

Death of the Book: An Historian's View of the Digital Revolution Rebuild

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In December 2004, the University of Michigan and the owners of the internet search engine Google, made a stunning announcement. Every single page of the University library's entire collection of seven million volumes, including one of the most complete collections of "Bosniaca" in the world, is to be digitized and made available to all internet users in the next six years.

Both the digitization project, and access to its results, will be free. Internet users will be able to search every word in the library's collection, also for free. For those items still subject to copyright (works published in the last seventy years), the search engine will display only "snippets" of text, consisting of the sentence containing the searched item, plus the prior and succeeding sentences. For materials not covered by copyright, the entire work will be available for display. Several other libraries, including those of Harvard, Stanford, Oxford universities and the New York Public Library, will also have some or all of their holdings scanned.

This announcement shook the scholarly world like a high-magnitude earthquake,

and its far-reaching consequences are still being digested by librarians and library users alike. The prospect of digitizing entire libraries – several other libraries have agreed to be a part of the project in whole or in part – brought closer the prospect of rendering all human knowledge in digital, searchable form. It also raised a serious question: Will the book disappear from our civilization?

My answer today is "Yes". Like most of us in this room, I value and treasure the book as a physical embodiment of knowledge and wisdom. The widespread fondness for the book as physical artifact will mean that the book will die slowly; but it will die, its functions ultimately superseded by digitized media, leaving printed volumes as antiques with primarily decorative value. My primary reason for this conclusion is captured in this single volume, the English edition of Enver Redžić's fine book, *Bosnia and Herzegovina in the Second World War*. You may own a copy of this book if you wish. It will cost you 190 KM. At this price, it would sell no copies at all were it not for the mandate of many American and British libraries to own every significant scholarly

work published in English. For the price of seven or eight such books, you may put a computer in a library with access to millions of pages of information, most of it free, now available on the internet. Soon, you will be able to view at least parts of every page of every book in the collections of the world's great libraries.

My purpose today is to gaze into the unknowable future and suggest how the rapid advance of digitization will change our lives, and will change the role of libraries and archives in which we all work. It is not my purpose to explain the technology or details of the Michigan-Google project, and in any case I could not do so. I defer to others far more knowledgeable of the process. Rather, I speak as an historian, recognizing my profound debt to many of you in this room and other archivists and librarians in this city who have made it possible for me to practice my craft over the past thirty years.

The Michigan-Google project was something of an historical coincidence. Google, flush with billions of dollars from an initial offering of stock in 2004, was able to devote about \$150 million to a project of uncertain returns. The University of Michigan library has been a leader in innovating digitization for over a decade. One project, called "Travels in Southeastern Europe," is available at

<<http://www.hti.umich.edu/b/bosnia/>>.

It contains 104 digitized books published by travelers though Bosnia and Hercegovina in the nineteenth century and before. The collection is now available, free to any user, fully searchable in a number of ways, and viewable both as a downloadable text and as a pdf. file. The first phase of the

"Travels" project lasted three years and produced only four digitized searchable books; the second phase lasted two years and covered an additional 100 volumes. The library's rapidly accelerating efficiency is mirrored in the Google project, which will increase digitalization from 5,000 volumes a year in 2004 to 5,000 volumes a day when the project is in operation.

What does this project mean for the community of Slavic scholars, librarians, and archivists?

1. First, it means that the **computer terminal becomes indispensable** in finding and using printed information. The library, always a vast repository of knowledge, will become a **gateway** not only to those works physically located on its premises, but to the holdings of half a dozen of the world's great research libraries. It is inter-library loan on a desktop. As is already the case at university libraries in much of the world, much of the space traditionally devoted to reading rooms and finding aids should give way to dozens of inexpensive computers with access to the world wide web.

2. Second, the Michigan-Google project creates a **universal index**, more comprehensive than the index of any single book. It enables the searcher not only to determine if a given term appears in a book, but whether its appearance is merely in passing or part of a substantive discussion – something true whether the work is covered by copyright or not. It adds a powerful finding aid to the already-valuable digitization of card catalogs, a process well advanced in major research institutions. I take as an example another University of Michigan project, called "Making of

America”, another of the precursors to the Google-Michigan agreement. “Making of America” took 12,000 volumes, consisting of 3.5 million pages of rarely-used nineteenth century books and journals published in the United States, and digitized them in searchable form, available at <http://www.hti.umich.edu/m/moagr/>. These journals, taking up many meters of shelf space and long virtually untouched, can now be stored in a remote location, freeing up library storage space for more contemporary items. At the same time, usage of them has skyrocketed, as users can now search the two million pages in a second or two. I ran a search for “Mostar” in this collection and found 23 references, mostly to old gazetteers and encyclopedias, but learned in the process that an article entitled “Customs, Races and Religions in the Balkans” appeared in a journal called *Catholic World* in 1898, providing an inventory of American attitudes toward the region. And I was able to obtain it in five minutes rather than six weeks of searching through obscure journals.

3. Third, the project greatly reduces the importance of physical printed works for each institution. Once an institution has determined that a book or periodical is digitally fully available (meaning it is included in the Google collection and is not copy-right protected), the institution need not expend resources on acquiring a work that is not in its collection. Institutional resources – and I realize these are extremely limited in the libraries in Bosnia and Hercegovina – can be devoted to acquiring items not in the Google collection, or in digitizing special holdings not otherwise available universally to users. I know that everyone in this room is acutely

aware that unique copies can be, and have been in the past two decades, destroyed by acts of armed aggression. It is comforting to know that, within the next decade, it will no longer be possible to exterminate the valuable memorials of a country's culture and history.

4. Fourth, the project extends an implicit invitation for other institutions to put finding aids and documents on-line, so that potential users can extend their digital searches to local collections. I note that, among institutions here in Sarajevo, the Institute for History has published the table of contents and selected articles from its *Prilozi*, and the Historijski Arhiv Sarajevo (also known informally as the City Archive of Sarajevo) has taken a major step in that direction in digitizing the Regista of the city's records from the interwar period. For archives, the Google collection is an open invitation to publish collections of key documents on-line. Numerous such collections were published in the latter decades of socialism, but the cost of doing so is now greatly reduced.

5. Finally, digitization creates an imperative for inter-institutional cooperation. Institutions of collective memory – archives, museums, libraries – have proliferated in the last century – in Sarajevo perhaps more than in most places – but new technology compels the global consolidation of the acquisition, preservation, and access to the printed word. The enormous costs alone dictate such a consolidation, and the need is magnified by the dwindling available resources – nowhere more than here in Sarajevo.

I conclude by noting that the Michigan-Google project is a work in progress. Its

completion, expected in some five to seven years, will change the way we all work and the nature of the institutions in which we work. Furthermore, the project is just one further step in the inexorable process of searchable digitization of all knowledge. The future is at hand, and we can all reap

immense benefits from the change. Our common challenge, I believe, is to prepare to board the train and to anticipate the demands of the journey, and most of all to be sure that the train stops, in particular, at our local station.



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