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DIGITAL HUMANITIES OR DIGITAL VERSUS HUMANITIES*

Abstract: This paper focuses on the impact of digitization on humanities, especially on history as a science and on contemporary Serbian historiography. The main topics are how, why and in which way the new technologies are changing the research process, and what the main current and present challenges are. In addition, since these changes reflect upon the digitization itself, this topic is also included in the paper.
Key words: humanities, digitization, history, historiography, internet/intranet, research.

Digital Humanities

Digital humanities[1], in many ways still represents a challenge for researchers of both earlier and modern history, not only for Serbian, but also for global contemporary historiography. Whilst previously mentioned in methodology only on occasion, primarily in the context of cooperation between history and natural sciences, today it is widely recognized as a separate, newly established academic discipline.[2] It is taught and studied at the same time, at universities around the world, and recently it became the object of research itself.[3]

Using *new technologies* in the broadest sense, *digitization* and the *digital humanities* have become a necessity, which must be included in any reliable research process. Internet and Intranet, digitization of written, printed and other media materials or remnants, as well as an increase in electronic format documents, have influenced the humanities in a number of ways, depending on the discipline in question, and even its sub-disciplines.[4] In electronic format every source became more accessible, and even the common search engines provide insight into a number of databases in the form of e-library and e-archive. At the same time, numerous cultural institutions are digitizing their legacy and are gradually organizing themselves in national, regional or global networks. The progress is still slow but continuous, and the mentioned institutions are trying, at least, to partially comply with *open access* as one of the new principles of further scientific development.

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[1] In global, digital humanities (for future reference "DH") could be defined as a discipline in which humanities are closely related with the new technologies, new media and computing in an area of research as well as in teaching.

[2] Slobodan Mandić, *Kompjuterizacija i istoriografija* 1995–2005, Istorijski arhiv Beograda, Beograd 2008, ISBN 978-86-80481-21-0; Aleksandra Fostikov and Slobodan Mandić, *New Categories of Historical Sources: E-mail and Forum. Internet Communication and History*, Review of the National Center for Digitization 10 (2007) 40–42. http://elib.mi.sanu.ac.rs/files/journals/ncd/10/ncd10040.pdf (Date of last access: 20.02.2013).

[3] There are numerous courses on many topics connected to DH at universities as well as at centers which practice and research DH. It is enough to type the tag *digital humanities* or *digital humanities courses/centers* in Goggle or some other search engine to learn about that topic.

[4] For example, there is a big difference between the use of the new technologies in diplomatics and in historical geography search.

This process also leads to the formation of a new academic discipline, so-called digital humanities, whose field of interest and the definition are still being debated, as well as the importance of the use of computer science (particularly a special software) in humanities. Establishing digital humanities, as well as the process of defining the methodological basis of its research, opened a number of issues related to the application of new technologies – from the general mode of citation to the much more complex issues, such as those related to the research processes or the relevance of data.[5] Facts obtained by the historians multiply, and their use without special sorting programs may be too difficult and too large to process. Or, as it is already said: *It is now quite clear that historians will have to grapple with abundance, not scarcity*.[6] In addition, digital humanities is still branching out into some new sub-disciplines, which bring new questions and possibilities to historiography. The sub-discipline of DH connected to history is named *Digital History* and is also branching further out (e. g. digital diplomatics).[7]

Review of the Digital Humanities status in Serbia

Although numerous benefits of the application of new technologies such as acceleration, broadening or the increase of relevance are well-known, the specific tools are still not developed, nor central or other databases, which could be searched in the query form, while Historical Geographical Information Systems – HGIS[8] has not yet taken root. There are a few reasons for such a situation.

On the one hand, the use of the new technologies in different conditions leads to the creation of so-called *digital divide (gulf).* There are more than a few factors, which could contribute to this divide[9], but among them two are important for this situation: age and geographic divide. In the case of age, issues that are in the focus are *PC literacy* and a fact

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[5] Aleksandra Fostikov, Nenad Milenović, *Internet i digitalizacija u istorijskom istraživanju*, Istorijski časopis 51 (2004) 187–203. http://scindeks-clanci.ceon.rs/data/pdf/0350-0802/2004/0350-08020451187F.pdf#search=%22Fostikov%20Aleksandra%22 (Date of last access: 20.02.2013); Aleksandra Fostikov and Nenad Milenović, *The Citation Guide for Internet Sources in History and Other Sciences,* Review of the National Center for Digitization 7 (2005) 34–38. http://elib.mi.sanu.ac.rs/files/journals/ncd/7/ncd07034.pdf (Date of last access: 20.02.2013); Slobodan Mandić, *Problem citiranja elektronskih informacija*, Tokovi istorije 1–2 (2007) 221–232, http://scindeks-clanci.ceon.rs/data/pdf/0354-6497/2007/0354-64970702221M.pdf#search=%22Mandi%C4%87%20Slobodan%22 (Date of last access: 20.02.2013)

[6] *Understanding Digital Humanities: The Computational Turn and New Technology*, ed. David M. Berry, Palgrave Macmillan, 2012, p. 2 (David M. Berry). http://www.amazon.co.uk/dp/B007H9H4RY/ref=rdr_kindle_ext_tmb#reader_B007H9H4RY (Date of last access: 20.02.2013).

[7] The tags for search engines – *digital history*, *digital diplomatics* etc. The most interesting, on the subject of those terms and defining of this area, is a discussion between Daniel J. Cohen, Michael Frisch, Patrick Gallagher, Steven Mintz, Kirsten Sword, Amy Murrell Taylor, William G. Thomas III, and William J. Turkel: Interchange: *The Promise of Digital History*, Journal of American History, Vo.95, No. 2 (Sept. 2008), pp. 442–51 or online: http://www.journalofamericanhistory.org/issues/952/interchange/index.html (Date of last access: 26.02.2013).

[8] About HGIS, see: *The Historical-Geographical Information Systems (HGIS) Research Network* http://www.hgis.org.uk/ (Date of last access: 2.02.2013). There is one project in process: Aleksandra Fostikov and Stefana Janićijević, Reconnaissance, Historical-geography and Toponymy Research Of Toplica "and" with Image Modeling, Review of the National Center for Digitization 19 (2011) 67–75. http://elib.mi.sanu.ac.rs/files/journals/ncd/18/ncd18067.pdf (Date of last access: 26.02.2013).

[9] Those could be for example: economic, social, gender, democratic etc. The tags for search engines – *digital divide* + e.g. *economic*.

that a historian nowadays must learn and practice not only the methodology of his own discipline, but also has to learn and practice the specific techniques and tools for researching the Web and databases, as well as follow the new trends in this field of research. Consequently, in the beginning, only a small number of researchers of history and related disciplines were interested in digital humanities or working on the digitization and its standards, and their work was mostly on voluntary basis. Because of that, for a long time, there have been only a few project ideas based on cooperation of the science and humanities, especially history and natural sciences (including computer science), but that was during the initial phase. At the same time, the digital geography divide exists especially between local researchers and those from developed countries, affecting both the opportunities of historians to approach to the data, and the presentation of the researchers in the digital or virtual communities.

On the other hand, digitization projects, which were carried out within the institutions, had a focus on the first step in digitization in its prime meaning. In order to speed up the digitalization process, which is one of the essential prerequisites for the progress of humanities in this region, the initial efforts in this direction did not fully follow the highest standards – they mostly included just scanning of the text and its conversion to the files in PDF format, usually raw, without detailed text-search features. As a result, often even keywords are not fully searchable [10].

A step forward in the process of digitization was obtained through an agreement, which defines what a scientific text must contain, when it comes to the elements important for the description and indexing. This made the digital works searchable, at least on a basic level. But for now, only a small portion of this material is available online.

However, recently a positive change in the development of digital humanities has become obvious. A number of new projects about have been initiated[11], and just recently, the Institute for Balkan Studies held a conference named *Research in Virtual Space: New Technologies in Processing and Presenting Historical Sources in Serbia* with the intention of clarifying this topic.[12]

Digital versus humanities: on example of *Digital History*

In terms of presence and development of digital humanities, Serbian historiography still falls behind. It is still not recognized as a separate scientific discipline and it is not included in history study programs or teaching except on voluntary basis. In addition, its

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[10] Even big projects, like e.g. *SCIndeks* (http://scindeks.ceon.rs/Default.aspx?lang=en) still do not work in full search capacities.

[11] Beside the projects between various institutes or institutes and Faculty of Philosophy – University of Belgrade (with the main focus on digitization of periodical publications), there are two projects which have to be mentioned because they should be the framework for the next step: one is national and it is called Internet Library of Serbia for Arts and Humanities – IbiS (http://ibis.mi.sanu.ac.rs/index_e.html) and the other international – Monasterium.net (http://www.monasterium.net) which is designed for medieval historians. For now, only the Institute for Balkan Studies (http://www.balkaninstitut.com/staroslovenski/index.html) is the official participant of this project, but in reality all medieval historians can participate in it directly through the portal, as individuals.

[12] http://www.balkaninstitut.com/eng/conferences/held/held.html (Date of last access: 25.02.2013). Also, the same Institute organized the lecture called *Digital diplomatics*: *What the computer could change in the study of medieval documents?* which was held by the Institute's guest Dr. Georg Vogeler from the University of Graz on Friday, October 26th, 2012 in the Serbian Academy of Sciences and Arts. http://www.balkaninstitut.com/pdf/skupovi/Balkanoloski%20institut%20plakat%20A-3.pdf (Date of last access: 25.02.2013).

impact on the humanities is still being questioned by the academic audience on various grounds. These facts, accompanied with the evident existence of the digital divide and the reality of digitization still being in its primary phase, are questioning the relation *digitization/digital* versus *humanities*.

Beside the fact that there is almost never a need, it is not a relieving circumstance that there is no possibility for a researcher to touch the material source, also, a lot of questions about digital history emerge at the same time with the rapid changes in this area.[13] The fact is that there is almost no methodology for the use of new technologies, like digital tools or resources. Those rules must be established as soon as possible. One of the aggravating factors in the accordance with the existing digital divide (above mentioned lack of opportunities of historians to approach the data) is that researchers are unable to access in full the content of foreign portals and servers, which are updated almost on daily basis, as well as most of the digitized material within the domestic institutions, since it is not fully available online.[14] Also, a certain set of values created in the developed countries when it comes to implementation of the new technologies and their use, such as the possibility of searching through digitized academic material, cannot be fully implemented in the case of Serbian historiography for the time being. Therefore, researchers in Serbia need much more time to conduct their research and write the academic papers than researchers working in the developed countries.[15]

Consequently, the next step in the process should not be based only on progress of digitization itself, which is necessary for the relevant research of future historians (and other researchers in humanities), but also on the use of the digitized material which should be incorporated in a new sort of databases. Since only the researchers of specific discipline know how to establish some of the parameters and to distinguish the relevance between them it would be essential that they participate in creation of databases and tools at least as advisors. Also, there is an emerging necessity to include new technologies in teaching history as well as to include digital humanities as additional course to the university program.

And in the end, it must never be forgotten that *the digital humanities should not only be about the production of knowledge. It's about challenging the ways that knowledge is represented and shared*.[16] Of course, the more important issue is that *digital history* could give us a new view on history, in a way that was not possible even to imagine before the era of computing started.[17]

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[13] See introduction (*Promises and Perils of Digital History*) in the book *Digital History: A Guide to Gathering, Preserving, and Presenting the Past on the Web* by Daniel Cohen and Roy Rosenzweig. Online: http://chnm.gmu.edu/digitalhistory/introduction/ (Date of last access: 26.02.2013).

[14] Mostly, since there has been no additional funding of projects like *KoBSON* (http://kobson.nb.rs/kobson/objavljeno_o_nama.43.html), and since a sort of intranet has not been established yet.

[15] At the same time this is the main issue which influences the establishment of the rank and status of a researcher. Disadvantages when it comes to the access to digitized material result in smaller production of academic works and therefore in lesser citation i.e. impact factor, which determines the ranking of scientific journals. That situation further reflects negatively on the ranking of researchers themselves and their work, especially on the level of citation.

[16] *The digital humanities is not about building, it's about sharing*, published on May 25, 2011 by Mark Sample. http://www.samplereality.com/2011/05/25/the-digital-humanities-is-not-about-building-its-about-sharing/ (Date of last access: 25.02.2013)

[17] Edward L. Ayers, *The Pasts and Futures of Digital History*, University of Virginia, 1999. http://www.vcdh.virginia.edu/PastsFutures.html (Date of last access: 26.02.2013).

ДИГИТАЛНА ХУМАНИСТИКА ИЛИ
ДИГИТАЛИЗАЦИЈА VS. ХУМАНИСТИКА

Дигитална хуманистика односно *дигитална историја* иако је установљена као посебна наука заправо још увек представља изазов историографима свих периода, како српским тако и страним. Иако у ери компјутеризације нове технологије, дигитализација и дигитална хуманистика нужно морају да буду укључени у било које релевантно истраживање у складу са предностима и могућностима које пружају, у развоју дигиталне хуманистике Србија још увек касни у складу са постојећим дигиталним јазом. Последице тог јаза, а посебно географског видљиве су тренутно на свим нивоима, почевши од саме дигитализације која је тек закорачила ка другој фази развоја, па све до сфера науке и образовања, у којима, иако има напретка, дигитална хуманистика није у потпуности заживела. Стога, током преиспитивања општег утицаја дигиталне хуманистике на историјску науку треба имати у виду и чињеницу да наши истраживачи морају да уложе далеко више времена и рада у своје радове, и то у епохи која намеће брз и ефикасан научно-истраживачки процес. Како би овај заостатак био што пре смањен, а даљи развој дигиталне хуманистике омогућен, неопходно је да се што већи број истраживача историје, а посебно националне, укључи у њен даљи развој, макар саветодавно, зарад стварања посебних база и алата и увођења курсева, као и да се настава историје што пре освежи увођењем нових технологија. На тај начин била би избегнута и тренутна парадигма, која доводи у питање неопходност дигиталне хуманистике као појма супротстављеног традиционалној, јер управо дигитална хуманистика представља окосницу даљег развоја како истраживача тако и историјске науке, која први пут захваљујући њој може да рачуна са обиљем чињеница, које пак истовремено могу бити различито класификоване.

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