

“Either this is madness or it is Hell”

Jonathan Bengtson

“Either this is madness or it is Hell” – so exclaims the main character of E.A. Abbott’s *Flatland: A Romance of Many Dimensions* (1884) when he is transported out of his two-dimensional world into one with a third dimension, and so must both intellectualize and make a leap of faith in order to visualize a new reality. This is a situation not dissimilar to what universities and academic libraries face in planning for the digital age of the book.

The advent of online publishing and the ascendancy of digital texts can be compared to the invention of the printing press and the subsequent domination of the printed book over the manuscript. We are living in revolutionary times, in which the book is being challenged as never before as the primary vehicle for the transmission of culture and ideas. For 500 years, the printed book has been dominant and, for well over a millennium before the invention of moveable type, the manuscript book endured. The transition from an oral to a written culture took many centuries, during which our very way of thinking was transformed fundamentally, from repetitive, oral, memory-based knowledge to visual and spatial memory predicated on the physical book. A decade ago, a new process of change commenced, the impact of which will have profound consequences. We need only reflect on the past few years to understand how quickly and radically the ways in which we write, communicate and learn are altering.

Already most of us have become accustomed to using electronic journals and reference texts in preference to print. Indeed, the electronic format allows these resources to develop in far more expansive and flexible ways than is possible in print. Take, for instance, the *Routledge Encyclopedia of Philosophy*, which was

originally published in print and on CD-ROM in 1998, and which has won accolades for its breadth of coverage and quality of scholarship. Routledge subsequently released an online version that quickly rendered the print and CD-ROM editions irrelevant. The online version is a much more organic entity: new articles are added as needed (such as on recent debates surrounding genetics) and old articles are updated as new research dictates. There are annual site redesigns and links to other relevant online sites. The Web version includes audio-visual material, e-groups, journal abstracts, information about current research and so forth. Sites such as this eventually may combine teaching and research functions and so alter the learning process in ways we are only beginning to fathom.

Unlike e-journals and reference texts, the tipping point for the domination of the electronic over the printed book may depend on the introduction of an electronic device that combines the ease of use of the printed book with the advantages of the electronic format. Various e-book readers have been tried – Sony released one this past year – with little success. However, electronic paper technology is improving. Not only is this e-paper technology able to mimic the appearance of ink on paper, but it also uses negligible electricity and can be bent and folded like a sheet of paper. Instead of a single, fixed screen, like the Sony device, future e-books may well imitate the structure of a printed book, but allow for the downloading and simultaneous storage of hundreds or thousands of titles. What the iPod and mp3s have done to music CDs, a viable e-book will do to printed books. Yet, even if the ink and paper become electronic, the physical, iconic structure of the book may endure.

Besides technology, another barrier to widespread adoption of e-books is the relatively limited availability of collections. While monograph digitization projects in libraries have been around for a number of years, massive digitization projects, such as Google Print and the Open Content Alliance (which has a major scanning centre based at the University of Toronto), have started up only recently. Making the full text of libraries' holdings available digitally is, without question, a natural step in widening the access to the world's academic collections. However, only works that are out of copyright, or works with the rights released, are freely available to take full advantage of technology. These, combined with licensed e-books, constitute a relatively small proportion of the world's printed heritage.

There are other questions. How do we preserve digital books? How do we index, retrieve and cross-search e-books in a meaningful way? How do we reduce or eliminate duplication of digitization efforts? How do we improve ease and stability of access? How, indeed, do we use the digital text?

There are advantages to overcoming these barriers, particularly in the area of the machine analysis of large datasets of digital texts. For instance, the Kelly Library at St. Michael's College is coordinating an international project to create a comprehensive digital collection of the writings by and about John Henry Cardinal Newman (1801-90). In alliance with other libraries, non-profits and corporate partners, the library is scanning various collections of Newman's works in order to create a virtual collection of every one of his lectures, newspaper articles, sermons and variant editions. The scanned text will be analyzed by sophisticated data-mining software to explore subtle changes in Newman's thought over time. When the project is completed, it will be one of the first times such

technology has been used to capture and analyze the complete corpus of one of the world's key intellectual figures. The project will serve as a model for the future application of new, 21st-century, digital scanning technologies to academic library book collections.

However, even if digitizing an older text provides an alternative and flexible means of access, the digital surrogate will never permanently replace texts that were not "born digital." The Modern Language Association of America's statement on the significance of primary records summarizes the situation well: "the advantages of the new forms in which old texts can now be obscure the fact that the new forms cannot fully substitute for the actual physical objects in which those earlier texts were embodied at particular times in the past". (<http://palimpsest.stanford.edu/byorg/mla/mlaprim.html>). In other words, scrolling down a computer screen (or flipping through a future e-book device) to read a 19th-century novel is not the same cognitive experience as consulting the original: it alters the context and so removes the possibility of interpreting the physical object itself as a cultural artifact. It, thus, becomes easier to "miss the point" of why a text was transmitted in a specific physical format at a specific time if all one has to go on is text on a screen.

Even so, the digitization of books is breathing new life into old tomes. For at least a decade, for example, the first edition of *Flatland*, quoted at the beginning of this article, was never requested from the rare books room in the Kelly Library. In the first five months after digitizing the volume and making the files available on the Web, it was downloaded over 2,200 times. (<http://www.archive.org/details/flatlandromanceo00abbouoft>).

Books tell us about ourselves. They tell us

what we know, what we do not know, what we need, what we value. The question is not whether, but rather for how long, the printed book will survive as the central medium for the dissemination of knowledge and what digital form will emerge to supersede our cultural bias towards traditional print. In *Flatland*, the response to the statement "Either this is madness or it is Hell" is "It is neither, it is knowledge." Just as, in *Flatland*, where the move from two to three dimensions brings new perspectives and an occasion to reassess one's view of reality, so, too, will the evolution from printed to digital books provide the same opportunity. The passage in *Flatland* concludes: "Open your eye once again and try to look steadily. I looked, and, behold, a new world!"

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