgenstein himself claims that when a move in a language game reaches the questioning of a certainty, of a rule of interpretation, then this simply indicates that the questioning player has begun to play a grander game.[43] In hypertext, when the reader activates a hyperlink and encounters a new contextual framework, the frame of the communicative game that she is playing suddenly grows. The interactive nature of the hyperlink dissolves certainties more readily than in print, though radical artifice such as language poetry makes a valiant effort to achieve the same effects. In a text attempting transparent communication, the author typically begins with a given set of certainties and, using a systematic approach to answering questions, draws conclusions that fall with the confines of these basic rules. The language game of these texts is clearly defined from the very onset of the writing; the reader's journey through the text follows a predefined path with a definite conclusion, waiting for the reader. As the reader navigates through a hypertextual network, however, the language game no longer allows for these kinds of contextualized conclusions. To put it another way, the reader must play a variety of language games, with conflicting rules that yield conflicting conclusions. Bernstein writes that "a poem exists in a matrix of social and historical relations that are more significant to the

---

[42] Kober, Michael. "Certainties of a World Picture" *Cambridge Companion to Wittgenstein*. pg 424

[43] Kober, pg. 426. Wittgenstein, *On Certainty*.

formation of an individual text than any personal qualities of the life or voice of the author."[44]

This matrix of relations represents norms within a community, established structures by which a reader may derive meaning. Wittgenstein recognizes this matrix in what he calls a 'world picture,' the certainties which define the basic play of language games used for communication. Within an individual document, a certain 'picture,' a certain set of communicative assumptions, is always in place.[45] These subsets of social and historical relations, these discursive formats are what allow for a document to communicate effectively with the reader. Even the most basic language configurations are dictated by these relationships. Certainly, discursive formations within a single hypertextual document may still function by tracing well know communicative patterns. Nevertheless, the addition of hyperlinks can easily violate discursive boundaries. As documents in hypertextual space have only fuzzy boundaries, analyses from divergent perspectives threaten to merge. The reader must cope with this situation somehow, recognizing with equal validity multiple analytical perspectives or rejecting multiplicity by choosing her own perspective.

As methods for structuring language into communicative bodies, discursive formats are essential to making language useful and effective. Nevertheless, web navigations that move between many web side deconstruct these boundaries in their construction of meaningful possibility. As the reader navigates the space, she must confront multiple communicative games and accept the rules of each as a momentary context. Even a page as simple as the hypertextual directory in figure 1.11 describes such reading. The texts that this hub references all operate in different topical lexes. Figure 1.12 provides a more developed example of this type of situation.

---

[44] Bernstein, Charles. "Interview with Tom Beckett". *The Difficulties: Charles Bernstein Issue*, ed. Tom Beckett, Vol. 2, no. 1 (Fall 1982). Pg. 41
[45] Kober, Michael. "Certainties of a World Picture" *Cambridge Companion to Wittgenstein*. pg 424

Women in Tech
A Wired News Collection

Women keep breaking through the silicon ceiling, but haven't shattered it yet. Wired News looks at the people leading the way.

◀)) Wired News Radio
Getting Schooled on Ed-Tech
Wednesday   Linda Roberts headed up the Office of Educational Technology for the Department of Education from 1993 to 2000. With a change in the White House, there's a change in the school house. Roberts discusses the state of technology in education under the Bush administration. (25:59 min.)
- - - - -

Dean's List
Zooming in on a Site for Life
Monday   A teacher wins a prestigious Pirelli prize for his biology website which provides a multimedia tour of a cell. **Also:** Carnegie Mellon hosts a forum on women in computer science.... S.F. can't use its e-rate funds.... Oberlin College offers student news on PDAs.... And more, in Katie Dean's education notebook.
- - - - -

Book Review
Folly in the Valley
Mar. 20, 2001   Sara Miles' *How to Hack a Party Line* takes an inside look at the relationship between Silicon Valley execs and the Democratic party. But the real story is the classic tale of human foibles. A review by Steve Kettmann.
- - - - -

Teachers Miss Out on Tech Tools
Mar. 12, 2001   Low attendance didn't override the number of interesting tools for teachers showcased at the ACM's conference this weekend. Teachers learned how to run a virus game in classes and integrate complex modeling, handhelds, and laptops to enhance coursework. Katie Dean reports from San Jose, California.

Smut Glut Has Porn Sites Hurting
Mar. 9, 2001   Porn equals profit. In the Net industry, that's been a business model to count on. But these days, the online porn industry has been going through the same pains as other Net ventures. By Jenn Shreve.

Girls Into Science, Not Computers
Mar. 9, 2001   A new study shows that girls are outnumbering boys in basic math and science courses, but they still lag behind in key subject areas such as computer science. By Kendra Mayfield.

Dean's List
Wanted: Minority Women in Tech
Feb. 26, 2001   A nonprofit organization receives a grant to help bring women of color into math and science careers. **Also:** Britney Spears does physics.... Rod Paige receives a prestigious award.... Northwestern explores the African diaspora.... And more, in Katie Dean's education notebook.

Figure 1.11 - a summary page from Wired Magazine, http://www.wired.com

The Ohio Valley IMC has coverage of the protest and police response. There are discussions of the role of white anti-globalization activists, a statement of solidarity from white activists in Cincinnati, commentary, and links to corporate news articles. You can also check out the police scanner and webcam.

Communities have been fighting racist and corrupt police in southern Ohio for years. A few years ago, action by Columbus Copwatch prompted a federal review of police brutality in Columbus, Ohio. Copwatch has been active (and kept underground) in Columbus, Dayton, Cincinnati and other parts of southern Ohio. Despite the race baiting in the corporate media groups like ARA - Anti-Racist Action of Cincinnati have been working against racism and sexism in Cincinnati.

An anonymous reader has posted the police department and city hall phone numbers.

Figure 1.12 - another selection from Indymedia, http://www.indymedia.org

Links from this article reference, among other formats, reports by independent media, discussion boards, corporate news articles, activist web sites, and a lists of telephone numbers, documents which by their syntactic nature communicate very differently. As the hypertextual reader moves between texts by multiple authors in multiple communicative and discursive formats, the authority of each text is always provisional. Authorities rest only upon and against other authorities; there is notentity of critical finality, a reality that is well framed in some regards by the deconstructive notion of intertextuality. Interpreting Derrida, Sarup writes that in intertextual systems "there is a proliferation of interpretations, and no interpretation can claim to be the final one." The nature of truth, thereby, is taken to be unknowable.[46] The web is clearly an intertextual structure; the signifiers that link texts to each other are explicit in the language syntax of this medium. While deconstruction views such external reference as the major weakness of the critical form, hypertext embraces such violation of discursive boundaries. Through the syntactic augmentation of the hyperlinks, the World Wide Web institutionalizes the "play of signifiers that refer not signifieds but to other signifiers" that deconstruction so notably asserts[47]. The metaphors inherent to language become undecidable; deconstruction explodes the notion of 'text' "beyond stable meaning and truth toward the radical and ceaseless play of infinite meanings."[48] On the World Wide Web synthesis is only possible not in the hypertextual space of the screen, of the page, but rather in the reader's mind as she connects multiple meanings into a complex space of ideas.

While the fluidity of language interpretation afforded by intertextuality functions as major component of the World Wide Web's communicative experience of idea space, this

---

[46] Sarup, Madan. *An Introductory Guide to Post-structuralism and Postmodernism.* Athens: The University of Georgia Press, 1989. pg. 58
[47] ibid. pg. 58
[48] ibid. pg. 59

deconstruction also operates against the very possibility of communication itself. As hypertext challenges the validity of interpretation, it highlights the philosophical problem of forcing language into practical meaninglessness. On the World Wide Web, the volume of language fragments is staggering, and continuing to grow by over two million pages a day.[49] Thus the network of possible interactions is practically infinite. Such situations actualize deconstructive claims that there is nothing other than interpretation and that the activity of interpretation is endless, that "every text tends itself to further deconstruction, with nowhere any end in sight."[50] In terms of context, every element of language can be endlessly recontextualized, leaving the reader with no ground upon which to stand. This conceptualization, however, is a philosophical construct; the experience of the web is concerned with practical communication. Terry Eagleton writes, in response to deconstruction,

> Meaning may well be ultimately undecidable if we view language contemplatively, as a chain of signifiers on a page; it becomes 'decidable' and words like 'truth', 'reality', 'knowledge', and 'certainty' have something of their force restored to them when we think of language rather as something we *do*, as indissociably interwoven with our practical forms of life.[51]

Language games must have boundaries, for without them language risks cessation of the very process of communication. As Eagleton suggests, language exists practically within a social sphere. On the World Wide Web, the process of communication is maintained by the social interactions of the reader. No matter how deep the string of signifiers, the reader will at some point stop reading; she will halt her construction of the idea space. Meanings need not become decidable, as Eagleton seems to suggest, but the space of their multiplicity is certainly bounded. The practical reality of how textual communication takes place, that is, through reading, thus

---

[49] Lake, David. "The Web: Growing by 2 Million Pages a Day". *The Standard.* Febuary 8, 2000. [On Line] http://www.thestandard.com/article/0,1902,12329,00.html
[50] Sarup, 60
[51] T. Eagleton, *Literary Theory: An Introduction*, Oxford, Basil Blackwell, 1983, pg. 138

allows spaces of ideas to retain both undecidability of metaphor and constructive communicative value.

In hypertextual space, reading becomes a performance. The reader's willingness to perform the text, to engage directly with its objects of communication is a necessity in hypertextual space. This performance is a game of conceptual interaction with the text. Eventually, the game comes to an end; the reader has rules, certainties, that she is not willing to compromise in a given performance. Hypertextual structures provide a script, but one of multiple directions. The LANGUAGE Poet Bruce Andrews sees "Reading as a particular reading, an enactment, a co-Production . . . a scriptorium."[52] Such choices of interpretation define the performance both on the World Wide Web and in LANGUAGE Poetry; the reader and writer work in implicit unison to manufacture communication. As latent features of the reader's mental state influence the idea space, the text functions both to guide and to bring out what is already present in the reader. Andrews puts forth that in LANGUAGE poetry "texts read the reader."[53] In this expressive form language allowance of multiple meaning makes the reader just as important to the text's subject as the writer. In hypertext, where hyperlinking gives over the very duty of ordering language objects, the choices that the reader makes reflect her pre-established opinions, certainties, inclinations, and fears. As the reader manufactures a customized script for her performance she, too, is writing the text before her eyes. To perform in hypertextual space is to juxtapose language fragments, a role equivalent to that of the author that defined the hyperlinks she is following. As a co-writer, the reader enters into a dialogue with language; by activating hyperlinks, she can 'talk back' to the text, constructing her own navigation through the language terrain. This very navigation, then, provides the necessary

---

[52] Andrews, "Text and Context" *The L=A=N=G=U=A=G=E Book*. pg. 35

limitation to make the vast archive of hypertextual language communicative. Performance makes communicative language games possible even in the conceivably unbounded textual landscape of the World Wide Web.

As the practice of engaging hypertext through performance functions to limit language games to practical, useful discourse, the hypertextual reader gains control over the very language that she is using to construct meaning. Through hyperlinks the reader is granted a facility for controlling the rules by which these games are played. Clicking signals the engagement of a new set of certainties, recontextualizing the reader's experience of the text. Indeed, as the reader constructs her idea space, these decisions form the communicative rules by which she accesses meaning. Wittgenstein has written

> A rule stands there like a sign-post.————Does the sign-post leave no doubt about the way I have to go? . . . But is it said which way I am to follow it; whether in the direction of its finger or in the opposite one?[54]

In this sense, hyperlinks function as communicative rules. More precisely, a hyperlink signifies a context, a set of rules. It is, perhaps more immediately than Wittgenstein's certainties, a sign-post in both textual and conceptual terrain. The reader can choose to follow or not to follow the sign, by simply clicking or not clicking. Even if a reader arrives upon a document that disrupts certainties which she does not wish to discard, she can dismiss it by using a web browser's "Back" button. That which is irrelevant to her current navigation, to her current constructed idea space need not be incorporated. The reader chooses how to interpret the direction that the sign-post points as Wittgenstein suggests. With respect to the textual structure before the reader's eyes, this sign-post literally determines what language objects will confront the reader next. By activating this link, she demonstrates her engagement with the text, her willingness to respond to

---

[53] ibid.

45

the hyperlink in a construction of meaning. Each foray into the hypertextual archive represents a single performance; a single idea space is manufactured in the domain of all possible idea spaces.

Ultimately, performing a text, taking its language operations as cues to further action, adds a level of immediacy to reading that is foreign to more traditional modes of textual communication. In LANGUAGE poetry, the poets manipulate language to make reading into what Bernstein calls "an instance of reality / fantasy / experience / event."[55] Syntactic play makes reading itself into a substantive experience. Truly, the reader's interactions with language structure a reality within the reader's mind; the event of reading language becomes sensualized to the reader. In hypertext, the event of engaging language is not only a virtual reality of language referral within the reader's mind, but also a physical reality of textual networks that load upon activation of a hyperlink. When a reader clicks on a hyperlink, she is enforcing a direct relationship with language; her ability to manipulate communicative formations ends the text's role as mere mediator. Bernstein writes that language must be "located in the world with meanings to respond to"[56] this radical role for language in LANGUAGE poetry is institutionalized by hypertext. Hyperlinks sensualize language as artifacts of this immediate world rather than as distant objects to be decoded from textual form. To the engaged reader the act of reading is an active interpretation of language objects, a construction of idea space, brought to the foreground of experience by interactive language. The very act of reading becomes the definition of meaning. Fundamentally, the immediacy of language thus also makes immediate the reader's mental activity. The reader is not only engaged in language, but also

[54] Wittgenstein, Ludwig. *Philosophical Investigations*. Trans. G.E.M. Anscombe. Oxford: Basil Blackwell, 1963. (85)

[55] Bernstein, Charles. "Stray Straws and Straw Men*". The L=A=N=G=U=A=G=E Book* . pg.39

[56] Bernstein, "The Objects of Meaning", *The L=A=N=G=U=A=G=E Book,* pg. 61

must be engaged within her own mind; she must be always thoughtful and aware to assemble multiple perspectives into practical formats.

Such discussion of immediacy in hypertext begins to go beyond the pure language operations of this medium, initiating a necessary extension to a consideration of the reader's most direct interaction with the verbal text: the visual. Importantly, hypertext resides on a screen, a material of presentation much different from traditional print. The sensualization of referral through interactive visualization, of hyperlinks between language objects, thus plays a large role in fostering more immediate language, and conceptual, experiences. The institution of the screen, however, goes far beyond visual aspects of written language. Hypertext's home on the computer screen is also the home of a rich array of hypermedia, graphical image displays which can communicate in parallel with verbal texts. These visual media can also be 'read' as texts, but at the same time they offer important contributions to visuality that verbal text cannot. Such experiences introduce the visual aspects of television and film to the realm of text, in addition to extending the mixed media format of periodicals and newspaper. These elements further extend the immediacy of communication, and by their meaningful nature enhance the depth of idea space.

II: Multimedia

Immediacy in hypertext goes beyond the pure language operations of the medium. The reader's most direct interaction with the text is the visual rather than the literary. Hypertext resides on a screen, a material of presentation much different from traditional print. On the screen, written language has visual properties that extend its more purely textual functions. The institution of the screen, however, goes far beyond visual aspects of written language. Hypertext's home on the computer screen is also the home of a rich array of hypermedia, graphical image displays which communicate in parallel with verbal text. Such experiences add visual aspects akin to television and film to the realm of text as well as the mixed media format of periodicals and newspaper. This mixture of formal elements extends the immediacy of communication and enhances the depth of idea space.

In *Remediation*, Bolter and Grusin construct their study's overriding theme in part by comparing media of immediacy and those which fall in a category that they call 'hypermedia.' Their definition is enlightening to this discussion of multimedia as it provides a good summation of one of the overarching themes that has been discussed: the foregrounding of mediation. They define hypermedia as a "heterogeneous space" that "strives to make the viewer acknowledge the medium as a medium and to delight in that acknowledgement." [57] In this sense, hypermedia is "opaque," reversing the trend towards visual transparency and the aforementioned reality effect. Bolter and Grusin speak in terms of a general media theory; hypermedia applies to new media, print media, and ancient media alike: it is any media which "attempts to reproduce the richness of the human sensory experience" through heterogeneity. When speaking more specifically of

---

[57] Bolter and Grusin, pg. 41-42

the World Wide Web, however, it makes sense to use their insights to provide more precisely illuminating definitions. At least in the case of the web, the heterogeneity they speak of is more clearly defined as 'multimedia.' Much of what they claim can be easily transcribed to this term, giving room for a definition of hypermedia which has been given in this paper and will be explored more fully in the next chapter.

Visual communication on the computer screen, at least on the World Wide Web, functions in terms of two different but closely intertwined mechanisms. Running as two perpendicular axes in the user's visual experience, the web's multimediacy and its visual flow work both together and in friction as they define the reader's experience of the internet, of communication, and ultimately of ideas. At the most basic level, multimediacy deals with the visual experience of a single web page while visual flow is concerned with the reader's movement between web pages. Still, these concepts are not as simple, or as discrete, as this dichotomy presents them. The inclusion of many types of media in a single presentation defines the use of the web. As the perceiver moves through hypertextual space, she encounters a wide variety of media. Thus, visual flow on the internet is inherently multimedial. Conversely, single pages on the web often contain interactive animations or video clips, giving even a single page a visual current. Still, the distinction between multimedia and visual flow remains a grounded way to begin the discussion of the visual experience of the web. A multimedial approach grows out of the experience of magazines and newspapers while visual flow demands analysis from televisual theory. Both influence the immediacy of the World Wide Web as a single, if multimediated, medium.

This chapter looks specifically at the communicative mechanisms of multimedial layout. The complex expressive experiences of single web pages affords a basis for understanding how

communication takes place when these pages participate in a visual flow. This discussion begins by considering the visual extensions the computer screen and the web afford to written language. After establishing a starting point in textual manipulation and layout, the discussion moves on to consider the primary media of visual communication that are incorporated into the World Wide Web. This analysis deals both with how visual media relate to hypertexts as well as how they relate to each other. Each component of this heterogeneous medial display is considered individually before its specific communicative orientation is considered with respect to the other media of the web. Magazines and newspapers are invoked as defining examples of this collage experience, both exploring the competition between medial elements and the visual syntax that exists between them. These paths lead to a deeper discussion of how communication takes place in this visual space, and how the perceiver's reactions influence her construction of ideas and relationships between ideas. Moreover, shading this discussion of multimedial visuality is the question of whether the inherent commodity of images works to restrain the productive experience described in chapter one. Ultimately, the conflict resides between the transparent immediacy of visual imagery and the immediacy of mediation itself, that is, the reader's inclination to engage with the media themselves in producing meaning. The chapter concludes by introducing the concept of 'hypermediacy,' that idea that web media, like hypertext, function communicatively as sensualized objects rather than as transparent mediators.

Verbal text is obviously one of, if not the primary, communicative mechanism in use on the web. Although much of its communicative functionality has been explored already in this study, web pages offer verbal communication an additional visual dimension. The multimedia character of the World Wide Web is manifested in its most rudimentary form by hypertexts which enhance the visuality of language itself. In his book *Writing Space,* Jay David Bolter

begins a similar discussion by looking to the illuminated manuscripts of medieval times as an example of textual artifacts much more visual than our own. He writes

> Medieval illumination threatened to turn letters back into images or abstract designs . . . Perhaps the best-known example is to be found in the Book of Kells, where the Greek letters chi-rho-iota (standing for "Christs in Matthew 1.18) occupy a whole page. The design is so intricate that the shape of letters are almost completely obscured. Yet these illuminated letters remain part of the verbal text; they have to be included in order to read the verse.[58]

Modern verbal texts pay very little attention to their language in this way. Mechanisms such as headings, drop caps, and pull quotes are still used quite frequently, especially in periodicals, but such forms are doubtlessly muted when compared to the visual immediacy of medieval manuscripts, or, as will be shown, the institutionalized multimedia of the World Wide Web. Bolter writes that these manuscripts constitute "a means by which writing could describe or circumscribe the world—not symbolically through language, but visually through the shape of the letter itself."[59] Web hypertext begins to reclaim some of this verbal-visual effect by allowing a wider range of formatting options than traditional texts, and thus enables language to communicate in multiple layers of mediation. As figure 2.1 demonstrates, color plays a much increased role in hypertextual documents; authors can control the color of the hypertextual links, background, and specific blocks of text. Many web sites use several different text sizes or fonts within the same page, as evidenced by figure 2.2. While not as extreme as the visuality offered by manuscripts, the increased visual nature of language on the World Wide Web does add communicative dimensionality to the experience of reading. As a visual work in addition to a work of written language, a hypertextual document can draw additional attention to itself as a medium of complex relationships; text itself is multimediated. Such announcement of the text's existence as an object of the world, rather than a symbol simply to be looked through

---

[58] Bolter, pg. 73
[59] Bolter, pg. 73

contact

Who says a corporate signature can't
be an algorithm instead of a logo?

The Lincoln Memorial is a thing even
though it resembles a person

Even the Nike Swoosh
no matter how much
freedom it's been given
to roam is obstinately
a *thing* inert

How many marketing folks
right this second
are trying to find ways to say their companies

are not inert
that they actually change
as times change?

tough assignment

At Thirst we ask:

what if a corporate signature wasn't a thing

Figure 2.1 - from http://www.3st.com/

Figure 2.2 - http://www.radiohead.com/03.html

transparently, makes the text itself more immediate to the perceiver's apprehension. She must engage both its visual and verbal relationships in parallel as she negotiates its meaning.

This negotiation takes place in response to web documents' characteristic definition as media of collage, as realized by their layout and formatting. The visual immediacy of text on the World Wide Web extends that of magazine text; both use textual manipulations to construct a space of interrelating information. The examples in figures 2.3 and 2.4 demonstrate this verbal multimediation at work in popular magazines where graphically enhanced verbal text on these pages compete with each other for the reader's attention. The two-page spread reproduced in figure 2.3 juxtaposes two related compositions, using a split layout to place the ongoing article at the bottom of the page in interaction with the collection of shorter descriptions at the top. These two texts are in visual competition with each other, but even more apparent are the competitions between the larger subtitles in this top portion, such as "ABORTION" or "BOB JONES," and the smaller text in the bottom portion. While reading the article at the base of the layout, continued from the previous page, the reader cannot help but take note of these subtitles, let alone the large text exclaiming "The Lay of the Land Mines" at the top of the page. These accentuated visual elements intrude into the reader's visual space, forcing her to incorporate them into her reading. The competition in figure 2.4 is much more intense, with a variety of font and color choices, as well as the juxtaposed blocks of text, attempting to capture the reader's attention. Visual competition forces the reader to move between the pages disparate verbal spaces. As she does so, her reading is recontextualized by each of these fragments.

While graphical, verbal objects compete with each other for the reader's attention, they also participate with each other in constructing vectors of reference through visual syntaxes. The subtitles in figure 2.1, for instance, cooperate with each other in this way even while competing

Figure 2.3 - Newsweek.

with the text area at the bottom of the page. By sharing a common typeface and color, these elements are joined by vectors of visual reference, hence drawing connections that are more explicit than those afforded by their competitive functions. Figure 2.4 has a richer visual syntax than 2.3 as well as greater competition between verbal elements. Each set of headings with similar layout, whether the red text of "PANDAS," the white on blue text of "OTHER TRINKETS" and "FOOD," or the large numbers on the right, connects isolated textual segments into a single text. The numbers on the right of the page are related to each other by their similarly increased sizes and colors. The three headings, "Better Phone First," "NUMBERS" and "THEN & NOW, PART 1" have different typographic natures, thus using a negative syntax to enhance competition. These visual syntactic extensions attempt to influence the reader's navigation of the page by stressing specific relationships between textual objects. Indeed, they represent the decisions made by layout professionals to pattern the reader's eye movements in order to facilitate the extraction of meaning[60]. Even though this syntax has an intentioned structure of references between verbal elements, it does explain the meaning of these references. Reading, as Paul Stiff claims, is "a highly complex set of activities, working on many levels—from the relatively automatic one of eye movements to the intentional level of navigating, monitoring, sampling and selecting."[61] While visual competition and visual syntax function on the level of automatic eye movements, the final construction of meaning is the reader's own. Thus, in a multimediated text, the reader must deal with both the unordered interactions of visual competition, the ordered references of visual syntax, and ultimately the interactions these structures have with her won selective, productive process.

---

[60] Click, J. William. *Magazine Editing and Production.* Dubuque, Iowa: Wm. C. Brown Publishers, 1986. pg. 187
[61] Stiff, Paul, "Stop sitting around and start looking", *Eye*, 11 (1993), pg. 4

Since the visuality of fonts and color give the reader a layer of interpretive license in connecting textual fragments on a given page, it should be clear that textual multimediacy and hypertextuality have common threads. In both cases, the reader moves between fragments and must construct her own meaning. The presentation decisions that have been highlighted in figures 2.3 and 2.4 deal specifically with how color and font affect relationships between textual objects. There is yet another sense of visual syntax at work in these texts. In much the same way that hyperlinks can generate meaning by juxtaposing related, or unrelated, verbal elements, the layout of a page can place these elements in similar relationships. The two articles visible in figure 2.3 also have a relationship that operates outside of ordered or competing typographies. The proximity of these articles indicates a relationship between their subjects, President Bush's cabinet nominations and the stances of one specific nominee, John Ashcroft. In a more extreme case, the newspaper front page in figure 2.5 contains six articles, along with several other smaller segments of text. Here, the juxtaposition of blocks of text becomes more important than the visual artifacts of typography. While such a space of printed text does not contain either electronic hyperlinks or the joining headings of previous description, the reader's motion between articles is inevitable as she scans the page. In the case of this front page, the reader may read about the justice system in Maryland, a student's death at Gallaudet University, and a suicide in China. This medial situation emphasizes an important reality of multimediated spaces: the visual combination of interrelated subjects causes the reader to thread them together in a space of ideas. In this specific case, the reader will probably find a common, though unpleasant, thread of violence in the stories. This topical designation may or may not be an editorial decision, but in either case the discovery of such unities is the productive task of the reader.

Figure 2.5

The Washington Post

MARYLAND JUSTICE

Sentences Without Finality

Judges Can Cut Terms for Whatever Reason—or No Reason

Huge Gas Bills Stun D.C. Area

Cold, Deregulation, Scarcity Combine to Boost Prices

Second Student Found Dead in Gallaudet Dorm

DEADLOCK | *The Inside Story of America's Closest Election*

Analysis

A War Leaves Questions, Challenges

McAuliffe Takes DNC Helm With Attack on Republicans

INSIDE

An Administration's Foreign Policy Debut

Book World News

A Mixed Scorecard

Human Fire Ignites Chinese Mystery

Motive for Public Burning Intensifies Fight Over Falun Gong

As media of verbal collage, many web documents have adopted the multimedial strategies of magazine and newspaper layout, as can be seen at the *New York Times'* web site, in figure 2.6. In such a layout, the same multimedial language is at play: heading and headlines both compete and participate in contextualizing and organizing segments of texts, while the simultaneous layout of textual blocks juxtaposes sets of ideas. Nevertheless, the web's implementation of hyperlinks alters the characteristic interactions of multimediated language. To some degree, the concurrent layout of articles in magazine and newspapers is a juxtapositional device that the hyperlink replaces; in print, juxtaposition must take place on the page, while on the World Wide Web it can function through links. As shown in figure 2.6, web documents typically juxtapose hyperlinks and descriptions rather than articles themselves, as newspapers do. Thus, web pages that function as directories or tables of content are exceedingly common, as this is an effective means of directing the reader towards content she is interested in.[62] Though the layout choices of web documents follow grid patterns similar to magazines, the proliferation of hyperlinks splits the communicative devices of language into two categories. Words or phrases that are visually designated as hyperlinks separate themselves from the language of a page's content. The layout of CNN.com, in figure 2.7, exemplifies this situation. Hyperlinks contained on the page's margins, directing the reader to other sections of the site and other articles, offer much different modes of communication than the expositional text in the center of the page. The reader, as such, must describe for herself the use of language on this page. As her experience of the document progresses, she selects the elements which accommodate her interests; she may choose to use this page as either a directory to other pages, or an end in itself, identifying meaning from either external or internal juxtapositions. Further,

---

[62] Lynch, Patrick J. and Sarah Horton. *Web Style Guide*. New Haven and London: Yale University Press, 1999. pg. 22-52

The New York Times
ON THE WEB

UPDATED THURSDAY, MARCH 8, 2001 2:50 AM ET | Personalize Your Weather

CLASSIFIEDS
Automobiles
Job Market
Real Estate
All Classifieds

NEWS
Quick News
NYT Front Page
Arts
Business
Health
International
National
New York Region
Obituaries
Politics
Science
Sports
Technology
Weather
Corrections
Special Taxes

OPINION
Editorials / Op-Ed
Readers' Opinions

FEATURES
Automobiles
Books
Cartoons
Crossword/Games
Job Market
Living
Magazine
Movies
Photos
Real Estate
Travel
Week in Review
Special Occas.

Search [ ]   Past 30 Days
Go to Advanced Search

Welcome, mcshultz
Sign Up for Newsletters | Log Out

Bush Tells Seoul Talks With North Won't Resume Now

By DAVID E. SANGER
FROM THURSDAY'S TIMES

President Bush told President Kim Dae Jung of South Korea on Wednesday that he would not resume missile talks with North Korea anytime soon. Go to Article
• VIDEO: Bush and Kim Meet With Reporters

Census Figures Show Hispanics Pulling Even With Blacks

By ERIC SCHMITT
FROM THURSDAY'S TIMES

The Hispanic population in the United States has grown by more than 60 percent in the last decade, pulling it into rough parity with blacks as the largest minority group, early data from the 2000 census show.

Parkinson's Research Is Set Back by Failure of Fetal Cell Implants

By GINA KOLATA
FROM THURSDAY'S TIMES

Cells from aborted fetuses implanted in Parkinson's patients' brains failed to show an

(Reuters)

American soldiers arresting a man on the Macedonia border with Kosovo, where a NATO peacekeeping force could become tangled in a violent Albanian insurgency. Go to Article

INTERNATIONAL
Vowing Security, Sharon Takes Reins in Israel (12:00 a.m.)

NATIONAL
Weighing a Demand for Gas Against the Fear of Pipelines (12:00 a.m.)

HEALTH

INSIDE   More

N.Y. REGION
A Bangladeshi Passage
Detroit's east side is becoming the next stop for thousands of Bangladeshi immigrant families that once took root in Queens.

READERS' OPINIONS

KNOWLEDGE SHARING
Travel Tips From Readers
From scuba diving to road trips, readers share their insights and answer fellow readers' questions.
review the best answers

MARKETS		At Close
Dow	10729.60	138.38▲
Nasdaq	2223.92	19.49▲
S&P 500	1261.89	8.09▲
Russell 2000	484.84	3.71▲
NYSE	635.71	3.53▲

Figure 2.6 - The New York Times on the Web, http://www.nytimes.com

SEARCH
FIND

CNN Sites
MAINPAGE
WORLD
U.S.
WEATHER
BUSINESS
SPORTS
POLITICS
LAW
SCI-TECH
SPACE
HEALTH
ENTERTAINMENT
TRAVEL
CAREER
LOCAL
IN-DEPTH

EDITIONS:
CNN.com Asia
CNN.com Europe
set default edition

MULTIMEDIA:
video
audio
multimedia showcase
more services

E-MAIL:
Subscribe to one of
our news e-mail lists.
Enter your address:
go
DISCUSSION:
message boards
chat
feedback

CNN WEB SITES:
myCNN.com CNNSI
allpolitics CNNfn

CNNfsi.com
CNN.com Europe
CNN.com Asia
Spanish
Portuguese
German
Italian
Swedish
Norwegian
Danish
Japanese
Chinese Headlines
Korean Headlines

TIME INC. SITES:
Go To ...
CNN NETWORKS:
CNN
CNN INTERNATIONAL
CNN Headline NEWS
CNN RADIO
CNN AIRPORT NETWORK
CNN anchors
transcripts
Turner distribution

SITE INFO:
search
ad info
jobs

E-Shopping Made Simple
What are you looking for?

El Salvador's costs rising after 2nd quake

February 16, 2001
Web posted at: 2:50 p.m. EST (1950 GMT)

SAN SALVADOR, El Salvador -- El Salvador's government said Friday that the cost for cleaning up after last week's deadly earthquake likely would more than double the bill it faces for a stronger quake that struck last month.

"The value of the damage caused by Tuesday's quake is going to be substantially larger than that caused by the first, as damage to social and productive infrastructure is more severe," said Juan Jose Daboub, chief of staff to Salvadoran President Francisco Flores.

Tuesday's quake measured a 6.6 magnitude, killing at least 322 people and destroying nearly 35,000 homes. Scores of people were missing three days after the quake struck.

By contrast, the January 13 earthquake registered a 7.6 magnitude and killed at least 844 people, leaving nearly three-quarters of a million people homeless.

Officials estimate that repairs from January's quake, which centered from a spot off the coast beneath the Pacific Ocean, will cost $1.3 billion. But Tuesday's quake centered just 20 kilometers (13 miles) from San Salvador was expected to add another $1.5 billion to the bill.

Survivors of the dual quakes reported shortages of water, milk, food and medicines. And El Salvador's Red Cross pleaded for blood donations as supplies dwindled.

"There were fewer injuries on January 13," said Red Cross spokesman Carlos Lopez Mendoza. "The demand for blood has been great, and hospital reserves were exhausted on February 13."

The Associated Press & Reuters contributed to this report.

A group of children walks through the rubble of their school in Candelaria, 24 miles east of San Salvador, El Salvador

WEB EXCLUSIVE
Harris Whitbeck: Salvadorans 'will tested by quake'

MESSAGE BOARD
Central American quake

DONATIONS
To make donations from the United States call:
(in English)
1-800-HELP-NOW
1-800-435-7669
(in Spanish)
1-800-257-7575

List of agencies aiding earthquake victims in El Salvador

MAGNITUDE GUIDE
Below is an interactive guide to earthquake magnitude and severity:
Magnitude:

RELATED STORIES:
Earthquake survivors lack food and water
February 15, 2001
El Salvador quake damage slows relief effort
February 14, 2001

WORLD
Japanese relatives view video of ship hit by sub
Eight dead, hundreds hostage in Brazil prison riots
Iraq reports shooting at U.S., British planes
French police hunt 'waifer' smugglers
Cambodia denies link to smuggling ship
Rebels deny Serb bus attack
(MORE)

CNN.com TOP STORIES
Earnhardt Sr. dies at Daytona 500 crash
Eight dead, hundreds hostage in Brazil prison riots
Clinton's eight reasons for Rich pardon
Iraq reports shooting at U.S., British planes
(MORE)

CNNfn BUSINESS
Is the worst over?
Asian stocks drop
Do managers matter?
(MORE)

MARKETS   4:31pm ET, 2/16
DJIA   + 91.20   10799.80
NAS   + 127.53   2425.38
S&P   + 25.08   1301.53
Get Quote

CNN Sports Illustrated SPORTS
Earnhardt killed at Daytona 500
Last-place Clemson shocks No. 1 North Carolina
Hall of Famer Mathews dies after long illness
(MORE)
→ All Scoreboards

WEATHER
US Zip go All cities

U.S.
Dale Earnhardt Sr. dead at 49

ALLPOLITICS
Clinton: No 'quid pro quo' for Rich pardon

Figure 2.7 - CNN.com, http://www.cnn.com

the medial roles this page plays will change as she experiences it. The hyperlinks in the margins compete with her reading of the central text, at the same time cooperating in a visual syntax of their own, parallel to that of the article. The reader's experience of the page moves between these two communicative modes as the page's verbal competition fluctuate the bounds of her selective process. The reader must continually redefine the use that she assigns to the page, and thus its meanings. This interaction of syntax thereby adds a further dimension to the communicative space afforded by multimediated language. These elements of language each have a number of possible meanings, negotiated by the syntax of their presentation. In this capacity, the visual cues given to different types of language foreground possibilities of meaning both within the context of the page and outside of it, thereby influencing a recognition of a multitude of meanings.

Clearly, verbal elements are not the sole generators of meaning in either magazine, newspaper, or web pages. Photographs, in particular, contain huge amounts of visual information in compact spaces, defining the experience of magazines and augmenting the text of newspapers. The world wide web, though often textually oriented, also makes crucial use of photographs, especially on web pages and news pages. Photography, when considered outside of multimediated space, utilizes the communicative device of transparent immediacy, a communicative vector oppositional to hypertext. Photography relies on what is sometimes termed the 'reality effect'—the notion that an image is an unmodified sample from real life. Connoting the real has long been a mission of artists and scientists, and photographs are only a further development in that desire to mimic reality exactly. [63] The perceiver, thus, is inclined to experience a photograph as a sample of reality; photograph's attempt to hide their status as

---

[63] Bolter and Grusin, pg. 24

mediations. Nevertheless, the World Wide Web thwarts this immediacy of the image. In their book *Remediation* Bolter and Grusin explore the reasons for this assault on native communicative mechanism. According to their construction, when a medium is represented within another medium, as photography is presented within the medium of the World Wide Web, it enters a special state called 'remediation.' Remediation often functions to dissolve the original medium's illusion of immediacy.[64] In magazines and newspapers, photographs are not presented as individual windows on reality, but rather as elements in a larger mediatory narrative. These images are presented *as photographs*; the magazine mediates *photographs* to the reader, not realities. The surrounding text, graphics, and captions, frame her viewing, but they deny these pictures the quality of immediate reality. [65] Still images are similarly remediated on the World Wide Web, with their presentational loci of both the computer screen and within web documents highlighting their status as mediators. In both magazines, newspapers, and on the World Wide Web, context is central to understanding the meaning of an image.[66] Photographs, once remediated in multimedial space, photographs interact with a document's separate verbal and visual structures in providing their polysemous meanings.[67]

The remediation of photography challenges this medium's communicative authority of immediacy, but ultimately it is their inclusion in the same space as other media which generates meaning. Specifically, the introduction of photography brings to light a broader theme of tension between visual and verbal media, between the image and the word. While media of collage reduce the immediacy of the image, and often increase the immediacy of the word, their communicative strategies never meet at a compromising middle ground. Like the ideas they

---

[64] Bolter and Grusin, pg. 47
[65] Bolter and Grusin, pg. 45
[66] Click, pg. 161.
[67] Kress and van Leeuwen Pg 17

convey, mediation itself is not a linear scale but a multidimensional space. The complex interactions of the image's aesthetic of consumption with the hypertextual word's ethic of production are precisely the situations that both finally liberate the image from direct signification and place the reader squarely into the active role of a constructor of meaning. Images, regardless of whether they maintain their status of immediacy, are always able to communicate a much greater amount of information than even a large number of words. In general, though both images and words are highly influenced by context; images can function outside of contexts in ways that words cannot. Marjorie Perloff writes that "increasingly, so far as the media are concerned, the image is supposed to say it all." [68] The reader is expected to ingest the image, accepting it rather than engaging with it. Even remediated images can be consumed in this way; browsing magazines for pictures is not uncommon. Nevertheless, when the reader engages in the text of the page, the images and the language elements of the layout compete for her attention. As the reader oscillates between the text of Figure 2.3 and the large photographs, she must make selections as these oppositional elements recontextualize and remake each other. As a more visually salient element than the small text which she is reading, the photograph will repeatedly draw her eye back to it.[69] Upon each return to this image, her analysis and understanding of it will be remade by what she has read. Reading, then, causes her to consume images repeatedly, each time with new possible meanings. The ingestion is always incomplete. An array of different medial selections giving rise to a space of concurrent interpretation.

The web's close similarity to magazine layout ensures that the same friction between visual and textual communication manifested in print is also central to the experience of the web.

---

[68] Perloff, Marjorie. *Radical Artifice.* Chicago, London: University of Chicago Press, 1991. pg. 87.
[69] Kress and van Leeuwen, pg 212 for a discussion of visual salience

It is not surprising that the *New York Times'* web site, figure 2.6, incorporates this multimedia tension as it attempts to mimic its print counterpart. Yet, even in this rather tame example a critical uniqueness to the Web's situation becomes apparent. In web documents there is certainly a tension between an article's text and its accompanying photographs, but this tension must coexist with the more pervasive competition between a photograph and the hyperlinks which so often comprises a page's layout. Figure 2.8 shows the top of a web page discussing U.S. military policy. Certainly, the photograph entices the reader to consume it in an emotionally charged fashion, while the text below it questions and recontexualizes this picture: is it heroic or horrible, a depiction of current situations or past? At the same time, however, this image interacts with the hypertextual operations of the fields of links to both its right and left. These fragments, references to separate articles, exist in a textual network of productive meaning. Their existence and announcement of interactive imperatives repeatedly halts the reader's absorption in and admission of the central photograph. These hyperlinks can lead the reader away from the very page upon which this image resides, reasserting the productivity of hypertext as she explores the complex relationship between medial element. Such an observation begins to lead towards discussing the visual flow of the World Wide Web. This dimension of experience is the subject of the next chapter, and thereby further analysis along this line is postponed. Still, the hyperlink is an institution on the web; its contextual possibility foregrounds text even before it is activated. Thus, hypertextual tension is high on pages with layouts such as in figure 2.7 and 2.8. On the World Wide Web, the ingestion of images is not only always made incomplete, its self enclosing experience is also pulled apart by the external vectors of hypertextual meaning.

In addition to shaping a competition of word and image, photographs also participate in the cooperative visual syntax of multimediated documents. Earlier, figure 2.5 was described as

Figure 2.8 - TIME.com, http://www.time.com

highlighting the juxtaposition of blocks of text and typographic elements. The photographs present on this page, however, complete the structure of visuality that the textual layout begins. Though the photographs each appear with an individual article, they clearly interact with common textual and visual themes on the page to create a complex space of meaning. Gunther Kress and Theo val Leeuwen write "Newspapers . . . are not read in linear order, but selectively and partially. Many pages nevertheless have their reading paths. Their composition sets up particular hierarchies of the movement of the hypothetical reader within and across different elements."[70] The cemetery image in the upper left corner interacts visually with the title "Sentences Without Finality." This visual salience is also shared with to "Second Student Found Dead in Gallaudet Dorm" and "A War Leaves Questions, Challenges" or "Human Fire Ignites Chinese Mystery." The central image, including a police officer, also interacts with these large titles, as well as complimenting the other major image on the page. The type makes article titles stand out, and the reader's eye moves between them and the images, using their visual relationships to compare their possible meanings. These relationships, though intentionally structured by the pages designer, do not, as with the relationships of solely verbal visualities, fully define the meanings that the reader constructs from them. The reader of such a multiply mediating document makes her own selections between visual elements, in both opposition to and cooperation with the page's composition flows. Certainly, the cemetery image recontextualizes "A War . . . ," though it turns out that this 'war' is actually a civil electoral battle. A quick glance may even place the cemetery image with the article about gas heating, as the image takes place on frozen ground. The interpretive space of this single page is probably still larger, but the important observation is not what it means, but how it means. When she is

---

[70] Kress and van Leeuwen, page 218

reading, she is looking around the page, establishing context from the surrounding elements, using their placement and affect to decide their contribution to the understanding she constructs. This reader, whether making her own selections or following those of the designer, is always looking *at* the page, rather than *through* it. Multimedial composition, as an entity of the remediating page, creates an opaque surface of photography and text. It is from the multiple interactions on this surface, the negotiation between intended and constructed navigations on it, that the reader may generate a multiplicative space of meanings.

The layout of newspaper thus affords a window into understanding how visual syntax functions contextually on the World Wide Web. Certainly, web pages share the same opacity of media; the web reader is constantly looking around the page, glancing at it rather than trying to gaze through it as a transparent conduit to some deeper meaning. In the web as in newspaper, the visual syntax of photographs provides structures of reference which must be assembled by the reader. Nevertheless, on the web this experience of looking around the page, while undeniably present, differs in large part because of the institution of the hyperlink. Some, though not all, of the hyperlinks that halt image consumption in figure 2.8 also participate in a visual syntax with the page's central photograph. The implicit vectors of hyperlinks replace much of the explicit juxtaposition of articles and photographs intrinsic to newspaper. Nevertheless, in this layout, the designer uses red text to indicate hyperlinks having some degree of pertinence to the headline. Additionally, the layout places two highly pertinent links almost within the stories text, and uses an arrow graphic to distinguish them, while links with more general references are placed in a graphical box to the right. This visual syntax provides the reader with qualitative vectors of reference between the article's text, its photograph, and its related hyperlinks. These hyperlinks are, because of their heightened visuality, an alternate type of caption for

photographs. Figure 2.9 exhibits a layout that more closely resembles the newspaper in figure

2.5, displaying a number of articles and photographs simultaneously, yet all of which share a

common visual theme exhibited by their images. The compositional syntax here places one

article with one photograph. Each photograph thus has at least three types of captions: headings,

content text, and hyperlinks. Captions have traditionally been used to center the intended

meaning of a photograph.[71] As a highlighted captioning mechanism, the hyperlink adds further

possibilities for shifting meanings, as in both figures 2.8 and 2.9. In figure 2.8, for instance,

"Bagdad skies erupted . . . " is the photographs traditional caption while "Sanctions won't end . .

" provides a very different context for reading. Though the nature and placement of these images

and captions is in the designer's hands on the web as it is in print magazines, the meanings of

these juxtapositions remain the reader's to define. Indeed, their multiplicity influences spaces of

ideas rather than decidable conclusions.

Web documents also extend the multimediating environment of newspaper and

magazines by including dynamic media that cannot be represented in print media. Video,

specifically, extends the transparent immediacy of the photographic image. The addition of

motion and sequencing involves the reader in a flow of visual events describe video's attempt to

become even more similar to the physical world than photography.[72] When video is remediated

on the web, however, drastic challenges are made to its logic of transparent immediacy; within

another medium, video cannot consume the screen, and thus the window onto the world, as it

does in television. Web sites such as Adcritic.com, in figure 2.10, and Apple's movie trailer

pages, figure 2.11, include video in line with other text, graphics, and photography. Video on

these pages extends the effect of photography in newspapers and magazine, using dynamism to

---

[71] Click, 161

[72] McCluhan, Marshall. *Understanding Media.* New York: McGraw-Hill, 1964. pg 188

Figure 2.9 - Independent Media Center, http://www.indymedia.org

Figure 2.10 - AdCritic.com, http://www.adcritic.com

Figure 2.11 - http://www.apple.com/trailers/

increase the tension between a page's visual and verbal elements. Video often succeeds in monopolizing the reader's attention. Yet on the web, video is most often offered in short clips, and as such it only attracts the reader's attention for the time that it is playing; when the clip is over, it typically just becomes a static image. Though the reader may not be inclined to oscillate between verbal language and video in the same way that she might between text and photography, she nevertheless will begin traversing the page again once the video terminates. In order to experience it, the reader must engage video as a medium that demands a moment of absorption. Still it remains a medium nonetheless, subject to contextualization and recontextualization both before and after it is viewed. Just as photographs are repeatedly ingested, web video can be consumed multiple times, its meaning influenced by the visual and verbal elements around it. The reader remains inclined to become absorbed in the video, yet this consumptive tendency does not dominate the experience of a multimediating web page. The reader may experience video independently according to its own rules, but on a multimediating web document her awareness of its status as a medium forces her to use it productively in manufacturing a space of interpretation.

Lying in the communicative middle ground between the consumptive temptations of photorealism and the productive structures of multimedial text, graphics play an equally large role in the experience of the World Wide Web. Perhaps the most obvious and pervasive uses of static graphics on the World Wide Web are in each site's graphic design decisions. As Figures 2.1 and 2.12 demonstrate, graphics can be used to create a sense of a page as a cohesive environment, to satiate the reader's desire for an overall experience of visual coherence, of gestalt.[73] Quite different from the remediation of photography or video, graphic design seeks to

---

[73] Lauer, David A and Stephen Pentak. *Design Basics*. Fort Worth: Harcourt College Publishers, 2000. pg 24

Figure 2.12 - Apple Computer sales site, http://www.apple.com

integrate itself into a web page without such abrupt seams. In this sense, design exist as part of the web document rather than as a embedded media. Gestalt, here, responds to the reader's natural desire for organization by generating an immediacy of the medium itself. The design in figure 2.12, consisting most notably of the transparent menu bar at the top of the page, establishes a visual order in this regard. While the design makes no inherent references, it interacts with the transparent colors of other images on the page as well as distinguishing boundaries for clickable hyperlinks. Graphic design works against the reader's natural tendency towards selection in an effort to unite the page. The inclusion of hyperlinks, however, complicates this discourse of design, implementing selection as an essential part of use even in a unifying design. The hyperlinks engages the reader in its specific visual structure even as the design attempts to mediate the entire page. The multiple uses of the page, as a portal to another page and as a united entity in its own right, once again feature divergent parallel experiences.

Many graphics on the web have more precisely definable uses than graphic design, especially those which function as icons. Figure 1.8 offers good examples of such communicative objects. The visual artifacts that appear in the page's header as well as with every article function on one level as immediate, transparent symbols. The dollar bill icon signifies money, the blue apple represents Apple Computer, and so it goes. But on this page, these images also function as sign posts to the reader's navigation; they specify a visual syntax with which they are to viewed. As hyperlinks, the five images at the top of the page rely on the reader to understand their meanings from context. The fact that the text on this page deals primarily with computers forms part of the necessary context, while the line of icons running down the page indicates a syntax in which they are used. The reader may scan these icons for topics of interest, but it is the topics themselves that they are paired with that completes their

meanings and allows her to use them in a meaningful way. Iconography, of course, does not exclude photography; a popular web journal page, LiveJournal.com (Figure 2.13) allows users to use photographs of themselves to distinguish segments of text of their own contribution. In both cases, each icon has at least two meanings: its morphological resonances and its verbal decoding based on the context of its use. Kubler, in *The Shape of Time*, identifies these two meanings as self-signals dealing with individual apprehension and adherent signals that provide objects with meanings.[74] The adherent meaning of, say, Slashdot's graphic of a technologically augmented Bill Gates provides a meaningful use as a hyperlink to postings about Microsoft. This graphics self-signals, however, grant it more complex interactions with other elements in the page. The apprehended form of this image opens the discourse of Bill Gates and technological augmentation to the reader. Its juxtaposition with an icon for money and icons for both the Macintosh and Unix operating systems generate additional adherent meanings, in this case a discourse of profit and competition. Thus, these graphics again participate in the multiple meanings of multimedial space. Photographs, as icons, function in the same way, their forms being realities rather than designs. Their use provides one context for their understanding, while their self-signals, when considered in unison or in relationship to another medium, creates additional contexts of meaning.

While graphic design and iconography are pervasive components of the web's visual experience, another graphical category also plays a substantial part in this visuality: advertising. Advertisements are as central to the experience of the web as to that of magazines; a large section of web sites are paid for by intrusive 'banner advertisements' inserted at the top or bottom of each page. Figures 2.14 and 2.15 exhibit common appearances of these advertisements,

---

[74] Kubler, George. *The Shape of Time.* New Haven and London: Yale University Press, 1962. pg. 24, 127

Wednesday, April 18th, 2001

hinkle

12:01a

I just rebuilt my computer from the ground up.

I did everything right. But my copy of Flash will not install. This is most likely because POPKULTUR scratched the hell out of it when I let him borrow it and he wouldn't return it for months because HE WAS TOO BUSY SCRATCHING THE HELL OUT OF IT.

I am restless as all hell because I was right in the middle of my new mind-blowing project and I can't do shit.

I can't sleep and I'm developing a sore throat when I should be develping artstically stunning fully-functional yet fully-scaleable intelgent web applications.

(2 Comments | Comment on this)

nicecream

12:01a

it 12:01 am
happy april 18th. its a day just like any other, but now its today.

Current Mood: sleepy
Current Music: *the ronettes*

(Comment on this)

Tuesday, April 17th, 2001

nicecream

11:15p

girls.
goddamn! somebody make out with me!

Current Mood: tired
Current Music: Ashley Avants

(3 Comments | Comment on this)

science

9:52p

I enjoy spending my "weekends" in my room by myself not having anything to do or anywhere to go.

Current Music: Stereophonics - Mr. writer

(4 Comments | Comment on this)

3:46p

do you know the muffin man?

(0 Comments | Comment on this)

Figure 2.13 - from LiveJournal, http://www.livejornal.com

although their dynamic nature cannot be viewed in print. These animated graphical displays flash and change over time, providing strong competition to the pages other visual media. Additionally, the advertisements that appear at any given time are fairly random, the most important implication of which being that advertisements only have a loose connection to the contextual structures intentionally put in place by a page's authors. Clearly, this leads to yet another vector of visual and verbal recontextualization of the page's communicative elements, as well as having their own messages affected by the page's other media. Still, these graphics participate less in this kind of productive recontextualization than they might specifically because they are advertisements, and as advertisements they attempt to draw the reader away from a productivity of meaning into a paradigm of orchestrated sales and consumption: "the commodity form is a social relationship."[75] As such, they challenge the very nature of the web idea spaces. A reader at Wired.com (figure 2.14) probably arrives with the goal of reading interesting articles; the advertisement at the bottom of the page entices the reader to abandon the act of producing meaning from the text in favor of seeing through an image to the product it represents. The advertisement for the WINZIP software on Download.com (figure 2.15) begs the reader to consume it, by clicking through to a sales page. In this sense, advertisements offer a much broader recontextualization, for they attempt to frame all elements of a page's experience in a consumptive paradigm. If the reader stops engaging with the page's vectors of reference and juxtapositional competitions, she will certainly abandon the idea space she is constructing there. Nevertheless, advertisements are subject to the same remediation any medium on the web is, and thus their attempts at transparency are ultimately thwarted. They are artifacts of multimedial space just as any medium on the web, or in magazines for that matter, and as such they cannot

---

[75] Frow, John. *Time and Commodity Culture.* Oxford: Clarendon Press, 1997. pg. 132

Figure 2.14 - Advertising at http://www.wired.com

CNET : Downloads : Mac

Mac Topic Center · Aladdin Stufflt Expander · OS 9 Upgrades · Mac OS X · Test Your Bandwidth

Downloads for PC | **Mac** | Linux | Handhelds

- **Business & Finance**
- **Development Tools**
- **Drivers & OS Updates**
- **Home & Education**

- **Games**
- **Internet**
- **Multimedia & Design**
- **Utilities**
- **All Mac Categories**

- *Most Popular*
- *New Releases*
- *Our Picks*

DPC Insider

The future of
digital
photography

Download *Spotlight*

iTunes
updated pick Unleashed at Macworld Tokyo, this update has added exactly
what many Mac users have been waiting for: support for third-party CD-RW
drives. In addition to ripping, encoding, organizing, and (of course) playing your

Figure 2.15 - banner advertisement at http://www.download.com

monopolize the reader's eye. Rather, their politics of consumption competes with the web's remediating ethic of production. The reader, engaged in multimedial space, may, at the most basic level, easily select them out of her experience. Most likely, however, the presentation of advertisements sensualizes a competition of discourses, especially when they appear on, and pay for, free, informational web sites. Commodity is thus incorporated into the reader's idea space, rather than overcoming it. If the reader so chooses, she may submit herself to an advertisement's consumption by clicking on it, but this is a choice rather than a mandate. To the engaged reader, the research of web reading remains always in the power of her constructed idea space.

The animation so often used in graphical advertisements opens the door to discussion of a final, though less frequent, category of media on the World Wide Web: animated graphics. Like video, animated graphics extend the medial dynamics of magazines into dynamic regions inaccessible to print media. On the web, a technology called Flash allows for web pages to incorporate high degrees of dynamism, exhibited, for instance, by the artistic ventures at Soulbath (http://www.soulbath.com—figure 2.16). As this page demonstrates, Flash is often implemented as its own medial environment rather than as part of a multimedial web page, and as such, animated graphics generally do not have the same status as elements *within* a page as other media on the web. Still, some counter examples exist. The graphic at in figure 2.17 uses such animated technology to demonstrate how a photocopier works. Interestingly, such graphics add immediacy, especially through their interactivity, while obviously eschewing any appeal to being 'present' as real objects. Though their mediation is foregrounded, like icons these mediating bodies themselves exist as real objects in the reader's experience. Unlike other graphical media, however, large-scale animations generally have interesting communicative
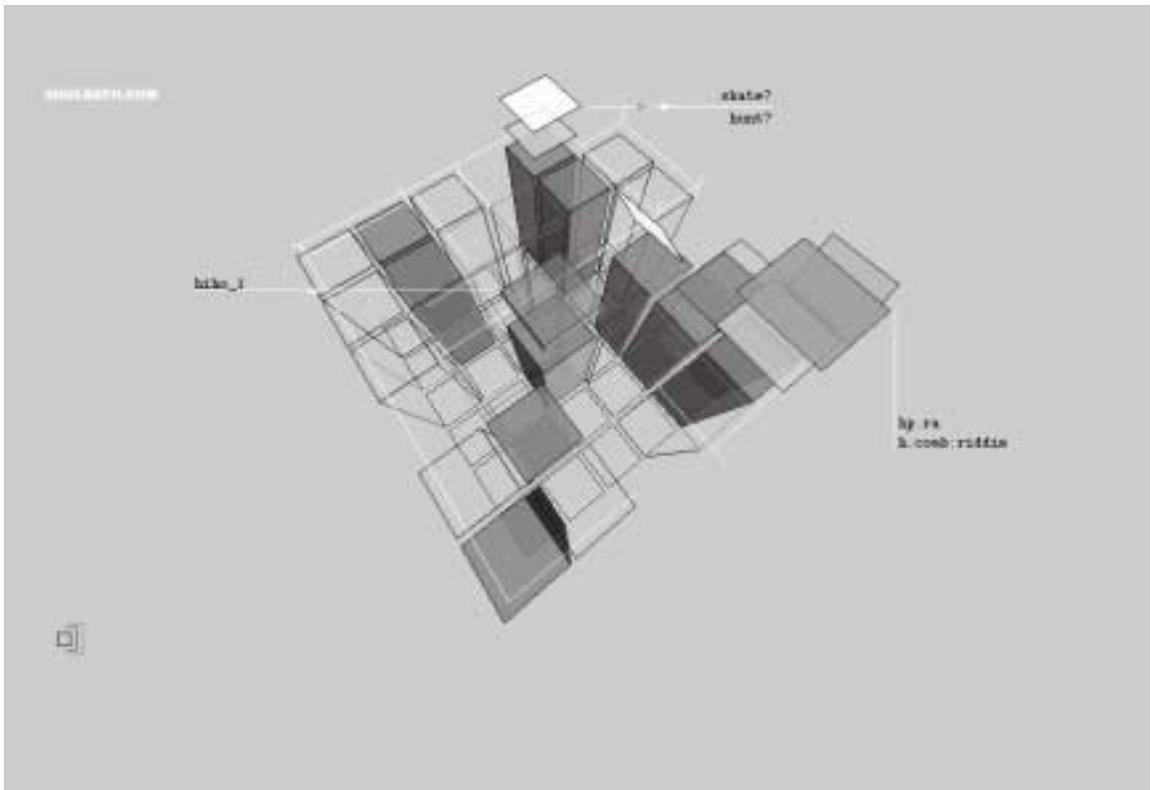
Figure 2.16 - Soulbath, interactive media. http://www.soulbath.com

The **drum**, or belt, is made out of **photoconductive** material. Here are the actual steps:

- The surface of the drum is charged.
- an intense beam of light moves across the paper that you have placed on the copier's glass surface. Light is reflected from white areas of the paper and strikes the drum below.
- Wherever a photon of light hits, electrons are emitted from the photoconductive atoms in the drum and neutralize the positive charges above. Dark areas on the original (such as pictures or text) do not reflect light onto the drum, leaving regions of positive charges on the drum's surface.
- Negatively charged, dry, black pigment called **toner** is then spread over the surface of the drum, and the pigment particles adhere to the positive charges that remain.
- A positively charged sheet of paper then passes over the surface of the drum, attracting the beads of toner away from it.
- The paper is then heated and pressed to fuse the image formed by the toner to the paper's surface.

This diagram helps see the process:
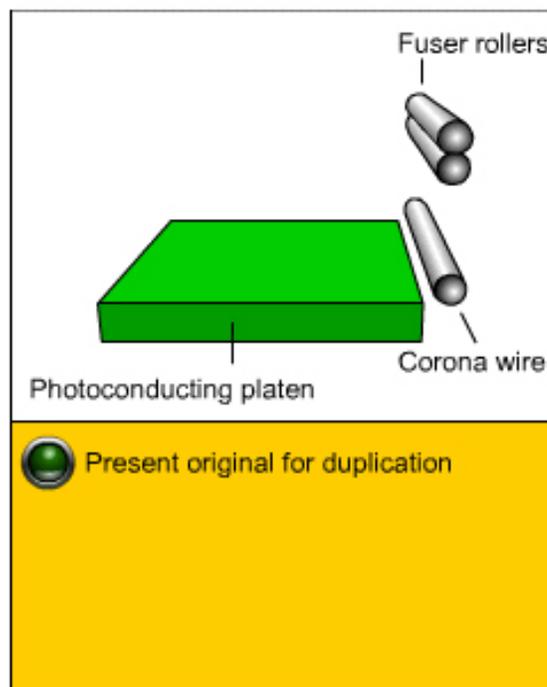
When the copier illuminates the sheet of paper on the glass surface of a copier, a pattern of the image is projected onto the positively charged photoreceptive drum below. Light reflected from blank areas on the page hits the drum and causes the charged particles coating the drum's surface to be neutralized. This leaves positive charges only where there are dark areas on the

Figure 2.17 - Interactive media used for demonstration on the web.

affects when considered in a discussion of visual flow rather than collage. Thus, they are discussed more deeply in the next chapter and included here only for completeness.

Text, photography, video, graphics, and animations define the multimedial environment of the World Wide Web as a space of competition and visual syntax. In web documents, as in magazines and newspapers, images, text, and graphics compete for the reader's attention, each attempting to involve the reader in its own means of communication. The web adds the dynamic media of video and animated graphics to this stew of mediation. Certainly, the reader's own prerogatives will dictate which elements of a page attract her primary attention. Still, the collage layout of web, magazine, and newspaper pages influences the reader to subscribe to viewing habits that highlight glance and movement around the page. The reader then must assemble these visual fragments into a space of interrelated interpretations. Beyond this, the competition between dynamic and static media further complicate these interpretations by drawing the reader into an oscillation between experiences of absorption and multiplicity. Due in part to these videographic experiences, the reader's entire experience of this multimediated space also is subject to an fluctuation between productive and consumptive experiences. Although intrusive and often unwanted, advertising remains an important part of the web's visuality, providing the strongest attempt to divert the reader's productivity to a practice of visual, and product, consumption. The fact that these elements, as all mediating bodies on the web, appear in a visually multimediated space that, nevertheless, defines this competition as ultimately productive. Experiences of consumption recontextualize the page's meanings, but the reader's glances around the page eschew absorption and replace it with comparison and interaction.

As elements compete in multimediating web documents, a visual syntax takes form between them. Repeated formations, colors, and layouts are used intentionally by graphic

designers to shape the reader's navigation of the page and draw vectors of reference and meaning between disparate elements. Multimediated spaces are thus intentionally given structures of comparison and contrast, defining a visual structure. Yet this structure only suggests relationships, it does not necessarily define coded signifieds. Visual syntax only has meaning when the reader experiences it and interprets a document's elements in relationship to each other. In this way, visual structures suggest contextual formations to the readers which extend those influences by medial competition. These contextual formations are then constantly recrossing themselves as the reader glances about the page. They are guides, but as their relationships are visual and thus implicit; the reader must determine what meaning lies beneath these vectors of reference. Ultimately, the web reader will make choices in her interaction with the multimediated page as she produces a space of possible meanings in this visual environment.

Multimediacy, as has been discussed in this chapter, defines half of the World Wide Web's characteristic hypermediacy. In an environment of hypermediation, such as the web, media go beyond transparency, beyond mediation, to a state when the media themselves become immediate objects in the reader's experience. Bolter and Grusin hint at this when they suggest "the inseparability of reality and mediation." [76] On the web, the act of mediation is not what is important to the readers experience, but rather the visual artifacts' presence in her world, open to interpretation. By operating on a paradigm of glance and remediation, visual elements of web pages are foregrounded as mediating bodies, rather than instances of reality. Ultimately, in a multimediated environment, the most important distinction is not so much that multiple media are involved, but rather that multiple mediations are occurring in the same visual space. Multimediation, then, makes immediate to the reader the interactions between these

---

[76] Bolter and Grusin, pg. 57-58

communicative vectors; the reader deals directly with a space of ideas. Yet, multimediation leaves the description of hypermediated space incomplete. While multimedia provides an environment of interacting mediation, it does little to *sensualize* the space of ideas, or even of media, to the reader. When dealing only with hypertextual concerns, this immediacy comes from the interactive activity of hyperlinks: the vectors of reference between documents that are inherent within a hypertext. Just as the replacement of one text with another sensualizes the hyperlink, and language in general, the visual flow of web navigation sensualizes the space of visual mediation. As the reader traverses this environment, she is encountering an immediate space of ideas. This visual flow is the subject of the subsequent chapter.

III: Visual Flow

The visual environment of the World Wide Web operates on two axes. The first, the institution of the multimedial web page, operates in the plane of the screen. As the previous chapter showed, such pages present the reader with an interwoven fabric of communicative visual vectors. The web's other axis, however, functions in the direction of dynamism and change. This is a temporal dimension, yet it is not organized by a schedule. Rather, the reader must initiate changes herself using the ever-present possibilities of hyperlinks. As such, the main focus of this chapter is to join the concepts of hypertextual navigation and multimedial presentation. The web is an environment of montage, and thus of visual effacement, a situation which sensualizes the web's multimedia as visual artifacts. It is the flow of these objects of meaning which sensualizes the interactions between ideas, affording a space of meaning.

This chapter's argument begins, as chapter two did, with a discussion of the visual aspects of verbal text. The medial effects of language's presentation on a dynamic screen are then broadened to all media. Visual effacement is argued to further sensualize hyperlinked media as virtual realities, vectors in spaces of interpretation. The literature of televisuality is then invoked towards a more general discussion of the web's flow of multimedia, describing a prevailing environment of sensualized mediation. Televisual flow offers a flood of meanings originating in social interactions. Its applicability to the web, however, comes less from its focus on personality than the way it divides up its flow. On television, flow is generated by producers. On the World Wide Web, document authors and web readers share responsibility for the directions of visual montage. Televisual dynamics of interruption and segmentation are retooled for an understanding of the web experience, and the various degrees to which the coherence of

flow affects the reader are discussed. Namely, the televisual viewer is shown as an active consumer of flows with hidden, alterior structure. On the web, she is engaged as an active producer of this flow, and thus enabled to impose her own order in spite of authorship other than her own. Ultimately, the metaphor of drama, so central to television, is imported to explicate the conflicting motive and products of the World Wide Web's visual flow. Dramatic structures of plot and character are applied to the web, ultimately resulting in a construct of medial experience as dramatic reality, rather than as observed dramatic fiction. Ultimately, the web's remediation of drama extends this metaphor by exposing its intended inevitable outcomes to the reader's own volition.

A notion of electronic visual space relies upon the fixture of the screen. Due to the screen's possibility of dynamic visual presentation, both television and computers supercede print media in immediacy. In the 1960s, Marshall McCluhan wrote that "TV will not work as background. It engages you. You have to be with it."[77] The screen, whether televisual or computer, bombards the viewer with structured light, absorbing her in a sensory experience. McCluhan thought of the televisual apparatus, the screen, as a 'cool' medium, necessitating the viewer's participation.[78] The screen becomes an immediate part of her experience; its status as a mediator becomes unimportant to the viewer's perceptions. Thus, both the television screen and the computer screen construct the viewer in an active posture. This assertion, so central to McCluhan's analysis, may seem questionable given the common perception that television is not a medium of thought-provoking content, but rather of mind-numbing passivity. In *Televisuality*, however, Joseph Caldwell resolves this tension by noting that "the television viewer in practice has never been passive—nor ever typically theorized as passive by industry. Broadcasters from

---

[77] McCluhan, pg. 312
[78] ibid. pg. 22

the start did not see the viewer as a couch potato, but as an active buyer and consumer."[79] The

experience of television is one of active consumption. As Caldwell continues, the viewer allows

herself to be manipulated in an orchestrated ingestion of dynamic imagery, style, and

materiality.[80] The experience of the web departs from this paradigm. On the World Wide Web,

the absorption offered by the screen is disrupted by the sensualization of meaningful possibility.

Interactivity grants the web reader a device of flexibility, a mechanism for engaging in the web's

conflict of productive and consumptive discourses.

As a profound medium of the visual screen, the World Wide Web presents text in ways

that both extend and depart from print media. The previous chapter's exploration of multimedia

has already described the extended visuality of layout and typographical ornamentation. It is the

text's presentation on the screen, however, that makes language a complete visual artifact.

Specifically, hypertext realizes fully televisuality's aesthetic of replacement.   When a reader

clicks on a hyperlink, a new web page generally loads and replaces the current text with a new

document. This is a characteristically visual transaction, possible only on the electronic

computer screen. Bolter and Grusin observe that, depending on whether activating a hyperlink

loads text into the current window, into a frame within that window, or a new window laid over

that holding the hyperlink, the experience is generally the same. "The new page wins our

attention through erasure (interpenetration), tiling (juxtaposition), or overlapping (multiplication)

of the previous page." [81]   This act of replacement moves the reader's consideration of text

squarely into the realm of montage. As textual fragments appear and erase each other in the

single visual space of the computer screen, the reader experiences this flow of documents in the

---

[79] Caldwell, John Thornton. *Televisuality: Style, Crisis, and Authority in American Television.* New Brunswick,
New Jersey: Rutgers University Press, 1995. pg. 250
[80] Caldwell, pg. 83
[81] Bolter and Grusin, pg. 44

terms similar to the televisual viewer. To both, visual configurations are made immediate by this aesthetic of replacement. Thus, on the world wide web, visual dynamism makes verbal text itself the subject of the reader's experience. She is inclined not to look through these immediate visual artifacts to what it signify, but rather to grapple with them palpably as they appear in visual montage.

As the primary mode of communication on the World Wide Web, text already eschews the hallmark of televisual viewing: the image. Though the computer screen remakes text as a visual artifact, it offers a very different experience from that of televisual imagery. The web reader is in constant oscillation between verbal and visual experiences. Hyperlinks, as profoundly visual objects, are sensualized to the reader as the apparatuses by which she controls her visual experience. When she activates a hyperlink, she encounters it as a participant in visual reality. Yet, this artifact is also textual and thus demands to be read. The reader cannot, by textual nature of this environment, become fully absorbed in a consumption of visual images as she may with television. Rather, this is an immediacy of production; the sensualized hyperlink is hypermedial; it gains status as an artifact, while retaining its contextualized meanings and use. When the reader encounters a hyperlink, it presents itself as more than a mediation, a medial element that is itself an element of reality. Text on the web is immediate to the reader as an element of reality itself, to be dealt with as a present object to be apprehended and considered. Further, by exhibiting a functionality which joins and recontextualizes fragments of text, hyperlinks place these textual artifacts in relationship to each other. These relationships, then, become sensualized as well; immediate to the viewer is not only the text itself but also the space of ideas that defines their multiple contexts.

While the web does have a strong verbal and textual bias, both replacement and hyperlinking extend beyond the web's text, applying to the entire multimediating environment that it defines. Upon activation, some hyperlinks replace the current document with purely visual objects: photographs, video, graphics, or animations. These actions extend the immediacy of the hypertextual experience to an applicability to all media, a hypermediacy. The dynamism of the screen makes these visual entities of replacement immediate to the reader in the same way that it influences hypertext. The nature of such visual replacement even more closely parallels television than hypertextual immediacy does. When the web reader navigates a network of documents which contain mainly non-textual elements, she is experiencing something close to televisual montage. Still, a visual flow of purely, say, photographs is an extreme case on the web. More central to the web experience is a multimedial flow of multimediating documents. Pages which contain several different media are replaced by subsequent multimedial pages. The effect of this replacement, then, is not to make a flow of images immediate to the reader, as in television, but rather to make a flow of media immediate to the reader. Each web document incorporates different configurations and even different types of media; a photograph may replace text, a graphical animation may replace a page with complex multimedial layout. Ultimately, as the media change, they are put in friction with each other. Thus, each mediating body becomes a primary subject of the viewers' visuality, rather than the reality it may be trying to transparently represent. The experience of the web, then, is one of sensualized visual artifacts, and thus of hypermedia.

Though hyperlinks are most commonly verbal entities on the World Wide Web, any element of this environment can function in this capacity. Photographs, graphics, or other visual media can often be clicked on in the same way as verbal links, causing new multimedial pages to

load. In some ways, this may seem to break the notion of the reader's oscillation between verbal and visual experiences; when a reader can activate only visual elements, the montage she creates may begin to resemble the consumptive visuality of television. As has been proposed, however, visual artifacts on the web, as hypermedial bodies, are fundamentally different from televisual images. As present visual realities, the web's multiple media exist in contexts which demand they be read in the same way as hypertext. That is, when the reader encounters such visual artifacts, she must engage its meaning from the visual syntax and medial competition of the previous chapter as well as from the immediate juxtaposition of visual replacement. As hyperlinks, these visual bodies have vectors of reference between them in the same way as textual artifacts do. Visual replacement sensualizes these referential vehicles and allows for recontextualization to occur along visual lines. Indeed, visual interactions are often more subtle than verbal relationships, and thus more polysemic. Verbal elements add contextual possibilities to visual artifacts they may link to; visual artifacts, as harbors of much more compact densities of information, impart all the elements of their visual structure to their medial referents. Correlations may take place with whichever elements of this structure the reader has selected and kept latent in her mind. Similarly, groups of multimedial pages may have a visual syntax of layout between them, a visual unity of continuity, made subtly apparent when the new pages load.[82] As the reader follows these connecting vectors, she is activating multiple relationships in her own mind between visual artifacts. These artifacts, then, are not only sensualized themselves but function further to sensualize a space of ideas to their perceivers.

The web's multimedial montage extends the notion of multimedia from the plane of the page to the screen's temporal depth. This grand multimedial flow ultimately functions as a

---

[82] Lauer and Pentak, pg. 32

visually sensualized environment of spatialized ideas, of hypermediating visuality. Fundamentally, however, both the critical notion and the practical experience of visual flow originates in the domain of television. Though flow is marshalled in very different ways on television and on the internet, these two screens are linked in a common experience of visual activity. Jeremy Butler writes of televisual flow as offering "deluge of meanings" occurring in parallel. To keep his introduction of this analysis simple, Butler focuses on the complex relationships between a continuous stream of sitcoms, juxtaposing the divergent family values of *Rosanne Arnold*, *The Cosby Show*, and *The Simpsons*.[83] An array of often contradictory messages are placed in the same visual space; television, as a unity of fragments, contradicts itself frequently. These contradictions describe a space of possible relationships between meanings. John Fiske observes that televisual text "delineates the terrain within which meanings may be made or proffers some meanings more than others."[84] Television, then, retains a structure of meaning brought to the viewer in visual montage. As Butler continues, the viewer brings her own experiences and belief structures to her viewing of this televisual text. Thus "the act of viewing television is one in which the discourses of the viewer encounter those of the text."[85] Clearly, then, the multiple meaning of televisual experience are the viewer's constructions, a flow of meaningful relationships inside her own mind.

The application of televisual flow to the World Wide Web is at the most general level fairly straightforward. The medium of the screen offers both the web and television a format of dynamic montage, where contradictory elements and discursive perspectives interact to influence meanings. The relatively smooth flow of television sitcoms outlined above, however, does not match the experience of the web. At the same time, though, television is not nearly as smooth as

---

[83] Butler, pg. 5
[84] Fiske, John. *Television Culture.* London and New York: Methuen, 1987. pg. 16

this analysis indicates. Televisual flow is more precisely a continuity of interruption. Breaks between programs involve halting and replacement processes, but the most central interruptions occur during the programs themselves. Television programs continuously interrupt themselves with cuts between scenes, camera angles, or locales, whether in sitcoms or news productions, and of course by the most intrusive commercial break. As Butler writes "Although the flow that gushes from our television sets is continuously television texts, it is not continuously the same type of texts. There are narrative and non-narrative texts and texts of advertising and information and advice."[86] The interruptions in this multimediating visuality are paralleled when the screen is implemented for web reading rather than televisual viewing. Each time hyperlinks activate a new page, the visuality of the web undergoes an interruption. These interruptions are obviously more abrupt than many of those on television, where interruption, although manifest, is purposefully hidden by smooth production. In this sense, the web is even more of a medium of interruption than television, for it goes beyond the replacement of montage to foreground interruption as a communicative mechanism. Interruption reaches its communicative peak on the web when hyperlinks reference documents which have only loose relationships to the pages they reside upon. The World Wide Web mimics the discontinuous polysemy of television, but extends it into a network of related visual meaning.

Though the experience of the web emphasizes interruption more centrally than television, it nevertheless, as a truly multimedial format, incorporates a good deal of dynamism within its pages. Dynamic media, like video or graphical animations, establish encapsulated flows which leverage the same devices of replacement exhibited by the web as a whole. The multimedial page at times contains segments of visual flow itself, which are interrupted by in the page and

[85] Butler, pg. 8
[86] Butler, pg. 9

upon activation of hyperlinks. Smooth encapsulated flows, however, do not just exist on the web

within multimedial pages, but also within immersive pages which utilize Flash, a popular web

technology.   Flash's smooth graphical animations on web locations such as

http://www.soulbath.com attempt to create a continuos flow which involves the viewer in an

immediate experience, in this case a playful and artistic one. Though this graphical technology

has the facility for smooth flow, Soulbath still exhibits a large degree of interruption between

continuous experiences, particularly of the multiplicative variety in this case. When considered

as part of the web as a whole, this continuous experience is simply part of a complicated terrain

of possible medial interruptions. The smooth flow of Flash may be quickly replaced by a much

more static page. This complicated interruption further describes the multimedial nature of web

navigation, adding to the complex dynamism of the reader's experience, and thus affording an

elaborate space of experience.

Flash and encapsulated video, while important visual elements themselves, additionally

exhibit a broader feature of the web's flow. Like television, visual flow on the web is a

collection of miniature flows. Fiske writes that "[Television] is composed of a rapid succession

of compressed, vivid segments where the principles of logic and cause and effect is subordinated

to that of association and consequences to sequence." [87] On the web, the analogous segments are

encapsulated video, flash sites, and most pervasively streams of related web pages, either

between closely related web sites or inside a web site. Within each of these miniature flows,

continuity of design delimits segments of visual flow through shared visual syntax.[88] Graphics,

textual layout, and photographic subjects build this visual syntax on the most basic level, while

conventions of medial relationship define formats of meaning particular to each segment of flow.

---

[87] Fiske, pg. 105
[88] Lauer and Pentak, pg. 32

Most crucial, however, is the observation that web navigations follow these flows for short times and then tend to diverge to hypertextual loci of different visuality.   A web reader at http://www.salon.com might chose to click on a banner advertisement, or while visiting http://www.suck.com she may activate one of the many links to other web sites. On both the web and on television, segmentation organizes juxtapositions in a heterogeneous fashion. Television, however, typically implements segmentation fairly randomly. Commercials interrupt sitcoms, newscasts move from one story to another: as Fiske indicates, televisual segments often bear only circumstantial relationships to each other. The hypertextual structure of the web, however, grants segmentation a much more motivated dynamic. Hyperlinks, by their very nature, assign relationships between web pages. When one of these links joins segments of visual flow, it creates a strong contextual relationship between these different types of visuality. Television lacks such a mechanism. It is a medium of montage, the structure of which is hidden from the viewer. On the web, hyperlinks sensualize this structure, affording the reader a process of visual flow that influences a space of meanings.

Television's lack of a hypertextual mechanism of contextualization is only part of a much broader disparity between the two visualities at issue. Televisual flow, as Raymond Williams discusses in *Television: Technology and Cultural Form*, is a clandestine meta-process in which "the real organization is something other than the declared organization."[89] Television's montage is perceived by the viewer as having, as John Corner writes, a "meta-coherence" that exists "despite a lack of logical, thematic relationship."[90] To the viewer, flow has rhythm and rhyme but very little reason. This line of analysis, however, goes further than the unrelated interruptions of segmentation. While the televisual viewer experiences a meta-coherence,

---

[89] Williams, R. *Television: Technology and Cultural Form*. London: Fontana, 1974. pg. 93
[90] Corner, John. *Critical Ideas in Television Studies*. Oxford: Clarendon Press, 1999. pg. 63

television producers are structuring flow in very intentional ways. Williams goes far enough to claim that that flow is organized deliberately to keep the viewer watching television, to strengthen her "impulse to go on watching."[91] This flow, then, ultimately serves a motive of commodity. In what Caldwell calls television's 'performance of style,' the viewer is manipulated as an active buyer by the broadcaster's decisions about visual flow.

On the web, visual flow has, instead of a single manipulative meta-coherence, an organization which acknowledges both the coherence suggested by authors of web sites and the coherence generated by the reader's own navigation between sites. While televisual flow is completely in the ulterior hands of broadcasters, the web severely limits the decisions authors, especially individual authors, can make about the reader's visual experience over time. Clearly, the reader controls her own visual flow by the choices she makes when activating hyperlinks. Still, authors maintain a stake in this visuality since choosing which hyperlinks appear on a page remains within their power. The reader's command of choice balances this influence, but the distributed authorship of the web finally subordinates the author to the reader. An author on the web can manipulate a reader's visuality only so long as there are no links to pages outside of her authorship. Even in largely self-referential web sites with a unified design, such as http://www.time.com, the existence of a multitude of authors of different kinds of texts cannot be denied. Truly hypertextual web pages go further, typically containing links to pages at other loci on the web as a major part of their content. Most generally, however, web authors cannot ever fully capture control of visual flow because the software used to browse the web affords the reader the option to back up to previous pages she has visited or jump to web sites independently of hyperlinking. Even if she finds herself viewing a web site, a segment of visual flow, that

---

[91] Williams, pg. 93

offers no references to other sites, she can back up or jump to another site and there choose another vector. Thus, the reader is constructing her own visual flow, influenced by authors' intentions but outside of their control. Both the televisual apparatus and the manipulative ethics of television programming make the web's difference from it crucial. While with television the viewer is made to consume a flow of images, on the web she has the power to experience a productive visual space. As the web reader manufactures her own visual flow within this space, she is free to make the process of meaning and intention her own, facilitating her construction of idea space.

On television, though flow is controlled by a number of centralized broadcasters, the viewer does maintain control over which channel she watches at any given moment. By switching the channel, she may complicate the televisual flow, perhaps adding layers of polysemy and approaching an interactivity that compares, though somewhat palely, with the web. Still, this flow is importantly linear in its production. The schedule or *TV Guide* is vital for the whole system to work; without it, people cannot know when programs are on, and thus cannot have any kind of responsible control. Further, programs on different channels exist parallel to each other; when the viewer chooses one channel over another, she is choosing between concurrent ongoing flows. Perhaps reruns and rebroadcasts make this point less extreme, but the fundamental reality of televisual temporality cannot be denied. Television's linearity is central to its total experience. As a collection of narrative sequences, this visuality does not loop back upon itself or diverge in multiple directions. On the web, these kinds of visual flows are characteristic. The web reader navigates a complex network of interweaving hypertextual documents, and as such the visual flow she encounters is fundamentally non-linear. She may navigate a set of inter-referencing websites, such as those that sprung up around the

surge of recent American activism (http://www.a16.org offers a good starting point), and

encounter a network of pages which re-crosses itself many times. More typically, a web reader

may begin at a page which contains links to many other pages, such as http://www.excite.com or

http://www.salon.com. Visual flow diverges here in multiple directions, but the reader can

always return to this hub of hyperlinks in her exploration. Subsequent pages may also contain a

large volume of hyperlinks, making web visuality, unlike televisuality, highly networked and

thereby non-linear. Ultimately, this non-linearity describes the space of visual dynamism which

functions as raw material for the readers constructed, spatialized experience of meaning. On the

web, the notion of a schedule is irrelevant.

  While the notion of flow describes well the visual presentation of both television and of

the World Wide Web, it alone does not depict the full communicative experience of either form.

Both television and the web are more than visual spaces of experience, they are dramas of visual

perception. Television's status as a dramatic form is easily asserted by the amount of explicitly

dramatic content on its channels, as well as by its thinly veiled staging and scripting. As Martin

Esslin contends in *The Age of Television*, the basic language of television is closely equivalent to

that of drama.[92] The televisual apparatus is, in this analysis, a stage of performance. On this

stage, communication takes place in dense visual format. Images communicate large amounts of

information in a very efficient manner, although many of their visual components will be

experienced initially below the viewer's conscious level. Televisuality thus conveys a practically

infinite amount of what Esslin terms 'concrete information' to the viewer at every moment. He

continues to propose that drama, and thus television,

> mirrors the situation in our 'real' lives: we are constantly confronted with people
> and situations we have to view, recognize, and interpret; we are compelled to

---

[92] Esslin, Martin. *The Age of Television*. San Francisco: W.H. Freeman and Company, 1982. pg. 6

select the information we need by concentrating on a few significant features and rejecting the bulk of data that continuously bombards our senses.[93]

The immediacy of the televisual form is thus central to its dramatic experience, and the interactions between its visual entities describe the meanings that viewers receive from it. Esslin centers his discussion of this drama around the social interactions of television programming, while Caldwell concerns himself with the same matters but uses a metaphor of style and materiality to describe the interactions of televisual elements. In either case, however, the most important recognition is not the specific nature of these interactions, but rather that dramatic decisions are the devices which unite television's separate elements of flow into a meta-coherent experience for the viewer. This stage is filled with a variety of performances which take place at controlled times, and communicate to the viewer in visual bulk.

Since Aristotle, the essence of the traditional dramatic format has been understood as a sense of the inevitability of the outcome. Sastri writes "deeds, incidents, situations, motives and mental processes are all contained in the idea of an action moving towards a specific end."[94] The interest and entertainment of dramatic suspense, then, draws not just on resolution itself, but on the development as well. The experience of drama is, thus, the tracing of a pattern: anticipation is drama's crucial device. Traditional dramatic structure, common to film, television, and theatre alike, begins with a central conflict, develops this conflict in a series of high and low moments, reaches a peak at the climax, or catharsis as Aristotle termed it, and then may have a falling action after capping off the story after the resolution of the conflict. Throughout this pattern, suspense is the mechanism that builds the viewer's experience.[95] The important interactions of drama, thus, are the cause and effect pairs that drive this development and give both sense and

[93] Esslin, pg. 18
[94] Sastri, Dr. P. S. *Aristotles Theory of Poetry and Drama*. Allahabad: Kitab Mihal, 1963. pg 46
[95] Miller, William. *Screenwriting for Narrative Film and Television*. New York: Hastings House, 1980. pg. 29

inevitability to the stories climax. These motivations drive the story, defining its plot.[96] Plot, as the element which Aristotle described as central to drama, provides a structured process of action. The characters who realizes this process "reveal themselves as they enact themselves as they enact their story . . . in the dramatic dialogue, the characters seek to explain their motives and actions."[97] The dramatic structure, thus, supplies a syntax for social relationships that Esslin discusses in his analysis of television as drama. Though, as Esslin asserts, drama's visual mediation of information mirrors that of our immediate lives, its highly directional structure affords a manipulative context to the whole process. As such, drama demonstrates predestination rather than choice. On television, as Caldwell argues, this process is one of commodity and, particularly, medial consumption. Television's dramatic syntax of inevitability is obligatory; the viewer can participate only by following the rise in dramatic tension to its climax, and thus only by consuming predetermined communicative structures.

The visuality of the web is certainly not dramatic in the same extrinsic sense that television is. The web is clearly not a medium of direct narration; it is not a theatre in any concrete sense. Yet, dramatics parallels do join television and the World Wide Web. At the most basic level, drama is a medium of visual bulk, the reality which powers Esslin's dramatic analysis. The web is a drama of perceptual interactions, as is television beneath its mechanisms of personality and style. The computer screen, as a stage, is filled with hypermedial visual artifacts which interact with each other both within the same visual space and through hypertextual connections. Both the multimedial page and multimedial flow are rich in concrete information; the reader's eye selects from this information as the drama ensues on the screen, recognizing and interpreting it. In some cases, visual elements participate in visual syntaxes of

---

[96] Kelsey, Gerald. *Writing for Television*. London: A & C Black Ltd., 1995. pg. 84
[97] Sastri pg. 46-47.

85

structural meaning. In others, they compete for the readers attention. The web reader's visual

concentration and selection unite her experience with that of television, and, through Esslin's

televisuality, with that of reality. The web reader thus experiences a drama not of personality

and conflict, but of images and ideas. Interacting hypermedia put the web reader in a social

situation where she must synthesize meaning herself. While television's social context resides in

personality[98], the web's society is one of contextual use and meaning. The World Wide Web's

status as a public, hypertextual medium places sensualized media in a matrix of social and

historic relations. This society of motivations shapes the dramatic experience of the web.

While the traditional dramatic structure of conflict, development, and climax has little in

common with a reader's experience of the web, the abstraction from this of inevitability links the

web with drama through the concept of plot. Individual web sites, as discussed in the first

chapter, often have very intentional hypertextual structures. These structures organize a visual

experience that may be consumed as the reader fulfills their use. Some such structures are

diagrammed again in figure 1.9. These structures define particular plots, particular sets of causes

and effects which motivate the reader's movement through the site. It certainly makes sense for

web sites to have an intention structure; denying that their visual parameters in both visual

dimensions, multimedia and visual flow, have purposes would ignore the necessary motivations

for their existence.   Some of these internal plots are productive, like Slashdot

(http://www.slashdot.com), while other function on an ethic of commodity, such as Amazon.com

(http://www.amazon.com) or, from a more extreme perspective, online gambling or pornography

sites.[99] In the middle of these extremes are plots which the web reader follows explicitly to

achieve, for instance, an informational use. The cause and effect structure of the University of

---

[98] Esslin, pg. 28

[99] for online gambling and pornography sites, a search at any major search engine will turn up several examples.

Michigan Library's home page, at http://www.lib.umich.edu, fulfills its purpose exactly as it should for the user's expectations. These uses, however, would seem to establish a syntax of experience that puts use over meaning. The synthesis of idea space, however, remains possible because web navigation is a negotiation between these individual plots. The reader's interaction with hyperlinks breaks up the obligatory syntax of drama. As the web reader moves *between* web sites, she is moving between plots on her own volition. On the World Wide Web, she always retains such options. The decision to engage in a paradigm of consumption is her own, the medium, unlike television, does not restrain her in either a linear or an absorbing sense. While television does allow for motion between channels, these channels have neither the interreferential qualities of hypertext nor the ability to be replayed or re-entered at any point. The hypermedial flow of the World Wide Web thus presents a remediated plot, where nonlinear control exposes the very structure of drama's motivations.

The concept of plot requires a parallel conception of character. Action, the bedrock of plot, presupposes persons acting. Aristotle maintained that characters, the entities that are the effects of acting, exist only for the sake of action.[100] Sastri argues against such subordination, instead suggesting that "it is a human will arising from a character that is translated into action; and this action mold the character from which is has sprung. The next event arises from this molded character, and the process continues."[101] By this account, character and plot are defining poles of the dramatic experience. In television, the role of character is played by personality; the causes and effects which drive plot arise from the imitation of human dispositions. The structures of the web, however, combine this imitation with reality as they fashion the web reader as the character of their plots. The web is a participatory drama which extends the hypertextual

[100] Sastri, 48
[101] Sastri 49

performance discussed in chapter one. By activating hyperlinks, the reader creates the causes and effects of the web's visual flow, following fragments of hypertextual plots. As a character is these plots, the reader participates in the finality of outcome, actively following links designed according to the motivations of a web site's authors. At the same time, however, these structurally encoded motivations are in direct conflict with the reader's own volition. The World Wide Web elevates the reader to the status of authorship as well; the choices the reader constructs the drama of perceptions that she herself experiences. While individual sites may have manipulative dynamics, the reader's own vectors within this structure, delimited by her own dispositions, ultimately control visual flow; she may always choose external links or use the browsers 'back' button. This participatory drama of nonlinear visual flow is thus a combination of and conflict between the motivations of the reader and the pages' authors. The dramatic experience of the web is thus a competition between discourses of production and consumption, between the personal discourses of the reader and the intentioned discourses of individual documents. As such, the web is not only a drama of sensualized media; it also a drama within conceptual space, a drama of ideas. The inevitable conclusions of purposed structures are broken up and recombined by the reader's own authority, generating conceptual structures of related experience and interpretation, of idea space.

As a sensualized experience, the web's drama of ideas supercedes the entity of dramatic fiction by including the reader in the very structures of mediation. The experience of the web is one of dramatic reality, a situation combining mediation and reality. While the syntax of dramatic fiction provides a structure of suspense and resolution, the web remediates dramatic structure, exposing its internal vectors to the reader's volition. Here, remediation is the

mediation of mediation.[102] The web reader is not a spectator to a drama, but rather a participant in it; it defines her reality for the duration of her use of the web. As a participant, the idea spaces she constructs from hypertextual structures and hypermedial visuality mold the story of this drama. She makes choices as an author, and reacts to them as a character. Yet, the reader is a character in both her own drama of perceptions, her own idea space, as well as in the discourse of the flow's own design. In this experience the discursive confrontations of the web's flow are themselves sensualized to the reader instead of merely theoretical constructs as in television. When a web reader chooses direction in visual flow, she is directly influencing her own perceptions of these confrontations, either resisting, participating, or consuming them. This instance of experience, this event, is structured according to decisions she makes that are based on her own constructed meanings of hypermedial presentations. The syntax here is not one of tracing a pattern, but rather of creating one's own patterns out of pre-existent structures. The web's mediation itself is a productive, engaged reality.

Just as stage drama joins oral and visual performance, the web sensualizes spaces of perception, and thus of ideas, by combining linguistic structures with visual experiences. To the web reader, the screen is both script and stage, offering both the structure of production and the space of production itself. The script of the web is a hypertextual scriptorium, offering many possible scripts to the visual flow that the reader experiences. In the hypermedial drama of the web, the reader's perceptions are more than those of mediation, because the medium itself participates in her own construction of meaning and experience. This reader both manufactures experience from the web's structured raw material and interprets the medial interactions that she

---

[102] Bolter and Grusin, pg. 56

creates. This hypertextual hypermedium absorbs the reader in a productive reality of sensualized

thought.

Conclusion

By introducing the concept of sensualized spaces of ideas, this study has attempted to describe the communicative dynamic of the World Wide Web as a productive, reader centered experience of multiple metaphor. The parallel concepts of hypertextuality and hypermediacy have been introduced as the mechanisms by which this space takes shape. These intertwined textual and visual experiences of the web create possibilities of meaning through the sensualization both of reference and mediation. This is a viscous experience. Messages are not simply decoded from media; instead they must be constructed. Hypertextuality, as reading, discards the concept of transparent signification in favor of referral between language objects. Multimediacy, half of the experience of hypermedia, incorporate a variety of visual media along with enhanced verbal elements, remediating them and thus foregrounding their status as visual mediators. The dynamic half of hypermediacy, visual flow, completes the replacement of the immediacy of representation with an immediacy of mediation itself. These media, thus, become visual artifacts which the reader negotiates as she travels between visual networks. Exploring the mechanisms by which communication takes place in hypertextual, multimedial, and visually dynamic media have been the subject of this study's three chapters. These explications have taken place as respective comparisons with LANGUAGE Poetry, magazines and newspapers, and television. Each discussion has explored both the communicative dynamics of one part of the web's inclusive experience, as well as demonstrated the uniqueness and importance of the web's sensualization of subjectivity.

The first chapter of this study used the work of the LANGUAGE Poets to develop an understanding for the subjective reading of hypertextual entities. Reading, in both hypertext and LANGUAGE Poetry, is an experience of referral in the place of transparent signification, a resistance to the commodity of the image. Reading, thus, is a navigation through an archive of fragmentary language objects connected by vectors of referral. The structure of the language itself, apart from its specific subject, provides the foundation for the reader's construction of meaning. As the reader moves through this terrain of language, she plays a Wittgensteinian language game with the text itself. Hyperlinks let her 'talk back' to verbal texts and thus participate in their manufacture of meaning. As she moves between segments of language, in the web's hypertextual network as in LANGUAGE Poetry, recontextualization becomes a constant occurrence. Each fragment that she encounters has meanings bounded by Wittegensteinian certainties defining the rules of its communication. The multiple subjectivities of this hypertextual game become apparent as she moves between documents, exploding certainties and changing these certainties' practical circumscriptions of meaning. Still, this study declares that even though the possibilities of interpretation might be endless, the actualization of reading as a performance bounds meaning by the reader's own volition. Thus, the hypertextual reader can construct a space of multiple meanings, of undecidable metaphor, within her own mind without losing sight of the text's practical, if not actual, borders.

The second chapter moved along an axis perpendicular to that of chapter one. Rather than address the dynamism of hypertextuality, this chapter addressed the visual interactions between elements *within* web documents. In accomplishing this goal, the multimediated pages of magazines were presented to explain the visual dynamics of web documents, and also to demonstrate the differences between electronic and print multimedia. Even text becomes a

participant in the complex visual interactions of these documents. Visual elements of different media compete for the reader's attention, attempting to guide her selective choices. The designer, however, attempts to place these same elements in a constructed visual syntax, giving them visual, though not necessarily reductively meaningful, relationships to each other. The reader's experience of these documents describes a negotiation between competition, syntax, and her own selection. Multimediated spaces, thereby, stand in the middle ground between consumption and production, enacting the conflict between word and image within their very structures of presentation. Nevertheless, since these forces can never reach a stable equilibrium, her action of looking around the page continuously remakes the meanings that she may find there. Further, multimediated documents foreground remediation, the re-presentation of one media within another. Web documents extend remediation; while print media can only re-present static media, the web can remediate video and animation in addition to photography, graphics, and advertisements. This condition makes mediation itself immediate, and thus exposes the vectors of relationships which contextualize media. The array of meanings apparent in multimedial spaces consists of the exposed relationships between medial elements.

Multimedia, as presented in chapter two, was mainly a function of the static page. Chapter three followed the communicative devices of motions between multimedial pages. On television, visual flow elevates the image to a status of immediacy. Montage, arising from continuos effacement on the screen, grants this dynamic media an existence as pseudo-reality. This experience is one of a complicated stream of interruption and segmentation, leading to multiple possible vectors of interpretation. Still, the polysemics of this environment were shown to arise from structures of flow hidden from both the viewer's control and perception. The largely incoherent flow that the viewer sees is actually highly structured by televisual producers.

In this sense, the idea space of television is largely out of the viewer's control. While the free floating referral of LANGUAGE Poetry opposes image consumption directly and multimediation takes up the middle ground, televisuality is by most measures a finely tuned implement of commodity. Televisions dramatic format supplies its viewers with instances of experience for active consumption. On the web, however, the same aesthetic of immediacy is applied to multimedial pages rather than commodified images, thus making media themselves the objects of experience. The web reader controls flow in ways that the televisual viewer simply has no mechanism for.

Ultimately, web idea spaces provide a sensualized experience of subjectivity. LANGUAGE Poetry, magazines and newspapers, and television all allow for polysemic situations, but none of them make the experience interacting ideas, and thus multiple meanings, the immediate object of their presentation. In its combination of hypertextuality, multimediacy, and visual flow, the web becomes a drama of sensualized ideas, exalting the concurrent truth of multiple perspectives. Its objects of exposed mediation are apprehended hypermediating bodies of dramatic reality. Their meanings arise from the reader's choices of participation and opposition in the multiple plot structures of the World Wide Web; the very contexts of their referral rely on the reader's negotiation of the web's multitude of purposed visual flows. Her experience of hypertextual reference becomes sensualized as vectors in a space of ideas. Her motion between textual bodies is made immediate as a motion between sets of ideas. Finally, hypertextuality, multimediacy, and visual flow combine to offer a remediated scriptorium of drama. Their internal structures of inevitability are exposed and examined by their representation in interactive media. The purposed communicative vectors of these dramas are

the raw material of irreducible conflict between discursive formats, the tensions that generate spaces of meaning on the World Wide Web.

It remains to elucidate what some of the defining parameters of web spaces are likely to be. As a means of practical communication, the World Wide Web remediates subjectivity. As such, communication on the web is not a means of simple coded messages, but rather of the combination of multiple perspectives. What makes these forms manageable, and thus practical, is the reader's necessary forfeiture of the myth of total knowledge. As has been stated repeatedly in this study, at some point, the drama must end. The web reader is repeatedly reminded that the space of meanings she encounters will never describe the space of possible meanings, but that the meanings that she does encounter will suffice for the depth of hypertextual research that interests her. Still, this does not solve the theoretical problems of Derridian deconstruction, for the possibility of infinite interpretation in any medium can never be squelched. Nevertheless, for the purposes of a mass medium, at least, these theories are just that: theories. Describing an unbounded graph of recontextualizations can never describe the reader's actual experience of the World Wide Web, or possibly of any medium. Empirically, people will continue to use signs in practical manners, possibly broadening their understanding to idea space instead of dictionary definitions. The World Wide Web displays that even in an archive of fragments, the communication of relationships between idea need not lead to a cessation of the process of communication itself. As the web institutionalizes the multiplicity of meaning, knowledge becomes activated as a realm of general, complex understandings rather than pointed perspectives or ignorant opinions. Obviously these are technologically optimistic conclusions, but as this study has attempted to demonstrate, the World Wide Web's structures of use and presentation orient it towards a paradigm of production. Implementing it as a full means of

active consumption, as television has become, would involve forcibly manipulating the very specifications that define the constitution of the web. Hypertextuality and hypermediacy, as experiences that rise not out of content but out of medial structure, give the World Wide Web an edge up on commodity. Whether its productive stance of multiple subjectivity, or a medium like it, will develop into the signal mass media of the twenty first century will rely on both the dispositions of the architects of the web and the conscientious, active engagement of its readers.

Bibliography and Works Cited

ACM Sigweb Web Site [On Line] http://www.acm.org/sigweb

Andrews, Bruce and Charles Bernstein, eds. *L=A=N=G=U=A=G=E Book, The* Carbondale, Edwardsville: Southern Illinois University Press, 1984.

Berk, Emily and Joseph Devlin, eds. *Hypertext / Hypermedia Handbook.* New York: Intertext Publications, 1991.

Bernstein, Charles. "Interview with Tom Beckett". *The Difficulties: Charles Bernstein Issue*, ed. Tom Beckett, Vol. 2, no. 1 (Fall 1982). Pg 35.

Bolter, J. David. *Writing Space.* Hillsdale, New Jersey: Lawerence Erbaum Associates, 1991.

Bolter, J. David and Richard Grusin. *Remediation.* Cambridge, Massachusettes: MIT Press, 1999.

Buck-Morse, Susan. *The dialectics of seeing : Walter Benjamin and the Arcades project.* Cambridge, Mass. : MIT Press, 1989.

Butler, Jeremy G. *Television : Critical Methods and Applications.* Belmont, Cal. : Wadsworth Pub. 1994.

Caldwell, John Thornton. *Televisuality: Style, Crisis, and Authority in American Television.* New Brunswick, New Jersey: Rutgers University Press, 1995.

Click, J. William. *Magazine Editing and Production.* Dubuque, Iowa: Wm. C. Brown Publishers, 1986.

Cotton, Bob and Richard Oliver. *Understanding Hypermedia.* London: Phaidon Press Ltd, 1993

Corner, John. *Critical Ideas in Television Studies.* Oxford: Clarendon Press, 1999.

Cortazar, Julio. *Hopscotch* New York: Pantheon Books, 1966

Esslin, Martin. *The Age of Television.* San Francisco: W.H. Freeman and Company, 1982

Fiske, John. *Television Culture.* London and New York: Methuen, 1987.

Frow, John. *Time and Commodity Culture.* Oxford: Clarendon Press, 1997.

Gloor, Peter. *Elements of Hypermedial Design.* Boston: Birkhauser, 1997.

Hejinian, Lyn. *My Life*. Los Angeles : Sun & Moon Press, 1987.

Hypertext '99. New York: Association for Computing Machinery, 1999.

Hypertext '00. New York: Association for Computing Machinery, 2000.

Internet Society Web Site [On Line] http://www.isoc.org/

Jobling, Robert and David Crowley. *Graphic Design*. Manchester: Manchester University Press,1996.

Joyce, James. *Finnigan's Wake*. New York: The Viking press, 1939

Joyce, Michael. *Of Two Minds*. Ann Arbor, Michigan: University of Michigan Press, 1995.

Kelsey, Gerald. *Writing for Television*. London: A & C Black Ltd., 1995.

Kress, Gunther and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design*. New York: Routledge, 1996.

Kubler, George. *The Shape of Time.* New Haven and London: Yale University Press, 1962.

Lake, David. "The Web: Growing by 2 Million Pages a Day". *The Standard.* Febuary 8, 2000. [On Line] http://www.thestandard.com/article/0,1902,12329,00.html

Landow, George P. *Hypertext 2.0*. Baltimore, Maryland: Johns Hopkins University Press, 1997.

Landow, George P. ed. *Hyper/Text/Theory*. Baltimore: Maryland, 1994.

Lauer, David A and Stephen Pentak. *Design Basics*. Fort Worth: Harcourt College Publishers, 2000.

Leiner, Barry M. et al. *A Brief History of the Internet.* [On Line] http://www.isoc.org/internet/history/brief.html

Lynch, Patrick J. and Sarah Horton. *Web Style Guide*. New Haven and London: Yale University Press, 1999.

Mallarme, Stephan. *Throw the Dice*.

McCluhan, Marshall. *Understanding Media.* New York: McGraw-Hill, 1964.

Messerli, Douglas, Ed. *Language Poetries*. New York: New Directions, 1987.

Miller, William. *Screenwriting for Narrative Film and Television*. New York: Hastings House, 1980.

Nielsen, Jakob. *Multimedia and Hypertext*. Boston: AP Professional, 1995.

Perloff, Marjorie. "L=A=N=G=U=A=G=E Poetry in the Eighties." *The dance of the intellect: Studies in the poetry of the Pound tradition*. Cambridge: Cambridge University Press, 1985

Perloff, Marjorie. *Radical Artifice.* Chicago, London: University of Chicago Press, 1991

Powell, Thomas A. *Website Engineering*. Upper Saddle River, New Jersey: Prentice Hall, 1998.

ReinFeld, Linda. *Language Poetry: Writing as Rescue*. Baton Rouge, London: Louisiana State University Press, 1992

Sarup, Madan. *An Introductory Guide to Post-structuralism and Postmodernism*. Athens: The University of Georgia Press, 1989.

Sastri, Dr. P. S. *Aristotles Theory of Poetry and Drama*. Allahabad: Kitab Mihal, 1963

Sluga, Hans and David G. Stern., eds. *Cambridge Companion to Wittgenstein*. S Cambridge: Cambridge University Press: 1996.

SIGLINK Newsletter. 1992-1998. New York, NY : ACM Press

SIGWEB Newsletter. 1998-2000. New York, NY : ACM Press

Silliman, Ron, ed. *In the American Tree*. Orono: The National Poetry Foundation, The University of Maine at Orono, 1986

Stiff, Paul, "Stop sitting around and start looking", *Eye*, 11 (1993)

Williams, R. *Television: Technology and Cultural Form*. London: Fontana, 1974.

Wittgenstein, Ludwig. *Philosophical Investigations*. Trans. G.E.M. Anscombe. Oxford: Basil Blackwell, 1963

Wittgenstein, Ludwig. *On Certainty.* G. E. M. Anscombe and G. H. von Wright. Eds. Denis Paul and G. E. M. Anscombe trans. Oxford: Blackwell, 1969.

World Wide Web Consortium Web Site. [On Line] http://www.w3c.org 2001

Zakon, Robert H'obbes'. *Hobbes Internet Timeline* [On Line] http://www.zakon.org/robert/internet/timeline/ 2001