The Future of Virtual Universities

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Thank you very much. Being the speaker after lunch is not an easy task. It reminds me of this faculty member that was teaching a class after lunch to a group of students, and one of the students fell asleep. And he asked the student next to him, could you please wake him up? And he said, "With all due respect, Professor, you put him to sleep. You wake him up." I hope that I will not put any of you to sleep this afternoon, and if you do, I will not ask anyone next to you to wake you up.

I'm going to talk very briefly, because I think that the most important thing is the panel. I want to talk about what I see for the future of virtual universities. I will give you a little bit of background. I come from a private institution in Mexico called Monterrey Tec System. It's called actually Monterrey Institute of Technology. It's another MIT. Now, this is in Mexico. We have been there for 70 years this year, and we've grown. This was our main campus in 1943. This is our main campus now. So we have grown very rapidly in this 60 years. This is just one campus. We have about 60 campuses around the country, and we grew from one institution to 40 institutions, which now have different names. One is related to health, which is that TECSalud. It's a new university system. And we developed this TECVirtual University, which is what I'm going to be addressing a little bit today.

This is just one fast chart about the numbers that we have. The most important number is last one. We provide about 15 million online training hours per year – fully online, only online. And that's the scope of what we are doing. We have corporate programs, and we have graduate degree programs. We have about 12,000 students taking a graduate program with us from all over the world – mainly from Latin America because our teaching is done 95% in Spanish.

In terms of our model, I won't stop here very much. It's probably similar to what any other online university has. We are building learning communities, supported-- this is online, not MOOCs – supported by an academic community, faculty members, and educational specialists, and tutors that support students' interaction. It's very heavily based on student interaction. We are very far from the type of MOOC that we have been discussing this morning. All of this, of course, is supported by a series of learning resources that we have developed in these past 20 or so years of learning. And some

education technologies, we are all familiar with those in this room probably more than I do, and this is supported by a technological platform. I think that this graphic sets up what our model is, and it's the only thing I'm going to say. Most of you immediately understand what type of institution we are.

In terms of the courses that we produce, as I said, we produce a little bit more than 2,000 courses per year on the different levels – continuing education, high school, undergraduate, graduate programs, and we're beginning to produce e-books to compliment some of the courses, online or the face-to-face courses, at the university that we have.

Now, let me focus on what I have been invited to talk mainly about – about the future of virtual universities. I'm going to talk from the context of Latin America, the context of Mexico, but many of these remarks may be equally valid for other places and other latitudes and for other socioeconomical levels around the world. I see the future of trying to focus on a new skills, developing new skills in the students-- new markets, trying to get into new markets. I will not get into that. And, of course, making use of the new technologies that are available and that we have been discussing and addressing during this morning and during most of the meetings that we have had.

In terms of the new skills, what I see is that we have not been able with our distance education program, with our online programs, to develop many of the skills that our employees request from our students. Some of these skills, actually, are not even developed in the face-to-face courses, I have to admit. However, we are taking great steps in trying to incorporate these skills into all our face-to-face courses, all our curriculum. The challenge is, how do we develop these same skills in the online courses?

We try to adapt what is being done in the face-to-face – to develop these type of skills. But many of those are developed through a lot of teacher interaction – teacher-student interaction. Most of them are not developed in the classroom. I agree with what was said this morning about how the face-to-face classroom or campus has a role to play. And I think that a lot of that role has to do with the type of skills that we are not consciously developing. We need to do something to develop them consciously and go beyond the material itself, which is the marketing or computer science or engineering, and try to force our faculty to consciously develop or put activities or homeworks or lectures that force the students to develop these types of skills.

So this is a challenge that I think we need to address, and I will very briefly touch on how we are hoping to this into the future. In terms of new technologies, well, I think we have heard over and over that there is a tsunami coming in education and in technologies. I think that we're just beginning to see that that tsunami is reaching probably faster in the developed countries like the United States, but nevertheless is coming at a very first pace, as well, into developing countries. And we have the need to take those into consideration. When you see from our perspective in Mexico what's going on, we read about this, read

about the tsunamis, read articles on what's going and see a lot of new developments of what we've called this new Web 2.0. We'll also see that the investment is being done in university or online or in general. In education, technology is growing very rapidly.

So this is going to change how things are done in terms of online education in Latin America. We are having also a lot of influence from foreign universities that were not able to come to Latin America or to Mexico because of physical restrictions in terms of you have to go be at the campus and hire faculty and do all this and comply with the government regulations wasn't easy. It wasn't an easy decision. However, arriving online is very, very easy. You just put the web page which your courses – it could be in English or Spanish, and then you can very easily reach. And there is an appetite for fancy – well, not fancy, but prestigious university names for the degrees that our students in Mexico are taking.

So the difference from them to take a course from iUniversity or from MIT or Harvard or Stanford, this place is very high. So they're being tempted more and more to take these courses, especially the ones that follow courses in English, of course, which is not uncommon, especially in a certain level of the population in Mexico. We also see that there's a future there, and we don't know what will be specifically in this future – what 3.0 will be. But, of course, there are things that we are beginning to look into on how to incorporate all of these new platforms, these new techniques, the new software, hardware available into the academic content or into the online courses.

We have very few courses that make use of – even on Facebook or Wikipedia or Twitter as part of their courses, or conferences. For example, I think it's very interesting that we are having a Twitter going on during this conference. That is something that we usually don't see in an academic course, at least not in the ones that we provide for our students. And those are some names that now begin, like cryptic names that we sometimes don't know what they do, but we know that they are getting into the education – all this kind of Khan Academy and TED and all these companies. Of course edX is one of them, along with other institutions. We have Coursera. It's also there.

We are even having a new way of presenting the material to the students. We have new ways of using textbooks. All the traditional written material in textbooks is now available electronically, and all of these companies already have very heavy textbook material developed online or for using in tablets or Kindles or whatever you have available for the students. So we don't have the problem of distributing textbooks as it was before, especially for students which were far apart in other countries or in other cities within Latin America, within Mexico. Everything can be available electronically now, even the textbook distribution system.

We still think is only the tip of the iceberg. There is a lot coming up. And we're beginning to see how fast this is moving, it's coming pretty, pretty, fast, and we will have to be very careful on how we pay attention to the developments that are taking place

around the world. Of course, there are new hardwares coming up. But more interesting is new software. And something that we have not done and we think it's important to do is to bring the big data and analytics to higher education. We know what these companies that their logos are on the screen are doing to collect information about us.

We just follow a discussion that you have here in the United States about the collection of information by the government or these companies. But we know that there is a lot, and when you ask people from marketing – people from Google or Facebook or Netflix, any of these – about what they can learn from their customers, it's a tremendous amount of information that they can have. And they know probably more about me than I know myself in terms of my consuming habits. Because I don't realize those are my consuming habits, but they know they are my consuming habits.

Now, with all this technology behind, the question is, what can we learn about our students habits? Their learning capabilities, their learning strategies so we can adopt the courses that we teach to them. I think we can forecast students and courses to see which students are more apt to take a particular course or how they do that. We can provide advice to prevent failures and drop-outs or stoppages, as it was said here this morning. And, of course, I think we can give early warning of a student's problems. My dream is that at the end of a particular course, we will have a lot of information available for the students and for the faculty about the students. So we can adapt the courses to the particular characteristics or requirements. That will come, as a result of that, a level of personalization that we have not seen or we cannot dream of.

We're taking into consideration learning styles, learning speeds, the desired depth of the student, what he wants to take. And, of course, also provide – that this is something that's been requested by industry – diagnose job-related strengths. If I want to have a particular leader for a particular job when they graduate, can you tell me which of your classes is the best for that just by the information that you collected and that you analyzed and that you digest during the process of taking some of the courses.

So this is where we're going. New technologies will be coming up every time, and we'll have all these things to take care and to worry about them in the future. And at the end, I think that we are changing, we are following the evolution of learning from what was originally a very passive learning to a very interactive learning. That is what we are seeing now. So this is, in a nutshell, what we are doing, what we expect, and I'm more than willing to take questions from you. Thank you.