

Aleksandrina Penkova
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History and Digitization: Questioning Authority Through Time

Digitization has become a fashion in both libraries and archives. Viewed as the tools that would get information centers into the future, digital projects have sprung all over the nation and the globe. In his book *Scrolling forward: making sense of documents in the digital age*, David Levy writes: “So many grand claims are now being made about digital technologies: how they are all radical, new, groundbreaking, earth-shattering.”¹ Granted digitization has advantages, among which are preservation, access and ability to search. However, digitization also raises questions, an important one of which is the question of authority. We will look at authority as it pertains both to the authority of the electronic document without its original and to the authority of the information specialist (a librarian or an archivist) deciding on the documents that are to be preserved. In order to efficiently deal with the problem of authority, I believe it is important that we look into the past and learn from it. As modern as the phenomenon of digitization is, the base of its development lies in the past and in order for us to make the right decision when digitizing, it is essential that we learn from history. To quote David Levy again: “It is hard to see how, and in what ways, the “new” technologies *are* truly new and different, and *do* represent a radical break with the past; and how, and in what ways, they are continuous with the past, and in a sense just more of the same.”² As we look into history, we must remember that digitization is in itself unique and different from its other predecessors. History might help, but essentially it is left to us, the information professionals, to struggle with the dilemma of authority.

Documents date as far back as when humankind has first mastered writing. According to Stanley Chodorow “Writing was invented near the fourth millennium B.C.E. in the Middle East and evolved over a few centuries into a highly efficient instrument for specifying and preserving business, government and cultural records.”³ Naturally, the existence of documents demanded an efficient method to store and access them. Thus libraries were established. One of the biggest and most famous library of the ancient world is without a doubt the Library of Alexandria. Founded by Ptolemy I around 300 B.C.E. in the brand-new city of Alexandria, the Library accumulated the greatest collection of Greek works ever known. Surprisingly, or maybe not, it had much in common with Google’s digital book project as far as the accumulation of resources is concerned. Anthony Graffton writes: “Like Google, the library developed an efficient procedure for capturing and reproducing texts. When ships docked in Alexandria, any scrolls found on them were confiscated and taken to the library. The staff made copies for the owners and stored the originals in heaps, until they could be catalogued.”⁴ It is

¹ David M. Levy, *Scrolling Forward: making sense of documents in the digital age* (New York: Arcade, 2001), 137.

² Ibid.

³ Stanley Chodorow, “The Future according to the Past: Future Library Issues in Historical Perspective,” in *Digital Library Development: the view from Kanazawa*, ed. Deanna B. Marcum and Gerald George (Westpoint, Conn: Libraries Unlimited, 2006), 3.

⁴ Anthony Graffton, “Future Reading,” *New Yorker*, November 5, 2007, 51.

curious to note that the originals were kept by the library and the copies given to the owners, and not vice versa. This example speaks of the issue of authority on several levels. As regard to the authority of the document, the original has undisputed authority over the copy made: it is entrusted into the hands of professionals and stored by an institution that is trustworthy and safe. As regard to the authority of the professionals making the copies, these were probably the best people there were to make the decision. Their authority exceeds that of the owners. As noted before, we must remember that the digital document is clearly different from the paper copy exemplified here. Nevertheless, it is an example that shows distinction of authority on several levels.

The invention of printing in Europe in the fifteenth century transformed the world. The printers brought millions of books, much more than were ever known to exist before. People of the twentieth century had to face the question of efficient storage, classification and access that mass book proliferation through the centuries has brought upon. Fremont Rider, a librarian at Wesleyan University, argued in the nineteen-forties, that microphotography could eliminate the problem of over flowed stacks and that, by multiplying the resources of any given library, it also offered the promise of truly universal libraries. The enthusiasm over this new tool of efficient information storage in a way got out of control and prompted the destruction of original documents: “The venders of microfilm kept going - so efficiently, and enthusiastically, that they persuaded librarians and archivists to destroy large quantities of books and newspapers that could have been preserved.”⁵ The episode puts into question the authority of any information professional over the decision of preservation and digitization. Unfortunately, nowadays matters are not as straightforward as they used to be back in the 300 B.C.E. when librarians determined without much hesitation what is to be preserved simply because there was not that much to preserve. This example also warns librarians and archivists of the danger of enthusiastically embracing innovations that could cause the destruction of valuable original documents.

The invention of the Internet in the 1960s in a way send microphotography into oblivion. The Internet made electronic documents accessible anywhere anytime. Digitization became the way to transfer paper resources into electronic format and thus make them available through the Internet. As Graffton rightly puts it, “The current era of digitization outstrips that of microfilm, in ambition and in achievement.”⁶ For a first time in history digitization created something intangible and yet claimed that it existed. David Levy explains: “Digital materials are made up of both the *digital representation* and the *perceptible forms* produced from it.”⁷ Hart and Liu emphasize the historical significance of this phenomenon: “For the first time in 3,500 years of archival activity we produce records that do not exist to the human eye—unlike Babylonian clay tablets, Egyptian papyrus, Roman and medieval parchment, modern paper, even microfilm.”⁸ This ambiguity of the electronic media puts into question the reliability and authority of the digital document. But beyond this, it places a great responsibility into the hands of institutions, such as libraries and archives. Hart and Liu ask: “What lies behind this

⁵ Ibid., 52.

⁶ Ibid.

⁷ Levy, *Scrolling forward*, 138.

⁸ Peter E. Hart and Ziming Liu, “Trust in the Preservation of Digital Information,” *Communications of the ACM* 46(2003): 94.

willingness to accept surrogates in place of the real thing? Clearly, institutional guarantees are central to the process” and they continue “So, is it possible to have institutional guarantees for the preservation of digital information? The answer could and should be yes.”⁹ Clearly, such amount of trust requires careful consideration and authorizing the right people to digitize could be problematic.

Digitization is also problematic because of the inevitable changes that occur with the new appearance of the document once it is digitized. Problems with OCR (Optical Character Recognition) systems clearly exemplify this issue. Lam-Adesina and Jones explain: “The text contents of these document images can be transcribed automatically using OCR systems and then stored in an information retrieval system. However, OCR systems make errors in character recognition which have previously been shown to impact on document retrieval behavior.” This OCR error interferes with one of the main purposes of digitization: ability to search. It also affects the social life of the information contained on the electronic document.

⁹ Ibid., 95.