**Duridanov — Digital**

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**Digital Humanities Educational Vehicle: New Patterns of Research and Learning Approach in the Digital Age of Access**

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Our paper presents an ongoing project aiming to create a close-to-work *virtual ambience* and tо develop interactive research tools for digital humanities (DH), implementing the traditional experience of arts and humanities into a dynamic interface for cultural information retrieval. The approach, discussed in this paper, offers a humanitarian perspective to human-computer interaction and interface design. The project develops the ‘expressive medium’ and ‘exploratory laboratory’ view of DH (Svensson, 2010). Three aspects are highlighted concerning the deployment of an exploratory laboratory as an educational vehicle for expanding the knowledge of information and communications technology (ICT) students in humanitarian areas. The educational aspects include:

1. Complementing essentials of global experience on the ‘big arena’ of real professional interaction where business actions require the mastership of culturally rich ‘mixed mode’ interaction. Global experience here is considered to be

(a) Professional experience to work in a distributed global environment, as well as

(b) Extension of mental models to interact intuitively focused at the ‘big picture’ of real life, in real teams and real markets.

2. Perceived sensitive channels of cross-cultural background impacting interaction, which are the dynamic mechanisms enacting our practical solutions and business procedures.

3. Disclosing the hot spots of a multidisciplinary interconnectedness and applying associatively a methodological sensibility to various historical and cultural key aspects of modern phenomena.

This DH initiative is implemented within the framework of UWS PX (Professional Experience) projects for ICT students. The PX projects create an engaged learning environment in which students address real problems and form collaborative student teams; these teams are provided with initial requirements by a ‘client’; through the interaction with the ‘client’ and participatory agile software development with the ‘client’, students develop a shared concept and implement it as a computing system.

This is the formal vehicle, where an interdisciplinary team of lecturers in the humanities and in information technology from NBU Sofia acts as a ‘client’ for UWS PX student teams during the last four years. Due to geographical distance they communicate and co-create only by using virtual channels of interaction.

The development of a shared concept requires ICT students to focus on a selected variety of sensitive profiles innate to the areas of arts and humanities. They have to immerse into the multilingual reality of southeastern (SE) Europe (6000 BC–AD 1000) where ‘national mindsets’ and spoken languages were not a barrier for communication on the commercial routes. Since 2011 a shared understanding of a multifaceted cultural focus at various times and geographical areas has been developed which is to be accessed on a map/timeline (Duridanov et al., 2013).

The paper presents the outcomes of a four-year collaborative work focusing on the development of an integrated associative environment, aiming to educate the so-called digital natives or Millennium users—terms used to denote youngsters who grow up with digital technologies and interact with them intuitively from an early age.

The associative environments that we build up within the series of projects are computer-generated environments based on the idea of human perception and spontaneous associations in everyday life; they are intended for the use of collaborative research and participatory learning. The main managing principle to be highlighted is a ‘spontaneous protocol’ (Duridanov and Zareva, forthcoming), which requires the user to click continuously or hold on a website as a ‘second home’, to change roles within ‘game strategies’ as well as levels of knowledge. The whole procedure of creating associative environments should be considered as an organically developed sensibility. We intend to disclose the ‘hidden mechanisms’ of how digital natives and digital immigrants interact and construct a Web 2.0 ambience on educational ground.

The vision of the project is to build a DH educational environment as an open-source ‘virtual library’ equipped with access and analysis tools. It borrows and extends the idea from the movie *Disclosure* (1994) (Duridanov and Simoff, 2007; 2008; Duridanov et al., 2013). The so-called library is the core, which expands gradually into an ‘educational center’, where students have online access and interfere in a noncommercial way, play and develop ‘virtual scenarios’ and ‘associative ambiences’. The center will be hosted by New Bulgarian University Sofia (Duridanov et al., 2013) and will continue to develop the ‘infrastructure’ with further collaborative projects between both universities, with the participation of other research units as well.

The following components of an integrated environment have so far been developed:

(A) A digital library, allocated in a 3D animated ambience (using Second Life), emulates a four-folded access to a ‘systematic catalog’ which appears on two websites as walls of an octagonal room securing linguistic and geographic/historic access (via map with a timeline). The fourth access to religious rituals of everyday life will succeed touching a word (via linguistic access), a location (via geographical map), or a historic moment (on the timeline below the map). The four-folded access is extracted from the methodological works of the late Prof. Ivan Duridanov, where the names of gods, tribes, mountains, rivers, and cities in ancient SE Europe have been proved to be ‘interconnected’ and create an ‘associative environment’ whose ‘windows’ could be opened to enter a past moment of cultural history or location within that moment. The main problem to be solved here was the accessing of multilingually presented names in PDF documents. The implementation of Latin alphabet as a ‘standard language’ on STICKY NOTES had to be replaced by opening the page via accessing a FAVOURITE, because of the too long ‘opening duration’ of a document (Duridanov et al., 2013). Presentation of some of the outcomes can be viewed as follows:

Part 1: http://www.youtube.com/watch?v=7CQx\_10wq9

Part 2: http://www.youtube.com/watch?v=rbealR7f1JA

Part 3: http://www.youtube.com/watch?v=IFUaGetbl2o

(B) A geographical map with a timeline presented here is to be accessed via a website with a ‘double window’ to a mind map of a historical moment or a geographical location to disclose visually the above-mentioned ‘associative links’ that at first appear as ‘hidden knowledge’ to the student. The main problem to be solved was here the ‘designing’ of rivers extracted from the scientific documents. Presentation of some of the outcomes can be viewed at http://youtu.be/jf5imrPoZHU and http://youtu.be/k2p7U7YvMPY.

(C) Virtual environment for cultural reenactment. Here were tested two 3D animation programs (Blender, 3D Unity) to approach easily an Orphic ritual of everyday life focused on the initiation of 12 figurines into an ‘inside knowledge’ by a priestess. The Thracian ritual selected by NBU classical scholars highlights a very modern way (it could be said) to access the ‘secrets’ of knowledge applied in ancient times. Therefore the selection of 3D animation appears be an intrinsic part of an agile development of a participatory learning ambience having modern educational value, because it visualizes the ‘hidden point of view’ of a participant as well as that of a visitor. The process and the outcomes of this work will be demonstrated during the presentation.

Methodologically the project follows an agile development strategy to cope with the unpredictability. The methods face three problematic fields:

(a) Innovative ‘infrastructure’ of associatively developed participatory learning in a virtual environment.

(b) Communications between the two project teams proceed only ‘virtually’ and develop a cross-cultural attitude.

(c) ‘Mind navigation’ proceeds intuitively to structure a ‘mental merger’ between the traditionally opposed areas of informatics on the one side and arts and the humanities on the other side. This means a complete revision of familiar semantic notions, i.e., a ‘code breaking’ procedure that has been negotiated explicitly step-by-step for ‘both sides’, not only at the very same beginning. Here is to be stressed the introduction of an interdisciplinary ‘mixed approach’ enacting constraints of arts and humanities (classical studies, linguistics, history, social psychology, and archaeology) into an ICT strategy for students and research fellows of all areas.

The main results are to be conceived on three levels:

• ‘Fusion’ of various segments of disrupted knowledge.

• Development of close to market professional know-how and behavior sensibility.

• Project management milestones developed as integral parts of an integrated Open Source Educational Center for the so-called digital natives.

**References**

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