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'A Footnote Kicks Him': How Books Make Readers Work

Who speaks for readers when decisions are made about the design of books? When readers report difficulties in navigating a book, this is both a symptom and an outcome of a design failure. Since there is enough simple evidence of design failures of this kind to suggest that their typical models of reading activity may be inadequate, designers and editors need to better understand the variety of ways in which people read printed and electronic texts. They can improve their understanding by listening to the kind of feedback from readers and authors which is cited here.

DESIGN FAILURES: FEEDBACK FROM READERS

The following extract from a book review (Penny, 1994) is about a reading difficulty which was caused by a design failure:

*The book makes connections between evidence drawn from a very wide range of modern research. For this reason alone it is of great value, but anyone who is curious to pursue Goldthwaite's sources will find the footnotes frustrating. We might want to know more about a mercenary commander mentioned on page 223 as being obsessed by architectural ambitions even while campaigning. The note refers to 'Puddu, "lettere ed armi," pp. 501-2.' Clearly the proper title must already have appeared. We find Puddu again in a note on page 202 but similarly abbreviated, and so have to continue backwards to page 193,¹ where his full name and the title of the article are given, together with the information that the article appeared in a volume called *Federico di Montefeltro*.² To discover the title, the*

1 In fact, to page 173.

2 Penny quotes the title as it incorrectly appears at that point in Goldthwaite's book (elsewhere *da*).

names of the editors and place and date of publication, however, we have to work back to a note on page 163. It may seem trifling to mention this in a work of such outstanding erudition, but Goldthwaite makes very big claims which need to be carefully checked.

This must have rattled the editors in Baltimore. The book, according to its reviewer, is a valuable one. But, one of its systems failed. What went wrong?

The failure described by Nicholas Penny is about a deficient system of access, one that is not well-designed for use. He explains in the closing sentence why this is not a trivial matter. An equally non-trivial question is why such failures occur at all. When designing fails it may be because of compromises that had to be reached in manufacture. That seems not to be the case here: The book is in many respects handsome and well-made. Or, it may be because designers are out of touch with users. One reason for this particular failure must be that it is unusual for editors, and even more so, typographers, to get feedback from readers. Reviewers often report on 'content' as if it passed unproblematically from authors' brains to readers' brains. Their observations about design, the material articulation of content, are uncommon in any event, and are the ones most likely to be cut if space has to be saved.³ And peer review, of the emollient kind offered by prizes for book design and production, rarely represents the experience or interests of readers. The pages of this journal may be one of the few places where such questions can be aired in public.

About designing, one could say, as Stanley Morison is reported to have done, that typographic designing is a branch of editing (Dreyfus, 1947: 15). And, equally one could endorse Walter Nash's view of writing and editing as kinds of designing (Nash, 1980). So, in using the words 'designing' and 'designer,' I here disregard conventional divisions of labour, taking them to stand for the work that has to be done to transform a text into a book, and for the roles – authorial, editorial, typographic – taken by the people who do that work. The design domain, to be sure, is design for reading.

The extract above provides a good example of what information designers informally call a 'user trip': where people record their experience of using a product, in this case to carry out a reading task. There is more to be said about the mental work which Nicholas Penny had to do as he backtracked through the notes. But, for the moment, consider what his account suggests about the

3 Penny did not mention – perhaps it was cut – that the book has no separate list of references. The extract above is about 180 words in a review of around 2,100, but mention of design is unusual in the *London Review of Books*. In the 1970s, reviewers in the *Times Literary Supplement* used occasionally to comment on aspects of design; complaints about notes being at the end of a book rather than at the foot of pages were common.

difference between designers' implied models of readers and reading, and what readers really do.

Readers are active. 'Active' refers to a range of attitudes towards a text, from the relatively casual – 'the reader who is curious' – to the stronger engagement invoked by Penny: 'very big claims which need to be carefully checked.' These attitudes may shift during a reading episode. Between browsing and studying, let alone the kind of scrutiny which precedes publicly reviewing, there are many kinds of reading act. But, it seems that the book's designers have assumed that its readers will process the text in linear fashion, from start to finish. And indeed the design of the referencing system forces readers to do just that. Robert Waller (1987: 165) has made a similar point:

The assumption that readers are input devices for streams of transmitted data is enshrined in certain editorial practices. For example, the use of 'op. cit.' in footnoting assumes that the reader can remember the work referred to even when it was first mentioned many pages previously.

For readers of this journal the 'design implications' of the problem described here may be too obvious to need pointing out; for instance, that this particular implementation of the short-title system is too compressed and over-abbreviated. But I don't wish to speculate about the usability of different referencing systems. There is, in any case, a modest literature on the topic, and I am here more interested in who speaks for readers when design decisions are made. Now I have to speculate: The book's typographers may protest that the reader's navigation problem was not due to their decisions. They may say that the problem arises from decisions about verbal formulation, not visible presentation. And the book's copy editors may in turn say that they followed the author's own patiently constructed reference system, perhaps with the sponsoring editor's approval. After everyone has had a say, the question remains: Who speaks for readers?

ANOTHER USER TRIP

I warned of more about the mental work which readers may have to do. Here is a brief account of my own user trip. The book is John Dreyfus's collection of twenty-two articles gathered together as *Into Print* (1994). Footnotes are of some interest to the author; for example, he complains (p. 309) of a book that 'unfortunately individual sources are not given in the form of footnotes for his statements.' But, in his own foreword (p. viii) he says: 'I have tried to keep foot-and-note disease under control by opting for end-note references where these had originally been contracted.'

The direction of my trip was probably not envisaged by the author and editors. I was skimming the end-notes – there is no separate list of references

– to get a feel for the book and to see who the author had leaned on, and wanted to travel back from the notes to the text.⁴ For example, on page 327 note 10 refers to Alexander Solzhenitsyn's novel *August 1914*. I was curious to know why and in what context this was cited, and decided to follow it up. This is what following it up entailed:

- 1 First, use memory: remember 'note 10.' But, there are other notes also numbered 10 elsewhere in the book. So, to narrow down the area of my search I had to
- 2 Find the article's title; it appears on the preceding page. With this information, I can either: skim through the headlines (which give the article titles) to find the bunch of pages in which the article appears, and then scan for any note number to establish a position from which I could then move either backwards or forwards, or: go to the contents list, to find the start of the article, and so search from the beginning of the article. I decide to do this, so:
- 3 Go to the contents list
- 4 Search for the article title, and discover that the article starts on page 1.
- 5 Go to page 1, and
- 6 Search for note reference numbers. My scanning gait takes me backwards, forwards, and diagonally (the note reference numbers are small, and don't jump out).
- 7 I first find reference 4 on page 4, and so move on; reference 5 is on page 6, reference 8 on page 9, and then reference 12 on page 11. I've gone too far, so
- 8 I backtrack, and find my target – note reference 10 – on page 10, at the end of a quotation from *August 1914*. My search is complete.

This process is tedious to describe, and my description of it is doubtless tedious to read. I can testify that it was more tedious to enact. My description of the search task is loose and misses much that a psychologist of reading behaviour would want to pick up. For example, the psychologist Patricia Wright and colleagues (Wright and others, 1994) report a study designed to measure the cognitive costs – thinking harder, attending more carefully, remembering more or for longer periods – paid by readers of electronic documents. They observe (p. 45) that, 'even small changes in memory load are important because they change the way people work with information.' But the looseness of my description may not matter here, since the point is simply that the work which the curious reader has to do could have been reduced if the

4 This is commonly done, I suspect, if not commonly reported. In a book review, Twyman (1994: 253) describes his 'preliminary flip through its pages, working as one does from the back of the book to the front.'

book's designers had adopted well-known editorial and typographic conventions for helping readers to move between notes and text.⁵

Readers could, of course, choose not to do this work: because it would divert them from other tasks, or because they guess that the payoff would be too small relative to the effort of memory, attending, and searching. As a reader I make guesses about costs and benefits. If I choose to do that extra work, I do it not – in Don Bouwhuis's teasing phrase – 'for the fun of the saccades,' but because my reading is driven by a goal: which, in this case, was satisfying curiosity (Bouwhuis, 1988: 352).

DESIGN COMPROMISES: FEEDBACK FROM AUTHORS

Many book publishers will say that they know what readers want. After all, they collectively have centuries of practical experience, and countless examples, to fall back upon. But, consider again the variety of purposes and actions which fall under the description 'reading.' Consider books as 'tools to think with,' and think of them, in current jargon, as the first standardized and mass-produced interface for mental work. In the light of these considerations, what follows is an example of disagreement between a designer and a client about the design of such an interface.

The disagreement echoes arguments which have occurred within human-computer interaction about the sometimes conflicting claims of 'look and feel' and 'usability' in interface design (Stiff, 1995). In this case, the designer wants a particular layout for the 'interface' (it is in fact a book), but the client has an equally strong case against it. Neither has convincing data to support their position; and the resulting compromise is heavily weighted in favour of the client's view. This may sound like everyday designing. But, the twist here is that the 'designer' is, in fact, an author writing about the usability of designed products, and the client is the publisher of his book. They argue about where the notes should go; and what we know about the argument and its outcome comes from the author, Don Norman, who took the unusual step of writing an explanation.⁶ He says (Norman, 1992: xiii–xiv):

5 Notes are numbered in a sequence within each article, and in the 'Notes' section at the end of the book they are grouped under article titles. But, no page spans for notes are given in headlines. Judith Butcher (1975: 147) summarizes what needs to be done: 'If there are endnotes, *either* the chapter number must appear in the text headlines, in which case the headline to the notes will be "Notes to chapter 6," *or* the relevant page numbers of the text must appear in the headline to the notes "Notes to pp. 86–9"; the second alternative is probably more helpful to the reader.'

6 The same explanation also appears on pp. 1–2 of Norman's *Things that make us smart* (Reading, MA: Addison-Wesley 1993).

Nothing seems to create more controversy about the design of a book than the placement of notes for each chapter. Academic readers are used to seeing notes at the bottom of relevant pages as footnotes. Trade publishers do not approve. They feel that notes distract, breaking the flow of reading. They prefer to hide the notes at the end of the book out of sight, but still available for the serious reader.

Norman's case for footnotes is that notes at the back of the book are hard to use:

Many of my readers have complained vociferously. The notes are hard to find, they say, and it is particularly disruptive to keep two place markers, one for text, one for notes.

But, neither he nor his publisher, Addison-Wesley, knows what 'proportion of readers might fall into each category' – those who want footnotes and those who don't – and each believes 'that the other constitutes a tiny minority.'

The compromise which they reached was that all notes went to the back and substantive ones were marked in the text by asterisks. Norman supports this with the observation that it 'makes it easy to go from the notes back to the text, a feature many readers requested.' But, like many designers in a similar position, he doesn't know but can only hope that this is so. What he does know better than many designers is that:

Designers often think of themselves as typical users. After all, they are people too, and are often users of their own designs. [But] there is no substitute for interaction with and study of the actual users of a proposed design. (Norman, 1988: 155)

Whatever one thinks about the compromise, – I happen to think that it's a reasonable one – what's interesting here are the arguments which Norman and his publisher used to support their different views of users. Norman cites informal feedback from readers. The publisher draws upon experience and intuitive professional knowledge, but does not declare (at least in this published account) what kind of readers it most wants to attract. It's easy enough to infer that they are not the 'academic' kind, and then to fill in the subtext.

It is nice to think of trade publishers arguing against footnotes on grounds of usability ('they disrupt reading'). But 'look and feel' is far more important. The message given to 'non-academics' by footnotes is: 'Not for you.' And, footnote readers are a tiny fraction of the book-reading population. So, the design decision was based on marketing priorities: Trade publishers think first of the choices that people make before they are readers – that is, when they are potential buyers. Their rule is: At all costs avoid a look and feel that scares people off – so no footnotes. What people can't see won't hurt them.

This is a good utilitarian argument, and one reason for spelling it out is that Don Norman wanted data – about the proportions of readers wanting different

layouts – to clinch a utilitarian case. One of his aims in writing the book was surely to popularize his view of designing for people's needs: popularity matters. If buyers are not put off, the book may sell more and so get its message to more people. Even if those people find that they are unable to use the book in some ways, this is better than making it usable for fewer people.

THE COSTS OF READING

It may appear that arguments of this kind have been subverted by electronic documents, which by-pass the linearity which is commonly held to characterize printed texts. Links which enable readers to jump easily from one part of a text to other, hidden, parts are constitutive of hypermedia documents. Using these links to see what they reveal is optional. And, unlike the 'apparatus' of scholarly books, the links and their mechanisms are free of any cultural burden: Using them does not signify 'academic' or any other social category. But of course readers can choose—in printed as much as in electronic documents. When presented with a graphic cue, such as a superscript numeral or reference mark, they may interpret it to mean: 'Go somewhere else to find something which may be of interest.' They are then free to follow or ignore this invitation. When Donald Norman observes (1992: xiii) that readers who are diverted by a footnote reference 'usually ... find that it does not contain essential information,' who says what is either usual or essential?

Text designers probably assume, correctly often enough, that readers who use links in printed books do so in a purely instrumental fashion: To get more information – detail, evidence, source, or illustration – about the topic which is the subject of the author's argument at that particular point in the text. It follows that if readers are invited to interrupt their current reading, to pause, to engage in another reading act, and to return to their place to resume the interrupted reading, then designers must help them to do this easily, without unacceptable cost. The problem may be that designers don't know enough about the work that people do as they shift between different kinds of reading behaviour, or about the cognitive costs of this work.

Not just designers: Patricia Wright (1988: 330) has observed that 'we know very little about what motivates readers to do various kinds of cross checking while reading.' She points to Whalley and Flemming's (1975) finding that readers are reluctant to follow an author's instruction to interrupt their reading of a text and inspect a figure located on the same page. She conjectures that this reluctance may arise from place-keeping problems (knowing where in the text to resume reading after finishing the detour) 'because compliance increased when the figure was inserted immediately after the author's instruction, so enabling readers to examine the figure and then continue with the text immediately below a diagram.'

Many writers and readers experience the costs of active reading. They may

also know that book publishers no longer give 'technical reasons' for using endnotes rather than footnotes, because current typesetting technology makes footnotes easy. In his book, *Designing Usable Electronic Text* (1994: 9), Andrew Dillon encourages 'interested readers' to read his 'footnotes,' even though they appear in clumps at the end of each chapter. His calling them footnotes was unlikely to have been a slip, since, in his first note, he takes a sideswipe at his publisher: 'The fact that you are reading this one has probably demonstrated to you that they are not the most usable literary device, particularly where publishers make authors place them off the page of occurrence.'

If the predictable ways in which readers want to use books are not always well supported by designers, then ways unpredicted by designers – going from the back to the front, say, or from notes to text – are rarely made easy. But, a moment's thought shows that these unpredicted uses are common enough: When faced with an unfamiliar book – and especially if I know little about its subject or author – I use all the information I can get at cheaply before investing in time for extended reading. I look for all the features which help me to give the book a context: a place and time of writing and publication, the author's affiliations and affinities, the texts cited, the book's flavour and feel, the currency of the text, and its multiple connections to other texts. I quickly trawl through the notes for clues. (I don't need to invoke post-structuralist theory to say that these actions, and those of innumerable other readers, offer visible and material evidence for ordinary 'intertextuality'.)

Printed books are an over-privileged category of mass-produced product. Unlike other designed objects, they rarely get close scrutiny from consumer organizations and user advocates. And, they look simple: all their features are visible, with everything on the surface, and no hidden functions. So the test of 'usability' has passed them by (imagine publishers providing an after-sales customer-service desk). When users are anticipated, marketing decisions have priority. As readers, users have little say; they get what manufacturers have decided they want. It should not be hard to find a compromise between sales and ease of use, and to design books in ways that take better account of user needs. Unlike the field of electronic documents – where a design-relevant description of the reading process is still needed – there is no lack of practical craft knowledge, nor even any need to wait for new evidence from applied psychology. Designers just need to think less about designing books and more about designing for reading. They can get help in this by listening to what readers tell them. The sad thought is that, as electronic media steadily encroach on the territory of the book, it may be too late to make much difference. Books and their makers are just too old to change their ways.

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My title is from Elias Canetti's 1935 novel *Die Blendung*, published in English as *Auto da fe* (1946, London, Jonathan Cape). But I owe it to Robin Kinross, since it came to me in 1985 through his little unpublished compilation – 'The word processor's first New Year message' – of propositions and aphorisms about footnotes.

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