

Hypertext Structure as the Event of Connection

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ABSTRACT

This paper proposes that within the practice of writing small scale, local hypertext, critical questions of relevance to all hypertext researchers are foregrounded, in particular problems of excess, context, and teleological interpretation.

KEYWORDS: Links, pragmatics, cinema, hypertext structure, rhetoric, context, excess.

INTRODUCTION

Hypertext theory, whether considered from the point of view of systems development, as a creative endeavour, or in abstract terms, appears to routinely return to questions of structure, navigation, and coherence. These problems haunt the conceptualisation of hypertext as it inevitably finds itself drawn between the poles of potential structure, and the realised and individuated event that is the particular reading of any hypertext. Within this, theory and systems design has primarily concerned itself with large scale structures and its attendant problems of architecture, or with readers' use of hypertext documents. However, between such industrial textual processes and the problem of the reader lies the experience of writing hypertext as hypertext. The hypothesis I wish to pose is simple. Within link node hypertext it is clear that context is fundamental to link interpretation, and that context is largely reader (i.e., pragmatically) determined [46], in no manner is the significance of the link exhausted by any particular context in which it may occur. Furthermore, a significant factor in the contextual interpretation of the link is the development of narrative schemas, and such schemas determine meaning retrospectively [6]. This suggests that structure in hypertext is produced pragmatically, and its principal meaningful structures are defined retrospectively. The tension between links as pragmatic, open, and excessive, versus the teleological imposition of coherence, is the space within which hypertext writing defines its own practice. This paper explores this middle terrain between what could be characterised as industrial hypertext, and hypertext reading. To examine this I intend to rely on the assumption that link node hypertext is a postcinematic writing practice [25, 30, 31]. Finally, historically the concern with closure and excess has concentrated on reading hypertext, this paper is informed by the tactics of an engaged hypertextual writing practice.

LINK EXCESS

Links generate what I'd like to characterise as an 'anxiety' within hypertext. This anxiety is evident in relation to writer's and their use of hypertext, a reader's ability to derive pleasure from reading hypertext, and is present in most theories of hypertext and linking which seek to provide rules for the application, role, or relevance of links in hypertext (see [22] for a generic summary of the role of links, and [Carter, 2000 #1194, [46]] for a recent survey of rhetoric and hypertext). This is perhaps unusual, given the literature's general celebration of the link as textual liberation and, in some cases, formally constitutive of hypertext. The anxiety I am referring to is evident in the manner in which much writing on linking wishes to domesticate the link as some category or species of rhetorical figure, always and already at the service of some other role, for instance to facilitate navigation, allow cognitive and associative mapping of ideas, or the incorporation of otherwise disparate arguments, documents, or objects, within a larger docuverse. In such work the link always remains the servant of other processes, but such thought obscures, indeed actively turns away from, any consideration of the link in, or of, itself.

That such rule formation around links is irrelevant to their function is reasonably demonstrated through the simple comparison that Tosca has made with lyric poetry [45] and Miles with cinema [30]. Tosca's point, when applied to links, is elegantly simple. When writing poetry there are numerous 'rules' of connection, yet we recognise that these rules (of rhythm, timbre, rhyme, visual structure, thematic connection, etc) have no hierarchy and are not exclusive. In a poem you can place any word in any other location (as you can with shots in narrative cinema), and there is clearly no need for formal syntactic and semantic rules of organisation for a poem (or a film) to be meaningful — that there may be such rules for some genres of poetry does not change this fact. This would certainly seem to be the case in hypertext and suggests that hypertext linking ought to be considered as more analogous to poetry than to prose — if you like it is hard not to be 'poetic' when we write hypertextually. This suggests that hypertext theory's fascination with coherence, order, navigation, and rhetoric becomes a policing of what is always the unruly link and its escape into an immanent economy of excess and non-linguistic force.

It has been argued elsewhere that links have performative force ([30]), indicating that we no longer ought to define them as grammatical moments but as fluid and mobile vectors that construct relevance ([41]) and context through their leap. The performative force of the link is invisible to 'ordinary' conceptions of rhetoric because this force is only expressed and realised in the activity

(the moment) of the link, and it is this invisibility that has led to the description of the link as a sort of vacant 'connecting' device. Hence the link, in itself, is regularly discussed in terms of what it enables, such as multilinear narrative, but rarely is it explored or theorised ontologically. This appears to be the case largely because a great deal of the work in hypertext (whether from computer science or the humanities) assumes an empiricist and 'realist' notion of discourse: works should be, or are, transparent in their effects, intentions, and meanings. This concentration on largely empirical and instrumental questions of successful meaning negotiation (what might be called the preservation of textual integrity in the face of possible interference), is why such work has struggled to account for the success of such noisy hypertext systems as the World Wide Web.

If, on the other hand, we accept that hypertext structure is implicitly poetic (or cinematic) rather than grammatical, then how we conceive the question of connection ought to be fundamentally different. Just as we willingly accept that poetry may, for instance, only concern itself with sound, quite independently of what we think of as sense, we ought to be able to consider the link in an analogous manner — this for instance may let us appreciate Bernstein's insight that repetition in hypertext is not a vice [4].

This returns us to the 'anxiety' of the link. I would like to suggest that what the link enables or performs, which is not transparent (cognitive, logical, rational, etc) instrumental connection, is in fact outside of such a rational economy, and in our insistence on defining the link as instrumental we are in fact disavowing this 'outside' [20]. Indeed, it appears to be a common mistake in hypertext theory (shared by many in film criticism) to mistake the ability of the link to *generate* a meaningful connection as evidence of the link only realising an immanent relevance.

MARGINALIA

For a theorist such as Harpold this outside is defined by Lacanian lack, and the imaginary plenitude of the link is the subject's misreading of the absence that lies within all signification [18-20]. More prosaically, I'd like to suggest that the contextual and pragmatic force of the link, and its affinity to non-grammatical forms of association and connection, allows us to theorise about link's and excess. Indeed, to the extent that links are non-linguistic they perhaps share a great deal with other non-linguistic forms of communication (music, painting, sculpture, and cinema all suggest themselves) in that they will always maintain a reservoir of excess that linguistic description and analysis can never accommodate. In the relation of image to word this is largely the province of Mitchell [33, 34], though McCloud and Drucker offer exciting work informed by their own creative practice [13, 28], and Stafford's recent argument connecting analogy and the visual is clearly relevant [42]. Simply put, there is a possibility of theorising the excess of the link specifically through its non-linguistic economy, a project that I believe is yet to be undertaken — notwithstanding Moulthrop's 1991 call for a 'deconstructive hypertext' [35].

EXCESS (II)

The general condition of the link is that by virtue of its force relevance is perceived within the nodes joined. This relevance does not need to reside within the nodes themselves, but in the fact of their *retrospective* connectedness. The 'anxiety of the link' that I'm describing is the recognition that this force falls outside of nomenclature and (linguistic) reason. This force is evident in the manner in which the link recontextualises the before and after of its own act through what Deleuze and Guattari have described as an "incorporeal transformation" [10]. That is, the link is an imperative that affects what the node means in quite fundamental ways, yet leaves the node itself untouched, or unmarked. This is the model of Austin's performative speech acts, and Deleuze and Guattari's order words (and it should be added bears a strong similarity to Harpold's analysis of the imperative of the Other in the context of hypertext [17]), and can only be instantiated in the moment of the individuated action of a link. This is an 'excess' because for this to be the case that a node is considerably more than a navigational cue or aid. It is within this 'more' that the excess of the link is to be found.

One way in which we can describe this excess so as to be able to consider it theoretically is through the distinction that author and philosopher Georges Bataille makes between a general and restricted economy. Within a general economy there is an expenditure (of meaning, goods, pleasure) without instrumental return [3], that is an expenditure where the primary intent of the 'transaction' is not to recover anything 'useful' from the transaction. Within a restricted economy, on the other hand, expenditure is only ever conducted with a view towards a return, a recovery of that which has been expended.

While a pure general economy may not be possible, it nonetheless can be seen to inform many apparently 'useless' activities, for instance art, play, even probably fireworks, and of course some might even argue that death is a general economy to the extent that it apparently never exhausts itself and appears to give little in return! In a general economy, there is always a remainder, an excess that cannot be recovered. In a poem this might be, literally, its meaning, and so we are left to speculate forever on its intent. In the case of hypertext links, this is their general condition. Links always have a remainder, a residue of contextualising force that extends against and into the moment before their promise, and at the point of their enaction into an open future that can only ever be a bet against an unknowable outcome. Which is to say that after the link has arrived it then recontextualises what was, and before the link has arrived we are always subject to the risk of the radically open. As Harpold says "there is a principle of indeterminability (a generalized "chance") operating between the gaps in the reading that may sometimes turn you back on your path" [17] p. 194.

In such circumstances to think of a link as broken, redundant, irrelevant, or inappropriate requires an assumption of instrumental use that relies on an ideology of use value — a restricted economy. This returns us to questions of empiricism simply because we can only treat links as wrong or false within an instrumental economy.

However, links are not true or false, rather a link is good or bad, which is to say felicitous or infelicitous ([1]) and this can only ever be a question of context. For example, of the 282 links in “Hyperweb” [32] one is to a deliberately malformed URL, its point being to generate a 404 error and so in this particular context a ‘false’ link does in fact have significance in itself.

That links can be utilised instrumentally does not alter this. If, however, link node hypertext is lyrical [45], musical [36], or cinematic [25, 30] then it is difficult to argue that there can be any links apart from felicitous links. A poem may be good or bad, but certainly not true or false in any empirical sense, and the same applies to a musical score, a film edit, and links.

NARRATIVE SCHEMAS

Excess, and the felicitous quality of the link, ought to cause hesitation in developing specific rules of link use as neither is amenable to predetermination. The variability of context, compounded by hypertext multilinearity, also makes it difficult to determine the varieties of readerly practice that may happen. Tosca has argued for the role of context in hypertext, relying on the example of the deeply complex nature of everyday communicative acts [46]. As she indicates, the significance of context and pragmatic interpretation in such circumstances is not so very different from narrative in general, where readers accept certain principals of intent and causal relation and on this basis schemas of understanding are developed. Such schemas are pragmatic and based on our experience of narratives *in situ*, and so are able to operate as high level abstract maps that combine bottom up testing [12]. As Branigan describes [6]:

narrative is a perceptual activity that organizes data into a special pattern which represents and explains experience. More specifically, narrative is a way of organizing spatial and temporal data into a cause-effect chain of events with a beginning, middle, and end that embodies a judgment about the nature of the events as well as demonstrates how it is possible to know, and hence to narrate, the events. (p.3.)

and that:

In a narrative, some person, object, or situation undergoes a particular type of change and this change is measured by a sequence of attributions which apply to the thing at different times. Narrative is a way of experiencing a group of sentences or pictures (or gestures or dance movements, [nodes] etc.) which together attribute a beginning, middle, and end to something. The beginning, middle, and end are not contained in the discrete elements, say, the individual sentences of a novel but signified in the overall relationships established among the totality of the elements, or sentences. ([6] p.4.)

For Branigan a narrative is a series of transformations understood by a relation of cause and effect where two deep cognitive functions are utilised, an awareness of purpose, and an awareness of pattern. Purpose, or intention, is not to be confused with authorial intention, merely that the narrative intends that the connection between parts (for instance nodes and their links) is

posited as meaningful, and so assumed to be understandable in appropriate contexts (the game of interpretation becoming one of hypothesising possible appropriate contexts). Pattern is the active process of identifying meaningful *sets* of relations, which requires the ongoing testing and amendment of assumptions and expectations of relevance and causal priority.

This is what Branigan refers to as a schema, and readers utilise schemas to identify the patterns which arise in a narrative. A schema is the way in which data or information is made meaningful through the application of a template in which “probabilities to events and to parts of events” are assigned [6 p.13.]. Branigan’s interest in schema’s is not to help determine what a narrative means, but how it organises itself as information, and the information processing that a reader (or viewer, or user) must perform. The narrative schemas readers produce are hierarchical and constantly subject to change, these hierarchies are not stable because the relations of cause and effect that are understood to influence these hierarchies are regularly modified by the reader and the narrative. For instance, it is common for a narrative event or element to shift from an apparently minor to a major role (or the reverse) subject to our interpretation of later events and how we then apply these to our original schema.

Such processes are fundamental to understanding a narrative, and must mean that how connections between parts are understood changes during the course of our reading. That the same applies to reading in hypertext, where pattern [4, 40] and repetition can become integral to the work [21, 49], is well known, but what is important to our argument is not the role of schema’s per se (see also [7]), but the significance that closure plays in the successful application of a narrative schema.

CLOSURE

Within hypertext criticism closure has largely been discussed in terms of its hypothetical absence. For instance, the common observation of the way in which a hypertext work may resist closure, whether through ambiguity or simply lacking a specific ending [5, 22, 24], or the ways in which a reference work may continue indefinitely as additional connections, documents, and essays are incorporated. Douglas has recently written extensively and in great detail on closure and hypertext narrative [11], but rather than concentrating on the nature of closure in itself I’m wanting to consider the manner in which closure generates teleological principals which impact on excess and meaning.

A Logical Aside

The activity of scholarly inclusion remains an ideal that is important for a great deal of continuing research into hypertext, though as an ideal it has perhaps received less criticism than it deserves, for it appears to rely on a Platonic idealism, even with a celebration of the multilinearity path. Not only can all documents relating to, for instance, poem “Y” not be linked (if only because commentary remains an ongoing activity), but this connection in itself generally forms a specific document that excludes the possibility of others. Finally, the assembled docuverse itself, if it is granted some status as

a text on the poem “Y” cannot, logically, refer to itself and so remains outside of its claims for inclusiveness. That is, the set formed by the documents about poem “Y” which the docuverse seeks to represent (or enable) would, by virtue of itself, be in fact a part of the set of documents it wishes to create — a dilemma beloved by deconstructionists. There will always remain an outside, an excess, that saturated linking, multiple linking, or a Nelsonian docuverse appears troubled to acknowledge.

CLOSURE (II)

Hypertext criticism tends to characterise closure as the inevitable outcome of linearity where the determined narrative end grounds meaning within the illusions of semiotic security, while the open hypertext remains a more accurate index of not only the flow of semiosis [22], but of contemporary experience [43, 47, 48] or the postmodern text [11, 43].

As several commentators have suggested [29, 44], these claims are as relevant to print as to hypertext works. However, my point is not to criticise this idealism — I regard this idealism as fundamental to what might be thought of as the ethics of academic hypertext, something Landow, and Bolter have contributed to substantially. However, within these assumptions of closure, whether relegated to a history of easy satisfaction or celebrated as the end game of a new millennium, lies concealed the problem of the importance of narrative teleology.

Before addressing this specifically, it should be noted that narrative closure is routinely equated with narrative completion, that is the end of the work. Such notions of closure can be thought of as large scale to the extent that they rely upon an assumption of a textually consistent complete narrative, always a problematic issue in any complex hypertext. This is the case in Rosenberg’s definition of the session [40], though here closure is radicalised as it is now largely defined by readerly discretion, rather than privileging the text as most other theoretical approaches do (this is, of course, the major importance of Rosenberg’s paper as it repeatedly demonstrates the role of the reader in determining minimal signifying sequences in hypertext — an intriguing fancy would be an analysis of a major hypertext combining the five codes Barthes’ applies in “S/Z” [2] with Rosenberg’s three narrative levels!).

As Rosenberg demonstrates, a key difference between hypertext and print narrative is the manner in which the reader determines such ‘micro’ closure during the narrating of the narrative (what Ricoeur, following Genette describes as narrative utterance [39]), presumably because hypertext conflates the performance of narrating into the active link following reader and the more ordinary level of the text’s own narrating. What I wish to emphasise here is the role of the reader in not only constituting the narrative sequence [31] but the manner in which the sequence (whether episode or session to use Rosenberg’s terminology) is constituted by closure. That is, an episode is generally only recognised or described as an episode when the reader successfully applies criteria of logical coherence and pattern to a series — i.e., a schema. Where this has not occurred it is reasonable to hypothesise that a pragmatic reader (as

opposed to Chatman’s ideal reader [8]) would not define the sequence read as in fact an episode.

Another Aside

It would appear to be reasonable to hypothesise that when small scale sequences in a hypertext resist closure, the work as a whole tends to remain ‘open’, and where the minor sequences of a hypertext provide closure, the work as a whole tends to provide, in turn, a stronger order of narrative closure, a position I believe supported by Bernstein’s categories of patterns [4]. This is not to suggest that closure at the level of the episode means that the work as a whole cannot be open or ambiguous in terms of narrative closure. It is easy to imagine a work consisting of clearly articulated episodes, but the relation of episodes to each other remains largely unmotivated in terms of realist or literal narrative conventions. For instance much of Adrienne Eisen’s [15] online writing seems to fall into this structure. This is not limited to electronic writing though, as it applies equally to the short stories of Raymond Carver (“Elephant” and “Short Cuts” for instance), or the films of Robert Altman (“Nashville”, “Short Cuts”, “Prêt-à-Porter” are excellent examples). However, where episodes are able to be identified as episodes (in Rosenberg’s sense) it is probably easier for the reader to provide schemas to account for the relation or relevance of these episodes to each other, compared to those works where a reader feels unable to determine episodes that cohere as narratives. Much the same applies to the manner in which a work is linked. Links can be open or closed to the extent that they originate from abstract terms or narrative cognates (see for instance [38]), and in terms of their destination, which can be similarly lyrical and associative [45] or direct and literal.

CLOSURE (III)

However, not only is a hypertext sequence largely defined by the attribution of closure but this must occur retrospectively — a sequence of any order can only be recognised as a cohesive sequence once it is completed. This is an excellent example of Branigan’s description of top down and bottom up processing that narrative schemas require [6].

As Culler has noted

It is true that if the hero does battle with the villain much of the interest for the reader may depend on the uncertainty of the outcome; but one can say that this is also uncertainty about the function of the struggle. The reader knows its significance and its place in the tale only when he knows the outcome. . . . The plot is subject to teleological determination: certain things happen in order that the *récit* may develop as it does. [9] (p. 209.)

Narratives, as causal sets of logical processes, are always understood teleologically, so that for any narrative (and in turn any narrative sequence, including of course Rosenberg’s episode [40]) it is the end that largely determines how we come to understand the logical connection of its parts. This is the reader’s assumption of the ‘point’ of the narrative, however a reader wishes to contextualise or hypothesise this ‘point’, and the parts of a narrative gain logical and local sense *backwards*,

courtesy of this point. Furthermore, while sequence can only be constituted as a sequence retrospectively, once constituted teleological constraint overdetermines causal connection at the expense of other narrative and formal attributes.

This is an extremely important point for any theory of hypertext narrative, and for any hypertext system design that wishes to define or visualise the significance of the relations between nodes. While a linear work can largely attempt to define the relation between its parts according to specific hierarchies of significance or meaning — much as Eisenstein's attempts to articulate a visual dialectic of film making [16] — a multilinear hypertext work struggles to achieve a similar outcome simply because of the variability between what constitutes a particular episode and what is understood to be the finally narrated narrative, each of which will vary from reading to reading.

Put simply, context and the authoritative role of teleological closure dominates how the connection between parts are interpreted. The manner of connection may contribute, or even contest (at least certainly render ambiguous), the meaning of the relation between parts, but this can only be achieved afterwards with that guarantee of order that an end determines. This is not to suggest that ambiguity, the open ending, or an indeterminate narrative are not possible, only that such endings still operate as a teleological ground informing how we then understand the events narrated [11].

For example, imagine a hypertext where links that relate to a specific theme have an individuated colour and specific visual effects attached to them. Argument A's thread is yellow and enacted links always produce dissolves between nodes, while argument B's thread is blue and enacted links always produce animated marching windows. Where these two threads intersect links are green and enacted links combine animated marching with a dissolve. Additional cues could also be added to indicate if a green link endorses or criticises this common thread. While such a hypertext has already presumed what the relations between nodes could be, quite independently of any particular reading context, it disregards the fact that the reader, in understanding, articulating, and using the argument, will pay little or no attention to these formal markings. How the connections are understood, that is what the argument is, will only be determined by how the reader determines its end, and this will recast all that came before. In such contexts the colour of a link, even the representation of the connection between nodes, is erased, just as in a film it is only film theorists who remember whether we cut from a wide shot to a low angle close up, when redescribing a narrative.

Because the relation between parts can only be interpreted by virtue of an end it is difficult to conceive of a set of definitions for illustrating or representing connection (whether logical, rhetorical, or dramatic) that can be provided prior to their individuated use, and that can survive the reader's pragmatic reconceiving of the terms of this argument or narrative. When we retell we rebuild, which is simply to say we forget — that we still want to decorate the work of the link is simply another

expression of its luxurious excess.

Aside (III)

Culler, fine structuralist that he is, suggests that parts of a narrative ought to be conceived of as functions rather than events. In this way their role is not defined in terms of a series of branching possibilities that actions suggest, but as functions enabling the narrative to get to its end. For instance, a film noir might begin with a semi naked woman running down a dark road because the narrative requires the function of mystery and enigma more than it needs a set of branching possibilities — will she be found (of course she will), does she have an important role (of course she does), is it the 'hero' who finds her (of course it is) and in fact from structuralism's functional perspective he is the hero only because he finds her and receives the quest that she initiates.

Child aside

This is an intriguing idea when pushed, simply because it describes the reverse of how we ordinarily think a narrative works, but in fact accurately describes how we actually write or make our own narratives. When writing there is some sense in which we know where it is going (to some extent) and so the arguments made (retaining an academic context for the moment) are in fact functions which are present and used by virtue of their applicability and relevance to the end we have in mind. Rather than each idea opening outwards (much like an open cone), which is how we 'ordinarily' think of a narrative (each action opening a new set of future possibilities, all apparently equal), the model is in fact more like a funnel where each action is in fact a function designed to get to that focused point that is the end [11]. It ought to go without saying that given the nature of the link and excess that a 'genuinely' hypertextual writing practice would be a writing 'for' the cone, rather than the funnel.

Aside (IV)

Furthermore, the difference that an action makes to the story is to change the perception of the function of some prior act. For instance in the film "The Matrix" Neo's epiphany allows the function of Morpheus' sacrifice to be understandable. In terms of multilinear narrative this is well worth further consideration for if we think of narrative units (of whatever scale) as being functions rather than narrative acts (that is 'couple forming' rather than 'Fred meets Ginger and what should happen next?') then we might conceive of a narrative model that is able to accommodate multilinear recombination rather than the branching events, or indeterminate narrative, that currently dominates hypertext fiction.

BACK TO THE FUTURE

Mancini has cogently argued for the relevance of cinematic codes of representation to the presentation of information in hypertext environments [25]. However, as is apparent in her examples it is not the syntagmatic series and the relation between these parts that may provide a representation of argument or implicit structure, it is instead the simultaneous visual representation of the relation between parts within a common field — for instance the screen or interface.

In other words what is required, and Mancini appears to be suggesting, is a theory of hypertextual collage where diachronic structure is shown synchronically (see also [23]). This would be a practice that takes the temporal ordering of elements that is the hallmark of cinematic montage, that is serial ordering in time (diachronic structure), and to try to represent this spatially within a single field of view — all at once as it were.¹ By presenting material simultaneously, which must be then primarily visual so that it can be ‘read’ as a whole (and where it is not visual it will firstly be treated as a graphic sign before it is regarded as a linguistic sign), a provisional context is provided largely because such images are already discursive in a manner that a sentence is not. This is perhaps why visual representations in hypertext appear to be more successful representations of structure, relevance, or meaning (such as MAPA [14] or VIKI [26, 27]) than purely linguistic categories. Such visual representations exist in an indexical relationship to their content, relying on relations of resemblance and analogy (“analogy is the vision of ordered relationships articulated as similarity-in-difference” [42] p. 9.), while linguistic models maintain the abstraction and absence of symbolic relations.²

Where a temporal dimension is introduced, as in link node hypertext, the representation of the visual relation between parts tends to have a minimal influence on how the whole is understood, particularly in relation to the order in which these parts are presented. For instance, in the cinema a dissolve could mean flashback, flash forward, dream, loss of a character’s consciousness, drunkenness, general punctuation between scenes, subjective memory, abstract pattern, or something I haven’t thought of. What is dissolved, what image appears over, through, or under another image, can be highly significant, but this is always determined by the teleological orbit of the narrative which can only be performed from the point of view of its end — there is nothing that inheres in a dissolve to signify anything except a moment of connection [30]. The reader, when recalling the narrative (or for that matter the reader when utilising various schemas to understand the narrative) tends to disregard the dissolve entirely as they reconstruct

1. The practice of showing multiple simultaneous views, for instance overlapping windows, is not in fact montage, as some have suggested. Bernstein, M., *Patterns of Hypertext*. in *Proceedings of the Ninth ACM Hypertext Conference*, (Pittsburgh PA, 1998), ACM, 21-29., which is the generation or presentation of an argument through time — this, then this — but is collage. This is a view also arrived at by Landow 23. Landow, G.P. *Hypertext as Collage-Writing*. in Lunenfeld, P. ed. *The Digital Dialectic: New Essays on New Media*, The MIT Press, Cambridge, 1999, 150-170.

2. C.S. Peirce 37. Peirce, C.S. *Logic as Semiotic: The Theory of Signs*. in Bulcher, J. ed. *Philosophical Writings of Peirce*, Dover Publications, New York, 1955, 98-119. has defined indexical signs as those which have a necessary existential relation to what they indicate, much like an analogue photograph. Symbolic signs rely upon convention to be understood. Hence MAPA provides an image of the relations and hierarchy of its underlying nodes which has a literal and immediate indexical relation between its representation and that which it represents.

a meaningful interpretation of the work.

Similarly, though Eisenstein has written extensively on dialectical argument utilising fragments and montage (his “A Dialectic Approach to Film Form” should be compulsory reading for anyone who wants to think critically about hypertext argumentation [16]), and strongly demonstrated the manner in which the collision of two images (or nodes) can generate novel content, this work relies on transcendent principles of meaning production and order. For Eisenstein the generation of visual energy is directly translated into cerebral energy and thought. Hence graphic conflict may contribute a sense of ‘dynamism’ to something that ought to be ‘dynamic’ [16] but this quality of ‘dynamism’ is a positive attribute because the narrative celebrates modernisation and industrialisation. (“[T]he dramatic moment of the union of the Motorcycle Battalion with the Congress of Soviets was dynamized by shots of abstractly spinning bicycle wheels, in association with the entrance of the new delegates. In this way the large-scale emotional content of the event was transformed into actual dynamics.” [16] p. 58.) It is not difficult to conceive of the same visual dynamism as expressing or meaning something quite different in a contemporary context — we perhaps should not forget that Eisenstein and his colleagues celebrated Taylorism as a principle of sublime efficiency.

The isomorphic modelling of thought by cinematic juxtaposition which would lead to similar ‘ideas’ in viewers is perhaps not so very removed from the rhetoric of hypertext and HCI usability, but Eisenstein’s relevance for hypertext lies in his insistence on the experimentation of form as the relationship and conflict within and between parts. Shots are not merely shots, and montage is not merely the connection of parts but is the system generated by both. For Eisenstein this offered the possibility of *thinking* cinematically. Eisenstein remained fascinated by the ‘outside’ that this produced (thesis, antithesis, synthesis), about how two different things, when placed in collision, could generate an idea that neither contained, and while he recovered this ‘outside’ into the expression of a transcendent dialecticism it is the role of the outside that we ought to retain.

CLOSING

Any methodology that assumes specific interpretative outcomes from formal practices will be rendered historically irrelevant. This is because contexts shift, readers are recalcitrant, and all that inheres in the connections in themselves are the forcing of the generation of hypotheses and schemas to understand such connection. The pattern of connections formed by links, as understood by a reader, are ultimately grounded by what they take the ‘point’ of the narrative to be, and this is only determined by virtue of how they define the end of the work. It is not that these connections are neutral, but on the contrary always dynamic, and when combined with the pluralism, force, excess and semantic promiscuity of the link we recognise the immanent eventfulness of connection as precisely an event. The movement of information into knowledge, whether fiction or nonfiction, is never stable and in a temporally and visually dynamic environment it is this eventfulness

that will teach us what we should be doing to compose in such environments.

To the extent that we write with an instrumental ending in mind our links and hypertexts will remain domesticated and quiet machines, and in the manner in which we are writing in this way we will misunderstand links as merely aids on the way to clarity. Endings close, they help constrain, and hide, that excess that links perform. This is perhaps why a great deal of new work in this medium has returned to questions of montage and collage (I'm reminded here of a Storyspace work in progress of Diane Greco's I saw in passing at Hypertext 2000, "The Country Between Us"), of simultaneity and similarity, not because we are evacuated of ideas, but because it is in the similarity and felicity that our pictures (screen, image, window, and link) engender with the difference and abstraction of words that a relevant and meaningful hypertext structure will be developed for a networked world. It is the tension between the always open link and the retrospective erasure of this excess in teleological determination that is the site of hypertext. To date most of the cards have fallen on one side of this fence.

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