

# DIGITAL HISTORY – THE NEAR FUTURE OF HISTORICAL SCIENCE

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In the presented article, the author discusses the development of a new specialty – digital historian, based on the emerging new humanities – digital and public history. It is argued that in the near future this profession will replace historians, turning them either into mediocre primary data collectors or interpreters. In its projects, digital history uses digital media to form crowdsourcing – an expert social network of users that scales the results of scientific research, allows you to visualize data, link them to geographical coordinates and, eventually, gain new knowledge.

**Key words:** historical science; digital history and public history; digital historian.

At present, the formation and use of historical knowledge has long stepped over the sphere of purely scientific research and has become an integral part of ideological and political views that influence people's behavior. This is especially true for the relaying of historical knowledge in the field of mass communications using Internet technologies, as well as in education, upbringing, and scientific research. All this brought technical aspects related to the use of programs and software tools into historical science. This includes information and document processing systems, procedures, rules and related documentation along with technical (hardware), mathematical, informational, linguistic, organizational, methodological and legal support.

Thanks to this, a fundamentally new information environment has been created for the development of historical science. A qualitatively new level of programming opened up wide opportunities for access to historical sources and the emergence of new ways to extract historical information from them. There has been a change in both the tasks, topics, possibilities of historical research, as well as the methodology and research technique itself, which, of course, has given rise to new ways of recording, transmitting, preserving and visualizing information.

All these changes have led to the emergence of a new profession – the digital historian. This profession was born from the specialization of historical computer science, that is part of historical science and includes the evaluation of source electronic resources, as well as analytical computerized tools and the testing of computer technologies, especially in historical research and education. Now for the digital historian, it is relevant to determine the optimal set of

programs and software tools that necessary to perform the tasks of historical research, present historical information and obtain new knowledge by creating a new research tool.

As an example of such a tool, we can point to the Pleiades digital geographic information system project with interactive maps and chronicles of events. This system is built and maintained on the basis of crowdsourcing – an expert social network, including the collaboration of various specialists, the latest technologies, corpus linguistics, 3D modeling and big data mining.

So, the essence of the Pleiades project is drawing on geographical maps of all known objects of the ancient world. Pleiades is currently an online community-created, ever-evolving gazetteer of localized ancient sites with reliable historical information. It provides a unique service for finding, displaying and reusing this information for both a wide range of users and search engines. It also provides a wide range of computational research and visualization tools that support teaching and research in ancient history.

Digital history has opened up a whole new field of scientific activity with a new environment and a large amount of resources. Digital historians have begun to use the new tools that have become available thanks to smart computing systems and network information. Geographic Information Systems (GIS) have become very popular due to widespread interest in more spatial approaches to the past. This has necessitated the application of a range of IT: Flash animation, XML encoding, digital video, blogs and wikis. A new way of communication compared to traditional methods of communication is digital. Advanced university departments are increasingly recruiting programmers to translate history into this fast-paced, widely accessible digital history environment. However, it was soon discovered that clearly defined rules of digital science, well-established best practices and standards are indispensable [1, p. 23].

At present, digital history can be broadly defined as an approach to the study and presentation of the historical past, which works with new communication technologies of the computer, the Internet and programs. On the one hand, digital history is an open field of scientific production and communication, including the development of new educational materials and the collection of scientific data. At another level, digital history is a methodological approach based on the hypertextual ability of these technologies to create, define, query, and annotate links in monuments of the past. Thus, doing digital history is, of course, not only digitizing the past, but also something much more. This is the creation of knowledge structures with the help of artificial intelligence technologies so that people can experience, read and follow the argument on a particular historical topic [2].

Currently, the digital history is going through a new stage. These are instant messages of feedback forms, electronic catalogs, document files, PDF files, digital video, podcasts and databases. Their scale and complexity require historians to use tools and methods that are already part of historical practice to create their own digital sources and use a variety of research and teaching tools such as Zotero, del.icio.us, Google Earth, Google Books, Google Places API, Wikipedia, SIMILE, Scribe and TokenX [3]. The number of digital tools for historians will only grow. In addition to presenting research in new and exciting interactive ways, these tools will make research and analysis easier. Moreover, they already make it possible to detect previously hidden information, extract and process it. At the same time, more and more people – both historians and non-historians – will participate in the creation of digital history resources in the global Internet environment. All of them one way or another will be integrated by digital historians – leaders and organizers of such projects. But in order for digital history data to be considered a scientific product, it is necessary to more fully solve the accompanying problems of information quality (peer review), data preservation and open access [4].

The characteristics of modern digital history writing should be computational-algorithmic, large-scale, and visual in integrative terms. In addition, all these projects acquire another very important property: they become paid [5]. This creates a never-before-seen basis for the development of the digital historian profession, which is becoming very attractive. Moreover, most of the work in Digital History is provided by crowdsourcing – a wide range of expert Internet users participating on a voluntary basis. This ever-increasing participation has created, in fact, another new application area – this is Public History.

Public history is understood as a hybrid form of knowledge – between scientific and popular knowledge. Thanks to the development of network communications and the ability to create large-scale digital resources “from below”, through crowdsourcing, public history has gained great popularity, increasing the interest of the general public in history and helping to spread information. The orientation of public history towards blurring the boundaries between traditional professional and amateur historians «calls into question the professional status of these historians» and leads to a serious transformation of this profession [5, p. 57]. It can also be safely predicted that the rapid development of Public History will quickly blur the lines between digital historians and programmers as software becomes simpler. Already now, digital historians are promoting historical science at the highest level of IT. They examine primary historical documents and objects and turn them into digital resources such as letters, photographs, archival documents, determine the authenticity and significance of sources, archive and preserve materials. They work for museums, governments, businesses, individuals, non-profit organiza-

tions and historical associations. The main difference between the role of the digital historian and the conventional humanities historian is that they, as specialists, are focused on integrating technologies to expand the scope of scientific research and enrich the presentation of historical research.

Digital historians use digital tools such as data and text analysis, data mapping, and visualization to share inclusive stories with diverse audiences. They promote interdisciplinary collaboration and encourage the use of digital methods to provide broad audiences with access to historical information. These historians publish research suitable for interactive spaces using graphs, timelines, charts, simulations, and more.

Practicing digital historians have both historical and IT education and are in great demand in the labor market as historical consultants, archivists, museum workers, project curators, researchers of historical monuments. It is quite expected that in the near future the profession of an ordinary humanist historian will become unprestigious and unclaimed, since digital history is necessary in an increasingly digitized world. As technology expands and becomes more sophisticated, there will be an increasing demand for historians using digital tools, methods, and resources to advance digital history research. The use of digital tools will supplant traditional methods of historical research and thereby open up history and historical research to millions of people who will make new discoveries in a previously complex and intricate science.

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