# Mise en page, mise en écran

## What medieval 'publishing' practices can tell us about reading in the digital age

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This article surveys aspects of medieval 'publishing' practice in manuscript format and relates them to, as well as draws comparisons with, the fast-moving culture of the written word in the digital age. By means of an analysis of three key trends—'navigational aids/hypertexts', 'non-sequential reading', and 'interactive reading'—the article demonstrates how medieval and digital reading cultures share considerable similarities, all of which are linked to a reader's ability to exercise power over the texts they read. The analysis explores why medieval readers seem to have engaged more readily with interactive reading experiences than their digital counterparts. It investigates the extent of a manuscript reader's influence on both texts and later readers and considers whether the digital age has as yet managed to replicate successfully this kind of non-static reading environment. In sum, the article traces analogous trends in reading in the two periods and makes tangible suggestions as to how its findings can be used to inform the publishing trade about the needs of the digital reader.

In 1991, a time significantly before the 21st century's tidal wave of digital reading technologies, Jay David Bolter noted in his seminal *Writing Spaces* that

'[Medieval manuscripts] presented a complex space of words, pictures, illustration, and ornamentation—the most complex prior to the electronic medium' (Bolter, 1991, p. 72). As such, he contests that '[o]nly in the medieval codex were words and pictures unified as they are on the computer screen' (p. 74).

Even at this early stage of development in digital culture, Bolter had realized that new digital technologies had the potential to provide a reading experience far closer to that of the medieval manuscript than any printed book had ever been able to achieve. He thereby implicitly suggests that there may exist a crucial—and perhaps surprising—link between the developments of medieval and digital reading cultures. He reiterated this in the extensively revised second edition of the same book, printed 10 years later (Bolter, 2001, p. 66). This is perhaps unsurprising, given that throughout the 1990s and early 2000s tantalizing hints from scholars occur in many analyses of the changing nature of reading cultures, suggesting that certain historical reading developments could mirror those brought by the digital age. For example, in 1991, when Bolter was publishing the first edition of his monograph, Robert S. Sturges (1991, p. 223) stated, 'With the printing press, we are on the threshold of the modern world; nothing like the medieval experience of reading will reappear until the postmodern.' As technology began to develop at a rapid pace, so too did the argument. What began as generalizations about the phenomenon came to be supported by examples of specific and tangible aspects of reading practice which corresponded between medieval and digital cultures. For example, in a discussion of digital hypertexts six years later, Vincent Gillespie (1997, pp. 208–209) remarked that

> The texture and detail of a hypertextual experience is largely in the control of the user. By analogy, this seems to me to be similar to a medieval reader's experience of illuminated, illustrated and glossed manuscripts containing different hierarchies of material that can be accessed in various ways.

And just a few years later Jonas Carlquist (2004, p. 106) noted another similarity in his exploration of methods for imitating medieval reading experiences in a digital environment:

If medieval manuscripts—especially composite manuscripts—were meant to be read in a multi-sequential order, digital technology might make it possible to revive the different possibilities of reception structure in a way that paperbound editions cannot do.

Despite these hints of there being a close link between manuscript and digital reading cultures, and despite the fact that the aim of these works was to explore readers' engagement with what was, at the time, a new, digital world, not one pursues the matter in the kind of detail one might expect—that is, as a means of showcasing medieval reading culture as a rich, untapped area that offers a way of understanding a reader's needs in the digital environment. The works largely revolve around comparing the dissimilarities between print and digital, rather than exploring the similarities between manuscript and digital. Of course, at the time these scholars were writing, the explosion of digital had yet to ignite, and it was not yet clear when, or even if, the fuse would catch at all, which might explain this somewhat cautious approach. After all, highlighting how a format is so vitally distinct from that to which we are used is rather less encouraging than explaining the ways in which we might find it to be familiar. It was, though, not long thereafter that Amazon announced its release of what is usually considered the first 'successful' e-reading device—the Kindle (Amazon.com, 2007)—and the imminent 'death of the book' began to be even more widely predicted.[1] In light of this, it is remarkable that scholars did not return to these insights during the resulting upsurge in, and success of, both digital content and various other e-reading devices after the watershed of 2007. Their silence is especially strange given the fact that these developments have effectively and efficiently coerced the publishing sector into increasingly adopting business models that aim to understand and target book consumers more directly than ever before.[2] As such, findings illuminating how a digital reader's needs might evolve could provide truly crucial drivers for future publishing developments.

In this article, I intend to take a few tentative steps towards redressing this imbalance. I shall, first, survey those trends of medieval reading and 'publishing'[3] in a manuscript culture alluded to by Bolter, Sturges,

Gillespie, and Carlquist and, second, relate them to the fast-moving culture of the written word in the digital age. The trends in question will be encapsulated under three main headings: the uses of navigational aids/'medieval hypertexts'; episodic or non-sequential reading; interactive reading environments.

As an industry, publishing seems to have been blindly participating in the furore of the *future* of the book debate, the demise of both the book and the publisher being likely to carry on being prophesied until such time as publishers can justify the value of one, the other, or both.[4] Meanwhile, traditional academic institutions have been discretely directing projects about the *history* of the book, aiming to understand in what ways the material text has evolved thus far,[5] but often refuse (at least in the UK) to consider the book's future. This is ostensibly because, as Andrew Brown (at the time of writing, the International Development Director at Cambridge University Press) explained in a masterclass in March 2012, 'it is impossible to evidence what has not yet happened' (Brown, 2012). Perhaps, though, understanding developments in book histories can, as Gillespie and Bolter in particular hint, be used to provide informed and new insights into book futures, especially in terms of the developing needs of the digital reader. The aim of this article is therefore to discover whether traceable, analogous trends in reading between the two periods indeed exist and, if so, to what extent these trends can be used to inform the publishing trade about the needs of the digital reader.

**The Uses of Navigational Aids/'Medieval Hypertexts'**

As mentioned earlier, Vincent Gillespie (1997, pp. 208–209) noted the existence in manuscripts of what, to his mind, constituted 'medieval hypertexts'—that is, the presence of navigational aids that help the reader to move between different levels of information. The term 'hypertext' is drawn from computer terminology and refers to the notion of accessing, linking, and jumping between non-sequential information in a digital environment (Gillespie, 1997, p. 208, n. 10). In other words, these paratextual[6] signposts provide readers with markers that help them either (a) to navigate their way through (or jump to sections of) a text or (b) to cross-refer easily between related materials. Applying this definition to manuscript culture, Gillespie (1997,

p. 227) argues that rubrics,[7] glosses[8] and illumination[9] act as navigational aids in much the same way, exploiting hypertextual links between text and image. Whilst 'medieval hypertexts' obviously cannot be 'clicked on' in the same manner as their digital counterparts, Gillespie makes a valid point. Rubrics, glosses, and illumination regularly serve the purpose of linking the reader paratextually to various pieces of extratextual material which facilitate the reader's undertaking what I shall call 'functions (a) and (b)', as designated above. He does, however, neglect to mention that it may be that these elements do not do so interchangeably.

Rubrics, on the one hand, given their tendency to be used mostly as headings or introductions, seem to belong more to function (a)—as a traditional navigational or finding aid, helping the reader to identify key moments in a text. Examples of such rubrics are pervasive in manuscripts, but a particularly useful example is provided by London, British Library, MS Harley 4431—a codex containing the works of Christine de Pizan, the production of which was supervised by Christine herself. Here rubrics are used as headings for each tale, and these correspond directly to a contents list in verse which appears on f. 2v.[10] Glosses and illuminations, on the other hand, most frequently link non-contingent contextual information to the main body text, and thus seem to be more indicative of function (b), operating in a manner more like that of a digital hypertext in the sense described by Gillespie.[11] Bibles, for example, were among the most heavily glossed codices, scribes often adding clues and interpretations to the margins of specific psalms or passages to guide the reader to the 'right conclusion' (in keeping with medieval methods of exegesis). Sometimes, they copied in existing collections of authoritative glosses, which were frequently longer than the text being glossed. Among these is the famous *Glossa Ordinaria*, a kind of anthology of glosses combining various biblical interpretations of the Latin Church Fathers, which can be viewed accompanying the text—in just one of many examples—in Cambridge, Houghton Library, MS Typ 204.[12] Illuminations, meanwhile, are found in many medieval manuscripts, but only extensively in secular manuscripts from around the turn of 13th century, this being indicative of an increase in reading alone rather than in performance settings. Examples of illumination are

naturally very varied, but a good demonstration of an illumination providing non-contingent contextual richness to a main text can be found in London, British Library, MS Stowe 947. This manuscript contains the famous *Roman de la Rose*, which was begun by Guillaume de Lorris, who apparently died before completing it, and concluded by Jean de Meun. On f. 30v, where the change of authorship occurs, there is an illumination of the two writers side by side—one apparently passing the writing baton to the other. Although the text makes no mention of the change of authorship at this point (it only does so in the closing colophon), this illumination serves to alert the reader that what comes next is the work of a separate author. [13]

Carlquist (2004, p. 105) concurs particularly with the notion of rubrics providing function (a) in relation to their practical application in helping a reader to navigate a manuscript. So, too, does Armando Petrucci (1995, p. 138), who argues in his study of writing and reading in medieval Italy that paratexts (including glosses, rubrics, and illuminations, as well as other marginal 'jottings') assist reader orientation. M. B. Parkes (1991, pp. 52–53), meanwhile, notes the same phenomenon and remarks on the increasing use of such aids as book production developed, particularly of running titles and tables of contents. The use of these 'function (a)' navigational aids is surely not unfamiliar to a modern reader. Chapter headings, running heads, contents pages, and subheadings in the printed medium serve precisely the same purpose of orienting a reader's journey through a text. What is perhaps more interesting is not so much the mere presence in manuscripts of these navigational aids, but rather that to which Parkes alludes: their increasing frequency in manuscripts in the later Middle Ages, before which time books did not contain so many visual aids to help a reader to grasp the structure of a text (Bolter, 1991, p. 38). By the 13th century, as literacy became gradually more widespread and oral culture was increasingly accompanied by written culture, book production processes, striving to cope with escalating demand, moved ever closer to standardization and, ultimately, the advent of the printing press (Parkes, 1991, pp. 49–53). In other words, the burgeoning written medium, which had mostly been accessible only to highly educated and/or wealthy people, was not only in demand, but was also demanding, particularly for 'new

readers', who needed help to find their way through texts as they developed the skills required for operating in a new medium (Parkes, 1991, p. 49). In response, medieval book producers learnt techniques and developed devices—such as these glosses, illuminations, and rubrics—by which to engage readers more effectively (Bolter, 1991, p. 68). These visual cues, of course, then became standardized in the age of print. The *Breviary*, printed by the renowned publisher Nicolaus Jensen in Venice in 1478 (as present in Glasgow, University Library, MS Sp Coll Hunterian Bf.1.18, especially ff. 1r, 146v), provides a particularly fine set of examples of the increasingly sophisticated nature of these paratexts in the printed medium. [14] Crucially, therefore, manuscript culture identified the need for readers to receive more guidance in finding their way through a written text, and the techniques associated with that guidance developed throughout the age of print into the now commonplace textual adjuncts that pervade modern book culture. Commonplace, that is, until the beginnings of the digital age, when the carefully developed *mise en page* (methods of page layout aimed to engage a reading public, often argued to be based on the so-called 'Golden Section'[15]) appears to have been forgotten as texts began to be rendered in digital formats.

The digital reading revolution—the time when people started to read at length on computer screens—started in the 1980s, but only gathered steam in the mid-1990s with the adoption of the web (Vandendorpe, 2007, pp. 204–205). The first vision of a digital library, where texts of length (which had been published elsewhere in printed books) were available to read in digital environments, came in the form of Michael Hart's Project Gutenberg in 1971 (http://www.gutenberg.org). Within just 33 years, Google had announced its intention to digitize 15 million books (Vandendorpe, 2007, p. 208). The pioneers, Hart and his contemporaries, adopted a scrollable page largely bereft of the usual navigational aids, but readers often complained of difficulties in following electronic texts (Liu, 2005, p. 702). Vandendorpe (2007, p. 208) points out the scientific reason for this: much like in a real scroll, the position of specific sentences on the screen effectively shifts in the viewing window as you scroll through, there being few markers to help the reader find their place. A reader's visual memory of the text is thereby severely impaired,

which makes both navigation and content assimilation of a document more difficult than when using a traditional codex. Further, just like the tricky rolling and re-rolling of a real scroll, it is difficult to control the flow of digital text, particularly in large documents, where an involuntary judder of the hand while scrolling down a side-bar can quickly result in a loss of place, especially when there are few visible markers to catch the eye (Vandendorpe, 2007, p. 208). This was not seen as a serious shortcoming at the outset, however, as the screen was for many years a mere transitory space: most readers would print lengthy texts onto paper rather than read them on the screen (Liu, 2005, p. 702). While this at least solved the problem of scrolling, it did not remedy the lack of visual markers.

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Progressively, as reading on screen seeped into practice, tools for viewing page breaks, margins, headers, and page numbers appeared on word processors; but it was the advent of Microsoft Word in the mid-1980s which established a robust response to the reader's need for visual control over what they were reading. WYSIWYG (What You See Is What You Get)[16] technology was adopted by Microsoft precisely to allow users to interact more naturally with digital texts (Vandendorpe, 2007, p, 208). Adobe's PDF format advanced this further, enhancing navigation by giving the reader tabular controls over the text, in order to scroll through laterally ('codex-like') or vertically ('scroll-like') (Vandendorpe, 2007, p. 209). PDF format proved so popular that when, in the late 1990s, portable e-readers began to be produced, the producers of the devices all created at least

semi-traditional page layouts for their electronic material. They appear to have finally understood that, without this, the reader's ability to assimilate content would be compromised, and thus their experience adversely affected (Mangen, 2008, pp. 405–406). That it should have taken nearly thirty years to rediscover what readers had already learnt in the Middle Ages seems perhaps surprising. It does, however, demonstrate a pertinent example of a parallel development in medieval reading culture which might have moved practices in digital reading culture forward more quickly if the connection had been identified sooner.

The form of navigational aid identified as serving function (b) (allowing readers to cross-refer between related materials) fulfils less of a mechanical and more of an enrichment role than those providing function (a). As we saw, glosses and illumination, as well as other scribal/marginal features in manuscripts, provide access to further information upon which the main body text is not contingent, but by which it is enhanced (Olson, 2003, p. 60). Crucially, these elements provide a similar service to digital hypertexts in so far as they allow a reader access to—and control over—how much or how little extratextual information they desire. As George Landow (2001, p. 105) suggests: 'Hypertext ... provides an infinitely re-centerable system whose provisional point of focus depends on the reader.' In other words, the reader of a manuscript exercised a level of power whereby they could choose the extent of contextualization they desired, and access that context through the manuscript's 'medieval hypertexts', which led them either to information in the margins of the manuscript or to intertextual knowledge from other written texts and/or oral culture (Coleman, 1996, p. 31). Whereas glosses clearly belong to the first of these two things, illuminations often gave rise to the second, and the Book of Isaiah in the Bible provides a pertinent example of this. At the beginning of the text, many extant manuscripts—such as London, British Library, MS Royal MS 17 E VII vol 2, f. 36v[17]—include a historiated initial in which Isaiah is shown being martyred by being sawn in half. Isaiah's martyrdom is not included in the Book of Isaiah, or anywhere else in the Bible; rather, the image is an intertextual reference to the one of the Pseudepigrapha, *The Ascension of Isaiah*, which was probably written in either the 1st or 2nd century AD.

The image is, though, a striking and recognizable symbol of Isaiah and alerts the reader to the commencement of his work. Bolter's argument (1991, p. 72) that illuminations function like computer icons, serving simultaneously as text and picture, is pertinent here. Effectively, illuminations both replace and displace the text, and blur the boundaries between the reader and the writer. Landow suggests that this kind of device calls for an 'active reader' (Landow, 2001, p. 102), that is, a reader who is in control of their reading experience—one who perhaps even has the power to contribute to it because of the multiplicity inherent in a manuscript culture.[18]

Reading, therefore, is often described as 'intensive' in a manuscript culture (Birkerts, 1996, p. 71). That is, in relative terms, readers had few texts to read, and so read what texts there were in great detail, which brought about particularly accomplished intertextual knowledge and a strong command and influence over the texts they read. The vast multiplication of books which came in the age of print would change this forever. Information abundance led to reading extensively rather than intensively, readers reading more widely and, consequently, skimming material (Vandendorpe, 2007, p. 204). With so much information becoming ever more available, and the demand for it growing, the standardization of print meant that, despite attempts to have early printed books mimic the format of manuscripts, the inclusion of glosses and illumination in books began very gradually to wane. The increasingly expansive, multi-layered information available must simply have become difficult to fit within the margins of folia. Further, as print gave rise to standardization, the 'web of text and interpretation, tradition and innovation' (Bolter, 1991, p. 39) once held comfortably within the covers of a manuscript became technologically more and more complicated to reconstruct in the printed medium (Maharg, 2006, pp. 43–44). In essence, early print technology created a demand for information which was, ironically, technologically unsustainable. Early printed texts did try to maintain glosses and illuminations, as we saw with Jensen's *Breviary* above, but ever-longer print runs and unreliable colour printing meant that colour decoration en masse became unfeasible. The volume of extra information and push for standard texts meant also that glosses did not sur-

vive in the print world for long. As Sven Birkerts (1996, p. 159) argues, in the printed medium the book functioned as an artefact; it was a testament, in other words, to a writer's authority, and the extra explicatory matter provided by someone other than the author gradually slipped out of use. Of course, new technology means that modern printed books, as already mentioned, can include such items. However, the technological requirement for early printed books to adopt cleaner, less cluttered layouts (simply because it was not possible to reproduce the complicated, colourful layouts of manuscripts for longer print runs at speed) effected a cultural shift in readers' expectations and, thus, in their practical reading skills. Even if a modern printed book were to include extensive glosses and illuminations in the manner of those contained in manuscripts, the reader's ability to decipher and decode them would be significantly different from that of a medieval reader. It would be unusual to see, for example, a modern printed text where the 'gloss' on each page was three or four times the length of the main text, as was possible in manuscripts, mainly because modern readers have not had to develop the ability to manage such textual environments.

Where print technology failed to facilitate the continuing use of such lengthy and extensive 'hypertexts', digital technology positively saw them reborn. The physical writing space no longer limited the amount of extratextual material to which the main text could be linked; Bolter's 'web of text and interpretation' was thus re-established in digital form. But, as we have seen, the reading public was no longer used to a method of reading which drew the reader away from a linear narrative to non-sequential information; their ability to engage with texts in this way was, and even now remains, underdeveloped.[19] Effectively, the cross-referencing and memory skills required for reading non-sequentially were dulled by the linearity of print (Birkerts, 1996, p. 122). And rather than viewing interaction with the episodic, non-sequential nature of hypertextuality as a skill or opportunity, some see it as a threat to sustained reading owing to the fragmentary nature of the hypertext (Liu, 2005, p. 701). Manuscript culture, however, proves that different forms of reading—and, in particular, non-sequential reading—do not mean an end to literacy. As Bolter (1991, p. 2) argues, '[w]hat will

be lost is not literacy itself, but the literacy of print, for electronic technology offers us a new kind of book and new ways to read and write'. These new ways may bring advantages. As technology has progressed, digital reading environments have gradually moved beyond using hypertexts in their traditional form;[20] the overriding functionality of hypertexts in linking non-contingent information and providing navigational aids is, however, being preserved, albeit in new guises. Digital texts still operate within a hypertextual framework, but it is a more covert one. Non-sequential reading skills are already showing signs of becoming less rudimentary; this development may herald the arrival of a more sophisticated digital reader who, in having become acclimatized to the digital environment, has already developed some of the nuanced textual interaction capabilities that we have seen in medieval readers. With this in mind, I shall now explore the notion of non-sequential reading more broadly.

### Episodic or Non-sequential Reading

It is well known that medieval audiences often received texts in a non-linear fashion, that is, episodically, with non-contingent interludes and a non-sequential structure (Carlquist, 2004, p. 108). The modalities of performance arguably lie at the root of this trend in textual reception. As Ong (1982, p. 143) argues: 'Oral culture has no experience of a length, epic-size or novel-size climactic linear plot.' The low literacy levels in the Middle Ages, coupled with the logistical impossibility of listening to an entire romance from beginning to end, if only for the constraints of time, meant that audiences would attend readings or performances of short tales, or sections of longer tales (Eliot and Rose, 2009, p. 5). And, as the products of oral culture made their way into written form, the nature of orality was still perceptible on the page. Medieval texts, for example, are known to have been copied in discrete units. Chaucer's *Canterbury Tales* almost certainly circulated as autonomous tales or as groups of tales in separate booklets or quires for the purposes of performance because the various components of the work are found bound in various orders across all of the early manuscripts (Coleman, 1996, p. 199). A further example is provided by London, British Library, MS Additional 36614, which contains Chrétien de Troyes' *Perceval*, one of its prequels, and two of its

*Continuations*. The manuscript demonstrates changes of hand and/or short quires at or around each of the textual transitions, but no overt statements of a change of authorship are included at these points (see f. 4c, line 15; f. 10d, line 26; f. 87a, line 11 and f. 166b, line 10, respectively). From a modern reader's perspective, each text seems to run seamlessly into the next. The mechanical indications of textual transition, though, provide evidence that medieval readers retained an awareness of the narrative having been constructed by several authors. In other words, medieval reading culture relied on the audience's knowledge of an entire textual system which they had gleaned through developing highly tuned memory skills as a result of operating in an oral culture (Olson, 2003, p. 201).

As suggested above, 'hypertexts' also have the effect of inducing a reader to receive a text non-sequentially, in that they distract a reader from the main body text and redirect them, via glosses or illuminations, to contextual information or intertextual references (Landow, 2001, p. 106). This also supports the idea alluded to in the same section that a reader in a manuscript culture is more active, and wields greater power, than in a print culture. This means that they have very specific skills that enable them to operate without the need for textual linearity to serve as the mode of communicating coherence. D. H. Green (1994, p. 297) plausibly suggests that there was even a kind of enjoyment for a medieval audience in being plunged in medias res such that they would have to piece together a non-sequentially received narrative. I have argued the same elsewhere (Tether, 2012, p. 17–18) in relation to the *Continuations* of *Perceval*, which ceaselessly seem to defer the 'end' in favour of further 'middles'—and crucially these are 'middles' that appear to function also as standalone tales, as if the authors were aware that the narrative would be encountered in varying orders.

The skills required of a reader to operate effectively in a manuscript culture steeped in non-sequential textuality became defunct in the linear age of print (Birkerts, 1996, p. 122). Critics have, however, implied that these skills may now be experiencing a revival (Liu, 2005, p. 701). Birkerts (1996, p. 159) argues that, '[l]ooking from the larger historical vantage, it almost appears as if we are returning to the verbal orientation that preceded the triumph of print'. What Birkerts is im-

plying is that the similarly non-linear nature of digital texts will (and already does) require readers to reconnect with dormant reading skills to which a medieval audience would have had ready access. I showed above, for example, that digital hypertexts lead the reader on tangents off a principal text, and so force a reader to interrupt the linearity of their reading trajectory and jump back, forth, and even sideways. What is perhaps more important is that digital hypertexts coerce readers to discover—and, importantly, choose—their own routes through texts. Rather than simply leading a reader away at a certain point and then directly back to resume reading from where they left off, digital hypertexts frequently lead to another text which contains yet further hypertexts leading elsewhere, thus directing the reader in increasingly divergent paths and towards different possible endings (Birkerts, 1996, pp. 163–164).

Bolter (1991, p. 8) explains this as indicative of readers exercising choice during their reading experiences. This is a particularly interesting interpretation, since it suggests that electronic texts function almost like 'interactive narratives',[21] a functionality that I have argued elsewhere can also be encountered in medieval narratives (Tether, 2012, p. 92). In both cases, the reader is effectively promoted to something more akin to a writer, in that they have the power to shape a text's narrative trajectory. As Landow (2001, p. 102) earlier described it, the reader is an active player in a kind of narrative game. And if digital readers are indeed becoming increasingly 'active' it could be beneficial for publishers to explore how best to foster this trend. Readers are, after all, becoming ever more used to using hypertext technology and non-sequential reading as a means of determining their own personal roadmaps through narratives, and it has been postulated that reading in a linear fashion may eventually become obsolete (Liu, 2005, p. 707). The industry has tried different techniques by which to profit from non-sequential reading trends; however, enhanced ebooks, as we saw above, have yet to capture the imagination in a way that translates to market dominance, and apps are still far from providing reading experiences that actually appeal to 'book consumers'.[22] Despite having gone to number one in the app chart (Pearson, 2010), the app created for *The Fry Chronicles*, for example, which was designed precisely to allow a reader to dip in and out of

the text, does not appear to have ignited a fashion for similar kinds of literary apps based on other frontlist works.

So why is the reading public still struggling with the concept of reading digitally, even though it offers them the opportunity to interact more directly with, and exercise more power over, the texts they read? What can be gleaned from the discussion so far is that there are two parallel prompts to reading non-sequentially in the medieval and digital milieux. Despite their similarities, however, their specific rendering and presentation differ slightly between the two periods. First, in relation to hypertexts, the obvious difference between those in manuscripts and those in digital texts is that the latter divert the reader away from the text physically (or at least virtually). 'Medieval hypertexts', by contrast, typically lead to somewhere else on the same page, or to a piece of intertextual knowledge in the reader's own mind. The reader is thus making a rather more natural (effectively, a physically shorter) leap to the extratextual information concerned than is usually the case in the digital context.[23] Therefore, if publishers can find ways to pull paratexts into the reading frame itself, as they typically exist in manuscripts, perhaps a reader can stay more satisfactorily engaged with the text. Second, in terms of episodic narrative construction, most works of (literary) fiction in print form are not structured in such a way as to allow their chapters to function as standalone works. As we saw, however, because of the nature of oral culture, medieval writers of fiction (particularly romances and chansons de geste) regularly composed their works in precisely this way. Therefore the form of the narrative physically allowed it to be read non-sequentially. Publishers could perhaps exploit this in the digital world by commissioning novel-length works that, from the outset, come together to form a coherent corpus when placed in a linear format, but which also can be accessed—satisfactorily—in sections.

What all this demonstrates is that publishers have not yet been able to make non-linearity work completely effectively in the digital environment—something that the popular media have noticed:

> E-books and nonlinearity don't turn out to be very compatible. Trying to jump from place to place

in a long document like a novel is painfully awkward on an e-reader, like trying to play the piano with numb fingers. You either creep through the book incrementally, page by page, or leap wildly from point to point and search term to search term. (Grossman, 2011)

If publishers can better harness, and more fluidly facilitate, readers' demands for non-linearity, enabling them to make more of the choices—and exercise more of the power—theoretically associated with non-sequential reading, digital reading products of the future may achieve a broader appeal. It is perhaps precisely because e-books are typically manufactured to resemble print books that any extra functionality is effectively lost on some (or indeed many) readers. This notion of reader interaction brings me to the last section of this article; we have seen that medieval readers interacted closely and impactfully with their texts, but what is particularly notable is that this was not merely associated with choosing the order in which they experienced a text.

**Interactive Reading Environments**

Medieval readers can still be encountered in the margins of manuscripts.[24] They respond readily to texts in written form, adding explicatory notes, drawing pointing hands, correcting errors, and agreeing/disagreeing with content.[25] The manuscripts of William Langland's *The Vision of Piers Plowman* are particularly rich in marginal annotation—not so much from professional critics or scholars as from readers and performers. The proliferation of annotation means that otherwise closely related manuscripts of *Piers Plowman* (in particular, London, British Library, MS Additional 10574; London, British Library, MS Cotton Caligula A.xi, and Oxford, Bodleian, MS Bodley 814) create diverging impressions on readers because of the vastly differing opinions set out by previous readers in their respective margins.[26] These annotations can even be so influential as to find their way into later copies of texts, sometimes fooling later readers/annotators. An interesting example of this is to be found in Montpellier, Bibliothèque interuniversitaire, MS Section Médecine H 249—a de luxe illuminated manuscript from the late 13th century of *Perceval* and the *Continuations*. A contempo-

rary note on a flyleaf reads, 'Romant de Graal, ou suite de Perceval le Galois composé en vers par Chrestien Manessier en lan MCLXXXVIII' [*Romance of the Grail*, or the continuation of *Perceval le Galois*, composed in verse by Chrestien Manessier in the year 1188]. The author of this note has misunderstood that there was more than one author at work in the text, and simply merged the names of two of them. A 17th-century hand then demonstrates the power that a medieval annotator could wield over later readers by also attributing the manuscript to 'Chrestien Manessier' according to 'ces vers de la fin, où l'Auteur nous apprend enfin son nom de famille' [the verses at the end where the author finally tells us his family name]. These 'verses at the end' are, in point of fact, very clear in stating that Manessier merely continued Chrétien's unfinished story; thus the 13th-century annotation must be the true influencing factor. Indeed, it is so influential that the same error is found in Montpellier library catalogues as late as the 19th century. In this way, manuscripts give rise to dynamic, rather than static, texts, which can be updated (correctly or otherwise) in a similar way to digital texts.

For many years, such marginal notes were ignored by scholars, or at least seen as secondary to the main text. William Schipper (2007, p. 44), working on the *Peterborough Chronicle*, argues, though, that marginalia created by readers are as intrinsic to a text as the text itself, and that the text should indeed be understood as dynamic rather than static. In this way, medieval readers certainly did often assume the place of a writer, thus setting themselves in a rather exalted—and, as discussed above, powerful—position. Sturges (1991, p. 3) pertinently argues,

> Medieval readers could have a kind of power over the texts they read unknown to their modern counterparts … [I]n a culture in which print does not confer authority, any reader's marginal jottings, or extended commentary, at least have the potential to be incorporated into the text the next time it is copied. The distinction between reading and writing cannot have been as clear as it seems to us; any reader could become a writer simply by writing.

The *mouvance*[27] effected by this interaction, as we have seen, can be inordinately influential, not only ma-

nipulating other medieval readers, but also affecting our reading, and therefore our understanding, of medieval texts today. Indeed, it is widely argued that readers writing in margins in manuscripts were annotating precisely for the benefit of future readers, enhancing readability and 'working for the corporate, social good' (Schaap, 2001, p. 83). Kerby-Fulton (2001a, p. xii) even goes so far as to suggest that 'correction (by annotation, erasure, or expunction) was the duty of all good readers'. Fundamentally, then, annotation was a community practice that once again mimicked, or at least took its lead from, audience participation in an oral culture (Amtower, 2000, p. 38). Modern printed publications of medieval texts (with just such reader annotations in the original manuscript margins) often also expunge these fascinating insights into medieval reading culture. Schipper (2007, p. 44) states, 'The margin as inviolate blank space is a construct imposed on the reader by the culture of the printed page, and influences the way we "read" and "publish" a medieval text.' Here, Schipper is astutely highlighting that print culture and its effect on reading over the centuries are responsible for the modern print world's reluctance to replicate the dynamic nuances of manuscript marginalia.

Interestingly, though, in the face of the print revolution the practice of marginal annotation did not go out of use nearly as quickly as did non-sequential reading and hypertextual practice. Although scholars have argued that it gave rise to gradually emptier margins, it was not until as late as the early 19th century that the practice became significantly less widespread (Jackson, 2002, p. 74). The sluggishness of annotation's move towards obsolescence perhaps tells us something about a reader's desire to share in the texts they read—to create the paratexts that shape a future reader's experience of a text. This, perhaps more than any of the three trends I have explored in this article, represents a crucial facet of reading which publishers of digital texts could harness to their benefit. The digital age, with its immediate updatability, and simple annotation functionality, already has the technology by which to enable readers to return to this manner of textual interaction. In various fora, they are doing so in droves.

Examples of this include, first, the BBC news site (www.bbc.co.uk/news), which offers readers the opportunity to comment on news stories. The list of comments can at times run into thousands. These comments, though, are subject to moderation under specific house rules (BBC, 2009) and therefore can be edited or even excised before they reach a reader—a factor that impinges upon the level of a reader's influence. A second example of readers engaging with texts may be seen in online reviews. There are many review sites, some of which are 'book club communities' (such as www.lovereading.co.uk), but there is arguably no reviews system more powerful than Amazon's (Shepherd, 2012). Here, potential book purchasers are able to access other consumers' ratings and reviews of Amazon's wares before deciding whether or not to buy the product. But these 'digital annotations', too, go through a moderation process before a reader can access them; indeed, Amazon controversially culled thousands of what it deemed 'fake reviews' late in 2012, including reviews by family and friends, and reviews by fellow authors (Streitfeld, 2012). This has been the cause of considerable criticism from the media and public, not least because of the rather 'sinister' ability of Amazon to identify which reviewers are in some way connected to the product (Dugdale, 2013). Amazon's recent acquisition of the popular review site *Goodreads* (www.goodreads.com) has only added fuel to the fire (Flood, 2013), but does at least signal even more strongly that the book trade is taking increasing notice of the power of interactive reading experiences.

A third example, this time related to reader interaction specifically with literary texts, comes in the form of one of the most high-profile interactive experiences in recent years: *Pottermore* (www.pottermore.com).[28] Building on the Harry Potter series (published by Bloomsbury), J.K. Rowling opted to move away from her publisher in the digital development of her content, and made use of her considerable personal profile, as well as a partnership with Sony, to promote the project. Each reader creates an account and receives a unique username; they then are able to follow Harry and his friends through his adventures, participating in games and quizzes along the way (Van Gilder Cooke, 2011). This has been tremendously successful in terms of registering participants, but the success may be more to do with the profile of Harry Potter than with the actual experience itself. Reviews seem to have little positive to say about the site, with complaints ranging from is-

sues with reliability (Kessler, 2012) to 'boring' content (West, 2012) to a lack of long-term interest (Sims, 2011). Here, again, the reader's interaction is moderated, though this time (unlike in the BBC's system) other readers may well see the commentary before action is taken. Readers have the ability to report others' comments, which are then placed under consideration. Dissatisfaction with the system is rife among users, and a simple Google search of 'Pottermore moderation' reveals endless forum posts by frustrated *Pottermore* users asking why their comment was reported as inappropriate, given that many of the comments in question contain no obviously offensive content.

> **... a simple Google search of 'Pottermore moderation' reveals endless forum posts by frustrated *Pottermore* users asking why their comment was reported as inappropriate.**

Evidently, challenging the author's control of the writing space has an important appeal for readers, but, once given the capacity to interact, readers can be sensitive about the management of that interaction and the resulting influence. The perceived lack of power communicated by readers' reactions to the above reading experiences is palpable, and clearly demonstrates that readers fundamentally dislike censorship of their participation. As Jackson (2002, p. 90) points out, annotation should heighten

> the natural tension between author and reader by making the reader a rival of the author, under conditions that give the reader considerable power. The author has the first word, the annotator has the last.

In the interactive digital world, the mere existence of moderation systems means that the power of the annotator, as adumbrated by Jackson, is diminished. Distorting the annotating reader's *Erwartungshorizont*

('horizon of expectations') in this respect is thus jarring, and frustrates their experience of the process.

Apps and platforms are beginning to respond to this dissatisfaction. Annotation functions are being added to texts available as ebooks, rather than just to web-based textual content, and these do not have the same kind of moderation measures in place. GoogleBooks (http://books.google.com) has just such an annotation function, but sharing those comments with others remains difficult. The reader has to post their annotated page to their Facebook wall, which means that readers can neither interact with each other within the space of the page, nor experience the comment in the context of the entire text (Watters, 2011). They also cannot access these notes unless they are Facebook friends with the annotator, so the serendipity of encountering annotation in the way in which manuscripts allow is lost. It is also possible to annotate on a Kindle, but in order to share those notes interested parties have to be 'following' the annotator on social media (Amazon. com, n.d.), rather than simply reading a copy of the text which happens to contain annotations. Rather like the GoogleBooks function, this limits the potential audience significantly. A further reading platform, ReadSocial (http://www.readsocial.net), still relies on an annotator's already established social networks but allows a broader audience for one's annotations. Instead of all the connected readers having to read on the same kind of device, ReadSocial allows people anywhere in the world reading digitally on any device to create and share annotation (Watters, 2011). Despite this innovative functionality, the possibility of reaching out to as yet unknown readers within the frame of the page, as is possible with manuscript annotation, remains difficult in practical terms.

All this said, innovative methods of involving readers in the creative process of writing (particularly of fiction) are taking shape with each passing day, from fan fiction to crowdsourcing. Fan fiction, as we know from the *Fifty Shades of Grey* story in 2011 (Bridle, 2012), has tremendous potential, but, though its engagement of readers is far reaching, it cannot claim to have quite the kind of direct influence on reception of, or power over, the original text which has been explored here. Rather than allowing a reader to influence directly the reception of, and/or control, a text they are read-

ing, it involves a reader taking inspiration from a text and creating either an entirely new narrative or, perhaps, a sequel/prequel. Although the original text may be indirectly enhanced or enriched, it is not directly or tangibly altered by the resulting product in the ways we have seen in annotated manuscripts. Crowdsourcing, meanwhile, has been a familiar device in the film and music industries for some time, but remains a relatively new tool in the publishing world (Flood, 2011). Crowdsourcing enterprises such as Unbound (http://www.unbound.co.uk) offer readers the opportunity to influence content (subject to a fee) before it is written, which offers unquestionable power to the reader. Although one could argue a similarity here to the role of the patron in medieval texts as a kind of commissioning editor (Tether, 2013, p. 65), it does not reflect the process I have been exploring in terms of the influencing of texts after publication. Nonetheless, the rise of these kinds of reader-oriented processes aimed at influencing new content in publishing products is clearly indicative of an industry increasingly aware of the need to provide readers with a sense of governance over the texts they consume, whether it is before, during, or after the experience of reading.

## Conclusion

What links the three parallel trends discussed here, as I hope is now clear, is the notion of the reader being able to exert power while reading. Derrida (1992, p. 51) suggests, 'A reader is not a consumer, a spectator, a visitor, not even a "receiver",' thus implying that reading involves engagement and responsibility, not just passive consumerism. Both manuscript and digital media have the functionality to enable readers to exercise power over the texts they encounter by, for example, allowing them to influence and control the level of contextualization (trend 1), the narrative trajectory (trend 2), and the perceptions of future readers (trend 3). However, the implementation of this power differs significantly. Digital readers are typically regulated. Any interaction has a number of bars to its influence, from having to move away from a text physically in order to access extratextual information, to being actively moderated by authorities and in some cases by other readers. Medieval readers, by contrast, became part of the discussion with far more immediacy. Even where

later readers disagreed with earlier readers' commentary, for example, their thoughts were rarely excised entirely, but rather visibly augmented, added to, or edited. Foucault hypothesizes that 'in every society the production of discourse is at once controlled, selected, organized and redistributed according to a certain number of procedures, whose role is to avert its powers and its dangers' (Foucault, 1972, p. 341). The evidence shown here supports this observation; readers do appear to have a desire to exercise power through textual engagement and are subject to at least some kind of regulation in that endeavour. Foucault neglects to mention, though, that the extent of that regulation varies; and the level of that variation matters. In other words, whereas regulation is rather liberal in manuscript culture, the more severe acts of limitation to reader power in the digital milieu frustrate the experience and leave readers deeply unsatisfied and not wishing to engage further in what seems a fruitless exercise.

This brief consideration of just three parallel examples from medieval/digital reading cultures demonstrates clearly that much can be learnt from historical reading experiences. Although it is not possible to replicate these experiences perfectly—after all, so much relies on the socio-cultural conditions of the time, which are equally impossible to reproduce—there are still lessons to be learnt about how to engage readers in environments that allow them to interact with a text. The printed medium accustomed readers to the concept that a writer is the ultimate authority within a given text, but the digital world is gradually allowing them to reclaim some of their power. As Grenier-Winther (2004, p. 191) argues of the print age:

> With no other effective access to the text, a relatively passive readership had to accept the editorial product. Thus, the editor's control over the continuum extended far, and a reader gained entry to that continuum only at a point nearing its end, likely at the point of literary analysis. In the new landscape of the electronic edition … readers will be allowed, if not encouraged, to enter the continuum at an earlier stage than before.

Half-measures in allowing readers to enter this 'editorial continuum' at an earlier stage appear to be insuf-

ficient to induce a reader's commitment to a product in the fullest sense. I therefore conclude this article with a suggestion: one way to boost recognition among the reading public of the opportunities offered by digital reading might be to offer the 21st-century reader actual, rather than illusory, control over what they read—in other words, something more akin to the medieval reader's ability to influence a text.                                ■

## Notes

1 Tania Kindersley (2007) provides one of many examples.

2 A very good overview of the increasing need to 'reach readers more directly' is provided by Thompson (2010, ch. 10). Alastair Horne (2012) sets out some methods by which this might be achieved.

3 I use this term loosely here, of course, because although manuscripts were not produced by a 'publishing trade' that we would recognize today, they were nonetheless 'published' in the sense of having been 'made public'. As such, the production processes surrounding their publication can reasonably be referred to as constituting a kind of publishing enterprise.

4 Horowitz (2012) provides a particularly witty discussion of this point.

5 Some examples, among the many, are provided by the University of Edinburgh (http://www.hss.ed.ac.uk/chb/), Durham University (http://www.dur.ac.uk/history/research/research_projects/history_of_the_book/), and the University of Oxford (http://www.english.ox.ac.uk/hobo/).

6 Gérard Genette (1997, pp. 1–2) coined the term 'paratext', defining it as 'a threshold, or … a "vestibule" that offers the world at large the possibility of either stepping inside or turning back … [that is,] it constitutes a zone between text and off-text, a zone not only of transition but also of *transaction*: a privileged place of a pragmatics and a strategy, of an influence on the public, an influence that … is at the service of a better reception for the text and a more pertinent reading of it'.

7 Words, phrases, and other elements in manuscripts typically written in red ink to highlight them. These often take the form of headings, but are also used to place emphasis on initial capitals and names of significance. Rubrics were usually added at a later stage in the production process, often by a different scribe or 'rubricator'.

8 Notation in the margins of manuscripts (often scribal, but, if not, typically authoritative) which explicates an aspect of the main body text, such as a concept or a piece of terminology.

9 Illustrations or decorative elements in manuscripts sometimes taking the form of miniatures (illustrative pictures) or historiated initials (highly decorative opening letters that incorporate an illustrative picture).

10 A digital edition of this manuscript is available at: www.pizan.lib.ed.ac.uk

11 It is entirely possible that the mere occurrence of glosses and illuminations—being highly coloured so as to stand out from the text—means that they additionally assist reader orientation, even if this is not their intended primary function.

12 Digital imagery of this manuscript is available at: http://pds.lib.harvard.edu/pds/view/3710791

13 An image of the illumination can be viewed on the British Library's website: http://www.bl.uk/catalogues/illuminatedmanuscripts/ILLUMIN.ASP?Size=mid&IllID=8962

14 The University of Glasgow Library named the *Breviary* its 'Book of the Month' in 2002 and, for that reason, a useful webpage for the book was created, showcasing many relevant examples of publishing paratexts in the early print age: http://special.lib.gla.ac.uk/exhibns/month/apr2002.html

15 The 'Golden Section' refers to a ratio that is found throughout nature and is related to the Fibonacci sequence; it has been a subject of mathematical and philosophical interest since antiquity. When the ratio is applied to art and architecture, the effect is believed to be aesthetically pleasing and many artists therefore proportion their work according to the Golden Section. The same is thought true of page layouts. Tschichold (1991) argues that generally, and particularly between 1550 and 1770, there was very little deviation from the page proportions 2:3 or 1:√3, which are convergents of the Golden Section.

[16] A user interface allowing the on-screen presentation of text to resemble closely its printed counterpart. For example, bold or italic text will simply appear as such on the screen, rather than being represented by plain text peppered with 'mark-up tags' indicating the positions of such formatting.

[17] This manuscript can be viewed in digital form at: http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Royal_MS_17_e_vii_vol_2

[18] I refer here to the tendency for the commentary of 'active readers' and engaged scribes to influence later copies of manuscripts, such that 'multiplicity' in terms of versions and redactions of texts is particularly prolific in a manuscript culture, and an unavoidable aspect of undertaking codicological study. The third section of this paper returns to this phenomenon in greater detail.

[19] Although ebook sales are outstripping those of print books in many areas of trade publishing, enhanced ebooks, which incorporate far more 'hypertextuality', have yet to make their mark (Alter, 2012).

[20] For example, the boundaries between gaming and interactive fiction are becoming increasingly blurred. Here it is not hypertexts per se that lead readers in new narrative directions, but rather the problem-solving and critical thinking of the reader in untangling what might be referred to as covert hypertexts with the narrative. In other words, implicit narrative cues (rather than explicit hypertexts) allow readers to navigate a text, access inter/extratextual information, and make choices about the narrative trajectory. The form is different, but the functionality is similar.

[21] Narratives that allow the reader to choose the next step in the story, and for which there are alternative endings. Yellowlees Douglas (2000) provides a thorough discussion of the genre.

[22] This debate has been broad-ranging in relation to many works. Don Tapscott, as one example, produced a new 'book', but was so keen for it to be viewed as an 'app' that the work's press release is worded as if to deliberately provoke a debate on the subject, seemingly as part of the product's marketing strategy (Robinson, 2012).

[23] There may well have been instances where medieval readers had to reach for their psalter or gospel to confirm the reference, but the difference is that medieval readers—with the deep intertextual and cultural knowledge banks they had developed from oral culture—more readily knew where to look for that confirmation.

[24] This is not to say that modern readers are never found in the margins of printed works. They are, but less frequently, and the purpose of annotation is typically rather different, most often being to create aides-mémoires for the reader themself, as opposed to commentary to benefit future readers (I explore this in more detail below).

[25] Annotations of this kind could be added by both 'professional' and 'private' readers, the former engaging critically with the text from an apparently authoritative viewpoint, while the latter seem to be more interested in contributing to a discussion. Kerby-Fulton (2001b) provides a useful discussion of professional readers' habits and practices. Kaplan's (2013) academic blog also recognizes these features as serving the purpose of modern hypertexts.

[26] A digital edition of the poem, with hypertextual links to marginalia across 15 of the manuscripts, is available at: http://www.rarebookschool.org/fellowships/rbs-uva/plowmanP.html

[27] This term refers to the changes that inevitably creep into a text in manuscript culture when it is copied—these changes arise not only due to scribal errors and deliberate editing, but sometimes also because of reader interaction in the margins (Zumthor, 1972, ch. 2).

[28] This is, of course, ostensibly aimed at children rather than adults. However, adult engagement with the Harry Potter series is extensive and so *Pottermore* is something of a crossover forum, appealing to common reading drivers in both children and adults.

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