

# Changing Words: Reading Time and Space in Electronic Literature

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In a literary work the coordinates of time and space are always extremely intertwined, and in their intersection they create the particular set and atmosphere of each poetic text, in the widest sense of the term. Printed literature and electronic literature, especially hypertexts, bring into play different issues of time and space, and consequently the way of approaching them can differ, at least in one respect: the analysis of a hypertext implies a consideration on the time and the space of the act of reading – or performing – the text. In other words, if in considering these issues in electronic literature we can obviously apply all the critical categories we use with printed works, we have here to consider also the time and the space that are not ‘inside’ the text but ‘outside’ the text. In the following pages I will try to present a preliminary analysis of the relationship between these external and internal time-space issues in electronic literature – poetry in particular –, examining how they interlink and mutually change, and how the act of reading both modifies and is modified by them.

As a matter of fact, reading an electronic text, especially a hypertext, is an experience that differs deeply from the reading of a printed text. In one case the ‘outer space’ is constituted only by a physical book, or whatever printed support, and the ‘outer time’ is created by the length of time that the reader decides to spend going through the page; in the other case, the text can modify itself, move in different web pages, take its time and its space in a process that is not always under the reader’s control. Paradoxically, even when the text gives the reader

more freedom to decide which link to follow, and when to follow it, it still implies some temporal and spatial rules that the reader cannot change, rules that are much more meaningful than those which govern the simple linear sequences of a book, even the most experimental one<sup>1</sup>, and that make electronic texts a challenge both for reading and critical analysis.

The main characteristic of a hypertext is explicit in the definition of the term, which was coined for the first time by Ted Nelson in the 1960s: «By hypertext [...] I mean nonsequential writing – text that branches and allows choices to the reader [...] a series of text chunks connected by links which offer the reader different pathways» (Nelson 1981: 0/2). The nonlinearity of a hypertext in both the spatial and temporal dimensions is what changes our reading experience. The fact that «the words or sequence of words may differ from reading to reading because of the shape, conventions, or mechanisms of the text» (Aarseth 1994: 51), that is, the text's ability to vary, not only radically deconstructs the interpretation of the text, but also is modified in turn by the same act of reading.

On the printed page the time and the space outside the text – the time of the act of reading and the spatiality implied in this act – are quite linear, and there are not many variables at stake; this is not the case for hypertexts, in which the reader is given much more freedom – if he or she so wants - in exploring the work. But what is even more interesting is that while the reader can modify space and time outside the text in many different ways, both space and time can modify themselves in return inside that same text. The semantic proprieties of time and space within the text – places referred to, situations, physical images – change according to the different position they acquire in the various possible orders. In this way, the specificities of the concepts of spatial and temporal coordinates in electronic literature, more than

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<sup>1</sup> Many scholars of electronic literature have indeed found hypertext forerunners in the Chinese *I Ching*, in Jorge Luis Borges' *Garden of Forking Paths*, a network of real and imagined works that plays in a metaliterary way, and in the poems by Guillaume Apollinaire and Raymond Queneau.

simply changing the reading of an electronic text, are changed by the act of reading itself.

This is not the case, of course, for electronic texts 'normally' written for the paper and then just put on a website – in that instance only the device used is different, and the reading is practically subject to the same rules. But with hypertexts the situation is different: the time and the space of the content can modify themselves according to the way the reader decides to read the work. In a sort of reconstruction of textual uniqueness, the reader is given several opportunities to select a certain route in the text, thus giving a certain coherence by means of his/her choice of reading to an otherwise irremediably fragmentary text; narrative becomes «a labyrinth, a game, or an imaginative text, in which the reader can explore at will, get lost, discover secret paths, play around, follow the rules, and so on» (Aarseth 1997: 3). Displayed for the reader, deliberately or not, there is a series of powerful metaphors which accompany him/her during the progress through the text. These works are made of fragments, both in space and time, in which one has to find the internal cross-references which can vary according to the different receptions of the reader, who, in this way, gives significance to a meaning that in electronic poetry is itself unstable and changeable. Literature is a representation of time and space within its limits. Electronic literature broadens these limits.

We can find here, as Stuart Moulthrop suggests, an alteration and inversion of the relationship between metonymy and metaphors: «Metonymy does not simply serve metaphor in hypertextual fiction, rather it coexists with metaphor in a complex dialectical relationship. The reader discovers pathways through the textual labyrinth» (Moulthrop 1991: 129), giving up the idea of a coherent conclusion in the metonymic flow of language. All the parts of the text become an approximation of the final meaning, in a more fragmentary way than in printed literature; every piece becomes just a part of the whole.

The reader has the role of reconfiguring the text, narrowing choices simply by clicking on the screen. In opposition to the Husserlian theory of time – according to which the world of the text is made up of the sequence of sentences in the text and those only, made into a whole

– hypertext’s whole cannot be perceived at once but only during the reading process. Reading and writing are temporal processes: temporality can be considered something intrinsic or extrinsic to the text<sup>2</sup>, but in both cases the act of reading implies it, just like reading and writing are always spatial, since we write topically (see Bolter 1991: 105), and read topically.

Hyper-reading shows a fake-immediacy that can divert our conception of the text, but, as Paul Ricoeur pointed out, the temporality of a narrative is essential in understanding how the episodes and “peripe-teia” lead to the conclusion (see Ricoeur 1988: III). This is very true for electronic literature, even if we do not perceive it. Obviously this is something more relevant to narratives, but even poetry is constructed on expectations created by the system of time and space coordinates. Since in hypertexts both the author and the reader create the work – even if to different extents and according to the nature of the text, which can be interactive and relatively closed or apparently open – so in developing a new kind of agency «the distinction between what is “inside” and what is “outside” a text blurs» (Yellowlees Douglas 1994: 163). In placing on the reader’s shoulders the burden of configuring the work, at the same time it opens to him/her new perspectives, new opportunities, different for each reading. The reader has the opportunity to search for secret paths, not only metaphorically, but also topologically. It is his/her task to decide what pace to keep through the page he/she has chosen, and vice versa: in hypertexts time and space are never neutral.

It is possible to consider some examples in order to better observe how the issues of time and space related to the performance of an ‘electronic poem’ affect the time and space denotations inside the text.

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<sup>2</sup> For example, Roman Ingarden dismisses the notion that texts have a temporal dimension, because in that case «one would have to attribute different temporal extensions to one and the same work according to the length of given readings» (1973: 305-6). The relation between hypertext and temporality is expressed instead by Espen Aarseth, for whom the nonlinearity of a text is in the reading, which is temporal, and not in the hypertext (cfr 1997: 46).

A typical example of a hypertext poem is *When the Sea Stands Still* (1997), by John Cayley and Yang Lian. The hyper-reading of this poem is composed by the progress of the reader through the different sections, all diverse in length, that are disposed on the various web pages, which one can access by clicking on the distinct links on the screen. As stated in the first page of the work, *Where the Sea Stands Still* is conceived to explore a personal understanding of 'spatial poetics'. In reading the text in its various possibilities one can perceive the thematic recurrences and the movements which go through the work in its different pieces, changing every time in accordance to the shifting of the page before the reader's eyes.

The power of the composition is increased by the possibility that the levels of different times and spaces have to intertwine and flow together. Intentionally or not, the author creates a text in which there are many images of time – past, present and future - and space. For example, in the first page the author seems to give us some sort of address, implying in this way a starting point and possible directions, opening up routes for us:

*King Street* straight on  
*Enmore Road* turn right  
*Cambridge Street* No. 14  
the sea's tongue licks into the grate the old house discloses  
countless places to watch us in the dark

As Katherine Hayles points out, the moving of hypertexts resembles a literary metaphor, becoming a sort of embodied metaphor (see Hayles 2007): space and time become, then, a possibility for rhetorical figures of speech. In 'entering' the 'countless places' in the dark of our knowledge of the text, the reader can literally discover and 'disclose' all the cross-references and effects about time and space triggered by the metamorphosis of the poem. There are, for example, frequent occurrences of phrases like "this place" and similar words referring to space – metaphysical space ("the house of nowhere").

The references to time, and especially to memory and the past, are even more explicit, in a sort of metaliterary play with the progress of the act of reading which erases the lines one has just read, as the page vanishes in front of him/her: for example, a sentence like «Only the now is like being forgotten» suggests that in the present there is no duration: time becomes ephemeral. Many other evocative lines can be found in the hypertext, such as «a chance enmity the enmity of all your future in the darkness/ because of a refusal to live in this moment». Apart from their strict lyrical meaning, the play on the different temporal levels that one can also find in this performative hypertext is unequivocally perceivable.

Another interesting aspect of temporality in *When the Sea Stands Still* is that there are two different time settings in reading. The first one is the pace that the reader wants to give to the act of reading: one can decide to read one page quickly and click to another one, or go back to the same page many times, just like in a printed book; but the reader also has the opportunity to let the computer decide, and to passively submit to the randomness of the software. This randomness gives the reader more and less freedom at the same time, both temporally and spatially, an immediacy in reading that can also be experienced as slowness.

The resonances of meaning and form are therefore emphasised in a new way in literature, since the final text is made first by the author and then either by the reader or by the computer. One can decide to surrender to this other time, and try to follow a precise route in the reading. This is evidently not possible on paper, or at least we take for granted that we have to follow the traditional, linear page order; but once we are given the opportunity, we would probably prefer to choose our literary destiny. Our choice is never neutral, because it involves other consequences in the final text; just as with Mikhail Bakhtin's chronotopes, time and space influence each other, creating coordinates in which the poems move. Depending on the choices of the reader – which link to click, when to click it – the internal references change accordingly, creating many new nuances in every reading.

Another example of web-based poetry is *Rice* (1998), by the artist known as Geniwate. It is a hypertextual anthology of multimedia poems about the author's experience as a Western tourist in Vietnam, facing issues like colonialism, war, poverty, and cultural difference. The reader has to move here from sixteen images related to the journey, each linked to different poems about different approaches to the history of Vietnam. In this case, time and space are intertwined in a different way. Depending on whether the reader chooses to read first 'one piece' then another, the final conception of the whole will change: the places met in the course of reading, with the related experiences and emotions, will vary according to the position they acquire in each and every performance of the text.

This sort of "hieroglyphic writing", in which the images are both sign and symbol, fits well with what William Dickey, a poet of cyberspace, said about an appealing quality of hypertext poetry:

[it] may begin with any one of its parts, stanzas, images, to which any other part of the poem may succeed. This system of organization requires that that part of the poem represented on any one card must be a sufficiently independent statement to be able to generate a sense of poetic meaning as it follows or is followed by any other statement the poem contains. (Dickey 1991: 147)

This poetic meaning is more powerful – at least in its potential – than in traditional literature, as the categories of time and space are more fluid and can therefore be used as a device to open the poem to a deeper lyricism. If part of the greatness of a poem lies in its capability to allow infinite interpretations, and to arouse diverse feelings thanks to its ambiguity, then electronic poetry is even richer in meaning, thanks to the possible combinations of spatial and temporal coordinates that make the text more ambiguous and elusive. This is the reason why such a polyphonic and polymorphic genre is often seen as a good possibility for literary experimentation. If we think of Roland Barthes' concept of "tmesis" – the reader's skipping of passages in a fragmentation of the linear text that is not under the author's control –

we realise that in the case of hypertexts it is the opposite: it is the reader who deliberately tries to avoid meeting the same fragments more than once<sup>3</sup>. In doing so the reader is forced to face, and to analyse, the strategic structures of the work, thus focusing on cross-references and hints, even finding more references than the ones expected by the author.

There is another important role that the issues of time and space cover within a literary text: they prepare for the reader the set of expectations about the ultimate conclusion of the work, the final whole of the 'faits accomplis'. If time and space are always changeable and uncertain, open to many different possibilities, the final impression of an accomplishment will certainly be different. One could even wonder if there could ever be a final, definitive accomplishment in a hypertext. Although narrative more than poetry moves around what Aristotle recognised as the three constitutive parts of a work – beginning, middle and end –, poems too raise expectations in the reader, who may at least have the sensation of having read a perfect, complete form, and the desire to find its poetic end.

This issue of ending is crucial, because it involves the question of how reality and human feelings are represented in literature. In *The Sense of an Ending* Frank Kermode explains how man tries to impose false paradigms on the world, and then on fiction, in order to give "simple chronicity" to a "purely successive, disorganised time", which is the one in which we live. According to Kermode, the search for an ending is therefore something strictly tied to human nature itself:

Men, like poets, rush "into the midst", *in medias res*, when they are born; they also die *in mediis rebus*, and to make sense of their span they need fictive concords with origins and ends, such as give meaning to lives and poems. (Kermode 1968: 7)

The necessity that man seems to have of imposing form on time, the habit of imposing such false paradigms in literature, is a need for

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<sup>3</sup> Aarseth refers to the «disoriented reader looking for fresh links in a hypertext labyrinth» as an «ergodic aporia» (1997: 78-9).



order that we cannot find in our natural life – at least not before our death. An order that Kermode calls “tick-tock”:

The clock’s *tick-tock* I take to be a model of what we call a plot, an organisation which humanises time by giving it a form; and the interval between *tock* and *tick* represents purely successive, disorganised time of the sort we need to humanise. Later I shall be asking whether, when *tick-tock* seems altogether too easily fictional, we do not produce plots containing a good deal of *tock-tick*; such a plot is that of *Ulysses*. (*ibid.*: 45)

Electronic literature follows the trend of modernist fiction and avant-gardes in their disrupting of linear representations and deconstruction of traditional time-space coordinates. In relation to socio-historical contingences, the tendency to invert order, the tendency to meaninglessness appears in every form of art, in opposition to the tendency to minimise ambiguity typical of linear narratives, as in the Bible, which starts with Genesis and finishes with the Book of Revelation. Ending is essential to the pleasure of reading, according also to Jane Yellowlees Douglas (see 1994: 159) and to the epigraphs with which she prefaces her essay (epigraphs taken from Joseph Conrad’s “Henry James – an Appreciation”, 1905, and Walter Benjamin’s *The Storyteller: Reflections on the Works of Nikolai Leskov*, 1935-1938). Only the end can finally determine the meaning of a work, as it is true of any sentence, which needs a grammatically exact structure.

Multiple beginnings and endings with changeable, uncentred middles open new critical models for hypertexts. As stated by Ted Nelson,

There is no Final Word. There can be no final version, no last thought. There is always a new view, a new idea, a reinterpretation. And literature, which we propose to electronify, is a system for preserving continuity in the face of this fact. (Nelson 1981: 2/61)

Today electronic literature is one of the possibilities in which the desire for non-closure, for irregularity, for strangeness and indefiniteness, for plurilinguistic, pluristylistic, and plurisexual forms can be represented in art. Jerome McGann affirms: «The textual condition's only immutable law is the law of change» (1991: 9). An open-ended and expandable text can give a sense of incompleteness that menaces us, but can also be the expression of other kinds of desires. In both cases, the reader will find a way to end his/her reading. Although it is not necessarily physically provided by the text itself (see Yellowlees Douglas 1994: 17), the reader can create his/her own sense of an ending, since «a poem cannot continue indefinitely» (Smith 1968: 33). According to John Slatin, in electronic literature the exiting is «not a point defined by the author as "The End" but rather when s/he has had enough» (1991: 158). Following Yellowlees Douglas, we can argue that even if there is no ultimate ending, «it seems that merely a plausible version or versions of the story among many will suffice equally well» (Yellowlees Douglas 1994: 185). The aim becomes not reaching *the* end but only one of the possible endings, just as with the new sophisticated videogames that are so popular nowadays.

Lost in the labyrinth of more or less secret pages and ephemeral moments, the reader must face a different sense of an ending: one that depends on personal choice. Even when not subjected to the Aristotelian rhetoric of "first", "second", "third", reading, perceived as a temporal activity, must come to a conclusion; a conclusion which, especially in electronic literature, will follow the reader's fantasies and expectations. We could say that, in wandering among time and space variables, the reader experiences what Wolfgang Iser calls the «continual interplay between modified expectations and transformed memories» (1978: 111).

A fragment of *Where the Sea Stands Still* sounds: «become every imagination/ denied by being seen». What is lost in reading, the «path not taken, voices not heard» (Aarseth 1997: 3), is probably the most fascinating and interesting aspect of reading hypertext poetry.

The many variants of both the time and space of a hypertext cannot allow a univocal and linear end; the reader can choose to surrender

to this incompleteness or decide to create one of the possible endings for him/herself alone. The reader will either be finally reassured about the coherence of the text, and happy with the harmony found in a sort of circular emotional work, or will be excited by the strangeness and anomalous shape in whose depth curiosity can wander. This is the strength of electronic literature, what makes it different from printed literature, and maybe complementary to it.

The particular characteristics of the system created by time and space in electronic literature set up a relationship with the act of reading that triggers an interesting short-circuit. Hypertexts generate many different possible readings thanks to the changing and shifting links which move in hyperspace. The reader is called on to decide which route to follow, which path to enter, and in which order. The implications of the different choices of the reader have, in turn, deep influences on the representation of space – places quoted in the text, but also images, pictures, the position of the words – and time – order of episodes, length of the apparition of the text, reminiscences lingering in the reader's mind. Experiencing electronic linking also changes the work's spatial and temporal relation to other texts, through a network of quotations and cross-references which amplifies the pleasure of the always elusive and endless experience of a literary work. A pleasure that no sense of an ending, or its absence, can ever smother.

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