My virtual homework for the new millennium

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It is difficult not to think about Internet when we try to envision what education is going to be like in the near future. Many universities in the world already have or plan to implement systems for distance education in one form or another and Internet plays an essential role in most of them.

Distance education comes as a natural idea in a globalized world. On one hand, the need for education is extended beyond the traditional periods in life dedicated to studying, way into the professional period. Some people even argue that in the future people won't stop studying at all. On the other hand, the time people can afford to study once they are working is reduced because we all work more hours in practice as the years go by.

Companies need their employees to keep up to date with a fast changing work environment; people change jobs more frequently than before until they settle in a longer term position. In order to be eligible for new opportunities, people often need to change their areas of expertise and hence new studying may be required later in their lives. These are reasons why universities and companies are increasingly more interested in distance education, specially through Internet: people can take courses without having to leave their jobs even temporarily.

As it often happens, however, technology has arrived before Society is ready to absorb it. That is, before we have the social, legal and managing structures required to produce organizations and institutions capable of using the new medium in a meaningful way. Although it is true up to a certain extent that technology tends to create needs in society instead of having the needs drive the development of technology, it is also true that technology opens possibilities that lead to solutions of problems no one dreamt of before. So we all need to be prepared for constant change, adapt and exploit the possibilities of new technologies.

The case of education is not different from the rest of the areas where Internet and other technologies have had or will have a strong impact. We already have the

technology to build rudimentary educational environments through the Internet but we still lack a precise knowledge of how to design the courses, exams, exercises, etc. that are to be set on the net. It is a real challenge for all of us, people working in education, to think how to use the technology available to teach our students successfully.

Experienced people in the field of education often shun new media arguing that they have been doing their jobs successfully for a long time in the established way. It is then the younger and less experienced members of the staff who experiment with the new tools and produce the prototypes of the material that could become standard in the future. I think this is unfortunate because experienced people can bring their knowledge into the design of courses with new technology from the very beginning, saving us from having to correct design mistakes once the courses are tested. It is very important that teachers take the lead in establishing how education should be carried out with the new technologies, in order to ensure that the new teaching methods will fulfill the needs we currently have, or even the ones we expect to have in the near future.

Let's make it clear: distance education does not imply the absence of teachers, educators or institutions. It just means that all or some of the components of an educational event (students, teachers, materials) are not going to be in the same geographical location or even interact at the same time.

The paradigm of distance education allows people who share common educational interests but don't live in the same place, to also share their resources, ideas and experience without having to travel a long way. It is also cheaper, in the long term, to set up distance learning environments than to make teachers and students travel.

In Mexico, for example resources to teach subjects like Logic but also Philosophy and other subjects in natural and social sciences are scarce and becoming even more so as time goes by. The demand in education is shifting to more applied subjects because employment for academics in natural and social sciences is offered almost exclusively by public universities. These are facing violent funding cuts which make job opportunities in them ever more difficult to attain and salaries there are at their lowest in history. Yet, Logic is taught, as we all know, in many curricula (Maths, Engineering, Philosophy, etc.) so good teachers are needed but are hard to find.

I'm not trying to imply here that teachers should be replaced by computers connected to a remote course server. What I think is that: since, at the moment, courses on Logic are often taught by people with little experience in the subject or not taught at all, Internet can be used to establish curricula standards and provide materials (like many of those discussed in this conference) that would be very valuable in places where good teaching tools are hard to find or non existent.

In this conference we have heard of many ideas and tools that can help us build a whole body of materials that entail us to share our experience as teachers to improve our local teaching capabilities. The possibilities offered by new technologies like Internet are really interesting for educational purposes. We must, as teachers from different countries, join efforts and try to clarify what it means to educate over the net. This will help universities, teachers and students to do their virtual homework for the new millennium, but it will also interest companies, governments and other institutions which could well contribute to fund education in new ways.

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