



# THE CHRONICLE OF HIGHER EDUCATION

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## 5 Myths About the 'Information Age'



Chronicle Review illustration by Bob McGrath

By Robert Darnton

Confusion about the nature of the so-called information age has led to a state of collective false consciousness. It's no one's fault but everyone's problem, because in trying to get our bearings in cyberspace, we often get things wrong, and the misconceptions spread so rapidly that they go unchallenged. Taken together, they constitute a font of proverbial nonwisdom. Five stand out:

1. "The book is dead." Wrong: More books are produced in print each year than in the previous year. One million new titles will appear worldwide in 2011. In one day in Britain—"Super Thursday," last October 1—800 new works were published. The latest figures for the United States cover only 2009, and they do not distinguish between new books and new editions of old books. But the total number, 288,355, suggests a healthy market, and the growth in 2010 and 2011 is likely to be much greater. Moreover, these figures, furnished by Bowker, do not include the explosion in the output of "nontraditional" books—a further 764,448 titles produced by self-publishing authors and "micro-niche" print-on-demand enterprises. And the book business is booming in developing countries like China and Brazil. However it is measured, the population of books is increasing, not decreasing, and certainly not dying.

2. "We have entered the information age." This announcement is usually intoned solemnly, as if information did not exist in other ages. But every age is an age of information, each in its own way and according to the media available at the time. No one would deny that the modes of communication are changing rapidly, perhaps as rapidly as in Gutenberg's day, but it is misleading to construe that change as unprecedented.

3. "All information is now available online." The absurdity of this claim is obvious to anyone who has ever done research in archives. Only a tiny fraction of archival material has ever been read, much less digitized. Most judicial decisions and legislation, both state and federal, have never appeared on the Web. The vast output of regulations and reports by public bodies remains largely inaccessible to the citizens it affects. Google estimates that 129,864,880 different books exist in the world, and it claims to have digitized 15 million of them—or about 12 percent. How will it close the gap while production continues to expand at a rate of a million new works a year? And how will information in nonprint formats make it online en masse? Half of all films made before 1940 have vanished. What percentage of current audiovisual material will survive, even in just a fleeting appearance on the Web? Despite the efforts to preserve the millions of messages exchanged by means of blogs, e-mail, and handheld devices, most of the daily flow of information disappears. Digital texts degrade far more easily than words printed on paper. Brewster Kahle, creator of the Internet Archive, calculated in 1997 that the average life of a URL was 44 days. Not only does most information not appear online, but most of the information that once did appear has probably been lost.

4. "Libraries are obsolete." Everywhere in the country librarians report that they have never had so many patrons. At Harvard, our reading rooms are full. The 85 branch libraries of the New York Public Library system are crammed with people. The libraries supply books, videos, and other material as always, but they also are fulfilling new functions: access to information for small businesses, help with homework and afterschool activities for children, and employment information for job seekers (the disappearance of want ads in printed newspapers makes the library's online services crucial for the unemployed). Librarians are responding to the needs of

their patrons in many new ways, notably by guiding them through the wilderness of cyberspace to relevant and reliable digital material. Libraries never were warehouses of books. While continuing to provide books in the future, they will function as nerve centers for communicating digitized information at the neighborhood level as well as on college campuses.

5. "The future is digital." True enough, but misleading. In 10, 20, or 50 years, the information environment will be overwhelmingly digital, but the prevalence of electronic communication does not mean that printed material will cease to be important. Research in the relatively new discipline of book history has demonstrated that new modes of communication do not displace old ones, at least not in the short run. Manuscript publishing actually expanded after Gutenberg and continued to thrive for the next three centuries. Radio did not destroy the newspaper; television did not kill radio; and the Internet did not make TV extinct. In each case, the information environment became richer and more complex. That is what we are experiencing in this crucial phase of transition to a dominantly digital ecology.

I mention these misconceptions because I think they stand in the way of understanding shifts in the information environment. They make the changes appear too dramatic. They present things ahistorically and in sharp contrasts—before and after, either/or, black and white. A more nuanced view would reject the common notion that old books and e-books occupy opposite and antagonistic extremes on a technological spectrum. Old books and e-books should be thought of as allies, not enemies. To illustrate this argument, I would like to make some brief observations about the book trade, reading, and writing.

Last year the sale of e-books (digitized texts designed for hand-held readers) doubled, accounting for 10 percent of sales in the trade-book market. This year they are expected to reach 15 or even 20 percent. But there are indications that the sale of printed books has increased at the same time. The enthusiasm for e-books may have stimulated reading in general, and the market as a whole seems to be expanding. New book machines, which operate like ATM's, have reinforced this tendency. A customer enters a bookstore and orders a digitized text from a computer. The text is

downloaded in the book machine, printed, and delivered as a paperback within four minutes. This version of print-on-demand shows how the old-fashioned printed codex can gain new life with the adaption of electronic technology.

Many of us worry about a decline in deep, reflective, cover-to-cover reading. We deplore the shift to blogs, snippets, and tweets. In the case of research, we might concede that word searches have advantages, but we refuse to believe that they can lead to the kind of understanding that comes with the continuous study of an entire book. Is it true, however, that deep reading has declined, or even that it always prevailed? Studies by Kevin Sharpe, Lisa Jardine, and Anthony Grafton have proven that humanists in the 16th and 17th centuries often read discontinuously, searching for passages that could be used in the cut and thrust of rhetorical battles at court, or for nuggets of wisdom that could be copied into commonplace books and consulted out of context.

In studies of culture among the common people, Richard Hoggart and Michel de Certeau have emphasized the positive aspect of reading intermittently and in small doses. Ordinary readers, as they understand them, appropriate books (including chapbooks and Harlequin romances) in their own ways, investing them with meaning that makes sense by their own lights. Far from being passive, such readers, according to de Certeau, act as "poachers," snatching significance from whatever comes to hand.

Writing looks as bad as reading to those who see nothing but decline in the advent of the Internet. As one lament puts it: Books used to be written for the general reader; now they are written by the general reader. The Internet certainly has stimulated self-publishing, but why should that be deplored? Many writers with important things to say had not been able to break into print, and anyone who finds little value in their work can ignore it.

The online version of the vanity press may contribute to the information overload, but professional publishers will provide relief from that problem by continuing to do what they always have done—selecting, editing, designing, and marketing the best works. They will have to adapt their skills to the Internet, but they are already doing so, and they can take advantage of the new possibilities offered by the new technology.

To use an an example from my own experience, I recently wrote a printed book with an electronic supplement, *Poetry and the Police: Communication Networks in Eighteenth-Century Paris* (Harvard University Press). It describes how street songs mobilized public opinion in a largely illiterate society. Every day, Parisians improvised new words to old tunes, and the songs flew through the air with such force that they precipitated a political crisis in 1749. But how did their melodies inflect their meaning? After locating the musical annotations of a dozen songs, I asked a cabaret artist, H el ene Delavault, to record them for the electronic supplement. The reader can therefore study the text of the songs in the book while listening to them online. The e-ingredient of an old-fashioned codex makes it possible to explore a new dimension of the past by capturing its sounds.

One could cite other examples of how the new technology is reinforcing old modes of communication rather than undermining them. I don't mean to minimize the difficulties faced by authors, publishers, and readers, but I believe that some historically informed reflection could dispel the misconceptions that prevent us from making the most of "the information age"—if we must call it that.

Robert Darnton is a professor and university librarian at Harvard University. This essay is based on a talk he gave last month at the Council of Independent Colleges' Symposium on the Future of the Humanities, in Washington.