KAREN FOLEY: Hello, and welcome back to the Student Hub Live. OK, this is the news. We have some really great news items lined up for you. And firstly, I have Helen Clough from the library, who you will have seen on our library talk.

Helen, you're going tell us about Open Tree. It's the first anniversary, almost to the day.

HELEN CLOUGH: It is. It's very exciting. So when we launched Open Tree last year it was in October. And since then, we've had 1,329 OU staff and students using Open Tree.

KAREN FOLEY: Brilliant!

HELEN CLOUGH: Yeah, Open Tree, for those who aren't familiar, is a game that allows you to earn points and badges for accessing online library resources and web pages. And you can also earn points and badges for following challenges, for making friends, for writing reviews of resources.

KAREN FOLEY: And what do you do with those points.

HELEN CLOUGH: Um -

KAREN FOLEY: You keep them.

HELEN CLOUGH: You sit on them and you feel proud of yourself.

KAREN FOLEY: OK, good. But the idea, I guess in all seriousness, what's really great about this is it's a community thing, isn't it?

HELEN CLOUGH: Exactly. So, yeah, the point of it is making friends and finding out what resources your friends are accessing. Because that's a great way to get recommendations for what you should be using as well. So if I could just show you quickly.

KAREN FOLEY: That would be brilliant.

HELEN CLOUGH: So you can get to Open Tree from the library home page. There's a direct link there.

KAREN FOLEY: We know all about that. So go onto Student Home Library, and then the home page.

HELEN CLOUGH: Fantastic. So this is actually Nicola's page. She was just on recently. So she's got 23 badges here. She's got over 30,000 endpoints, look, and she's got a fantastic tree with lots of lights on

it. She's on level nine.

KAREN FOLEY: She loves the library. And who's her friends?

HELEN CLOUGH: Well, if you go to her friends page, I'm her friend.

KAREN FOLEY: OK, all right.

HELEN CLOUGH: You can also find friends. So once you sign up, you can find friends by module code, see who else is on Open Tree with your module. So you make friends that way. You can also search.

If you search for library, all of the library staff have library in their name. So you can befriend us. We'd would welcome you to. And you can recommend resources to us. You can see what library staff are accessing.

And actually in that year, the total number of unique resources, so individual resources that have been accessed, is 35,000.

KAREN FOLEY: Wow.

HELEN CLOUGH: So that just shows you how much it's being used.

KAREN FOLEY: OK. So what's the benefit, then? I guess for most people, they're interested in what other students are looking at from their modules or their discipline areas to sort of see I guess what's hot right now in terms of stuff that's being accessed from the library.

HELEN CLOUGH: Exactly.

KAREN FOLEY: What sorts of things could you find?

HELEN CLOUGH: Well, so it's all of the online library resources. So the e-books, the e-journals, all of the academic content, but also library web pages. So for example, I wrote a review of a page that tells you how you set up Google Scholar so that it links with the library.

KAREN FOLEY: Oh, I want to look that up.

HELEN CLOUGH: So I grabbed that page. And I quickly highlighted it. And I wrote a review, and I said this is really useful. If you're going to be using Google Scholar, then have a look at these instructions on how you set it up.

So yes, it's about making friends. It's about identifying resources that other students have

highlighted or written reviews of. And it's a game. So it's building your tree, making sure you get all the lights on your tree.

KAREN FOLEY: So what do the colours mean, then, in terms of the tree? Is it just pretty and decorative?

HELEN CLOUGH: It's just pretty and decorative, yeah.

KAREN FOLEY: OK, but you can see I guess how much stuff people are getting. So you know which friends are getting more things. And at the student hub live, people have been showing a lot of links. And in particular, how to set up your Google Scholar, for example. So you don't have to cut and paste things back into the library such to get them for free.

Those sorts of things will be really useful. And I guess you do get some people who are very pro- that sort of thing. So they're good to be friends with.

HELEN CLOUGH: Yes, exactly, yeah. And it's the whole idea of gameification. It's basically, if you make a game of it, people will engage more. So yeah, so like you said, it's the community building and it's also making a game of it and building your tree.

KAREN FOLEY: Excellent. Well, Helen Clough, thank you so much for coming and showing us that. That looks really, really fun. And we'll put a link for that on the website so you can, too, go and build your tree, and make your friends, and share advice and information. So thank you very much, Helen, for showing us.

OK, let's take a quick fire round to the social media desk. Sophie and HJ, what's going on?

SOPHIE: It's lunch time.

KAREN FOLEY: Ah, yeah, ding! 12:00 o'clock.

SOPHIE: So we're discussing what people are having for lunch. We've just a big plate of biscuits now, so that will -

HJ: Yes, I managed to nab some. So me and Robert were talking about how the first mission was getting cakes. And the second one has been biscuits. So this one has been very successful. So this should last us about a few minutes.

SOPHIE: I hope so.

KAREN FOLEY: But what one of the things we were talking about from the library is that they let you have the SCONUL access scheme. That lets you use the library near you and use the study spaces and borrow books. So we're very pleased to know about that.

SOPHIE: I didn't actually know about that until now. And I've been studying for four years, so.

HJ: There you go. We even learn lots of stuff sitting here. Yes, so yeah, I think we're ready to go with lunch and yeah.

KAREN FOLEY: Brilliant, excellent. All right, well, while you're having your lunch, we're going to crack on with our programme. And I've got Alison Green in the studio now. Welcome, Alison.

ALISON GREEN: Thank you.

KAREN FOLEY: Now you're doing something really exciting. You've completely reinvented the curriculum for psychology. And now you're moving on to do something entirely different. And you wanted to talk about creative industries. And we've got some widgets that we're going to show now during the duration of the next few minutes of this new section.

We'd like to know a bit about whether you'd like to be interested in studying the creative industries, what sorts of things you're interested in, postgraduate, undergraduates. List up to three that you'd be interested in, and some of the categories that you think apply to you.

So we're going to put those up there now. And we'd like you to vote on them. But we need to explain a bit about the context of all of this. So what are you doing?

ALISON GREEN: Well, one of the most interesting opportunities for me at the moment, I think, is looking at what new developments we can come up with for our curriculum. And so the one that's really captured my imagination and I'm really interested to find if it catches our students' imagination too, it's around creative industries.

So the creative industries are booming, which is fantastic. We've seen a huge increase in the number of jobs in creative industries, somewhere around 1.9 million jobs. And that's an increase of 20% in the last five years.

So there's a great opportunity there, I think, for the students who are thinking of studying. And I'm really interested to find out whether that's the sort of thing they would like to study with us. The kinds of creative industries that we mean are things like film making, music production,

creative design. But also things in graphic design, computing. Anything from that sort of thing too. Managing festivals, which sounds really cool.

KAREN FOLEY: Yeah, no, absolutely. I can imagine a lot of people would be interested in that. But as you say, it's a growth area, a very exciting area. An area that other universities are often supplying, quite niche, specific things about.

So you're already scoping something new and saying hey, should we be doing this at the Open University?

ALISON GREEN: Yes.

KAREN FOLEY: Should we be doing it, I guess, in terms of a whole qualification? Or is it something that maybe people want to tap onto an open degree. Are those sorts of things you're interested in finding out?

ALISON GREEN: Those are the kinds of things. I'd say we'd like to find out whether you'd be interested in studying for a full qualification in something like creative industries generally, or whether you'd be interested in something that might be focused in a particular area like, for example, music? We already have a qualification in creative writing, for example, which is hugely popular. We have hundreds of students studying that and enjoying it.

So I think, for me, the questions are what would students like to study? Would they like to study qualification, or just a modulus as part of an open degree or part of our arts degree?

KAREN FOLEY: Brilliant. And we're taking a quick snapshot there of what you think at home. But how else are you going to be finding out about this? What's the process? And when, if students say yes, we'd like this sort of thing, when might it come into being? What's sort of time frame for developing this?

ALISON GREEN: Wow, that's a lot of -

KAREN FOLEY: I know you move fast.

ALISON GREEN: We try and move fast. When we know that there's evidence that students want to study things, then we will try and move as fast as we can. So the process is thinking about the curriculum that we currently. Is it fit for purpose? If it isn't, what more do we need to do? What planning do we need to do to design it properly? And then conversations with colleagues to make sure

that we, we brainstorm. Which is really exciting, having those discussions around new opportunities.

I think we're talking about, oh, a couple of years, perhaps. But we will try and move quickly if this looks to be something that people really want to do.

KAREN FOLEY: Brilliant. Excellent. Well, thank you so much for coming. And I'm going to feed that information back.

ALISON GREEN: Oh, thank you.

KAREN FOLEY: And if you haven't voted on that yet, please do select your choice from those five widgets so that we can feed back to Alison what sorts of things you'd be interested in doing.

Right, next up on the show, we're going to be talking to Simon Bell. Now, Simon's coming back tonight. And he's going to be doing a session on who's afraid of the big bad environment? Because he's written a book. And this is very exciting.

Welcome, Simon. Thank you. How's the book going?

SIMON BELL: Ha!

KAREN FOLEY: How's it going, getting published?

SIMON BELL: It's going well. It's going well. It's going well. Yes, it's good.

KAREN FOLEY: Good.

SIMON BELL: Two books, not just one book, two books.

KAREN FOLEY: Right, you have been busy, OK, good. Now tell our students about this. And tell us the angle that you're coming at, which is quite interesting.

SIMON BELL: OK, well there's a good tie-in actually to the modules we teach as well. We were doing some research two or three years ago on T219, T319, environmental management. And these are interesting modules, all right, but they contain also group work, and the containment of thinking about the environment and about climate change.

And doing this, I just kept coming across worry, and anxiety, and fear. And the more I studied it, the more I thought, well, this needs to be looked at in a systemic way. So we started thinking

about writing a book, studying it probably, thinking about what is the fear behind climate change? And opening up that, you look all over the place. And you end up with well, project fear, and stuff like that.

KAREN FOLEY: Yeah. So have you found out what the problem is?

SIMON BELL: Yeah. Yeah, it's in the book.

KAREN FOLEY: Very good, OK.

SIMON BELL: Actually both books.

KAREN FOLEY: This is just a big plug, isn't it? What's interesting, though, is how you've done the book.

SIMON BELL: OK, well there's two books. First was the theory book. The proper academic book, if you like. That's called *Formations of Terror.* And that, I feel like, gives you the substantial background.

But we thought, let's do a graphic novel, too. So let's try and make the book if you like seeing a bit more, and bring the ideas across. And you can see that the hat I'm wearing is a prop. Because you can see that I am the narrator in the graphic novel as well.

KAREN FOLEY: Wow.

SIMON BELL: And it tells the story about fear, about people like how Donald Trump, maybe, for example, is using fear.

KAREN FOLEY: And this format, I mean the graphic novel, portrays a very different sort of spin on things. Why was that important? And I guess, as an academic, why isn't it important that you then got something that people could effectively colour in if they wanted to?

SIMON BELL: You were just talking about creativity, creative arts. I mean, we need to be creative in the way we talk about our studies. We need to think about how we're going to project what we learn. And there are lots of ways of projecting.

I mean, I love e-books. And I love stuff like that. I also like comics. I think there's great ways of meeting more minds. And this is just one of them.

KAREN FOLEY: And so would you expect different audiences then for these two books?

SIMON BELL: Maybe, maybe.

KAREN FOLEY: Or are they your fans?

SIMON BELL: I don't know. I would hope that people maybe who find the idea of the academic text too heavy might find the idea of the graphic novel less so. I think, though, they tell slightly different stories about the same thing. And they tell it in different ways. So I think, maybe, two different markets. Maybe there's an overlap there as well.

KAREN FOLEY: But this is one of the things, I guess, in education is that there are different ways of communicating, isn't there?

SIMON BELL: Absolutely.

KAREN FOLEY: And different audiences, and different purposes. And I have that's brilliant that you've managed to get two very different outputs and two different books in such a short space of time. Tell us what you're going to come and talk about tonight.

SIMON BELL: Well, Stephen Peake and I, this evening, are going to be talking about *The Formations Of Terror*, the project of fear, the whole, in more detail about what's going on? How can we understand fear better? How are we manipulated? How are we played with? And often without people even realising they're doing it.

KAREN FOLEY: Now, it is such an emotive issue as well. I mean, I remember when we were talking about the whole session and thinking back about my relationship with fear and all of this. Is the environment something that is intrinsically linked with fear in terms of the way that it's communicated? Is it so integral to the whole concept of it? Or is it something that you think is an addiction?

SIMON BELL: Well I think the key to it is, and I don't want to give too much away from this evening, is the term shapeshifter. Anything that changes shape before our eyes, which we can't tie down, which we find very difficult to localise and say that's what it is, that's when we start to get worried.

It's when we can't redefine the thing properly. And climate change, environmental change, we're constantly getting new figures. We're constantly getting an update to the story. We've got a feeling it's bad. We don't know how bad.

We don't know if we should panic, weather we should say oh, well, goodness sake, I don't - we don't know what to do. And that's when we can get really anxious.

KAREN FOLEY: And so you've chosen to write books about it instead.

SIMON BELL: Yeah!

KAREN FOLEY: So tell us about that process, then. How did that all work? Was it very different working on those two different outputs for you?

SIMON BELL: Oh yeah. And again, what a blast. I mean, I'm used to writing books. I mean, that's what I do, that's what academics do. We write stuff. But working with a graphic artist, in this case, Charles Cutting, and producing ideas to flow into image in a very close way was very different.

And thinking also, how do we tell the story? How do we make this a proper story? Because it is a story. It's a story with a beginning and a middle. We don't know what the end is yet. But it's got scope. How can we make that something visually engaging and exciting? I think we've had a kick at it.

KAREN FOLEY: And how was it then working with this whole pictorial side of things? You know, pictures tell a thousand words. You're the narrator. That must have had a lot of value laden stuff on it on top of getting this emotion into these images.

SIMON BELL: Sure.

KAREN FOLEY: How did that process work? Were you making a lot of amends? Were you saying, oh, it needs to be a bit scary? I guess, how did you adapt some of the essence that you were getting.

SIMON BELL: I'd come up with an idea. And Charles would come back with a picture. And I'd say, well, that's great. But can we do this? And he'd come back to me and say, yes, we can. But hey, that's pretty hackneyed. Or no, you're stealing that. No, you can't use this. You can use that kind of image. Maybe we can blend it.

So working with academic colleagues on coauthoring, you're often just changing ideas around. Here we were changing the visualisation of ideas around. And I realised I like diagrams. I love diagrams. People who do T219 and T319 will know how much we love diagrams.

But this is a different kind of way of capturing stuff. And it just opens up so many more narratives, so many more angles on stories.

KAREN FOLEY: Brilliant. Excellent. When are these going to turn out of pieces of paper and into real books?

SIMON BELL: Well, *The Formations of Terror,* I have to hand it across by the end of this year. But I think it'll be a little bit before that. The graphic novel, we hope to have finished by the end of October. And we'll be doing limited print runs from then.

KAREN FOLEY: Brilliant, excellent. I'm really looking forward to tonight's session. It's going to be a blast.

SIMON BELL: Me too.

KAREN FOLEY: It really is. And I'm not frightened at all.

SIMON BELL: I'm terrified.

KAREN FOLEY: Thank you very much, Simon, for coming and talking to us. And I look forward to seeing you later.

Right, next to the studio, I'm going to have Jerard Bretts who's going to talk to us about the student charter. Now this may not be something that you knew about. But it's something that you should be aware of.

Jerard, thank you for coming in. Right, you've got some interesting pieces of paper to show us. So what is it about the student charter that students need to know?

JERARD BRETTS: Right, well it's all about the Open University's values. So it's a statement of values that have been jointly developed by the Students' Association and the Open University working together.

It's not a rule book, although there are policies and procedures which are linked to the charter. So it really describes the way in which all members of the university, both staff and students, work together in partnership for the benefit of everybody. And the university and the Students' Association is fully committed to the charter and takes it very seriously, and is fully committed to upholding the four key principles of the charter.

KAREN FOLEY: Brilliant. I think values is such an important thing to be able to hone down on. And I can imagine the process that was involved in actually creating that charter. And we've got the link of that that you should see coming up on the screen. And you can also subscribe, if you would like, to our newsletter to get some details about that.

But honing down on these values I guess gives people an essence of what we're all about, what we're trying to deliver. And you mentioned that there were four principles. So can tell us

about those.

JERARD BRETTS: Yes, I can show them.

KAREN FOLEY: Oh, you brought them. Great, lovely.

JERARD BRETTS: Yeah, I can show them, right. So the first principle really is about being a welcoming and inclusive community. So it covers things like valuing diversity. It covers things like how we communicate with each other. How we adapt to different needs and different circumstances. So it's all about being inclusive and welcoming and working together. It's about respecting confidentiality and using information, that sort of thing.

KAREN FOLEY: And that's so important. Because we do have a very diverse student body, don't we?

JERARD BRETTS: Yes, absolutely.

KAREN FOLEY: And it's important that we're all able to be in that space together. Lovely. What's the second one?

JERARD BRETTS: Right. The second one is about the responsibilities of our academic community in particular to inspire and enable learning. So it's all about things like providing choice in the curriculum, about developing and taking advantage of new technology to support students in their learning. So it's about maintaining high academic standards as well.

So it's all about the values relating to the academic aspects of study, providing high-quality distance materials. So if you like, it's the staff responsibilities and staff values that this principle covers.

KAREN FOLEY: And we can see this in so many ways. I mean, we've heard about some of the very inspiring content. But also the way that we enable students with the help and support and access that they get to various services here so that they can then make that leap. You have to do it all on your own, don't you? But there is a lot of support that you can get along the way.

JERARD BRETTS: Yeah. And this just talks about the responsibilities of staff in that respect, yes.

KAREN FOLEY: Excellent, OK, lovely. What's the third principle?

JERARD BRETTS: Right, well actually, the third one is about responsibilities of students for learning. So it's about students using information, advice, and guidance, and the services provided, using the

learning resources, about students completing scheduled activities on time, engaging with us in terms of providing feedback. And us responding to that feedback, of course.

About students contributing to the exchange of ideas with each other and with OU staff. So if the principal two is about staff responsibilities, principal three sets out the responsibilities of students for managing their own learning, if you like.

KAREN FOLEY: OK, so as part of the deal, this is what we would expect people to give back and had to take control of their learning and take control of their own journey.

JERARD BRETTS: Exactly, yes.

KAREN FOLEY: Excellent, lovely. What's the fourth one?

JERARD BRETTS: Right. Last but not least, it's about working together to secure the OU's mission and promote the university's values. And that's all about being open to people, places, methods, and ideas, and being inclusive, innovative, and responsive.

So this is all about making the charter principles central to the OU. So that when the OU develops new policies and procedures, it always make sure that it refers to the values of the charter when it does that.

It's also about making sure that students who are involved in the governance of the university through student representatives and the Student' Association. It's about supporting the Students' Association so that Students' Association works with its members.

So it's all around those things. And importantly, making sure that we consult with students and with each other. And we listen to students. And we feed back to students what we've done with their feedback so we're genuinely working together.

KAREN FOLEY: Excellent. Jerard, you've shown us this. And now people will be aware of it who've watched the Student Hub Live. But how aware do you think students generally are about this charter?

JERARD BRETTS: I think it's activities like this which will increase awareness. Our investigations to date suggest that a good percentage of students are aware of it. And it's increasing awareness. But we do want more and more students and staff to be aware that this document encapsulates our values.

So there's more work to be done. And we'd be interested in what students think about the

student charter. And there is a feedback form on the website which people could use to tell us.

KAREN FOLEY: Brilliant. Jerard Bretts, thank you so much for coming in and giving us an outline about that. Now, we do have a lot of sessions that will detail some of the Open University Students' Association involvement and talk about student representation. We also have sessions talking about the student consultative process as well. So you can find out about how you can engage with those sorts of things also.

Next, we have Suzanne. Suzanne, how are you today?

SUZANNE: Thank you. I'm very well today, how are you?

KAREN FOLEY: I'm good. I'm looking forward to your session this evening. Now tell us -

SUZANNE: Me too.

KAREN FOLEY: We're going to tell people what we're going to do tonight, aren't we? Last night I had Hazel in here. And we were talking about some of the remote laboratories. And the way that people can go around investigating things.

And she said, oh yes, we've been very clever. Because we tell our students to go do lots of research. And then they can all get their data points together, and we can really do things. But you're going to tell us about this virtual microscope, which is a way of looking at things, isn't it?

SUZANNE: Yes, it's a way of looking at things. And I should probably turn this around and hold this into the camera for a moment.

KAREN FOLEY: Lovely.

SUZANNE: So people can see it's www.virtualmicroscope.org.

KAREN FOLEY: Lovely.

SUZANNE: The .org is important because there are also others, of course. We've got competition. But what we have and what Simon Kelly will talk about tonight is, we are getting all the Apollo Lunar rocks that the astronauts have collected. And incidentally, the Apollo programme started 50 years ago in 1966. So it's a 50 year anniversary this year for the start of the Apollo programme when they started testing all their rockets.

And so we now get all the samples that they brought back. And we cut them very, very finely.

And Simon Kelly will explain how this goes tonight. But you can look at the virtual microscope. And if you happen to be online, and if you look at them right now, go to Collections on that page. And then go where the big picture of the moon is and explore them. And maybe for tonight, they can send us what is their most favourite rock that they have seen.

KAREN FOLEY: Now, I've seen some of these. Some of them are very, very pretty, aren't they? And very intricate. The patterns are just beautiful.

SUZANNE: And you don't need to know anything about the moon or about rocks to just enjoy them.

KAREN FOLEY: OK, brilliant. So go online and have a look at virtualmicroscope.org and tell us what your favourite image is. And we're going to be talking tonight about the three M's, moon, mercury, and mars.

SUZANNE: Yes.

KAREN FOLEY: So we're going to be looking at different ways in which we have missions. We have instruments. And we have ways of researching space.

SUZANNE: Yes, and we will be talking about meteorites. And we will be talking about how do you get a Rover to Mars, and what do you do with it? That will be my topic. Dave Rothery will be talking about Mercury, I hope. And as I said, Simon Kelly about the moon. And so we have the three M's all covered.

KAREN FOLEY: Excellent. Now, just in terms of doing science and these ideas of remote laboratories and research online, this, in all seriousness, gives students a really good idea about something that they could do at a brick university, I guess. But they can do online in the comfort of their own home in terms of how they actually go around investigating and researching things. Why is that so useful to students?

SUZANNE: Well, its very useful to students because you get to see material you wouldn't even get to see at a brick university. If I were teaching at a brick university and wanted to show my students an Apollo rock, I could get one thin section. But in the virtual microscope, they can look at all of them as soon as they are digitised. Apollo 11, the first mission, is completely digitised. So they can look at rocks they would never ever see otherwise.

Even as a researcher, I have to write a long proposal to get these rocks. And that's because they are so precious. And that's why NASA together with us has decided we digitise them, we

make them available to everyone.

And these rocks are used for research in the virtual microscope. And for making decisions, I want this one, and I want this to study this further. And they can be used in teaching.

KAREN FOLEY: So it's not just about the fact that this is a distance learning. The way that we're researching things is changed by digitising images in the same way that we used to have microfiches and now we have online libraries. I guess the same thing is happening with moon rocks.

SUZANNE: The same is happening with moon rocks. The same is happening with a lot of technology. Just imagine talking to people on e-mail and being able to send your entire document and not having to seal up an envelope. And that's for teaching, but that's also how research is going.

KAREN FOLEY: Brilliant, excellent. Suzanne, thank you so much for coming in and telling us about that. I hope that you get it a chance to go and have a look at in point in the day. It would be very interesting to see what you think about that as well.

And our session tonight, we have Dave Rothery, Suzanne, Simon Kelly talking about various aspects to do with space. Space is always a very, very popular session. So I hope you can join us tonight for that.

Lovely, OK, so the next person that we have is Armando Marino, who is going to talk about the open engineering lab. Now, it seems like we're piloting a lot of sessions or trailering a lot of sessions, even. Because we're going to be talking about remote access. So welcome.

Now, you guys have some very interesting things that I've discovered, including a robot.

ARMANDO MARINO: Yeah, we do.

KAREN FOLEY: And we have some widgets as well which we're going to show you up on the screen. So we're going to tell you when we're going to use those. But you'll see two of them. One is what you see in this picture, there. Obviously you haven't seen the picture yet, so don't fill that one in. And do you think Baxter is. So again, we'll fill you in on that.

Sophie and HJ, how are things going?

SOPHIE: Really good, yes, we're planning a mission to Mars, the Student Hub mission to Mars.

KAREN FOLEY: Good.

SOPHIE: Yeah, and then we've also had, I think it was Dee who loves your laugh. He says it's good for your health.

KAREN FOLEY: Aw, that's lovely. Thank you, D. Oh, good. I'm always told off that it's too loud.

HJ: I think we're definitely looking to maths challenges. Sophie perhaps more than me, because Sophie does maths.

KAREN FOLEY: Oh yeah, have you got the answers, Sophie?

SOPHIE: I have, actually.

KAREN FOLEY: I haven't had time to look at them, yeah. I'm going to embarrass myself again.

HJ: But we're very interesting about Suzanne's session tonight, as well. And yes, we're probably doing a Mars mission.

SOPHIE: I think so. I get to drive the rocket.

HJ: Do you think we could broadcast from Mars? This that too hard to do, or?

KAREN FOLEY: Look, you lot haven't even got to Comic-Con yet. Do that first, then we'll see about Mars. Right, OK, Armando, how are you?

ARMANDO MARINO: Fine, thanks.

KAREN FOLEY: Good, good, excellent. Now, tell us about some of the experiments and what's happening in the open engineering lab?

ARMANDO MARINO: The open engineering lab, the lab that we are sitting up here in Milton Keynes Campus is a remotely accessed lab. So students would be able to access it from their home wherever they are in the world.

But before I start doing that, I would like to show students this picture.

KAREN FOLEY: OK.

ARMANDO And to see if you know what is here?

MARINO:

KAREN FOLEY: OK, so want do you see this picture? Your options are a pendulum filmed by webcam, a duel between a webcam and a red stick, a pile of boxes, I can see you're not very sensible in the open engineering, and the pendulum being controlled in the open engineering lab. OK, so we're going to ask people at home. And let's see what they say.

Right, OK, so we've got 53%. Now, I don't know, is this the right answer or not? I don't know whether you can see it's changing all the time.

ARMANDO MARINO: Most of them are right. This is the pendulum and is filmed by a camera. This is the pendulum. This is the equipment that we are controlling. And this is a camera. So we are grabbing a picture from this pendulum.

I'm afraid it's not a duel between the pendulum and the camera. There will not be an extraction of web or robot wars things. I'm afraid we can not do this in our lab.

KAREN FOLEY: Nope.

ARMANDO MARINO: There is a pile of boxes, nobody noticed it. But it's not really the main themes of the picture. What is really here is a pendulum that is controlling open engineering lab. It's one of the experiment that the student will be doing in our lab. This is attached to electrical engineering curriculum.

And at level two, there is an exam where there are several experiments in our lab that will connect to them through our server. So you will be able to see the interface looks like this. There is a camera showing the experiment going on. There is some dial or some field to fill where you can control the experiment.

So you can have the experience of controlling some hardware from wherever you are in the world. The cool thing of these, it is pretty quick. We tested from New Zealand, from the US. And it was really immediately. It was really fast.

So this is important for us, because if the things react faster, you have the feeling that you're in control of the hardware. If takes too much time, too much delay, you don't feel like you're controlling the hardware. So we are quite proud of this. And I'm sure students like it.

KAREN FOLEY: So how does this work, then? So people are actually controlling this pendulum.

ARMANDO MARINO: Exactly.

KAREN FOLEY: Which is here in Milton Keynes.

ARMANDO MARINO: Yes.

KAREN FOLEY: And this engineering lab is something that's being developed right now. And you're developing a whole range of equipment and technologies there? How does that work that in terms of times? Do people get allocated a slot? What happens?

ARMANDO MARINO: Yes. The modules where you will be asked to do experiments will be, you have the opportunity to do these experiments, you will have slots. The students will have slots when they can book the lab before four hours. And they can test the new experiments and play with the equipment from home.

KAREN FOLEY: Can they break it?

ARMANDO MARINO: They can try. But there is some security system there. Nobody would be able to break it.

KAREN FOLEY: OK.

ARMANDO MARINO: But we appreciate that you do try for it.

KAREN FOLEY: OK, so they're all going to come and have a go. Now there's been a lot of investments in this area.

ARMANDO MARINO: Yep.

KAREN FOLEY: Why are you guys doing this?

ARMANDO MARINO: Because we believe that it is very important in curriculums like engineering or science that also the student has access to hardware, the feeling of controlling the hardware. Because this is also what industry asks, to control these things. So that's why we are building up the remote access labs. So students can control - or they can have this experience.

KAREN FOLEY: OK, so it's so they can actually then come out with their qualification and say I've had experience with this sort of equipment.

So that's one thing that you've done. Tell us about Baxter.

ARMANDO MARINO: Oh, there is some more. Yep, this is another widget full of widgets.

KAREN FOLEY: So we've got the widget ready here. And we'd like to know your thoughts on do you think Baxter is a robot, red and black, friendly, or hard to control?

ARMANDO MARINO: No answer? Ah, OK, the most of you are right, I think. Nobodies wrong here. Very good. It is a robot, well done, well spotted. And this red and black of course is good spotted.

KAREN FOLEY: Yes, he looks like a robot, doesn't he? Why is his name Baxter?

ARMANDO MARINO: Oh, well, it's just a name, I think. I don't think there is a reason. But speaking about friendly, friendliness, he's really friendly. If you're into interaction between robot and human, you will think this is one of the most friendly robots in the world. It's leading the way how human and robot can work together in a work environment. So it's really something quite important for the industry.

And it's definitely not hard to control, as you just said. If you are, again, in the electronic engineering curriculum, you will be given to play with Baxter in level 3. So you will be able to control it and make him do funny things that will be interesting things not funny.

KAREN FOLEY: Wow, excellent. OK, this is really good. Thank you so much for coming on and filling us in about this. At the next Student Hub, can you bring Baxter?

ARMANDO MARINO: We can try, yes.

KAREN FOLEY: I think we want to see Baxter, don't we? We'd love to see him in the studio -

ARMANDO MARINO: Yeah, he can dance.

KAREN FOLEY: - and see how friendly. Really, he can dance?

ARMANDO MARINO: He can dance.

KAREN FOLEY: Wow, excellent. I think engineering, I think I've missed a trick here doing psychology. OK, very exciting. Thank you for filling us all in on this. So check out access on the open engineering lab. There are some links on the website under the Resources page so you can have a look at those. And of course, these are becoming part of the curriculum as we're moving forward. But very exciting to see some of this investment

All right. Thank you very, very much to all my guests who've been in this new section. It's been a bit full on, hasn't it? But there's lots going on here. It's only a snapshot of some of the things that the Open University are doing.

Next, we have some maths challenges. So to prepare you for that, we're going to show a little video break. And we're going to look at secrets of rules of modern living algorithms. So we'll be back soon with some fun math challenges that I know Sophie is really excited about. So let me see if I can find the answers in the break. We'll see you in five.