

for example, fully justifies inclusion not only for its contents but for the “impulsive changes of direction” (65) that manifest themselves literally in right angled over-writing, as “[t]he manuscript itself reveals something of Keats’s excitement [...] carried away by his thoughts” (66). It would be helpful to students to appreciate the letter in its full materiality rather than just in terms of its content. To some extent, then, the book does have the potential to enable the kinds of widening participation that Reiman gestures towards in his “Foreword”.

In sum, this is a positive contribution to the enlargement of the experience and appreciation of Keats’s manuscripts. It presents the materials in an attractive way, allowing the visual power of the manuscript page to dominate. It could, however, have been bolder in terms of what it set out to do and in making its own aims clear, in which case it might have exceeded the rather limited description of it on the back page as “handsome literary bibliography”.

Sally Bushell

Marilyn Deegan and Kathryn Sutherland. *Transferred Illusions: Digital Technology and the Forms of Print*. (Farnham, Surrey; Burlington, Vermont: Ashgate, 2009. xi + 204 pp. ISBN 978-0-7546-7016-2.

This book is a well-documented and thoughtfully-considered effort to chart the effects that the spreading of digital technology brings about in different areas of our cultural practices, mostly related to our engagements with texts. At first sight, it may be regarded as a long, extended argument on the “resilience” of print (p. 202) and the forms of the cultural practices it supports, as well as an essay on “the transformation of the old into the new and the shaping of the new by the old” (p. x); but as long as the book proceeds with a detailed examination of the diverse institutions affected by the technological mutations, the overtones of a deeper concern come expressly to the fore. For, the argument goes, “it is likely that there are some kinds of knowledge that come only as we read, page by careful page, in a reflective, expansive, circuitous and time-demanding way”, whereas if we merely address the items a machine can retrieve for us, “our engagement will settle at a superficial level” (p. 179). And, in this regard, much indeed can be gained from this book by a reflective reader.

The essay sets out with a critical survey of the debate on the cultural changes induced by the introduction of new technologies that constitute, as Raymond Williams has it, the means of production of complex social

and cultural relationships. Various responses to “Williams’ immensely influential cultural materialism” (pp. 5-6) are analysed in order to assess what difference it makes “to shift the locus of our literate culture from page to screen” (p. 14). In the ensuing debate on the supposed “death of the book” (see p. 14 & ff.), one finds among the enthusiasts, in the early 1990s, the admirers of hypertext systems, who advocate a new form of non-linear composition. A second generation of digital scholarship, which arises with the appearance of the World Wide Web, reverts quite ironically to electronic simulations of specific print objects and “our initial euphoria or trauma has yielded to a gradual refamiliarization with what we used to know, which has brought with it a new appreciation of its richness” (pp. 27-28). Emerging views on digital textuality are aptly presented in the context of the wider critical debate prompted by postmodernist theories of text. One important theme emerging from these discussions is expressed in D.F. McKenzie’s phrase that “forms affect meaning”, so that one may conclude that technology determines it, or even that “the technology is the text” (pp. 16-17). A fundamental judgement on the relationship between information and its material carrier, such as it is affected by a technological shift, comes here into play.

Be it as it may, cross-fertilisation and hybridisation of print and digital technology becomes the *leitmotiv* of the book, as it is apparent from the thorough examination of newspaper online publishing and digitisation projects. The case is significant for it almost sets a paradigm for the close intertwining of print and digital institutions and forms of cultural practices: as the newspaper’s “economies and its implied reading culture shift from paper to screen”, its “conceptual model sets a standard for the electronic delivery of other textual forms” (pp. 47-48). At the same time, we are knowingly led to realise that if we are now “learning to accomodate to the new things we believe the new technologies do best” (p. 39), the “paper of record” is probably “still the printed paper” (p. 40).

In our interaction with texts, the editorial practice is undoubtedly one of the most exposed to the temperings of a digital environment, for “the preparation of scholarly editions of major literary works based on theories and methods derived from textual criticism has long been one of the most recondite and resonant activities in our cultural engagement with texts.” (p. 60) Here again we are faced with opposing views on the beneficial or obscuring influence of digital technology. The appraisal of the new emerging editorial practices is tinged with reservations. Scholars have already questioned the usefulness of “the static concept of the work” in favour of multiple versions and this way of arguing has never been

“computer-dependent” but it is solely “computer-convergent” (p. 64). The policy of the *Rossetti Archive*, where, as Jerome McGann puts it, “no documentary state of the work is privileged”, or the projects that Peter Robinson envisages as “fluid, co-operative and distributed editions” (p. 70), effectively challenge “many of the principles by which our high literary heritage has long been curated and disseminated” (pp. 66-67). But in the opinion of the authors “the editor”s exercise of a proper expertise may be more liberating for more readers than seemingly total freedom of choice” (p. 71), and it is far to be welcomed “a demotion of the expert human processor in favour of an alliance between the mechanical and the uninformed” (p. 72).

A pervasive assumption that “computers measure, store and represent information” and that “as with books, it is still authors and readers who process information as knowledge” (p. vii) looms large over many timely remarks. But why should the use of computers at best be restricted to “a platform for accessing the artifacts of other media” — especially books — and not be valued precisely because (to use the words of Geoffrey Nunberg) like a book it “doesn’t simply contain the inscription of a text”, but “it is the inscription” of a text (p. 73), albeit — and luckily perhaps — a different one from that provided by the book. The genuine nature and worth of the computer was paradoxically better understood before the appearance of graphic interfaces, able as they are to present us with a “simulation of specific print objects” (p. 27). The benefit of the computer was processing, rather than representation, and as the appearance of the new should not conceal from us the persistence of the old, the attention for the old should not distract us from the originality of the new. Also for humanities scholarship digital representation should be subservient more to analysing and processing than to simulation and merely reproducing. Since, as Cesare Segre observes, the text is and cannot always be but an image of itself, a digital representation may surely be deemed as “textual deformation” (p. 73), but it may indeed elicit new insight rather than slavish replication. It is the specific form of representation what shapes the information and makes it discursively understandable or computationally processable. As it is duly mentioned, for all its importance, in Bill Cope and Angus Phillips words, the book is just “an information architecture” for the text, or one of its possible images, and the severance and uncoupling of information “from its physical carrier” (p. 91) is precisely what can make it suitably processable.

In the digital environment, as it is pointed out, text encoders have taken over many of the tasks traditionally pertaining to editorial work and “it is

the activity of the text encoder that provides the most persuasive (because the most powerful) model for the edition of the electronic era, for it is the activity of the text encoder that determines how the text will appear and how it can be searched and interpreted" (p. 79). But again the Text Encoding Initiative, "a scholarly endeavour to address the problems of the production and reuse of electronic text", encouraging as it does, according to Peter Robinson, the dubious belief that "tagging can indeed exhaust meaning" (p. 81) appears to be more concerned with representation than processing and ends up trading more "in imaginary and interpretative replacements" and visualisations (p. 88) than in a desirably neutral provision of texts in the form of data to be processed.

The alternative between the simulation of printed pages and the processing of textual information content becomes apparent in the exposition of the "New modes of publishing" (chapter 4). Whereas the success of the electronic medium in academic journal publishing parallels "to some degree" that achieved in newspaper publication (pp. 93-94), the "appeal" of e-books "remains in doubt" (p. 106) and e-book readers suffer a "relative failure" in comparison with that of portable digital music players (p. 104). In both cases, their success or their failure rests upon the expediency of simulation: online journals usually maintain "the design, style and pagination" of their printed version and when a pdf article is printed, it "looks exactly like a photocopy from a print original" (p. 94); by contrast, "a digital reading device can *never* give the same experience as reading a book" and each generation of e-books readers moves "closer in appearance to book-likeness and further from computer-likeness" (pp. 105-106). Here again it may be observed that computer expediency resides in processing rather than replication, and if a book is, as Cope and Phillips suggest, "what a book does", then "the physical limits of the container no longer signify or best serve the internal architectonics of the text" and the different structures of the information it conveys. Accordingly, it has to be granted that "we need to consider very carefully what it means to uncouple them from their traditional physical manifestation" (p. 93), and especially so in view of their possible processings.

In the examination of digital libraries another opposition emerges, which has to do once more with the capacity of computers to process the information content of textual documents. It is here that we find the strongest reservations about mass digitisation projects, such as Google Books or the now discontinued Microsoft's MSN Book Search. "The paradigm for the universal library" they enforce "is not a library at all, it is the Internet" (p. 151); a library is after all a different kind of information space from the

Internet, where “traditional professional organizational principles do not appear to be carried over” (p. 150), and where, as “order” is neglected, “one of the major benefits that libraries bring to the almost boundless intellectual space that is our literate culture is lost” (p. 149). But “how libraries are organized ultimately defines how readers think” (p. 151) and “with scholarship in mind” (p. 145) we get “ever more reluctant to engage closely and critically with what we find electronically” (p. 142). Such a mistrust, however, seems to originate not only because with Google Books Search “we often gain access to content that is superseded”, but it appears to be grounded also on a theoretical rejection of purely “statistical and linguistic tools to add “intelligence” to documents and to allow seemingly unrelated items of information to be connected in meaningful ways” (p. 174). For all its worth, though, such a conclusion seems to overlook the possible application of the new emergent and quite reliable methods of semantic description and conceptual modelling of digital resources.

Due attention is finally devoted to preservation strategies, a crucial issue for the transmission and integrity of our cultural heritage. For “the way we preserve our culture affects what we make of it and what it makes of us” (p. 180). In the print world, preservation is chiefly a question of “maintaining the material substrates”, since “preserving the container saves the content” (pp. 159-60). But with digital objects, the decision to be made is on whether to preserve “features of the objects themselves or only the information they contain” (p. 158). And in this respect, “while currently there are many suggested strategies, it cannot be known for years yet which will be the most successful” (p. 161), so that “no single strategy has yet emerged for long-term preservation” (p. 164). Nevertheless, as Seamus Ross appropriately contends, “many in our community believe that we are making progress towards resolving the preservation challenges”, whereas “the approaches to overcoming obstacles to preservation remain limited”. And that cannot but reinforce the worries that the “advance of the digital could have serious consequences for both scholarship and popular culture” (p. 171).

What then, if ever, “after print”? It is a question that opens the book (chapter 1) and comes back at the end to sum up the benefits of a long, comprehensive and observant journey into the digital (see pp. 171 & ff.). In the course of their attentive survey, the authors repeatedly observe that “digital means” now coming to prominence “still largely serve print culture” (p. 76), or that in the electronic ambiance “bookish features”, if not as a “physical object,” are nevertheless “triumphantly maintained” (pp. 116-17). Thus, far from superseding print, the digital medium turns out

to be quite often subservient to its forms. But when it comes to substituting alternatively for the print, the cultural bearings of digital institutions and practices foster many a motive for serious concern. In the first place, according to the authors, it “would be foolish not to voice” a totally “new anxiety” induced by the emergence, in a digital environment, of a new, dramatic “problem of reading”. It is a deep anthropological concern for the possible loss “of the brain capacity to go beyond its original design”, something that Maryanne Wolf, a cognitive neuroscientist, sees well realised in the “capacity of reading to provoke thoughts beyond what is given” (pp. 172-73).

Are the “statistic and linguistic tools” that we use in the quite literally “uncharted and uncharted” information space of the Internet (p. 174) or the machine processing of the text together with the visual screen absorption that substitute for reading, really jeopardizing “the reading brain’s precious reflective functions”? And “with what loss” might “the ‘rear-ranged brains’ of the future function” (p. 173)?

The chief problem seems to reside, for the authors, in the inability of the computational methods now mostly in use to serve the needs of scholars; in their opinion, such methods are “woefully inadequate to the task of finding relevant content in large bodies of unstructured richly ambiguated texts,” since “information leaches meaning when deprived of context”: when information floats free in an unstructured and unordered space “meaning gets lost” (p. 175). What these methods produce is a “leveling or flattening of text”, but in this way, and for the worse, “it is not just text that is being levelled, but our engagements with text” (p. 178). What is voiced here, then, is a thorough critique to the capacity of text mining tools that rely merely on linguistic or statistical methods to “leverag[e],” as it has been surmised, the “aboutness” of the content they retrieve (p. 175), and we are forcefully prompted to question whether such text mining tools “can really help us to make sense of literature” (p. 176). The “subtle and creative ways of querying information in texts” an expert human reader is capable of, it is averred, can hardly be expressed “in any way that might be amenable to Boolean serching” (p. 177).

As a matter of fact, it has to be acknowledged that the “need of good metadata” and all “the critical issues that would give digital libraries maximum scholarly effectiveness” are “largely disregarded” in mass digitisation initiatives (p. 180), but this leaves the question open whether semantic description methods and conceptual modelling techniques, such as are now been introduced in the development of the Semantic Web, or in the planning of semantic digital libraries (see <http://semddl.info>), might not

promote, like the act of deep and reflective reading, “our capacity for deeper thought”. If Socrates had lived longer, as Wolf suggests, “he might not have seen writing as memory’s destruction but as a tool for deeper enquiry” (p. 172). But might we not live long enough to see the same happening to more discerning computational methods and procedures?

Dino Buzzetti

Richard Ovenden, Richard Kuhta and Neil Fraistat, eds. *Shakespeare Quarto Archive*. College Park, MD: Maryland Institute for Technology in the Humanities (MITH), 2008. <<http://www.quartos.org>>

When physical books are reimagined within virtual spaces they are fundamentally transformed. As Friedrich Kittler notes in *Discourse Networks*, “the transposition of media is always a manipulation and must leave gaps between one embodiment and another”.<sup>1</sup> The digitized book will never fully capture the essence of the original. The gaps are inevitable and yet the re-imaging of the printed book within the digital context of the computer can provide new ways of seeing, understanding, and analyzing the original. *The Shakespeare Quarto Archive* (available at <<http://www.quartos.org>>) presents digital facsimiles of thirty-two pre-1641 quartos of Hamlet within an elegantly designed interface freely-accessible anywhere with a reliable internet connection.

The project is an extensive collaboration of six collecting institutions with additional technical support provided by the Maryland Institute of Technology in the Humanities. The facsimiles originate from printed copies of Hamlet quartos held in the collections of the Bodleian Library, the British Library, the University of Edinburgh Library, the Folger Shakespeare Library, the Huntington Library, and the National Library of Scotland. These institutions hold many of the rare quartos currently known to survive. The resulting collocation of rare Shakespeare quartos within a shared virtual space is the Archive’s most notable feature and its greatest accomplishment. Many of the digital tools that have emerged as prominent resources for research and pedagogy — namely Early English Books Online (EEBO), Eighteenth Century Collections Online (ECCO), Burney Collection Online, and Google Books — have also introduce the risk that everyone is looking at the same virtual facsimile edition of a given text, thus obscuring the many variants within editions that characterize early

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<sup>1</sup> Friedrich A. Kittler, *Discourse Networks 1800/1900*, trans. Michael Metteer (Stanford: Stanford University Press, 1990), 267.