1
0:00:00
Well, I'm glad I saw this question in advance because I had to think about it a little more deeply because on the surface it's not clear to me why there would be a difference in student type and student demographics with these changes. But I can see changes for the good because of this broader movement, which is also happening to, sort of a democratizing effect for higher education as well because of the access that online and remote learning provide. But it's a little more than that, I think, for the STEM fields. And I think we might actually see these changes happening more rapidly in STEM because of the changes in the STEM jobs and careers, because those jobs are making deeper and different kinds of uses of technology. So things that we could maybe only do in person before can be done now with technology and sometimes at a distance. I just had a conversation a couple of days ago with the Vice President of Academic Affairs at a system of institutions in the U.S. and he was talking about their agricultural science fields. And he said, you know, they are... What's really... One of the things that's really impacting the way that they do their work are drones. And it's not just, you know, drones for delivery of things. actually go in and take a really close look at the crops for diseases and for other kinds of growth patterns. And so they're actively using drones to do the kind of work that the scientists would have to do in the field going out there. And some of the processing that happens and the way that technology allows them to see and view things differently without actually having to be there physically. And I think, interestingly enough, I had this conversation about the improvement of an evaluation of roadways in the U.S. as well. And those things are really changing practices. So I think that we're going to see a lot of need to educate students in STEM fields about the different kinds of uses of technology in doing work that they would traditionally have to be on site for to do. So what students are going to need to know is different. I still think that they're going to need that foundational knowledge in these tech fields, but maybe the way that they can acquire it is also going to change because of technology or the speed at which the typical learning pathways you would take in terms of developing those foundational skills may look different in the future. We may have other entry points into those pathways so that we can accommodate different kinds of students that we had before because we'll have foundational knowledge that will be needed but those sort of critical critical thinking skills, the soft skills that cut across curriculum will be important for this work, both for the fields but also in terms of the way the curriculum is going to change, I think, in the future. I think that that allows students from different kinds of degree pathways or educational pathways to cross over and engage in STEM curriculum in ways that we couldn't, we didn't have before because of the way that we had structured and scaffolded learning. I think technology is going to play a role in that so that, you know, so less traditional or more students that haven't traditionally gone into the STEM curriculums will be able to more quickly engage in those fields in ways they haven't before. So it's another kind of access issue in terms of you don't need the same kind of lead up into the STEM fields as you might have before, and a lot of cross-training opportunities. So if you don't think about the traditional learner, but employees and people in the labor force who

need and want to be able to train into different careers, I think we're going to be able to accommodate that much more quickly now, too.

So I think, over all the effect would be to create real opportunities to open STEM fields to different learners than those who traditionally pursue STEM. Different demographic groups and other categories of learners who are less likely to have the specific educational background, or to have progressed along the learning pathway required to evidence the particular knowledge and skills required in today's STEM curriculums. Some of that knowledge and some of those skill-sets may no longer be necessary if those are provided, instead, by AI. As the curriculum changes to focus more on how to work with AI in these fields, and Soft Skills, like critical thinking, become much more important, a broader or different group of students may turn out to have the prerequisite competencies for STEM fields than … were previously. So perhaps more women, perhaps more the disadvantaged learners, learners who wouldn't have access traditionally, I think it's an opportunity. the disadvantaged learners, learners who wouldn't have access traditionally, I think it's an opportunity. you