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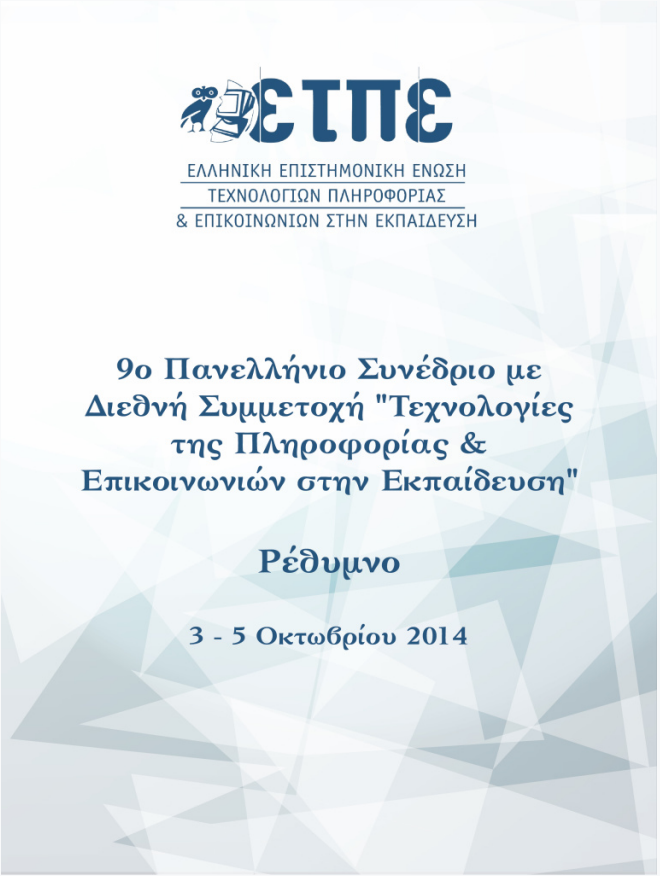

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Learning Experiences using Computer Supported Collaborative Work for Future Journalists

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Abstract

The aim of this work is to examine educational issues related to the adoption of Computer Supported Collaborative Work (CSCW) practices in the field of Journalism Education. The presented Cloud-based system – through the appropriate training and the development of course material- is expected to be used to access knowledge management, decision-making process and professional attitudes for future journalists. Microsoft365, is employed as an CSCW activity modeling system. This paper presents a general framework for designing and developing CSCW processes in Cloud-based environments, integrating new learning approaches and techniques.

Keywords: Information and Communication Technologies, Computer Supported Collaborative Work, Virtual Learning, Journalism Education

Introduction

There is growing interest in information and communication technologies (ICTs) in the field of media education. One of the major issues for educators is the integration of these technological advances and educational challenges in the curriculum. Most of the Journalism and Mass Media schools' curricula usually include a) theoretical courses, and b) lab sessions on acquiring practical computer skills. Further, the majority of universities provide Course Support Environments in order to increase the efficiency of some aspects of course participation and/or make some aspects of course participation more flexible to better meet the needs of individual students (Veglis, 2005). Despite the wide use of these systems for the course material management, few seem to respond successfully to the evolving needs of the pedagogical and technological methods.

In journalism new types have emerged, namely multimedia journalism (Bull, 2010), and data journalism (Gray, Chambers, & Bounegru, 2012), which require journalists to possess special ICT skills. As a result journalists must be competitive in this very demanding media market (Veglis, 2013). They should learn how to use a wide variety of digital products, including web applications and multimedia (Rosenbaum & Swan, 2003). Recent studies conclude that future journalists must be familiar with the common cloud-based applications (i.e. e-mail, blogging, etc.) as well as the common collaborative processes (i.e. editing, storage, audio/video conferencing, etc.) at an intermediate level (Sidiropoulos & Veglis, 2013).

To this extent, CSCW systems combine a wide range of technology and tools that could be used by educators, in a general framework, for designing and developing educational resources enabling learners to engage. Collaborative Virtual Environments (CVE) have also been proposed as an alternative for improving those aspects in CSCW systems (Sarmiento &

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Collazos, 2012). On the other hand, a Project Based Learning approach is vital for the evaluation of learners. In order to implement the previous described educational scheme we have selected the Microsoft365 platform.

In this paper, we propose a collaborative learning example using ICT technologies following two learning approaches (Computer Supported Collaborative Learning -CSCL and Project-based Collaborative Learning - PBCL) and using the related group technologies (groupware) in order to implement it.

ICT Education to Future Journalists

ICT education today in general and especially in the field of journalism presents a multidisciplinary approach that can include Web2.0, Computer Supported Collaborative Work (CSCW), and Cloud Computing technologies. All the previously mentioned tools and services can be included in life-long education which is considered to be vital in the continuous update of journalists' skills on ICTs. It is worth noting that ICTs have changed what educators teach but also how they teach future journalists. Today the curriculums of journalism departments include a bulk of courses that include the use of various ICTs (Lappa & Veglis, 2005). However, some researchers have mentioned the lack of connection between journalism educators and professional journalists (Chung et. al. , 2007). In our study, it is assumed that journalism students, working on projects in the field of CSCW, develop sophistication in using the web, and are educated on the new technology in combination with their journalistic tasks through the project development process. The appropriate learning approach combined with technology could also contribute to the expected learning outcomes.

Computer Supported Collaborative Learning (CSCL) and Project-based Collaborative Learning (PBCL) Approaches

Research on Computer Supported Collaborative Learning (CSCL) approach enables students to become participants in collaborative work practices and achieve same goals collaboratively. This CSCL approach is currently exemplified by CSCW or Virtual Teams. CSCW technologies could be applied to collaborative learning allowing learners to study in a virtual team without being physically present in a common place (Weinberger & Fischer, 2006). Also by adopting CSCW technologies students could easily study cooperatively to acquire knowledge (Komis, Avouris, & Fidas, 2002). On the other hand, due to the importance of university-industry cooperation, a project-oriented learning approach is needed for the improvement of the learning outcomes (i.e. problem solving, communication skills, technological competencies). Adoption of Project-based Collaborative Learning Environments as the platform for e-learning is motivated by several reasons. First of all, these systems help learners to implement real-time collaborative work either as coordinators or as team members. This includes providing support for learners to set their work processes, manage their content and communicate with other team members in parallel with learning process (Bagheri, Ali, Abdullah, & Daud, 2013). A PBCL combination with CSCL approach will be based on a collaborative project in which students will increase their knowledge and skills in terms of communication, teamwork and technology competencies and towards CSCW technologies attitude in their future professional practices. The purpose of this study is to gain an understanding of the students' perceptions about CSCW systems. The strong evidence concerning the effectiveness of CSCW is still missing, together with a consensus on how, when and for what purposes CSCW should be employed in journalism.

Computer Supported Collaborative Systems

Emerging business collaborative technologies in education, especially computer mediated communication, could be really effective for students afterwards in the ease of employability, teamwork motivation and social awareness. Video conferencing technology, for example, has currently been available in many cloud services either as embedded application or as a service. The technological progress of cloud infrastructure has significantly influenced a wide development of such services. To this extent, Google offers its cloud applications supporting collaborative work (i.e. Google Docs, Google Calendar, etc.), Facebook provides users' private groups and Microsoft offers its applications as web-based services (Sidiropoulos & Veglis, 2013). Among the significant number of CSCW platforms available, Microsoft365 has been chosen initially to be studied. Microsoft365 integrates tools or learning activities oriented to synchronous (chat, web conferencing), and asynchronous communications (email), file sharing (storage), et.c.

The Scenario

The following scenario has been designed to evaluate the project-based collaborative learning activities that were defined above. At the beginning of the semester, a case study on newspaper workflow is presented to the students. The initial task is to analyze it, focus on the group processes and choose the necessary tools. The instructor will assist them in the definition of the project objectives and will lead them in a way to manage every task collaboratively. Each component of the case will require a series of weekly virtual meetings, presentations and reports. Every task will be completed using Microsoft365 (i.e. the presentations or reports will be created using the Web Microsoft apps).

The Microsoft365 system and related concepts will be introduced to the students during the course, with supportive material such as: step by step instructions, webinars and user manuals. In order to facilitate the adoption and usage of the system, Microsoft365 accounts will be provided by the instructor to the learners, and will be created only with the purpose to be used on this specific course. The instructor as the administrator of the platform can easily monitor and control the project progress as well as assign tasks to the students. The technological skills of the learners will be measured at the beginning and the end of the course (i.e. usability questionnaires). No further collaboration features will be used in this part of the case study because of the short time available to deploy the learning activities.

The course will be divided into three phases based on the PCBL approach. The phases are as follows:

- Phase 1: Requirements Specification
- Phase 2: Implementation of the Group project
- Phase 3: Evaluation

Data will be collected from transcripts and questionnaires implemented during focus groups sessions. Four research question categories will be used based on the literature: a) usability of the CSCW system based on the System Usability Scale (SUS) questionnaire b) impact evaluation of the CSCW system c) project-based learning experiences using CSCW systems and d) CSCW practices adequacy in a media environment.

The Learning Activities

Four learning activities will be assigned to the students. The first one refers to the Group Scheduling that enables the team awareness concerning timelines and task scheduling. This

task will be followed by instructor's project monitoring. In this level a students' first evaluation will be implemented. The second learning activity will contribute to the overall students' communication and task management activities through the participation in virtual meetings (topics discussion/information exchange) using the Microsoft365 platform. In this case, it is important to check how often the students use the web conferencing tool instead of physical meetings. It will be decided that a web conference (at least) should be implemented every week, in which the instructor will participate. At these meetings, they will report their progress, discuss them as well as what they will do to resolve them, and describe the next steps.

The objective of the third learning activity is to enable their group-editing process for the creation of new learning materials (i.e. articles for Wikipedia) and then to present them by using the online presentation tool. The fourth learning activity will be the presentation of this material using the web conferencing tool and dissemination of this work through the Microsoft365 support for developing a project website.

Conclusion and Future Work

This paper has studied the issue of ICT and more specifically of CSCW learning experiences on the Journalism Education. The study has identified a research framework for a more compete survey leading to a mature future integration of this field in the learning procedures. The implementation of the proposed scenario and the evaluation of the educational outcome will help us in determining the future extension of this work that will without doubt include the further integration of CSCW systems in the learning process of future journalists

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