

Knowledge management and e-learning

Augusto Bernuy

Universidad Tecnològica del Perú, Av. Petit Thouars 116. Lima, Perú

abernuy@utp.edu.pe

Abstract. The paper presents a new approach in order to improve learning process in distance education (“e-learning”) at universities. Knowledge management has a approach as a collaborative model designed in last research in order to complete one logical structure and design an additional process learning. The experience indicates that to obtain good results we should evaluate the differences between the criteria of the professor and the criteria of the student about: the educative aspects, the user reaction (in each perspective), the reading aspects (in the student) and complementary material. Thus, collaboration and quality are managed when the learning process is based on design, the designer, the professor, participation level, student profile and his characteristics, the motivations and evaluations. We will need continuous reflection and evaluation for the organizations and the structured learning programs, looking for educative yield and productive development. The paper is a contribution to work with human collaboration for the information society.

Keywords: Knowledge management, Collaborative learning; process learning, software agent.

1 INTRODUCTION

Our approach is that students can learn to identify moral, ethical and human questions that definitively always have been present in learning process (Martín, 2005). We are looking for the center of the learning process in the students, and human collaboration with its environment. Many things can be reused and improved to construct learning examples in different disciplines, in order to obtain knowledge and to promote collaboration among students. The learning atmospheres must adapt to behavior of the students, motivating collaborative work and the construction of social activity networks. For each process we must explore social and cultural interchanges, new ways of collaboration, in freedom and with ethical responsibility, but also inside a e-learning approach.

Now we need systems to provide intelligence in order to facilitate and management the learning activities of students, collaboration among students, interactions among students, teachers and the learning objects. The goal of our research is discusses new model and new way to improve collaboration between the most important parts of the process learning: the students.

2 Collaborative LEARNING

We are looking for e-learning models and collaborative learning.

2.1 Knowledge and e-Learning process.

The student must be included as the center of process learning, and the human collaboration as the fundamental support to obtain success. "The Virtual University term would have to include a systemic concept" (Sangrá, 2001), where it is possible to capture knowledge, research, develop projects, supply society solutions, participate in forums, diverse problems, specialized events, scientific events, cultural events, etc.

The first problem is human contact needs; people need to be in contact with other people, to share with them their activities, which mean to share their problems, hopes, activities and solutions.

2.2 Elements of process learning

The Mind-Mapping for Web Instruction and Learning is based on three components (Chacón, 2003):

- 1) Object of learning;
- 2) Strategies of learning;
- 3) Design of outlooks for learning.

They help in the processes of learning such as personal abilities, declaratory knowledge, and problem solution, among others. For each learning process we identify an appropriate strategy and construct the groups that represent associated events.

We notice that great capacity of collaboration among students must exist to introduce them into the object of one course development. Nevertheless the collaboration does not appear as an important part in the structure of design, and the model does not consider the student as a process centre.

2.3 Collaborative e-learning

Actually, the motivation is provided by professor when he has observed deficiencies, negligence or poor points in a student. The professor explains to the student that he must make an additional effort and how he must do it. Perhaps this does not happen in e-learning as the way we know it, but we have to handle this issue in e-learning process.

A collaborative model based in software agent has two processes and we can think about reload capacity in (Bernuy and Martin, 2006):

- 1) Collaborative work process and the formation of student communities;
- 2) A process of educative networks, like social networks, where human and social activities are integrated. This process is showed in figure 1.

We must have measure mechanisms and evaluation of results, and then we are being able to support increasing demand without losing quality (Arteaga and Fabregat, 2002). We know that similar learning technologies do not have similar predictable results. Their effects are determined by the decisions that people do in order to improve the educative policies, and these decisions are in many cases determined by the paradigm model of a university.

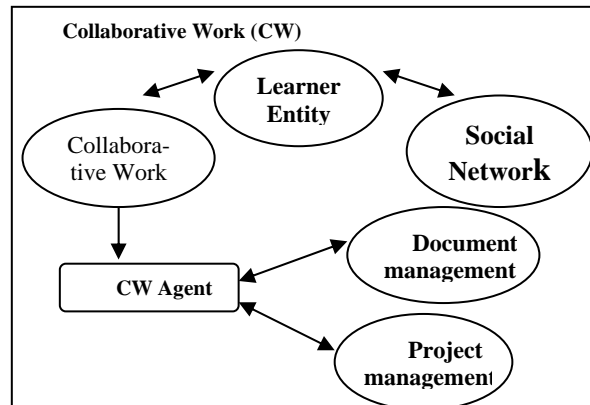


Figure 1. Software agent for collaborative work.

3 KNOWLEDGE AND SOCIAL NETWORKS

The Educative Networks are Social Networks. The software agents have different roles in order to supply needs of the human side of students. It is necessary to prepare the design with moral and ethical components, and there is a reason to make a deeper analysis in order to decide if we can allow different types of behaviours of the students so that they trust.

At the moment the design one specific course we will be open to receive communications and to propose interactions with students for friendship subjects, culture, sports, entertainment, and social aid, among others, where the values will be to distinguish and to capture them, like affection and satisfaction from their environment. See figure 2.

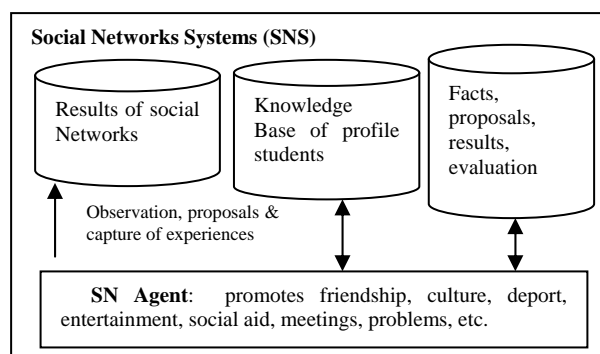


Figure 2. Collaborative Agent.

The basic rules are experiences and trust. If they do not exist then the system will fail. Under these elements we can observe the behavior in the next structure:

- 1) The students are in one place like their university and they do the relationship between themselves;
- 2) The students are in different places like two or more universities and they want and need to share activities for growing up;
- 3) One student is alone and need the collaborations from the others but he does not know them and has not enough interpersonal skill to looking for them.

4 CONCLUSIONS

A lot of work we have to do is related to confronting the social demands about education at university, and we must improve the quality and ethics issues in order to educate students in ways to confront the future successfully in future generations.

Student can learn to identify moral, ethical and human questions that definitively always have been in the learning. We need to motivate collaboration and the construction of social activity networks. Perhaps one of the greater problems will be how we can measure the results.

Many countries feel that their economic future and culture depend on universities international standards (Kauko, Satu and Staffan, 2001).

Now, with this approach for each process we are able to explore social and cultural interchanges, new ways of collaboration, needs with ethical responsibility.

The systems also must handle intelligence for:

- 1) Extracting the existing knowledge of students and tutors;
- 2) Finding different indicators for arrival to a goal;
- 3) Proposing new collaborative methods between networks to allow the academic work and those like human collaboration;
- 4) Processing characteristic synthesis, representation, modelling, reading capacity and balancing the work groups with suggestions and advice, as we do in the classroom.

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