THE FIRST EUROPEAN SUMMER SCHOOL "CULTURE & TECHNOLOGY"

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From the 27th to the 31st of July 2009, the University of Leipzig hosted the first European Summer School "Culture & Technology". This fiveday seminar was attended by 36 participants from all over Europe (Germany, France, Netherlands, Hungary, Poland, Turkey, Ukraine, Cyprus, Italy and Serbia) and renowned specialists from European universities involved in significant digital humanities projects.

Organized for the first time and having the possibility of becoming a yearly event, the goal of this summer school was to link together culture, and new information and communication technologies in order to preserve cultural heritage.

The summer school was directed at an international audience - students in their final year of bachelor studies, graduates, postgraduates, doctoral students, postdoctoral students, teachers, librarians and all those who are involved in

the theoretical, experimental or practical application of computational methods in the various areas of the humanities, especially in libraries and archives.

At the University of Leipzig, where the school took place, Dr. Elisabeth Burr, a professor of French and Italian Linguistics at the Faculty for Humanities, first greeted the participants. In her opening speech, Prof. Burr briefly summarized the motives that led to the organization of such a seminar. She cited the complex relationship and interaction between the arts and the humanities aimed to preserve language, culture, cultural memory, and to study new information and communication technologies. Unfortunately, the potential of these disciplines is not yet fully recognized by the Computer and Engineering sciences, and, thus, all fields of the humanities fields to which computational methods, software

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and hardware systems can be applied have not yet been opened and recognized. However, the development of methods for the processing of diffuse and complex data as found in the humanities could lead to the development of new hardware and software solutions.

Prof. Burr pointed out the fact that computer applications and computational methods have been being used in the Humanities at least for the last three decades, but they are hardly ever included in college curricula for teaching the humanities. The integration of IT content into degree courses, which can empower students to employ computational methods in their studies, could lead to a better understanding between these two disciplines and, eventually, to the destruction of the artificial division between the supposedly "hard" (male) and "soft" (female) academic disciplines.

The Summer School "Culture & Technology" therefore aimed to bring together young scholars from the humanities, engineering and information sciences and offer them a space for the discussion and acquisition of new knowledge and skills in the field of computer technology and their application in culture, the humanities, libraries and archives. More specifically, the school offered humanities students the possibility to gain practical knowledge of applying computational methods to the digitalization, and description, analysis and the production of items from the fields of the humanities (languages, texts, images, etc...), to discuss related theoretical questions and to forge new perspectives in studies and the preservation of languages, culture and cultural memory and translation.

On behalf of the University of Leipzig, the participants were also welcomed by Prof. Dr. Martin Schlegel, Vice-Rector for Research and Young Scholars.

The Summer School offered four parallel weeklong workshops on several important digi-

tal humanities topics. Each workshop consisted of a total of 15 sessions, each lasting 90 minutes. The number of participants in each workshop varied from 6 to 12. Each participant could only take part in one course at a time. The following workshops took place:

-Corpus and Corpus Analysis in Language (and Literary) Sciences

Chair: Stefan Th. Gries, Associate Professor of Linguistics at the Department of Linguistics at the University of California, Santa Barbara

-Online Publishing using XML and TEI

Chair: Alejandro Bia, Professor for Statistics, Mathematics, and Computer Science at the Miguel Hernández University in Elche (Spain)

-Textual Analysis in the Digital Humanities. Methods and Tools

Chair: Jan Rybicki, Assistant Professor at the Institute of Modern Languages at the Pedagogical University of Kraków

-Transcribing and Describing Primary Sources using TEI-conformant XML

Chair: Christiane Fritze, Research Associate at the Berlin-Brandenburg Academy of Sciences and Humanities and Malte Rehbein of the Moore Institute at the National University of Ireland in Galway.

Every day after the final workshop session, lectures were given not only to the participants of the Summer School but for all other students who were interested. These lectures revolved around topics such as: the impact of technological development on the humanities; the relationship between the humanities, computer science and engineering; the creation of European networks of universities that would enable young scholars to acquire specialized knowledge, as well as for interdisciplinary qualifications.

In a lecture held on the first day titled "Multimedia Applications and Transdisciplinary Cooperation", Prof. Dr. Tapio Seppänen (Professor of Biomedical Engineering from the University of Oulu in Finland) named multimedia a motivating trend – its use and development result in numerous changes in different fields, while the number of multimedia items increases daily. One of his research interests is multimedia signal processing that aims to find a solution for retrieving information more efficiently by developing multimedia retrieval engines. Search engines of the future should be able to understand not only the title of a document, but its content as well. This complex analysis demands advanced techniques for the automatic interpretation of text, images and speech. In order to achieve this type of intelligent search, a cross-disciplinary approach is necessary in which researchers from information technology, applied mathematics and linguistics work together on the same team.

Prof. Dr. Ulrich Johannes Schneider, the director of Leipzig University Library and Professor of Philosophy at the Institute for Cultural Studies of Leipzig University presented a lecture on "How New Media Brings Total Change to Our Libraries". According to Dr. Schneider, there is no doubt that future libraries will look different from anything we have seen so far. Naming them connecting services, Dr. Schneider predicted that libraries in the future will no longer be places for privileged users but rather open to the general public. They will inevitably be more focused to the Internet and digital resources than on traditional paper resources. Some of the important issues that should be taken into consideration when talking about libraries of the future include access to information, formats, interface design, and in what type of media this information storage shall be (if not paper then what else?). Some big steps have been taken in this area, such as electronic books and reading devices as the Sony Reader, Amazon Kindle, and smartphones that are becoming ever more and more sophisticated and



user friendly. The mass production of electronic paper as an alternative to conventional paper can be expected soon. Also, several projects have been launched for the creation of global library catalogues, such as MICHAEL (Multilingual Inventory of Cultural Heritage in Europe) and WorldCat. Future trends in librarianship often predict more machines and less people. In spite of such predictions, the growing use of reading rooms has been noticed. This promotes one of the library's functions that has been neglected and that should be taken into consideration in the future – a library as a place for living. Dr Schneider suggested that new technologies are of vital importance for the academic community when it comes to manuscript reconstruction and reunification, since it is not uncommon that parts of the same manuscript are located in different libraries. The Leipzig University Library is involved in several projects of manuscript digitization and their catalogization. Some of the most important projects of this kind are the PA-PYRUS PORTAL, a portal for searching collections of papyrus from several German libraries, the CODEX SINAITICUS PROJECT, a project done in cooperation with the British Library, the Russian National Library, and the Monastery of Saint Catherina form Sinai in order to unify the parts of this 1600 year old codex, and the IS-LAMIC MANUSCRIPTS PROJECT, a project for the digitalization of 55 Islamic manuscripts.

The lecture entitled "Digital Humanities: Where Do They Come from and Where Are They Heading for?" presented by Prof. Dino

Buzzeti, Historian of Medieval Philosophy at the University of Bologna, discussed the development and application of computers through history, from mainframes to the semantic web and their use in the humanities and linguistics.

The last lecture "Humanities and Computer Science: A Personal View" was given by Prof. Dr. Ulrich Eisenecker, Professor of Information Systems and Software Engineering at the Information Systems Institute at the University of Leipzig.

On the last day of the seminar, a round table discussion took place in the lecture hall. The theme of the discussion was "Digital Humanities – New Questions? New Synergies?" The participants were: Prof. Elisabeth Burr, Prof. Dino Buzzetti, Prof. Ulrich Schneider, Prof. Ulrich Eisenecker, Prof. Harold Short, Director of the Centre for Computing in the Humanities at King's College London, Prof. Robert Hollander form the university of Leipzig, Prof. Ulrich Brieler, Historian, representing the government of the City of Leipzig, and Amy Römer, student of Romance Studies at the University of Leipzig.

The participants of this round table discussion expressed their views on the current state of digital humanities and on the possibilities of connecting the humanities and technology. In general, all participants agreed that there are no signs that technical development will slow, and that new technologies will inevitably be more and more used in the field of the humanities. The hybridization of the humanities and technology will open numerous possibilities for establishing new disciplines. New technologies bring significant advantages to culture and most certainly contribute to the idea of free access to knowledge. Materials that were very difficult to access, such as manuscripts, are now being put on display. Through the process of digitization, manuscripts and printed books are being put side by side for the first time in history. Digitalization is not only the transformation of a manuscript to its digital form; rather, this process allows the creation of new products by connecting parts of the same manuscript that may be owned by different institutions. New trends are bringing change into the research process, allowing scholars more intense co-operation and faster communication.

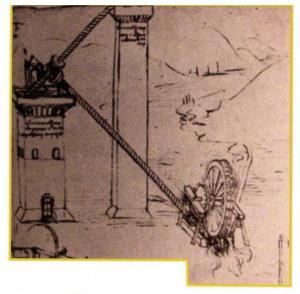
The participants agreed that one of the very important issues that should be dealt with in the future is the fact that the digital humanities have not yet been established as an independent discipline. According to Dr. Buzzeti, the digital humanities should be institutionalized. At this time, digital humanities courses are taught in undergraduate and master studies, but one cannot become a professor of the digital humanities. A solution to this situation could be sought through the promotion of this initiative on the European level through establishing master studies at a European university. Students obtaining a degree could then transfer their knowledge upon returning to their home institutions. By doing this, the idea of student mobility and transfer of knowledge would be promoted.

The participants of the Summer School had the opportunity to present what project they were working on during the school. One of the presentations which drew the attention of the audience was Toma Tasovac's "Transpoetika: A Digital Platform for Serbian Language and Literature" which is presented in Infotheca, Vol. 10(2009), Number 1-2.

Along with four other participants, I attended the workshop **Online Publishing Using XML and TEI**, chaired by Prof. Alejandro Bia. This intense course offered us insight into ways of representing text electronically, the basics of markup, the XML family of technologies, modeling document structures (DTDs and XML Schemas), and TEI. Prof. Bia presented the project of building the Virtual Library of Miguel de Cervantes in

Elcha, in which he had participated. He presented the basic project phases and problems usually encountered in carrying out such projects. During the workshop's last day, Mar Carrasco, Vice-Dean of the Faculty of Law of the University of Alicante, talked about copyright legislation, the most common examples of its violation on the Internet and its importance when it comes to building a digital collection.

The Summer School was organized in accordance with the celebration of the 600th anniversary of the University of Leipzig. Thanks to the generous support granted by sponsors, the costs of accommodation and travel for all participants were covered



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EUROPEAN SUMMER SCHOOL "CULTURE & TECHNOLOGY"

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