Tradition and Transparency:
Why Book Design Still Matters in the Digital Age

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Abstract
Designing for the Internet can be a wonderfully enlivening experience for the graphic designer. But it can be an equally frustrating experience for typographers, as their control over typeface, word spacing, justification, and the other myriad details that define a well-crafted printed page is reduced to the most rudimentary choices. This article will examine this apparent disjuncture by first briefly outlining the historical separation between the trades of graphic designer and typographer and then discussing some of the advantages of having the designers of electronic interfaces become familiar with book typography traditions and of having electronic reading interfaces support basic typographic practices.

Keywords
Web design; Book design; Typography; User interface; Representation of digital texts; History of printing; History of typography

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The INKE Research Group comprises over 35 researchers (and their research assistants and postdoctoral fellows) at more than 20 universities in Canada, England, the United States, and Ireland, and across 20 partners in the public and private sectors. INKE is a large-scale, long-term, interdisciplinary project to study the future of books and reading, supported by the Social Sciences and Humanities Research Council of Canada, as well as contributions from participating universities and partners, and bringing together activities associated with book history and textual scholarship, user experience studies, interface design, and prototyping of digital reading environments.

Introduction

Designing for the Internet can be a wonderfully enlivening experience for the graphic designer. Layouts can be morphed fluidly, pages can contain all manner of multimedia objects, and design decisions are not hampered by practicalities such as the cost of four-colour reproduction. But it can be an equally frustrating experience for typographers, as their control over typeface, word spacing, justification, and the other myriad details that define a well-crafted printed page is reduced to the most rudimentary choices.

This article will examine this apparent disjuncture by first briefly outlining the historical separation between the trades of graphic designer and typographer and then discussing some of the advantages of having the designers of electronic interfaces become familiar with book typography traditions and of having electronic reading interfaces support basic typographic practices. Book typographers have traditionally viewed the more "artistic" graphic designers with suspicion because "typography is the efficient means to an essentially utilitarian and only accidentally aesthetic end" (Morison, 1967, p. 5), and any overtly artistic gestures by the designer can potentially intrude upon the reading experience.

This notion of typography as the art of creating a transparent interface between the author and the reader has its roots in the humanist tradition of the author-god and is obviously challenged by new models, where the act of reading has the potential to be a three-way communication between authors, readers, and the community, and where the lines between the three are blurred. As a result, some typographic practices, such as methods for including scholarly apparatus and annotations, will undoubtedly need to be modified. But this does not mean that all typographic traditions need to be tossed aside. For example, many digital reading interfaces present a "page" view designed for a screen that is taller than it is wide. While this mimics the dimensions of a single page of a book, readers of books seldom view a single page; the bound book presents a "spread" that allows the reader to view two pages at once. Presenting digital texts in such a manner not only has the advantage of familiarity, but this orientation also allows for specialized displays of information such as parallel text editions or facing page translations. If one is truly serious about wanting a digital interface to be "read," it is worth gaining an understanding of the practices of the craftspeople that have focused on just that for over 600 years.

Why book design matters

Judging by the standards of traditional book typography, most digital reading interfaces, such as web pages and e-books, are sorely lacking. Digital texts are marvellously flexible in their ability to incorporate multimedia or to present multiple iterations of a given text. But when it comes to presenting a well-crafted block of text

on a website, the typographer's options are severely restricted. For the most part one is limited to choosing a typeface based on what can reasonably be expected to be on the users' computers – and to be safe, one should probably specify some alternative typefaces, just in case. Line and letter spacing can be adjusted, but only in the broadest sense (i.e., not on the character-by-character level required by serious typography). Then there is the problem of variable screen size; flexible layouts demand a design that is, in metaphorical terms, equally suitable for the smallest duodecimo edition or for a lectern folio. Indeed, I think it is very telling that the digital format of choice for most electronic documents intended for continuous reading is the PDF – which is at its core simply a photo-facsimile of a printed document.

But in all fairness to these electronic editions, it must be noted that this is not the first time that the typography of an era has been deemed substandard. For many scholars of English typography, most of the 17th and 19th centuries were periods of lacklustre, or downright abysmal, book printing. Examining potential reasons why printing standards were seen as falling off during these periods and then looking at the factors which led to improvements in the quality of typography provides one possible window into the future of digital interfaces intended for continuous reading.

Printing is generally considered to have sprung fully-formed from the mind of Gutenberg, and the humanist-style typography of the 15th and early 16th century has long been considered the zenith of the craft – as evidenced by the number of typefaces still based upon those of Jenson, Manutius, and Garamond. But as the 16th and 17th centuries progressed, the quality of the books, at least in the eyes of later critics, decreased markedly: "Types were poor, paper was brownish and shoddy, and the work of the printer careless and tasteless. Although in this country [England] printing had never reached the excellence of the best Continental printers, it had also never before fallen so low as it had by the year 1700" (Jennett, 1958, p. 47). Even the best European printers of the 17th century, the printing dynasty of the Dutch Elzevir family, are considered as below the level of the best 16th and 18th century printers.[1]

There are several potential causes for this perceived decline. This was a period of heavy censorship of the press, which placed severe constraints on the production of "quality" books. In England not only was the number of printers extremely limited, which forced many others to operate "pirate" presses in less than optimal conditions, the importation of type was forbidden. Typecutting is an extremely specialized skill, and England had never needed to develop its own typecutters – from very early on (before the mid-16th century) most printers stopped commissioning their own type designs and instead purchased type from foundries such as Plantin's in Holland (Johnson, 1970). Without access to these foundries, English printers were forced to either use worn out type or to have new type cut by inexperienced craftspeople. This is also the era where the pre-eminence of the scholar-printer model, as exemplified by Aldus Manutius or the Estiennes, was challenged by the emergence of lesser-educated printers solely interested in profit. As Daniel Berkeley Updike writes, "printing fell into the hands of a class of masters and men less able, enterprising, and socially important, who looked at it solely from the commercial side" (Updike, 1962, p. 161).

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Updike also suggests one further reason for the falling off in book-making during this period: the passing of manuscript traditions of book production. For the incunabula period and several generations afterwards, printers remained familiar with the manuscript book. But by the end of the 16th century, most master printers were three to four generations removed from manuscript production and thus no longer knew, or properly respected, traditions of manuscript production (Updike, 1962).

The importance of "tradition" as a constraining influence in much discourse on book typography cannot be understated. Stanley Morison, the man primarily responsible for Times New Roman and many of the other historical type revivals, perhaps best exemplifies this attitude when he defines "tradition" as more than the embalming of forms customary in states of society that have been long since cast aside. The sum of experience accumulated in more than one man's lifetime, and verified by succeeding generations, cannot be safely discarded. Tradition, therefore, is another word for unanimity about fundamentals that has been brought into being by the trials, errors, and corrections of many centuries (Morison, 1967).

The events of the 16th and 17th centuries challenged this devotion to tradition in several ways. Censorship and other limitations of the press interfered with the transmission of knowledge between generations of printers and between printers from different nations. In England it also eliminated the access to standard typefaces and forced craftspeople unfamiliar with typecutting to design new fonts. New profit-driven presses were run by men who were not long-standing members of the trade and thus did not properly respect existing practices. And finally, the days of manuscript book production were far enough in the past that the manuscript book was no longer a positive influence on the design of printed works. As a result, printers lost their way and were forced to wander in the wilderness for approximately a century.

Book typography became praiseworthy again in the 18th century thanks to the return (or establishment) of printing conventions, and English typographers led this return. In the 1680s Joseph Moxon published his *Mechanick Exercises on the Whole Art of Printing*, largely considered the first manual on the running of a printing press. Numerous editions based closely on Moxon's text followed soon after. Restrictions on the press eased, and printers and their materials again began to be imposed among nations. England ceased to be strictly an importer of types, thanks to the success of William Caslon's foundry, which provided types based on the best European models of the previous centuries. For a time tradition reasserted itself, and book typography regained some of its previous lustre.

A similar break with tradition, and resultant downturn in the quality of typography, occurred in the 19th century, but for different reasons. The invention of the steam press and stereotyping in the early part of that century rapidly increased the rate of production and thus the potential for profitability. As seen before with the Dutch, a concern for making money was seen as a negative influence on printing quality because the minutiae that differentiate a well made book from a poor one are sacrificed in order to increase profits. This period saw Modern typefaces, based on the design of Didot and Bodoni, replace the Old Style types of Garamond and Caslon. Not only were these new types fashionable, they allowed the new presses to operate more quickly

because they required less ink per impression (De Vinne, 1914b). The early 19th century also witnessed the proliferation of printed advertising, a form whose types and designs bear little resemblance to the printed books of the past.

As with the 17th century, 19th century typography is seen as having improved once it reconciled with traditional practices. Charles Whittingham and the Pickering Press reintroduced Caslon's fonts in the middle of the century; Whittingham also connected himself to the tradition of the scholar-printer by adopting, as part of his printer's mark, the anchor and dolphin of the Aldine Press and the motto *Aldi Discip. Anglus* (Aldus's English Disciple) (McLean, 1963, p. 10). At the end of the century, the "revival" of fine printing was led by William Morris and Emery Walker's Kelmscott Press. While the Gothic style of the Kelmscott books had little lasting influence on book typography, their emphasis on quality materials and traditional practices was adopted in the early 20th century by Stanley Morison, Beatrice Warde, and other "New Traditionalists" who strove to reconcile these concerns with machine production (Peterson, 1991). And despite changes in printing technology in the last century, current books still strongly resemble those of the New Traditionalists.

With this assessment of 17th and 19th century typography in mind, I would like to return to my opening claim that most digital reading interfaces are sorely lacking according to book typography standards. In general, texts intended for continuous reading are judged according to their compliance with typographical traditions. Electronic texts seem to be non-traditional; thus, they are considered typographically inferior. This break with tradition goes deeper than just the difference between reading a printed page and the screen. As mentioned previously, many electronic reading interfaces and/or the tools used to create them do not support the basic practices of "good" typography, such as fine granularity in typeface choices or letter spacing. The ability to include streaming video has taken precedence over being able to fix an awkwardly spaced "i."

This break with traditional book practices can be partially explained by looking at the history of the primary influence on web design, graphic design, and its schism with book typography. Before the 19th century, the design of a printed book was generally carried out by the compositors working in accordance with the house rules of a press. But the spread of composing machines such as the Monotype and Linotype at the end of the 19th century meant that compositors no longer needed to be as skilled, and as a result it was deemed necessary to have an "expert" instruct them in how the book was to look (De Vinne, 1914a). As the trade of "typographer" developed in Britain and America, the early to mid-20th century saw a new discursive emphasis on tradition in book design, no doubt due in part to the fear of outsiders coming in and telling printers how to print (Tichenor, 2005).

At the same time, another design movement was taking place in continental Europe. First the *Deutsche Werkbund* and then the *Staatliches Bauhaus* comprised an attempt to combine craftsmanship, functionalism, and machine production (Pevsner, 2005). This goal was not that different from that of Anglo-American typographers, but instead of turning to traditional models, the Continental practitioners instead embraced modern art movements such as Constructivism and Futurism. And the end result was

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vastly different from the books of the New Traditionalists: sans serif typefaces, the elimination of capitalization, and asymmetrical layouts.

A battle was waged between the two schools of design in the pages of trade journals and books on printing, resulting in a split in responsibilities. The traditionalists successfully argued that conventional typography was more suitable for texts intended for continuous reading, while more attention-grabbing styles were appropriate for advertising, dust jackets, and other ephemeral forms. The former was deemed the domain of the book typographer, the latter that of the graphic designer.

The influence of graphic design over "ephemeral" digital typography is clearly evident in many aspects of electronic reading interfaces. Leaving aside the entire lack of proper type control on the Web, both the Amazon Kindle and Sony Reader use a screen modelled on a single page. But book typographers do not design pages; they design page spreads, as the reader of a book simultaneously sees both the left and right pages. The single page view is the purview of the graphic designer: posters, billboards, advertisements.

Size constraints are an obvious issue here, but the same size interface could be oriented horizontally to fit a page spread – albeit a shortened one. This would have several advantages. Its resemblance to the printed page would make it more familiar, and thus might help readers accustomed to printed works make the transition to the device. More importantly, as Aldus Manutius demonstrated in his first book (a teaching aid with Latin and Greek on facing pages) – or as anyone with dual monitors has discovered – the horizontal layout does seem to be an efficient means of displaying complementary information.

If history is to be our guide, electronic reading interfaces can, and will, be improved by paying attention to traditional typographical practices. Similarly to what occurred in the 18th and 20th centuries, the quality of e-books will improve once the people involved in making them gain an understanding of these traditions and reconcile the old ways with the new means of production. Or so say the traditionalists.

There is another reason for studying typographical history in regards to digital reading interfaces: namely, to understand the ideological underpinnings of traditional book design and determine the degree to which these have been unconsciously adopted by digital typography and how these may impact on some of the core principles of new media. As has been discussed, book typography has historically valued adherence to tradition. But, of course, history is written by the victors, and thus discussions of book history have largely been written by traditionalists.

The key argument for the importance of tradition in book design rests on the assumption that readers should not be aware of the reading interface and should be able to engage as directly as possible with the text/author. The most famous enunciation of this is Beatrice Warde's dictum that a well-designed book should be a crystal goblet "because everything about it is calculated to *reveal* rather than hide the beautiful thing which it was meant to *contain*" (Warde, 1956, p. 11). A key strategy in crafting "crystal goblets" is to make the book resemble other books so that it can more easily be ignored; as Stanley Morison writes, "a high sense of discipline in letter-designing and in book-designing are the paramount virtues unless, which God

forbid, the printer is to come between the reader and his chosen author. The printer must learn to satisfy his public first and himself last. He must avoid the exotic and the unfamiliar" (Morison & Day, 1963, p. 5).

There are several potentially troubling assumptions here. The first is that the purpose of reading is, as Machiavelli wrote, to enter "into the ancient courts of ancient men" (quoted in Grafton, 1999, p. 180). The model of reading proposed is a one-way communicative act where the reader is the receiver of the wisdom imparted by an authority, the author. Furthermore, at least in the vast majority of cases, authors do not directly and solely produce their texts, which results in my second concern: in attempting to craft "crystal goblets," typographers are obfuscating the role the producers of those texts – be they printers, editors, or publishers – play in shaping texts, and thus delimit potential readings of them.

From the earliest hyperbole surrounding hypertext, electronic texts have been heralded as a means of reducing, or eliminating, the divide between authors and readers. The rise of Web 2.0 has only increased this fervour for user participation, which is why it is troubling to see similar notions of tradition and transparency entering into the discourse of electronic interface design. As web design "guru" Jakob Nielsen proclaims, "there are two basic approaches to design: the artistic ideal of expressing yourself and the engineering ideal of solving a problem for a customer" (Nielsen, 2000, p. 11). Other than the substitution of "customer" for "reader," this statement is remarkably similar to Morison's warning that the printer "must learn to satisfy his public first and himself last" (Morison & Day, 1963, p. 5). And like Morison, Nielsen believes that adopting traditional practices and eschewing flash (and Adobe Flash Player) are the best means towards a satisfying user experience (Nielsen, 2000).

Perhaps even more troubling is the importance of "interface transparency" in digital environments. The goal here is to provide the user with as unobtrusive and seamless an experience as possible. What You See is What You Get (WYSIWYG) editors and Google searches are but two examples of designs that give the user the impression they are in control. But, as any programmer will tell you, generally the more "transparent" the interface, the more work is being done for the user and the more code is needed. Like the printer concerned with crafting "crystal goblets," the designer of transparent interfaces needs to hide their considerable influence on the text.

Book design still matters in the digital age, but not for some of the more obvious reasons. One should not study book history in order to attempt to create "electronic books." There are valuable lessons in information design which can be gleaned from traditional practices and applied to new forms. More importantly, the makers of new reading interfaces need to understand how they, their products, and their users continue to be influenced by book culture if they truly wish to create a new reading experience.

Note
1. For negative opinions of the Elzevirs see Morison, 1960, pp. 3 and 37 and Updike, 1962, Vol 1, p. 15 and 22.

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