The website as unit of analysis? Bolter and Manovich revisited

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Abstract
Taking as a point of departure that the website constitutes an important analytical unit for the analysis of Internet activities, this article discusses to what extent the work of Bolter and Manovich can contribute to the clarification of what characterizes the website as a phenomenon in its own right. Focus is on the second edition of Bolter’s Writing Space and on Lev Manovich’s The Language of New Media, both from 2001. After a short outline of some of the overriding similarities and differences between these texts, it is demonstrated how the understanding of the website oscillates between two poles: fragmentation/modulization vs. some kind of coherence. Finally, on the basis of a conceptual framework centred on the textual and paratextual being of the website, it is argued that the oscillation between fragmentation/modulization and coherence in the vast majority of cases will prove to be to the advantage of coherence.

The Internet, the Web, and the website
What, in fact, is the object of study in Internet studies? This question is not easy to answer in a precise way, particularly since even an incomplete overview of the existing scholarly literature is difficult to come by. However, one could maintain that two overall ways of focusing Internet studies can be identified. One focused on the Internet and the Web at a very general level, another focused on the specific and concrete activities taking place on the Internet. The first approach studies the Internet at a macro level, that is, the Internet as such (as technology, organization, etc.), while the second studies the Internet at a micro level, placing an emphasis on the variety of everyday online activities.

In the following, the fundamental hypothesis will be that the website as a unit of analysis in its own right can be considered the concrete phenomenon that mediates between the general macro level and the specific micro level. In this way, the website can be considered a kind of mezzo level that, on the one hand, constitutes the concrete form in which the general phenomena ‘Internet’ and ‘Web’ appear. On the other hand, the website constitutes the general frame within which the various activities manifest themselves by the use of textual elements. The term ‘textual’ here is meant to refer to coherent units or forms of expression such as written words, still images, moving images, and sound. Therefore, in the following, ‘text’ is understood in a broad sense and is not merely limited to written language.
2. For instance, the fundamental question ‘What is a website?’ is not addressed in some of the recent books and articles that theorize the Web as an object of study. See for instance: (1) Mitra and Cohen (1999), and their discussion of the characteristics of the web text; (2) Burnett and Marshall (2003), where the authors investigate their thesis of ‘the loose web of interrelated activities’ (p. 3) and discuss the design of the web by identifying web genres such as web portals, the media site, etc. (pp. 90–95) and by making an interesting case study of the website www.yahoo.com (pp. 95–102); (3) Gauntlett and Horsley (2004), do not mention the question among the ‘main issues in web studies’ (p. 14), and the question does not play any role in the book; (4) Kaye and Medoff (2001) do not discuss the characteristics of the website, neither when they introduce to the Internet and the Web (pp. 1–38) nor when they discuss the theoretical perspectives for the web (pp. 332–43); and, finally (5) the question of the website is not addressed in the article The Web as an Object of Study (Schneider and Foot 2004), neither as a question among the ‘broad questions currently under investigation by web scholars’ (p. 116) nor in the outlined, and very promising, analytic strategy called ‘web sphere analysis’ (pp. 118–19).

That the website plays a still greater role on the Internet today than ten years ago is reflected by the fact that the website absorbs a substantial part of online activities, and this in two ways. First, throughout the last ten years, formerly separate uses and applications — such as chat, newsgroups, listserv, e-mail, etc. — have become integrated into websites, and second, the greater part of activities that were earlier delivered in other digital media like the CD-ROM or DVD — such as music sharing, games, digital artworks, etc. — have moved to the Internet where they are often embedded in a website.

Still, only very few of the theories used for analysis of either the Internet or the various online activities attach any special importance to the website as a frame setter. One might say that there is a tendency to look right through the website as a specific (textual) phenomenon.2

In the following it will be argued: (1) that the website can be regarded as a phenomenon in its own right, one that constitutes an important analytical unit for the analysis of Internet activities (although it is not necessarily the ultimate aim, but a step in an analysis); (2) that the characteristics of the website cannot be captured exhaustively either by general designations such as ‘the Internet’ or ‘the Web’, nor by descriptions of specific online activities; and (3) that a systematic conceptual framework is needed if one wants to analyse the website. Taking as a point of departure that neither do we navigate ‘the Web’ — we navigate a specific website or from one website to another website — nor do the online activities ‘happen’ in a vacuum — they ‘happen’ in and by the use of the website as a textual environment that frames them, this article wants to address the following question: what characterizes the website as a phenomenon in its own right?

The media scholars Jay David Bolter and Lev Manovich have both written influential, and often dense and complex books about new media, including the website, and it might therefore be interesting and fruitful to discuss their work in order to see to what extent they can contribute to answering the question above. For the purposes of this article, focus will be limited to the remarks these scholars have made regarding the website in two books that were both published in 2001: the second edition of Jay D. Bolter’s Writing Space and Lev Manovich’s The Language of New Media.

**Bolter and Manovich: similarities and differences**

Very often, Bolter and Manovich are brought together in discussions about ‘new media’, just as they are in the present volume. No doubt they have both made major contributions to how new media are conceptualized and analysed within the scholarly literature, but to what extent do they actually share common ground? As a frame for the following closer look at their considerations about the website, some of the overriding similarities and differences between them will be outlined.

Bolter, as well as Manovich, capture their analytical domain with a generic term, ‘electronic writing’ and ‘new media’, respectively. They analyse some of the key features that transcend the concrete forms of ‘electronic writing’ and ‘new media’. One should therefore not expect to find detailed analysis of isolated cases, but rather broad sweeps of the brush that try to identify tendencies based on a variety of examples. Within the broad field of ‘electronic writing’ and ‘new media’, Bolter and Manovich
also share the way of focusing these phenomena in so far as they both place an emphasis on the visual and its close relation to the specific technical and material being of the medium (cf. e.g. Bolter 2001: 12, 17, 20, 77; Manovich 2001: 10, 11, 13).

Bolter and Manovich also have in common the fundamental point of view that the various media should not be seen as isolated entities, but are best understood when focusing on their mutual influences. Some of these influences are related to history, that is, the way new media are influenced by older forms of media. But the impact is not unilateral, since existing media are also influenced by new media. This interplay between types of media throughout history is, in short, part of what can be understood by the term ‘remediation’ coined by Bolter and Richard Grusin in Remediation (1999) and the same phenomenon is described in Writing Space (2001) (e.g. pp. 23–26, 42, 45, 51). Manovich does not have a specific term for this, but basically the point of view is the same (e.g. The Language of New Media (2001), pp. 8–9, 12, 214, 285, 287ff).

Focusing on the mutual influences between media involves a comparative approach, and here we find a major difference in the thinking of our two authors. Looking for an appropriate basis for comparison among older media, Bolter turns to both visual media (photography, film, television) (e.g. Bolter and Grusin 1999: 88–226) and print media (e.g. Bolter 2001: 3, 26, 42, 45, 67, 69), while Manovich turns almost exclusively to cinema (e.g. Manovich 2001: 9, 12, 78). And these biases also influence their choices of theoretical points of departure: Bolter prefers visual theory as well as literary theory, while Manovich to a large extent uses film theory and the like. Print media and literary theory are not absent in The Language of New Media, but the difference to Bolter is quite clear; as for Bolter, the difference is seen between his two major books, since in Remediation print media are almost absent – a gap that, in fact, the second edition of Writing Space is supposed to fill (cf. Bolter 2001: xii).

Bolter and Writing Space
As mentioned above, this analysis of Jay D. Bolter’s remarks about the website will focus exclusively on the second edition of Writing Space, published in 2001. The first thing that strikes the reader is that there is no specific chapter entitled ‘The Website’ or the like, in fact, one does not even find a consecutive number of pages about the topic. However, when Bolter deploys the term, either alone (e.g. pp. 26, 28, 165) or as one example, among others, of ‘electronic writing’ (e.g. pp. 9, 11, 12, 61, 72), he merely mentions it without providing any further analysis. So one does not find either discussion or a systematic definition of the website as a phenomenon in its own right. Therefore, such a definition must be reconstructed from the bits and pieces that are put forward throughout the book about phenomena associated to the website.

Bolter’s ideas about the website in Writing Space revolve around three interrelated topics of which the last two are partly opposed to one another: (1) the individual web page; (2) the cluster of web pages with a focus on either fragmentation, chaos, disorganization and the like; or (3) with a focus on ephemeral coherence.

3. Bolter also uses the term ‘new media’ in Writing Space (e.g. pp. xi, xii, 58), but ‘electronic writing’ is the key term. In contrast, the subtitle of Remediation (1999) is ‘Understanding New Media’ which indicates the broader perspective of this book, thus closer to that of The Language of New Media.
4. This might raise two questions: why not the book Remediation? and why specifically the second edition of Writing Space? In fact, the answers to these two questions are entangled. First, in my view one does find the most important considerations about the website in Writing Space (and most of what is said about the website in Writing Space is a further development of what is said in Remediation), and, second, the Web is totally absent from the first edition for the simple reason that the book was published in 1991, before the advent of the Web. Thus, the second edition is written on the basis of the analytical insights gained in Remediation as well as with the Web as the new empirical background (cf. Bolter 2001: xi–xii). It would therefore not be wrong to maintain that the second edition of Writing Space to a large extent is another book than the first edition.
The individual web page

In *Writing Space*, one finds very precise descriptions of some of the main characteristics of the web page: the multiple modes of representation (written words, images, sounds) that constitute the units for hypertextual linking (pp. 27–29, 39–40, 106, 117), the relations between word and image, and the typography and graphic design (pp. 47–72). But a web page is almost always connected to another web page through hyperlinks, described by Bolter as ‘a visible and operative structure. […] The previous invisible network of associations becomes visible and explicit to an extent never before possible’ (p. 106; cf. also pp. xiv, 68, 110, 200).

Fragmentation

In *Writing Space*, interrelated web pages are very often described with a focus on fragmentation, and this is done almost exclusively with reference to the World Wide Web as a whole. Bolter maintains that the hyperlinked web pages form a global hypertext or a global hypermedia that appears to be fragmented, chaotic, disorganized, heterogeneous, unstable, limitless, and out of control. Two short passages express this analysis very clearly: ‘Each World Wide Web page is an episode in a global hypertext; the user can click on any linked word, phrase, or image to load a new page’ (p. 28), and ‘The World Wide Web is a famously chaotic distributed system, in which individuals or their organizations are free to create new pages and sites and to add them to the global hypertext […]’ (p. 206). Both quotations are condensed versions of an argument repeated regularly in the book (cf. pp. xiii, 11–12, 39, 67–68, 69, 89, 170, 206).

Ephemeral coherence

But Bolter also tries to characterize interrelated web pages in another way that does not insist on fragmentation but rather on the provisional structure and coherence between web pages. When this perspective is predominant in *Writing Space*, the focus is not as much on ‘the Web’ as such, but rather on one specific genre, namely hypertext fiction (cf. pp. 132, 133, 152, 175, 177, 185). Only on rare occasions are structure and coherence thematized with reference to web pages or websites as such. The following two quotations are the most important:

In our current world of publication, electronic texts – Web sites, hyperfictions, CD-ROMs and DVDs for entertainment and education – are offered to us as fragmentary and potential texts, each as a network of self-contained units rather than as an organic whole in the tradition of the 19th-century novel or essay. This fragmentation need not imply mere disintegration, however. Elements in the electronic writing space need not be simply chaotic; they may instead function in a perpetual state of reorganization, forming patterns that are in constant danger of breaking down and recombining. […] What unity there is in an electronic text derives from the perpetually shifting relationship among its verbal elements.

( pp. 11–12; cf. also pp. 35, 39–40, 181)

Unlike the space of the printed book, the electronic writing space can represent any relationship that can be defined as the interplay of pointers and elements. Multiple relationships pose no special problem, so that a Web site, for example,
may have three different organizations, each represented by its own home page with its own outline of links.

(p. 32; cf. also p. 106).

Therefore in *Writing Space*, Bolter characterizes the Web, on the one hand, as fragmented, chaotic, etc. and on the other hand, as structured, ordered, and coherent, but in an ephemeral way and subject to a perpetual state of reorganization.

However, it is still not quite clear what should actually be understood by the term ‘website’. If one wants to analyse the website with the notions that can be deduced from Bolter’s text, three ways of doing this seem possible: (1) the website is like the individual web page, there are just more pages; (2) the website is like ‘the Web’, it is just smaller; (3) the website is like hypertext fiction, it is just another genre. These suppositions lead to the following consequences: (a) how the relations between web pages actually are created tends to be overlooked; (b) the website will be seen as fragmented, or (c) as an ephemeral and endlessly changing coherence between textual elements and web pages.

The question then arises whether this is an adequate way of characterizing the website. I would argue that the website should not be understood exclusively by the use of the vocabulary that is used to characterize what is too small (‘the web page’), what is too big (‘the Web’) or what is too specific (‘hypertext fiction’). These three ways of seeing the website are possible, but not necessary characterizations. An analysis along these lines cannot easily demonstrate that a website is also a stable, clearly delimited and coherent textual unit of web pages – and this is the case perhaps to a much larger degree than Bolter has presented in his writings. In any case, the website is a unit where the stability is created by other means than the stabilities we know from other types of media.

Of course, this does not mean that the individual web page, the Web and the perpetual state of reorganization are unimportant to the understanding of the website. But the point is that a description of any one of these phenomena is not adequate and exhaustive enough to approach the website as a whole. The question then becomes: by what concrete means is the coherent and stable unity that most websites seem to constitute created, despite the fact that a website is part of ‘the Web’ and that new content, new links, etc. are rapidly added or changed? In order to enable a discussion of the tendencies of both fragmentation and coherence, a systematic and detailed conceptual framework that directly focuses on the website as an analytical unit in its own right is needed.

**Manovich and The Language of New Media**

As was the case with *Writing Space*, one does not find a concise account of the problems related to the website as a specific type of ‘new media’ in *The Language of New Media* (2001). The website is mentioned several times, but just as an example in discussions of other issues, and is never subject to detailed analysis (e.g. pp. 8, 14, 15). Once again, one has to reconstruct the characteristics of the website based on the relevant fragments scattered throughout the book.
The Language of New Media offers important reflections about the individual web page, as well as about web pages that are hyperlinked. And these hyperlinked web pages are also seen in two perspectives, either as modular or as something that bears witness to some kind of coherence, based on convention. But in contrast to Bolter, both of these characteristics are almost exclusively associated with ‘the Web’ as such, whereas hypertext fiction does not play any predominant role in his analysis.

**The individual web page**

Manovich describes some of the main characteristics of the web page: it is made of modules and these discrete units can consist of different forms of expression: ‘a Web page is a sequential list of separate elements – text blocks, images, digital video clips, and links to other pages’ (p. 220, cf. also p. 31). Moreover Manovich claims that the web page is fluid and unstable because parts of it can be located on different remote computers: ‘Now, with HTML, which allows parts of a single page to be located on different computers, the page becomes even more fluid and unstable’ (p. 75).

**Modulization**

Speaking of hyperlinked web pages, the Web as such, in most cases, constitutes the empirical basis and it is understood as modular, non-hierarchical, infinite and unstable. The following short quotations clearly illustrates this:

The World Wide Web as a whole is also completely modular. It consists of numerous Web pages, each in turn consisting of separate media elements. Every element can always be accessed on its own. Normally we think of elements as belonging to their corresponding Web sites, but this is just a convention, reinforced by commercial Web browsers. (p. 31; cf. also p. 257)

But in the case of hyperlinking as implemented by HTML […], no such relationship of hierarchy is assumed. The two sources connected through a hyperlink have equal weight; neither one dominates the other.

(p. 76; cf. also pp. 31, 257)

The hypertext of the World Wide Web leads the reader from one text to another, ad infinitum.

(p. 77; cf. also pp. 65, 78, 258)

[…] the Web, this gigantic and always changing data corpus […]

(p. 225; cf. also p. 220)

As is clearly indicated in the first quotation, modulization does not only concern the Web as such, where the modules are the web pages, it also goes for each single web page, the modules being each individual element of expression. The consequence of this way of conceiving the Web (and web pages) is a kind of generalized modulization where the Web is nothing but the collection of all the smaller elements. That Manovich actually sees things this way is clearly indicated in the sentence that follows immediately after the first quotation above:
The Netomat browser by artist Maciej Wisnewski, which extracts elements of a particular media type from different Web pages (for instance, images only) and displays them together without identifying the Web sites from which they are drawn, highlights for us this fundamentally discrete and non-hierarchical organization of the Web.

(p. 31)

Conventional coherence

In *The Language of New Media*, Manovich also maintains that the modules that constitute web pages as well as the Web can be connected in a coherent way. As quoted in the passage above, we normally ‘think of elements as belonging to their corresponding Web sites, but this is just a convention’ (p. 31; cf. also p. 127). What Manovich means by ‘convention’ is stated in the beginning of the book where the word ‘language’ in the title *The Language of New Media* is explained: ‘I use “language” as an umbrella term to refer to a number of various conventions used by designers of new media objects to organize data and structure the user’s experience’ (p. 7).

Although the Web fundamentally consists of nothing but individual elements of expression, we actually perceive them as ‘web pages’ and ‘websites’ based on convention, so in this sense, according to Manovich, the creators as well as the users of the Web establish some kind of coherent unity within the Web (concerning the website Manovich gives one example of more specific conventions, cf. p. 127). But as indicated in the quotations above, any convention might seem to be a more or less coincidental overlay on top of the fundamental modularity, an overlay that at any moment could have been different. Thus, coincidental conventions keep the scattered individual elements together.

One could summarize Manovich’s considerations about the website by saying that we are faced with a constant oscillation between generalized modularity and conventional coherence. The Web as the totality of all interconnected Web modules is in a way the basic analytical unit, and within this unit, by convention, we recognize certain other units, such as the web page and the website. Unfortunately, nothing is said about the conventions that make us recognize the website as a unit: by what textual conventions is the unit ‘website’ actually created and understood? To use Manovich’s own vocabulary, one might say that we need to know more about ‘the language of the website’.

Bolter and Manovich revisited

To what extent could the work of Bolter and Manovich contribute to the clarification of what characterizes the website as a phenomenon in its own right? First, a few critical remarks about their overall approach, followed by some comments on their considerations about the website.

As indicated above, both Bolter and Manovich use generic terms – ‘electronic writing’ and ‘new media’ – as umbrella terms to refer to the different media phenomena they discuss. The advantage of this approach is that these terms can cover a variety of media features and types, but this can also be considered a disadvantage. Bolter designates the following as forms of ‘electronic writing’: computer-controlled photocomposition, word processors, textual databases, electronic bulletin boards, mail, websites,
hyperfictions, CD-ROMs and DVDs for entertainment and education, computer RAM, and newsgroups (Bolter 2001: 9, 11, 12, 72); while Manovich identifies the following as ‘new media’: websites, computer games, hypermedia CD-ROMs, interactive installations, virtual worlds, virtual reality, multimedia, computer animation, digital video, cinema, human–computer interfaces, digital stills, digitally composed film, self-contained hypermedia DVDs, and the Web as a whole (Manovich 2001: 4, 8, 14). Thus, the terms ‘electronic writing’ and ‘new media’ tend to be very extensive and it can be difficult to judge to what extent the things said about computer games and hypermedia CD-ROMs is also true of virtual worlds and digital video. If in-depth case studies of the different media types had been part of the analysis, the inclination to allow the broad sweeps of the brushes called ‘electronic writing’ or ‘new media’ to blur the differences and the details could have been avoided.

Both Bolter and Manovich take their point of departure in visual culture in order to focus their discussions of ‘electronic writing’ and ‘new media’. No doubt that the visual side of (new) media is important, but by focusing attention almost exclusively on visuality throughout the history of media, Bolter and Manovich have tended to overlook another important mean of expression, namely sound. Sound is mentioned here and there, but only parenthetically and without making it an integrated and necessary part of the analysis of ‘new media’.

As mentioned above, Bolter and Manovich differ as to what media type is considered the most influential when discussing ‘electronic writing’ or ‘new media’: Bolter turns to both visual and print media, while Manovich turns to cinema. In Remediation, Bolter primarily uses theories of visual media while in Writing Space, print media is the focus. Further, within print media, the book and literature actually receive more attention at the expense of the newspaper and magazines (cf. e.g. Bolter 2001: 10, 55, 184). Manovich’s way of narrowing the possible sources of influence makes the argument very focused, but at the expense of a broader perspective, with the following two consequences. First, he overlooks the importance of the book, the newspaper, and magazines for ‘new media’, and particularly for the website – print media are mentioned, but the analytical consequences are minor. Second, Manovich does not pay much attention to the two major media types in the twentieth century, that is, radio and television. Radio and television are mentioned now and then in The Language of New Media (e.g. pp. 22, 47, 162), but no analytical consequences are drawn. Bolter also tends to underestimate the role of radio, mentioning the phenomenon only a few times in Writing Space (e.g. pp. 25, 70) and only once in Remediation (e.g. p. 203). Maybe Manovich (and Bolter regarding radio) is right in that radio and television are not important to ‘new media’ (and that ‘new media’ are not important to radio and television), but whether this is actually the case or not is not discussed in any substantial way. Although one could maintain that Bolter and Manovich do not intend to discuss this since they do have another analytical scope, it could have been argued more strongly why and at what expense these major media types are deliberately chosen not to be part of the analytical focus.

Summarizing the discussion of whether Bolter and Manovich clarify the characteristics of the website as a phenomenon in its own right, one has to
bear in mind that the website is not singled out as an important issue in their work, but nevertheless it is mentioned several times as an example of ‘electronic writing’ and ‘new media’.

Concerning the individual web page as well as the different elements of expression on it, both Bolter and Manovich have a lot to offer and in my view, concerning the website, their strengths lie here.

When it comes to the Web, one finds somewhat overlapping ways of characterizing it at a general level. Bolter maintains that the Web as hyperlinked web pages is fragmented, chaotic, disorganized, heterogeneous, unstable, limitless, and out of control, while Manovich sees the Web as modular, non-hierarchical, infinite, and unstable. Whether these are adequate characteristics of the Web in general is not to be judged here, but if these characteristics should also apply to the entities of the Web normally called a website more of them might not prove to be satisfactory. Three examples can illustrate this argument.

When, for instance, Bolter (2001: 28) maintains that ‘each World Wide Web page is an episode in a global hypertext’, or that the hyperlink makes the textual structure both visible and operative (cf. Bolter 2001:106), one could ask if the Web constitutes, in fact, one global hypertext just because elements and pages are linked together with operational hyperlinks? And is this way of using the word ‘text’ correct if we consider the more delimited cluster of web pages that the website constitutes?

The same is the case, when Manovich maintains: (1) that ‘in the case of hyperlinking […], no such relationship of hierarchy is assumed’ (2001: 76); (2) that ‘the hypertext of the World Wide Web leads the reader from one text to another, ad infinitum’ (2001: 77); and (3) that the Web is a ‘gigantic and always changing data corpus’ (2001: 225), one could ask in what sense all this is true. Describing all relations between elements within a website as non-hierarchical – is that an adequate way of describing these relations? Do web pages actually lead the reader through all of them, infinitely? And to what extent is the Web actually ‘always’ changing?

Or, finally, when Manovich (2001: 75) maintains that the web page becomes more fluid and unstable because parts of it are ‘located on different computers’, one might ask if the web page a user actually sees on his screen is more fluid and unstable just because it gets its elements from different computers?

My answer to these questions would be that, on the operational level, it might be right to say that many heterogeneous elements are linked together, thus forming some kind of ‘global hypertext’ and that there is no hierarchy, etc. But this operational level cannot stand alone as an exhaustive description of either the Web or the website because all elements and hyperlinks are always already significant. At the operational level, the elements and the relations do not ‘mean’ anything. But a hyperlink is not only an operational hyperlink from one computer to another, it is (also) a link from one specific textual-semantic entity to another specific textual-semantic entity.5

The very moment focus turns to the elements and the relations as signifying textual elements, things look different: (1) hyperlinks do not alone create a text, some kind of semantic and formal coherence is needed, and in stating that the link is both visible and operative it should not be

5. Bolter and Manovich are aware of semantics, but not many analytical and theoretical consequences are drawn from this. Semantics are mentioned in Writing Space in relation to the hyperlink (e.g. pp. 35, 177), but emphasis is almost exclusively placed on the fact that a certain reference is made explicit, visible and operative (cf. e.g. p. 106). See also Manovich (2001: 41, 57).
forgotten how and in which textual context it is visible; (2) the non-hierarchical linking on the operational level does not necessarily lead to a non-hierarchical linking on the semantic level, and hierarchies are therefore very likely to occur; and, finally, (3) an operational instability concerning the web page does not necessarily imply a semantic instability.

In my view, the fundamental assumptions that lie beneath both Bolter’s and Manovich’s way of characterizing the Web (and the website) largely downplay the signifying textual level and its interplay with the operational level. I would suggest, on the one hand, that a clear distinction is made between the operational and the textual, emphasizing that there is no determined relation between them, but, on the other hand, one should bear in mind how the medium ‘Internet’ makes it possible that textual elements can be operational in ways that are fundamentally different from the ones known from other types of media.

What can be of help to us in the discussion of the website as a phenomenon is the observation that relations between elements that are smaller than the Web as such can be identified. However, this notion could be disputed if these coherent units must necessarily be considered weak, ephemeral, loose, and coincidental as suggested by Bolter and Manovich.

**Fragmentation or coherence on the Web?**

As shown above, Bolter and Manovich are not very explicit about the characteristics of the website as a phenomenon in its own right. The attempt to reconstruct their understanding demonstrates an oscillation between two poles: fragmentation (Bolter) or modulization (Manovich) vs. some kind of coherence, either ephemeral (Bolter), or conventional (Manovich). However, although Bolter and Manovich do not offer a detailed conceptual framework as to how this oscillation can be understood and discussed in depth, the following two questions still remain open: is the Web/the website best characterized by fragmentation/modulization or by coherence? And how can we conceptually frame this discussion? I shall start with the last question.

**A conceptual framework**

When we want to frame the discussion of fragmentation/modulization vs. coherence, we must decide what analytical level is in focus. As suggested in the paragraphs above, I would argue, first, that a clear distinction should be maintained between the operational and the signifying textual – and we cannot determine in advance that whatever characterizes the operational level also characterizes the textual level; second, that we should bring the textual level more in focus, since all operational elements and relations are always already significant. Bearing these two points of departure in mind, we then have to consider how we can analyse this textual level of the Web in order to determine whether fragmentation/modulization or coherence is prevalent.

I would suggest the use of the following basic concepts: (1) textual element; (2) morphology and syntax; and (3) levels of morphological and syntactical interrelations.6

The basic unit of analysis is the textual element, that is, a defined coherent textual unit, composed of one of the following four formats of...
expression: written words (or the like), still images, moving images, or sounds. Textual elements could, for instance, be a headline and the body text (writing), a photograph (image), a banner ad or a news story from television (moving images), or a piece of music (sound). A textual element can also be composed of smaller textual elements, for instance, a body text can consist of several paragraphs that can be considered individual textual elements.

An analysis of the textual elements can unfold in two dimensions, the morphological and the syntactical. The morphological analysis focuses on the characteristics of the individual element: how and by what means is it constructed and how is the interior structure and coherence established? The syntactical analysis focuses on the rules governing the combinations of elements as well as the functions of these combinations, that is, the relations between elements of either the same kind (writing–writing, image–image) or of different kinds (writing–image, writing–sound). And finally, the syntactic can focus on the overall combination of all the types of elements in the overall audio-visual composition. It is clear that morphology and syntax are here used in a broad sense, extending the ordinary meaning where focus is on similar elements (written or spoken words) unfolding in one dimension only as a progressive chain of expression. In this context, all kinds of textual elements as well as relations in other directions are contained in the words ‘morphology’ and ‘syntax’.

The coherence within an individual textual element (morphology) as well as the interrelation between more textual elements (syntax) can be studied on three different levels:

1. Semantic interrelations. The limits of the textual element or the relations to another element are established through semantics. For instance, by the use of textual cohesion, coherence, the grammatical or lexical construction of a coherent ‘world’.
2. Formal interrelations. The limits of the textual element or the relations to another element are established through the forms of expression. For instance, the element of writing is made coherent through the formal traits of the words and letters, i.e. the positioning (imposed lines of the same length, etc.), the looks of typography (font/colour/size), and of the immediate environment (different forms of separators such as vertical/horizontal lines, boxes, scroll-bars, etc.). Or, for instance, the limits of the image element are established by different ways of framing.
3. Physically performative interrelations. Here the limits of one element or the relations between elements are established through the possibility of physically performing an action or a movement, for instance, different forms of continuous movements (vertical/horizontal scroll) or discontinuous ‘jumping’ (click/link/mouse-over); thus, the physically performative relationship adds a concrete possibility of action to the textual elements.

Focusing on the interplay between these three levels of relationships, one might maintain that the coherence between web elements increases if supported by all three. So moving around in or between textual elements is a semantic/formal as well as a physical performative activity, and as to the

7. The word ‘performative’ is inspired by the use of the word within speech-act theories, where the use of a word is the performing of an action. In the present context, what is performed is not just a ‘speech-act’ but a physical act – we actually do things with words.
link, it is always dependent on the ability to ‘graft’ on something that has already been expressed semantically/formally – a word, an image, etc. The link does not exist without a textual ‘substantiation’ and therefore it must be understood in close relation to this. An analysis of the signifying textual level should therefore focus on how the semantic, formal, and physically performative morphological and syntactical relations are implemented, one by one and as an interplay.

**Fragmentation or coherence?**

If we conceptually frame the discussion of fragmentation/modulization vs. coherence as outlined above, what then characterizes the Web/the website? It is, of course, difficult to discuss this question in general terms, but I shall try to approach it by starting with a small detour. In *Writing Space*, Bolter compares the book to the computer windows, concluding that ‘the computer window recalls the page in a printed book, which is also a stack of two-dimensional planes. An important difference is that printed pages stay in one order’ (Bolter 2001: 67). The materiality of the book medium keeps the pages together (the binding), while, in contrast, the pages on the computer are not bound together in a material way, which is why they appear to be heterogeneous and fragmented.

I would argue that what is to be explained here is not that the pages on the Web are not kept together by the materiality of the medium ‘Internet’, but rather, how this absence of material binding of the pages do in fact have textual consequences since it has to be *compensated* for by semantic, formal, and physically performative means in order to create another kind of ‘binding’. In other words: the web pages are not fragments or modules because they lack the binding known from print media, the ‘binding’ – or the coherence between web pages – is created by textual means, not by media material means.

This is, among others, achieved by the use of a variety of paratexts, that is, small textual elements that serve as a threshold to other signifying textual entities.\(^8\) Paratexts are well-known features in print media, and some of them have migrated to the Web, while new types and functions have been invented in order to fit the being of the Web. In a book, as well as in a newspaper, both paratexts – and the text that they are ‘para’ to – are visible and immediately accessible since the book and the newspaper consist of pages bound together to form a single copy or volume. Therefore, paratexts and texts are easy to identify and connect, either on the same page or on previous or later pages, using, for instance, the page number to navigate. If we turn all the pages of the volume, we know that we have seen all the paratexts and the texts. In this sense, the material limitations of the copy work as an instrument of orientation. On the website, things work differently since paratext and text are not always visible and immediately accessible at the same time. As stated above, the matter that characterizes the paratexts and the texts in print media has disappeared.

Following this line of thought, one could make a brief and preliminary list of some overall types of paratexts on the website: the headline system, associated texts (fact boxes, interposed quotations/excerpts, etc.), single words or phrases (e.g. ‘Read more’), lists (e.g. menus), ‘kinetic’ texts (e.g. an element that by mouse-over makes a hidden text visible), ‘bread crumbs’
that indicate the position of a web page on a website, header/footer, the title of the page shown on top of the browser window, and the URL. These types of paratexts can form a network on either a local, ‘regional’, or global scale on a website. And some of the functions that paratexts can have are attention-getting, guiding/navigation, interpretative, etc. (these short lists, of course, need to be elaborated on and refined). Among these functions, the attention-getting function becomes extremely important, since attention has to be drawn to all the textual elements that are invisible or not present in a single browser window and whose mere existence might be ignored. In this way, the semantic, formal, and physically performative being of the paratexts on the website compensate for the absence of a materially based instrument of orientation by the use of textual means, thus indicating, for instance, the size and the possible content of a web page or a website to the user. And in this sense, the many paratexts on the Web are constantly creating and maintaining coherence, not fragmentation or modulization.

With few exceptions, the purpose of a substantial amount of the textual elements on the Web is to keep individual web elements – web pages – together, and paratexts are just one among others. Important exceptions are Web search engines and external links. The search engine that searches the whole Web primarily establishes a physically performative relation between the search engine’s result page and the found web page, while the semantic coherence is nothing but a function of the search word and therefore random and unintended from the point of view of the search engine’s web page; and the formal coherence is absent. The external link also establishes a physically performative relation, but in addition, some kind of intended semantic though not formal coherence is established.

Although the search engine and the external link are important features on the Web, they are exceptions if one wants to characterize the Web as a whole. Almost any other relation between web elements is superimposed by a signifying textual layer where a variety of features aim for one overriding purpose: to create coherence. One could therefore conclude that if the elements on the Web are understood as signifying textual units and if attention is drawn more systematically to the semantic, the formal, and the physically performative relations, then the oscillation between fragmentation/modulization and coherence in the vast majority of cases will prove to be to the advantage of coherence.

And the website? For some years now, the website has constituted the most prevalent and pregnant form of coherence on the Web. This is why when we analyse the Web, it is both important and necessary to direct the analytical focus towards the website as a phenomenon in its own right.

References


