‘Reports of my death have been greatly exaggerated’: Scholarly editing in the digital age

Some scholars still doubt that the electronic text has much of a role in humanities, and particularly literary scholarship, when it is compared to the printed book. They fear that that the use of computers blows away all else in its path, leaving nothing standing that we might recognise. Others are enthusiastic about the possibility of the new medium to hold unprecedented amounts of information, and are willing to admire the hard work and scholarship of those who create such textual resources, but they are worried about the ways in which their work, and scholarly methods may be affected by this. Those of us who work in this new medium of electric editing rather anxiously release the products of our effort into the scholarly world, unsure about how well it will be regarded, and indeed how long it may last. What we can all agree on is that the electronic text should at least lead to some literary defamiliarisation, which in turn should make us to wonder about the future of our discipline. What will happen to the text in the future? What control does the author have over the reception of the text? Where does it fit into the scholarly community? Will it be preserved for posterity? How much information can the current technological medium cope with? Most profoundly it causes us to question whether the discipline will continue to exist, and whether there is any future for the textual editor in an age of electronic text.

If we are to consider the future of the editor we must first think about how we use the product of such editing, that is the text itself. What do we perceive to be a text, and what do we perceive to be the activity of reading it? We know what we mean when we see lines of type in a book, but the use of computers to deliver and analyse it must make us reconsider our assumptions about literary text. As Sutherland argues, it is important that we apply the same sort of critical judgement to the field of electronic textuality that we already all apply to the print medium. Good scholarly practices should not stop simply because we are presented with material in electronic form.[1] When the web and other electronic media are increasingly making information gathering the work of a few seconds, this must, surely cause critics to reconsider the activity of ‘reading’ a text. We need to ask what are we doing when we read. Are we, to put it in more computational terms, performing information retrieval (ie there are x numbers of use of the word in such a text) or text analysis, when we examine the significance of the data. (ie having found out how many times a word occurs, in Shakespeare is it different from that of any of his contemporaries, and if so, does it matter to me?) Does this mean that traditional methods of literary analysis are in some way essentially different from reading as a way of gathering information? If so how? The process of reading by hand has always meant the conflation of these activities.

It may seem banal to say that when we read we are looking for more than information, but this is a fact that electronic delivery makes us reconsider. A scholarly monograph is judged on its argument not just the number of facts in it, a literary text is judged by the artistry of the writer, not purely by its informational content.[2] If the electronic text delivery causes us to question and perhaps weaken the link between information retrieval and the process of appreciation of a text through reading, this may in fact be a goal to be welcomed. When scholarly time is so precious, it is surely a better use of it to ‘read’ a text as opposed to using it as a means of acquiring information. It may also focus critical, linguistic and even psychological study on the relatively neglected question of what actually happens when we read.

Burrows suggests that literary critics are engaged in a study of patterns, because this is what literary meaning resides in, but even his analysis bears witness to the complexity of this

study. “Although they are usually … firmly grounded in the realities of a text or set of texts, our patterns like those of our colleagues the scientists, ore not original objects in the fullness of their own beings but selections, abstractions interpretations and misinterpretations.”[3] He suggests, therefor that by allowing a computer to help in the identification of such patterns in al electronic text, the critic can be freed to analyse the results. Corpus linguists have f long performed this kind of study of patterns in language. However, even before the widespread use of computers, linguists had always used language as ‘data’ and it may matter relatively little whom the author of the one of the text in the 100 million word BNC is. Literary scholars have been slower to use text in this way. Of course, they have needed to amass evidence about literary features, but that has always come from ‘reading’ a text at the same time, and there is still some sense in which they are reluctant to give up this dual focus.

But how does this relate to textual editing? As a result of electronic delivery we are forced to think of text as ‘data’ as well as lines in a codex. This in turn has lead to a realisation that if we treat text as data, then the data must be reliable. When the first fulltext databases like English Poetry were produced, the texts were indeed treated very much like data. Out of copyright editions were chosen, rather than the best ones. The early non-commercial, enthusiasts who produced electronic text on the web were often careless about the quality of the text they produced. Not only was it impossible to tell what edition the text was, it also might not be proof-read, or even complete. This has made users justifiably wary of the editions of the etexts they use, and consequently has lead to an increased interest in choice of editions in electronic text. This in seems gradually to be affecting the more ‘traditional’ study of printed texts and revived interest questions of text and textual editing.

Some critics remain anxious, however that electronic, hypertext or hypermedia editions will put an end to textual editing as we know it[4] However, it is more likely that the role of the editor is still vital, but that it will change as editors take on new responsibilities when dealing with electronic editions. As the Canterbury Tales project has shown Electronic delivery presents new opportunities for an editor who wishes to solve an old problem, that of how to present variant readings of a text,.[5] Editors of printed texts have to choose which one of the texts they feel is the ‘best’, print that, and present variants from it. This is often unsatisfactory since variation is usually presented in the apparatus critics, and it is often impossible for the reader to make comparison with the actual sources. An electronic edition allows the all the witnesses or variant be displayed and linked together. The editor may choose to present a copy text, or may present the texts for the reader to compare. They may allow the reader to construct their own hybrid edition, which they might change the next time they use it.

There is resistance to this sort of practice amongst more traditional scholars, which stems from a fear of their own redundancy.[6] If readers can make their own decisions about a text, then is there a role for the editor? The answer is yes, but that the role must change because of the electronic medium of delivery. Some critics argue that the authority of the editor will disappear as the reader wanders around the hypertext blithely stringing together their own edition as they go along, picking up the textual variant that happens to appeal to them at the time. The next time they do it, so this argument runs, they might choose an entirely different variant and so the edition is in constant flux in as far as the user’s reception of it is concerned.[7] This textual nomadism is seen an instantiation both the of the Derridean idea of the play of signifiers and Barthes’ idea of the text which is endlessly ‘scriptible’.[8]

This kind of response is caused again by the knee-jerk reaction of detaching things electronic from any reference to past or current academic practice. There has long been a very deeply

felt anxiety in what might broadly be called the academic milieu about the loss of intellectual authority over text, for example the doubts about whether uneducated people should read the bible in the vernacular. In a similar way, it seems we are anxious about letting the reader wander unguided through a hypertext or electronic edition. In practice this anxiety is not well founded. The reader may at first be charmed by the idea of creating her own edition on the fly. However she may tire of this and indeed lack the time or the inclination to do this.

We still need an editor to suggest ways in which the text may be read. She may establish a copy text and suggest the most likely reading, even if all other textual variants are present for the user to compare. It is also extremely naïve to suggest that a complex text suddenly becomes open and easy to interpret once in electronic form. Readers are still likely to need guidance by an expert on the author or the text if they are to make the most productive use of it, especially if it intended to become a tool for teaching and learning. To return to the analogy of the anxiety caused by the vernacular bible, we now know that the fact of being able to read the bible did not mean that suddenly everyone found it easy to interpret. Hence the importance of preaching in the Protestant church, which stressed the centrality of the text, but also the need for an expert interpreter to mediate its use.

It is also true that in some senses reading a hypertext may not be as disorientating as some of its opponents may fear. As Ted Nelson himself has pointed out, there are very few books that we actually read in a straightforwardly linear fashion.[9] When reading any kind of factual text, as opposed, for example to a novel, we are very likely to move around from one part to another, ignore some chapters, read some parts in more depth than others, move associatively from a footnote to another text entirely, and above all use navigational devices like indices and contents pages to help us make choices about what to read. When we read a text we very seldom read in a vacuum, we are making associations whether conscious or unconscious to our own private hypertext of knowledge, which comes from other texts. Thus the editor of a hypertext edition is in a sense stressing the connection to the scholarly past just as much as it is pointing towards an electronic future.[10]

The electronic future does however mean that editors and creators of hypertext archives or editions also have to take on new responsibilities because of the means of delivery. One of these concerns the construction of the hypertext itself. The creator of a hypertext may choose to direct the use of it by the links that they choose to add. It is not true that hypertext must be associative, since a suggested path may be mapped out with one page linking to another sequentially if the creator wishes to.[11] Some commentators on hypertext have gone suggested that the use of hypertext links is an over assertion of editorial authority. If a link is not added they argue, then it will be assumed that there is nothing of relevance that the reader should be aware of in connection to this particular piece of text. Once more this seems a misguided result of forgetting the scholarly method which we all use. We would not assume that if a footnote is not added in a monograph the author is denying any possibility that there may be any relevant information that might be pertinent.

Another new responsibility for the editor of an electronic edition is that of the encoding and marking up of the text since. Markup is an act of interpretation of the text, and may affect the way that current and future generations of scholars can search the text. It forces the editor to make decisions which are just as vital to the future of the text as those which have long been made in the compilation of print editions. For example I am working with Dr Elizabeth Clarke on the construction of the *Perdita* project, a database of information about Women's C17 manuscripts using the TEI guidelines.[12] She would like to enable users to search for the

political affiliation of writers described. The computer of course does not realise that the words ‘covenant’, ‘dissenter’, ‘Roundhead’ all refer to the parliamentary faction. Thus, it might be helpful to users if instead of tagging them simply as names they were tagged in a way that would enable a search on ‘Roundhead’ to return the other terms. It would certainly be helpful to the research of the person in charge of creating the database, but we are nervous of doing this, in case we are over interpreting the text and perhaps hindering the work of some as yet unknown future user. We have to be aware that the current design decisions we make will affect the future use and indeed usability of electronic text.

The preservation of the electronic text for future use is also a huge new responsibility that electronic editors must bear. The problem of how to make sure that electronic text is preserved and can still be used in 100 year’s time will, in the words of Mike Crump, director of reader services at the British Library, make the crisis caused by deterioration of acid paper seem small in comparison.[13] The use of cross platform mark-up schemes like SGML, for example, helps ensure that electronic resources do not become useless five years after their creation, when the software package, or the hardware to use it on had become obsolete. It is also vital that editors should use methods such as TEI headers or other forms of metadata to document the choices they made in creating the resource for the benefit of present and future users. This may not ensure the text’s continued survival, but it is at least a way of providing as much information about it as possible. Technology in the electronic field changes so quickly that we must make clear our methods now, so that future users will also be able to interpret the ‘language’ in which we wrote. Again, the electronic ‘revolution’ is dependent on good scholarly principles. It is perhaps just as incumbent upon electronic resource editors to document the decisions that they took in compiling and producing their edition, both in terms of the text itself and its markup, as it is upon the producer of a print edition to justify her choice of witnesses.

SGML markup which is independent of the text could be removed or ignored, should a future user chose to do so. The facility to change an electronic edition is not only a function of its encoding, but of the delivery mechanisms available. Web delivery must also change the role of the editor of an electronic edition. One of the main tasks of an editor of a printed edition is to establish the ‘finished’ or final text. Even when publishing on CD-ROM it is necessary to decide at what point the work should finish. However, delivery of an electronic text over the web allows constant updating and revision of a work in the way that the print medium or indeed the CD-ROM did not. This makes it possible to incorporate new information without the necessity and indeed expense of producing a new edition or release. This is not only convenient in practice but introduces the intriguing possibility that an electronic edition need never be finished or final, which challenges a number of assumptions that textual scholars have traditionally held. One of the main tasks of an editor of a printed edition is to try to discover which is the ‘finished’ or final text. However, when using electronic methods of delivering editions it may be that the edition is never to be finished or final. Thus if the editor wishes there is no need for closure of the text.

So far we have assumed that an electronic edition will contain only the digitised version of printed material. However, the editor of an electronic resource must make important decisions about the integration of multimedia elements that have not until recently been perceived as ‘textual’ at all, such as images, films clips and sounds recordings. As Donaldson points out, to the computer text, images sound or movies is essentially the same[14]. It is all digital information, even if file formats vary. Yet human editors must decide how best to integrate these elements with the more traditional text. Responsible creators of electronic

media are already pointing out that it is tempting to include non-textual elements in an electronic edition just because it is possible. Is an edition really improved by the inclusion of every single image of the original manuscript, or pictures of the author and where he or she lived?[15]

Multimedia may be condemned as frippery, 'bells and whistles' since we can still appreciate Yeats' poem 'Lapis Lazuli' without seeing a photograph of a sculpture in the stone or hearing a reading of the poem.[16] Critics such as Bolter[17] see the possibility of the integrated multimedia text as disturbing since the image is in danger of taking over electronic text and rendering us illiterate. He argues that due to the importance web and the number of images it uses the image may become more important than the word. This, he feels, will rob the 'reader' of the ability to perceive subtlety and ambiguity in a text and to search for the 'universal sign' of the image. Quite apart from being an enormous underestimate of the power of the image as signifier, this seems an enormous exaggeration of a possible problem. Bolter complains that 'nobody' now creates web pages that contain text alone, and seems to take this as a symbol of the death knell of text in electronic form. He makes the assumption all texts are similar, and so is the activity of reading them. This is surely a fallacy once more caused by the artificial divorce of the study of electronic resources from the rest of scholarship.

An editor may, however, argue that the integration of multimedia into text is highly appropriate. Where the original author has used multimedia elements in their original text, or has been involved in a wider artistic enterprise, as in the case of, for example William Morris, Dante Gabriel Rosetti and the pre-Raphaelite brotherhood, a multimedia edition is often the most appropriate way to present their work. An electronic edition of such a writer can re-establish the writer's text in the context of other media that we know he was interested in, though the use of images, music or other sounds recordings and commentary on them.[18] This may been seen as analogous to the way in which technological progress in print technology allowed authors to integrate what we might now call multimedia into their text. Writers such as Francis Quarles were able to use printed images to produce emblem book in the seventeenth century and no critic would suggest that they could be considered as text alone, or should not be considered literary works[19]

The ability to use hypermedia to present much more than simple text must encourage scholars towards an interdisciplinary perspective. Multimedia editions also mean that it is harder to describe a resource as primarily 'literary' and may be of interest to more then purely literary scholars. The Rossetti archive will be of interest to art-historians, historians of the Victorian period and those interested in architecture, textile and furniture design as well as literary works. [20] The current idea of studying a text in relation to its cultural of political 'background' need no longer apply. We need to be able to think of text, visual images, sound and movies as part of a wider 'text' addition to textual material and this in effect must increase our appreciation of the literary text as part of wider entity. Electronic hypermedia delivery allows us to suppress the distinction between foreground and background. The user is allowed to decide which of the materials interest them the most. In this context the editor must take on the new role of organiser or 'facilitator' of a multi disciplinary exercise. She will not only direct the organisation of materials and of the links between them, but will have to take on the role of organiser of an academic production team which may comprise specialists in several different disciplines, technical specialists, researchers and perhaps research or undergraduate students working on the project. This is no small responsibility especially as some of the collaborators may be in different universities or counties.

If an edition is produced over the web, it may be possible for a collaboration to continue post publication. The author of a printed book is largely resigned to the idea that they have no contact with the reader, except in as far as a previous culture of orality is recalled by research seminars or lectures. The web makes a return to the connectedness of author and reader more likely. The common practice of adding email addresses or even discussion fora to the site of an electronic edition means that the editors invite the readers to communicate with them, and indeed with each other. Scholars can comment on the choices made, and material included or excluded. They might even be encouraged to make corrections or send further material. This means that the production of the text becomes much less monographic experience. Editorial authority is not lost, however, as it seems highly likely that even if such projects are more open to co-operation, editor in chief, or at least a small team of them, must be responsible for the final decision about the shape of the project.

Thus the editor can find out about the response to their text in a more immediate way than an anxious search for citations in future learned journals. This may seem to bring a new openness to the process of textual scholarship. However we may see this practice as analogous to the early stages of print technology and coterie publishing. Despite the vast size of the web the number of people using a given scholarly resource tends still to be relatively small, and this the process which takes place is very similar to the way that early modern writers like Shakespeare and Donne circulated their texts in manuscript among a small number of their friends for comment, either before, are instead of wider print publication.[21]

Despite the methods of their early modern predecessors, the practice of collaboration is not one that humanists in general and literary scholars in particular are used to, and may indeed not welcome, especially if more solitary methods have served them perfectly well in the past[22] Yet in a sense they are being propelled towards it by electronic delivery. Collaboration among scholars has many obvious advantages, however it may also be a daunting prospect for an editor used to the print medium. If electronic editions give access to the data on which decisions are based this also means that other scholars have access to the same data and are thus able to question the decisions taken. Linguists using corpora have become used to this method of working, where their colleagues not only have access to their conclusions, but the data on which they was based, however it is a new experience for literary scholars. Other critics can of course see the 'final' print edition, but are very unlikely to have had access to manuscripts which may be if different archives across the world.

This all means that humanities scholars, and textual editors in particular must be prepared to collaborate with other scholars rather than working in isolation, and will need to be convinced that this has advantages as well as pitfalls. Funding structures may from part of this process. Humanities scholars at Kings College London have had their work on electronic resources recognised in the last RAE and John Laver from JISC has already indicated that the Arts and Humanities Research Board would encourage teams of scholars to work on projects together.[23] Quite apart from the intellectual benefits of being able to discuss and share the work with other experts in the field, he sees this as a way of crossing disciplinary boundaries in the arts, and perhaps saving from decline 'small' subjects, which can be marginalised by larger more popular subjects. It is also vital that we collaborate on electronic projects since unless expertise is shared, there is also a real danger of 'reinvention of the wheel'. Those who create and use electronic text have repeatedly stressed the need for communication between text creators and the publication of case studies, so that we can learn by others' experience.[24]

When time and funding is short it is imperative that they are not wasted by repeating avoidable mistakes.

I have not the space here to touch upon other areas which might be seen as further responsibilities of those who edit and produce electronic text resources. Once a text has been produced how might it be maintained, who will archive it or preserve it? How will the resource be evaluated? Should there be an independent peer review process, or is the quality filter of commercial publishers needed? All these are questions that an editor may have to consider, but are beyond the scope of this paper, since they are not, primarily concerned with the production process which is an editor's main task.

However, even without considering these issues it is apparent that the editorial role is far from being endangered by the advent of electronic text and hypermedia editions. Not only must an editor still concern herself with questions of how variants are to be presented, how complex texts may be explicated, and how far readers should be allowed to compile their own editions, or be directed in readings, she must also take on new responsibilities of constructing hypertext, deciding whether and how to integrate multimedia elements. She must decide how the text should be encoded and take decisions, knowing that they will affect the future reception and preservation of the edition. She must be able to facilitate and organise collaboration between those who produce the text and its user community. In other words she is very likely either to be a remarkable polymath, adept in the traditional skills of textual criticism and transcription as well as the new technologies involved with electronic publication, or, more likely she will be more than one person. 'The editor' is unlikely to become extinct, rather she may have to metamorphose into several editors working together on a collaborative project if we are fully to develop the potential that the electronic medium offers textual scholars.

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[1] Katherine Sutherland, 'Looking and Knowing: Textual Encounters of a Postponed Kind' in Warren Chernaik, Marilyn Deegan and Andrew Gibson, (eds.*) Beyond the Book: Theory , Culture and the Politics of Cyberspace*. (Oxford, Office of Humanities Communication 7, 1996) pp. 11-22.

[2] David Miall, 'Representing and Interpreting literature by computer' <http://www.ualberta.ca/~dmiall/complit.htm> *Yearbook of English Studies* 25 (1995), 199-212.

[3] John F. Burrows, 'Computers and the Study of Literature', in Chrispher S. Butler (ed.) *Computers and Written Texts*, (Oxford, Basil Blackwell, 1992) pp. 167-204, p. 169

[4] See, for example, Charles L. Ross, 'The Electronic Text and the Death of the Critical Edition' in Richard J Finneran, *The Literary Text in the Digital Age,* (Ann Arbor, University of Michigan Press, 1996), pp. 224-249.

[5] *The Canterbury Tales Project*, Norman Blake and Peter Robinson, (eds.) Sheffield University, Oxford University, De Montfort University, Brigham Young University, Virginia Tech, June 30, 1998 <http://www.shef.ac.uk/uni/projects/ctp/index.html>

[6] See a discussion of the insistence on editorial authority in Peter Holland, 'Authorship and Collaboration: The Problem of Editing Shakespeare', in *The Politics of the Electronic Text*, Warren Chernaik, Caroline Davis and Marilyn Deegan (eds.) (Oxford, Office of Humanities Communication 3, 1993), pp. 17-24.

[7] Stephen Jay Bolter, 'Literature in the Electronic Writing Space' in Myron C Tuman, (ed.), *Literacy Online: The Promise (and Peril) of Reading and Writing with Computers* (Pittsburg and London: University of Pittsburg Press, 1992), pp. 19-42.
[8] Roland Barthes, *S/Z,* trans. R. Miller (London: Jonathan Cape, 1975), p. 5.
[9] Theodor Holm Nelson, 'Opening Hypertext: A Memoir' in Tuman pp. 43-58, p. 46.
[10] See Landows' discussion of hypertext as 'electronic institutional memory' in George P. Landow 'Hypertext, Metatext and the Electronic Canon' in Tuman pp. 67-94.
[11] Phillip E. Doss 'Traditional Theory and Innovative Practice: The Electronic Editor as Poststructuralist Reader' in Geoffrey Nunberg (ed.) *The Future of the Book,* (Berkeley, University of California Press, 1996) pp. 213-224 (p. 219)
[12] *The Perdita project*, Elizabeth Clarke, Victoria Burke (eds.) 6 January 1997, Nottingham Trent University , http://human.ntu.ac.uk/foh/ems/perdita.htm 3 July 1998.
[13] Mike Crump, speaking against the motion 'This house believes that there is no future for Libraries outside the Electronic Medium', *Beyond the Hype*, Oxford University 23 April 1998.
[14] Peter S. Donaldson, 'Digital Archive as Expanded Text: Shakespeare and Electronic Textuality' in Katherine Sutherland (Ed) *Electronic Text: Investigations in Method and Theory,* (Oxford, Clarendon Press, 1997), pp 173-198
[15] See for example Julia Flanders, 'The Body Encoded: Questions of Gender and the Electronic Text', Sutherland, 1997, pp. 127-144 and Peter M.W. Robinson, 'New Directions in Critical Editing' Sutherland, 1997, pp. 145-172.
[16] See William O'Donnell and Emily A. Thrush 'Designing a hypertext Edition of a Modern Poem' in Finneran, pp. 193-212.
[17] David Jay Bolter, 'Ekphrasis, virtual reality and the future of writing,' in Nunberg, pp. 253-72.
[18] See Jerome McGann's discussion of his Rossetti Archive in, 'The Rationale of Hypertext', Sutherland, 1997, pp 19-46.
[19] It is not surprising that there are already electronic versions of emblem books, see for example *The Glasgow University Emblem Website*, Alison Adams and David Graham (eds.) 5 September 1997, University of Glasgow, 3 July 1998, http://www.gla.ac.uk/Library/Emblems/, *Alciato's Book of Emblems*, William Barker, Mark Feltham, Jean Guthrie, Trevor Porter (eds.) 3 April 1998, Department of English, Memorial University of Newfoundland, 3 July 1998 http://www.mun.ca/alciato/index.html and *Emblem Books from the Royal Library*, Peter van Huisstede, Hans Brandhorst, Yassu Frossati (eds.) Department of Computers and the Arts, University of Utrecht, Royal Library of the Hague, 3 July 1998 <http://candl.let.ruu.nl/>
[20] *The Complete Writings and Pictures of Dante Gabriel Rossetti: A Hypermedia Research Archive*, Jerome J. McGann (ed.) March 1997, IATH, University of Virginia, 30 June 1998, <http://jefferson.village.virginia.edu/rossetti/rossetti.html>
[21] See, for example, Arthur F. Marrotti, *John Donne, Coterie Poet*, (Madison Wisc., University of Wisconsin Press, 1986)
[22] Willard McCarty, 'The shape of things to come is continuous change: fundamental problems in electronic publishing', 3 July 1998, <http://www.kcl.ac.uk/humanities/cch/ohc/shape.html>
[23] John Laver, 'Research for the Next Generation', The Japan Society for the Promotion of Science Symposium Churchill College, University of Cambridge, 15-16 April 1998 Research for the Next Generation

[24] Daniel Grennstein and Sarah Porter, ‘Scholars' Information Requirements in a Digital Age’, AHDS, Kings College London, 24 October 1998 <http://www.ahds.ac.uk/public/uneeds/un0.html>