### 0:00:00

Yes, I think that here the key word is differentiation. I think that the current differentiation among universities, disciplines, types of students, intensity and level of the courses. It's already very great and I think this is going to increase. We have been living through a period in which universities became more and more a more and more different body, differentiated within themselves quite a bit. The first differentiation is of course the kind of university you have in the States is very clear. You have research universities, teaching universities, you have colleges which do not grant PhD titles and so on and so you have very short two years colleges, community colleges. But in Europe too by now this tendency is very clear. In Italy, for example, which of course I know best, but I also know quite a bit of the French system, of the English system, you have very wide variation between state universities already. This was not so much the case. The idea was to have a compact system, a compact state university system. Then you have private universities with very different organizations and then you have this, we call them Università Telematica, learning teaching based on learning teaching and this is a huge difference.

#### 0:01:50

And I think these differences are growing, at least in my life I saw them growing and growing and I think this could continue. Another key difference, and this too, I think, is the difference among students. You have students that by now, for example, and I'm very in favor of this, there are students that are of an older age that they enroll in universities to get degrees that help them make careers within the firm or the institution in which they work. You have students that come to learn basic professional skills. You have students that come with much higher ambitions and you cannot just satisfy all of them with the same method and the same learning technique or the same assessments. There is also, of course, this has been more traditional differentiation by discipline. But this I think should not be overstated. In the sense that, of course, professional schools, like law schools or medical schools, have their difference, but engineering schools too.

#### 0:03:06

And you can think that, you know, let's say faculties or schools requiring large laboratories to study physics, for example, or great labs for genetics, have their own necessities that are different from, let's say, classical languages or literature or whatever. But I think there are more affinities. And then, of course, there is a huge, by now, difference in terms of degrees. Because once upon a time there were at least in Italy but also in France there were four years of university basically. The doctorate in Italy for example developed only in the 1980s. Now you have all over Europe a three years bachelor degree, let's call it bachelor, a two years master, then you have the doctorate, then you have some form of different kind of professionalizing masters all over Europe. So you have so many different kind of courses that requires different approach. In general I would say that the higher the level, the higher the level of the course, there had to be changes in both the teaching and the assessment and the role of in-presence courses and the role of the professors are much more important than in other settings.

### 0:04:41

I do, anyway, even for this kind of very demanding, very top courses, but even for very professional professional ones. I would recommend a very large use of e-learning techniques as, I would say, not as substitute to teaching, but as, let's say, additional material and possibilities because they greatly enrich our teaching. This is my first statement. The second one About learning technologies, again, it depends on the kind of university, the kind of students, the ambitions of the students we have, the kind of disciplines, the kind of degree. You cannot have learning technologies that are the same for doctoral students or for master's students or for bachelors. These have to be different. You cannot treat them as equal. It would be a great mistake. Generally, I think that the COVID experience, at least to me, made clear that e-learning cannot substitute in presence learning.

## 0:05:48

Not only in general, that is, I'm not speaking for, let's say, doctoral courses where more or less this is clear. Because my impression was, I taught for two years online, as we say. First of all, the relationship with students is damaged, but what is really damaged is, let's say, horizontal teaching, what the students learn among themselves. And I think this has been a great damage in principle now, to knowledge, but also, I would say that the human mingling, the living your own house, your own environment, your own village, your own neighborhood is precious as an experience of learning. Not disciplinary, but learning life.

## 0:06:40

So I would say that, I repeat, I stress, I'm in favor of using e-learning as additional material, as help for teaching. I register my classes on special topics. I provide lists of movies, films, materials, statistics online, but this cannot substitute in presence unless you have students that of course want to get a degree in order to make an internal career in their own institution and firm. These are different, but they have their own demand, and I greatly respect them. Also, I would like to remember and to stress that we need to form all kinds of people at different levels, but in order to defend and maintain Europe, it's a position in the world, to form very qualified researchers and students that are able to perform highly.

# 0:07:43

And this is very difficult if you do it, you know, from a distance. For example, I noticed with even at the master level, if I invite a colleague from abroad and my students can go with him to lunch. They will remember him and he will remember, or she will remember them and they can go to visit him and maybe go to have a, then a collaboration with him. This is totally lost for the past. And this is a great fear.

# 0:08:15

I also have started to value much more than I did stage, let's call it, or period of work, for example, in laboratories, firms, institutions, you know, business. These are very precious elements in the formation of a student. Of course, this has to be done according to the field they are, but I think that these experience we should give more room to.