1
0:00:00
Well, I believe that it's relatively safe if you look at the story of these fields to say that there were many things that we thought were different that are not so different as they apparently are and I'll be very clear, I hope, now. So, for example, if you are used to work with academics from biology and if they hear example from physics they say it's physics, it does not work in biology. What we see from the bigger studies that are going on, for example, about what learning can actually have an impact on students' performance, student retention in higher education, there's, for example, since 2014, a big, big meta-analysis showing that regardless of the field of STEM, the same approaches offer the same effect approximately. So, for example, if you use active learning in geology, it will offer the same approaches that you use after learning in engineering, mechanical engineering. These big studies, I think, confirm that the process of learning has elements that are not so different between fields. And if we know how to work with these elements, then we will probably be making a positive difference across fields. So if you're asking me like you were, if there's differences between study typologies, and if TEM is different from the rest, I would say that I'm sure there will be specificities, I'm sure there will be specificities, but I'm sure there will be many lessons to be learned from one field to the other. And in my experience, people from, let's call it the natural sciences, engineering, that are not so much from the social sciences, have been more systematic and methodic in terms of studying, teaching and learning, which means that we have a process that is more advanced in our field than in social sciences, in many social sciences, in my interpretation of the world. But what I have also seen many times is that it's so easy to transpose from one area of studies to another area of studies and have interesting effects. So I really do not believe that that will be the case. So I'll leave the big question to the end. In terms of gender, I think gender is really an issue, but it's not a different issue from international students. It's not a different issue from socioeconomic students. It's an issue. It's an issue. And it's an issue that underlies the concept of equity and social justice in higher education. And if you have an institution who is socially just, this means that you want to provide an experience which has zero barriers to all. Zero barriers to all. And in this case, female students, male students, those who have other gender options. So I think there's actually important elements to introduce here. First is around the world, not so much in Portugal unfortunately, around the world in some countries there's a big movement that is really making a difference in higher education which is the universal design for learning approach and the universal design for learning approach has to do with making education with methods, from complementary studies, from biological, neurosciences, teaching and learning, to make learning experiences more accessible for all. And I think, and here at the University of Mina we started this process this June with a course on Universal Design for Learning. We're going to have a second one in September. I think the design of higher education can be improved for all students, even for those who think it's okay. It can be better. So I think the gender is really not necessarily an issue. Of course, we have to be honest with ourselves and say that most examples are very skewed, very biased to male gender histories, you know, if you use, I'm sure we are all aware of that, artificial intelligence learning from databases, databases are very much

biased to, you know, male driven discourses, so there will always be issues, But I think that if we are aware of this, we can design higher education to make these barriers lower. And I think that's the big challenge. Instead of thinking, oh, the students with special needs need a different curriculum, oh, the students with gender whatever need a special curriculum. That does not make sense in my head. How will online and remote assessment methodologies affect learning practitioners? I would say that we need to talk about approaches to learning in higher education that are not necessarily online or remote, but are enhanced by remote and online. So there's a possibility of finding interesting equilibria between the face-to-face experience and the remote experience, the face-to-face experience with online information, online resources. We can have external learning spaces very nicely set up so that students can sit outside and learn online. So there's a number of possibilities that exist in higher education. So I do not, to be totally honest, believe that the world is at this moment divided between online or remote versus on-site. I think that's past. So what I think we need to learn, and I think we have to be better at experimenting and learning from our experiences, is how to design the learning, teaching and assessment processes so that the digital components are really an upscale for everybody. And I think there's lots of interesting experiences going on here and there. There's been experiences here at University of Minneapolis for a number of years of people who are using interactive polling systems in class. And they go online to get something out and use the systems. So we just don't have it mapped. But I think there are a number of interesting experiences that are really making the distance between face-to-face and online shorter, so we can create what there's a very interesting Norwegian author, she calls it the new hybridisms. And these new hybridisms are really, I think, the solution for the future. It's no longer flesh, meat or fish, it's something in between. It's no longer flesh, meat or fish, it's something in between.

2
0:07:35
Thank you.