Chapter XXIII
E-Learning and Solidarity: The Power of Forums

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ABSTRACT

This chapter explores solidarity as a social dimension in the context of e-learning and the Semantic Web. Its aim is to explore where the students show more solidarity with each other—in online learning environments or in offline settings? In the context of this chapter, the term “solidarity between students” means the sharing of useful resources between group members. Online forums are the major Web service that we shall use to support solidarity online. In online forums, we can ask complex semantic questions knowing that someone will understand the meaning of the question and hopefully will give us a good answer to it. Add to forums the possibility of annotation with metadata and we can also depend on them to retrieve meaning rich historical information. The research is based on case studies with focus groups conducted with Portuguese higher education health students.

INTRODUCTION

The Semantic Web is a very promising project to add computer-processable meaning to World Wide Web’s documents. In its higher ambition, Semantic Technology would enable computers to process the meaning of things without human intervention (Berners-Lee, Hendler, & Lassila, 2001), besides the initial question or search query. For instance, a person might ask the computer to find in the Web, the contacts of all (amateur) tennis players from his/her own town, in order to find a playmate. With nowadays Web technology, it would be very difficult to solve this search query, although it makes perfect sense to a human being. That is, if we ask a question like that to a person—particularly a tennis player—probably we would get a complete answer. Why is that? Because that
person knows descriptions and relationships of things, like “plays tennis”, “lives in town A” and “has the phone number B”. The Semantic Web project intends to annotate information with those kinds of descriptions and relationships.

In learning contexts, the Semantic Web’s benefits are even more valuable, because they will help to achieve one of the main goals of learning—to perceive the meaning of educational subject matters (Devedzic, 2006). For instance, an undergraduate student might want to find out if there are any papers of descriptive nature in a certain research domain. If the answer is ‘yes’, he/she can gain access to the concepts’ descriptions in order to conduct his/her study at a higher level of research knowledge (correlational or experimental). If the answer is ‘no’, he/she knows that his/her research study must be conducted at an exploratory level of knowledge.

These kinds of meaning rich queries are still far from being adequately answered by computers alone, not only because the annotation process is very time consuming (imagine the entire Web scale), but also—and mostly—because there are different and conflicting approaches to implement the Semantic Web (Iskold, 2007a). At the present time, it is much easier to ask complex semantic questions in online forums. This is because we know that our post will be read by a large number of interested persons in that subject—the members of the forum—and that someone might know the meaning and the answer to our specific question.

So, this chapter will emphasize the power of forums in the promotion of a very important social dimension in the Web-enabled learning process—solidarity. In other words, this chapter will explore the extent of solidarity that students tend to share with each other, when using electronic learning (e-learning), in our case, in higher education. Although e-learning environments include several interactive activities, such as blogs, chat rooms and wikis, we shall focus the discussion on online forums, due to its flexibility of use and natural sharing characteristic, which makes them ideal for supporting solidarity.

In a nutshell, the purpose of this chapter is to discuss the presence or absence of solidarity in e-learning environments. In other words, where can we see more solidarity between students, in online learning environments or in traditional education? In the context of this chapter, the term “solidarity between students” means the exchange of information among fellow colleagues or sharing useful resources for the learning experience of other classmates. The analysis has focused on undergraduate health students, which have initiated their first year of higher education in the 2007/2008 academic year, from a Portuguese private polytechnic school.

Chapter’s Organization

This chapter starts by describing the dichotomy machines vs. humans of semantic technologies, in order to set the reference for the rest of the chapter, in the human-based Semantic Web.

After that, we depict the historical evolution of e-learning as a successor of distance education and we describe the various types of interaction that were identified during that process of evolution. In the end, emphasis is given to the learner-learner interaction, without which the solidarity between students cannot take place.

Following, we focus our attention on online forums as one of the most widely spread solutions to support interactivity in online learning environments. We describe the various types of forums and which ones stimulate increased participation from students.

Then, we move on to explore the concept of solidarity and its implications for the field of education, to end up the background section of this chapter.

In the main focus of the chapter, we present an exploratory research study which recently has