Questions Regarding Alterity in Social Collaborative Networks

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Abstract

The idea of alterity has become important in the last decades, when talking about the Information Age, which provides acknowledgement to the software development specialists about the importance of understanding the other's behavior, needs, objectives, and beliefs. Our main purpose is to bring to attention the question of social representation related to the images of individuals as different entities that are integrated in virtual teams, virtual projects, and e-activities. Regarding the consciousness about the other's alterity, we assert that it opens a dialogical perspective about the Information Society, where it is essential to share and communicate knowledge to the others.

Keywords: alterity, identity, social representations, social network, dialogism, globalization, e-activities; collaborative systems;

1. Social collaborative networks assessment regarding alterity

Collaborative software appears as an entity that supports people who are usually placed in different geographic areas, but with similar concerns about a specific domain. Collaborative work proved to offer efficiency and success in achieving difficult tasks, reuniting the experience of specialists, gathering their knowledge and expertise in a very short period of time. Our concern is to examine the way in which the question of alterity still stands when talking about collaborative work in many domains, such as higher education, with the aim of supporting students or young researchers with precious information for their teaching, learning and research activities. Our desire is to study the way in which social collaborative networks help people solve the problems of alterity.

The concept of collaborative systems is based on *computer – supported collaboration,* which presumed the evolution from the traditional cooperative work study[1], and the support of the people collaborating in work activities and relationships. In [2] we have the concept of *computer supported collaborative work* (CSCW) as a multidisciplinary research field involving the way in which the collaborative activities are to be accomplished and in which way their coordination can be supported by means of computer systems. Our main idea is to analyze, make comparisons, validate and exemplify how collaborative software affects the quality of the teaching and learning process in higher education.

On the other hand, distributed systems provide the appropriate framework for the building and development of collaborative systems. Even though in this case the common goal or the objectives of the users, also referred to as agents, is the most important factor, the framework on which the collaborative software application is built and running cannot be ignored. As a consequence, the distribution of data and software becomes key elements in application development and data management. Still, another important aspect is related to the software quality, meaning that information has to be found very easily and with minimum errors and redundancy.

Collaborative software and collaborative work permit that users have *social interactions,* by using social conventions and rules, in order to communicate and build virtual teams. Social computing presumes that any kind of social behavior is supported by the computer system. In

addition to social computing, social information processing is an activity that describes the way in which human knowledge is organized by collective human actions. In the medical domain, such as surgery [3] knowledge exchange and common experience allow specialists from remote places to cooperate and reduce the duration of procedures, by creating virtual teams and working together for helping the same patient concurrently.

In our case, the software application we created allows teachers to help the students, also by making virtual teams each of them having a common goal, to increase the efficiency and quality of higher education. Each student has a web account with username and password, as well as all the teachers from the department. Common tasks, such as project development become easier to accomplish by web-uploading each version of any project, which may be reviewed and modified by the other members of the team, depending of the reputation and credentials each member has. There are some restrictions, which require the member who modified any particular project to notify the person which initially posted it, and get his permission. Each user action is well monitored and if it is necessary, the system will reduce or diminish the access, rights or reputation the user has in the social computer – mediated community. However, these cases are very rare, the grand majority of the people who use in their daily activities the educational collaborative system being focused mainly on achieving the scientific goals.

2. Questions of individual identity in E-activities

The idea of depersonalization in Information Society is very often talked about by researchers from different areas. Virtual activities, e-government or other activities related to the computer network are sometimes considered as ways of people to get secluded and away from direct social interactions. The advantages brought by the Information and Communication Technology (TIC) are very substantial, side effects as those mentioned before just being inconsequential and unimportant. However, questions about identity do appear, as relationships and businesses are tempted to become more and more automatic, mediated by communication equipments, impersonal and remote.

We would like to point out the major benefits and results of using the Internet, the electronic equipments and software in the way of how the people interact, do business, communicate and get informed. Personalization of services offered by the political administration, which has been thought almost impossible to realize for many decades, is now easy and accessible to any democratic country due to e-government. The individual is placed in the status of the otherness, treated with respect and helped to accomplish the social and civil obligations.

Individual identity may be seen as a sequence of alterity by the political administration in e-government, the other of the two, as the principal of the join, *government – citizen***.** The Danish model must be applied to all the EU countries in order to make this relationship more efficient socially and economically. On the government's side, public services such as education, health or public defense will be offered to the public with more competence and personalization. Consequently, the diminution of costs, harmonization of the regulations and policies of doing business by the public and the private sectors are easier to accomplish due to the implementation of new technologies. It is very important to assure a reliable system of authentication, in order to have a reliable and strong technological infrastructure for the function of e-administration.

Large amounts of money are invested in the Electronic Identity Management by the member states of the European Union for granting a secure system for people to identify themselves, their signatures and stamps becoming a matter of the past. It would be straight-forward to say that *behavioral and social reengineering* appears as a new phenomenon while adopting procedures for evolving to e-Society.

Identity is defined as a collection of attributes that describe an entity, citizen enterprise or object. The entity must be distinguished by any other, identity becoming a key component in many social and economic relationships. On the other side, *alterity* has its theoretical background in the deciphering, understanding and celebration of the Other [10]. The concept may be easily adapted for the postmodern or postindustrial age, where knowledge gains importance and the role of the

main economic resource, as a key element for business development or social evolution. Developing a framework for e-activities involves unquestionably redefinition of the business' identity, or the government's identity in concordance to the identity of the beneficiary. Rethinking from the sociological point of view or socially reengineering the business' or government's policies in order to satisfy the society's needs brings to light the perception of the Other as the *alterity.*

3. Different users, poles apart ideas, different self-esteems and one common goal

As in all social systems [4], in the virtual reality constructed thanks to Computer Mediation, different people interact sharing their knowledge and experience. In our situation, the educational portal has been built for the students and teachers in *The University of Bacau,* where the teachers place learning material including eBooks, seminar material, laboratory work and various examples for students to access from distributed geographic locations. Each student has a unique username and password in order to authenticate himself in the system. After the authentication process [5], the person is able to get in touch with the colleagues, to look for a specific material or place his own. All of them form a virtual community, which mirrors the school community, working in addition to the academic schedule, and trying to provide a higher level of efficiency to the education process.

Portlets proved to be the most intelligent way of presenting information on an educational portal, due to the richness of the user interface tools. The portal may be found at http://cursfs.ub.ro URL. In Figure 1 there is a screenshot of the 2nd year students section in educational portal, which is very easy to use and helpful.

Figure 1. 2nd year section in the Educational Portal

Despite the divergence of each members individual interests and structure, the media as well as the Internet become new forms of social binding, and we believe they do not exclude the traditional ways of communication and interaction, but help people in their duties, in addition to the traditional, formal ways. In Figure 2 [7]. there is a clear image about how each of the benefficiaries interact with the educational portal.

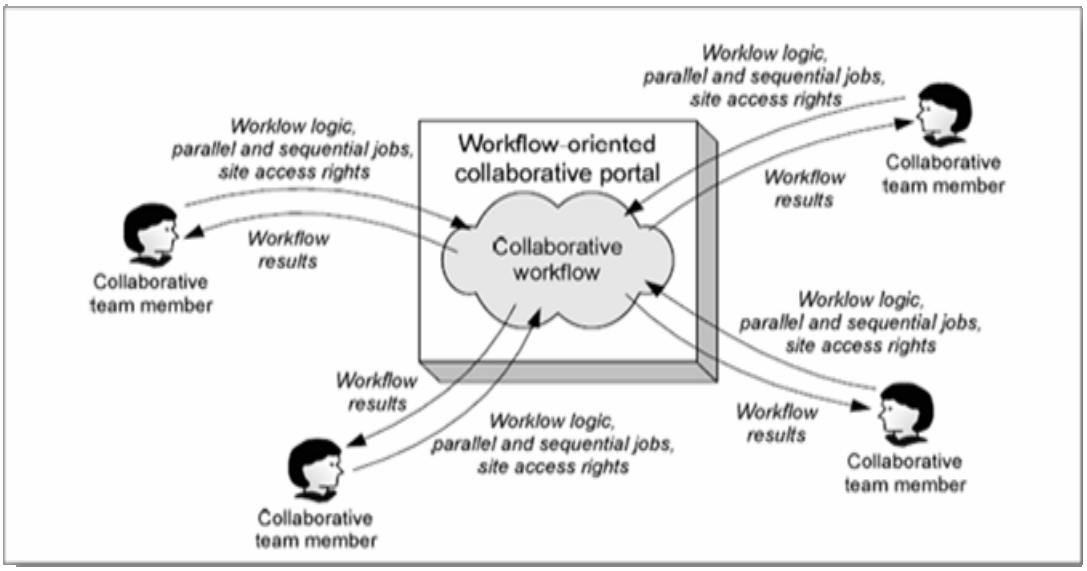

Figure 2. Workflow in Collaborative Portals

As we have mentioned before, depending on the job, rights and reputation, every member of the collaborative virtual team interacts with the system. He is a beneficiary of the results provided by the system, which allows cooperation with his colleagues. Common tasks are greatly achieved and the duration [8] between the decision of realizing a task decreases significantly.

As a complementary theory alongside the software systems *constructivism* may be seen as a way to improve the efficiency of the education process, and guides the students, helped by the collaborative portal into building their knowledge with their own instruments.

4. Constructivism in collaborative systems for higher education

One of the most important educational theories in Computer Science is Constructivism, which transforms the role of the teacher to guiding the student in building his knowledge. We believe that this assertion has real possibilities of implementation, the student becoming a young researcher during the laboratory activity or practical work as well as in his theoretical approach to Object Oriented Programming or other subjects such as Data Structures and Algorithms from the syllabus which are also approached by the collaborative software system.

It is advisable that in addition to the course material, the student himself should find other materials such as online documentation, virtual libraries e.g. MSDN library, developer forums and dedicated software manufacturer sites, such as *research.microsoft.com, www.ibm.com/redbooks* in order to complete and research the software development. The teacher becomes a referee and a trainer at the same time, offering directions, advice, and strategy. The portal helps him, due to the links and dedicated sections in the individual research, as well as cooperating with his colleagues, by creating a virtual team with a common goal and also with precise tasks to be achieved by every member.

The knowledge is not a copy of reality, but a construction based on the information and knowledge the student already possesses due to research and individual work, being helped and supported with direct or indirect information by the teacher. Consequently, each young researcher creates his own models, ideas, software, plans but some of them may not be viable. At this moment, the teacher will play the role of filtering the products of the student's activity, keeping the good answers and results and separating them from the insignificant ones. The idea that *Computer Science* consists of a union of algorithms which have to be memorized by the student by heart is a very bad one and should be forgotten. Algorithms must be determined while researching or programming precisely at the moment when they are needed and not illogically learned, just in case for the future.

Active learning during virtual laboratories and virtual courses is very important, multimedia technologies playing an important role as well, the teacher asking things that students have to think about and deal with using their own instruments. They must solve many problematic situations such as offering solutions to problems uttered by the teacher, complemented by scientific research. In addition to active learning, the students should be advised to use *cooperative learning*, when having projects. A project should be given to a small team of students as a common task, which should be finished before a deadline.

This type of work brings into light the advantages and specification of teamwork. Each team should have a team manager or project manager that coordinates the work of team members. He is also entitled to give tasks, discuss with the team members in order to do the work efficiently and at the right period of time. The characteristics that distinguish cooperative work from group work are described in [6].

Positive independence means each student being aware that he needs the others from his group of research in order to accomplish the task. In software development the time when software applications were made by just one person has been long gone. Each step of the development process is designed, realized and audited by teams of specialists. They know that the work must be done by the whole team and not just one member, each member knowing precisely his duties. The students who will become software or computer specialists must be aware about the importance of collaboration. Another important characteristic in Computer Science teaching and learning is the *individual accountability* that indicates the quantity and the quality of each member's contribution. The project manager as well as the teacher can evaluate the quality (which includes also the amount of time) of the work and if the programmer (student) accomplished all his duties. *Promotive interaction* means that the software developers or students must support each other when help is needed. The teacher has to support and encourage the students as well, in order to get satisfactory results.

By having a good and reliable collaborative system, all the tasks will become easier to accomplish, due to a reliable software framework and the good will of the professors. It is also important to mention that the system respects the copyright of all the users.

5. Conclusions

Collaborative systems are one of the most important ways of creating virtual teams and of improving the quality of the education process. Distributed applications with portlets or portals are the framework on which the collaborative activities take place, reducing projects duration and optimizing the allocation of time and space resources. Constructivism appears as a theory which harmonizes perfectly with the collaborative perspective of Computer Science Education contributing significantly to the increase of efficiency.

The concepts of identity and alterity must be taken into consideration while working with collaborative software. Sociological aspects of Computer Science and Human Computer Interaction must be taken care of, especially when building collaborative systems for education. The results will improve significantly and a higher level of efficiency in the educational process will be gained.

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