Why studying sustainability ... employment opportunities 20_06_2024-720p

ROB MOORE: Hello, everyone, and welcome to Student Hub Live. You're here with Rob in the study shack in the middle of Leicestershire. And great to see you all again today.
So today we're going to be looking at the subject of sustainability. We've got some guests from the STEM faculty to talk to us about this important area of potential employment and development across the country. And we're going to talk about how sustainability can fit into your studies and perhaps give you some opportunities. So hope you're going to enjoy the show today.
We've got some help supporting you in the chat. We've got Liz, Georgina, and Rachel. And they're there to answer your questions, give you some links to resources, and give you some ideas as we go through. You'll recognise them because they will have SHL in front of their names. So feel free to chat as we go through.
And, of course, we've got Heidi with us today. Hi, Heidi. How are you?
HEIDI: Hello, Rob. I'm fine, thank you. How are you? You've been wrestling squirrels this morning. Are you doing all right?
ROB MOORE: Yeah, I got a squirrel stuck in my bird feeder just as we started to get ready for the session. I had to go and get a towel and rescue him and all sorts. But it got away, and yeah, he's gone to lick his wounds, I think. But yeah.
So, Heidi, you had the end-of-year party. How did it go?
HEIDI: Oh, it was brilliant, Rob. Yeah, we had so much fun at the end-of-year party. So we had one of our OU students, former OU students, Scott Weber, who is a TikTok sensation. He's got about 150,000 followers on TikTok, and it's called Mad About History.
So he came along and he copresented with Isabella. And we had so much fun. We had loads of students along. It was a really, really great session. So I'm not sure if anybody here was able to come to the party, but if you did then I hope that you really enjoyed it.
I'm just going to say some hellos this morning, then, Rob. So I'm quite excited because we've got Katrina joining us online. And she's actually joining us directly watching from the OU library in sunny Milton Keynes this morning, which is great. So we've got one of our students on campus watching us on Student Hub Live.
And we've also got Oliver in Essex. So Oliver is doing an open degree, and has just finished his first module, introduction to Social Sciences. So lovely to have you with us this morning, Oliver.
So we really welcome engagement in the chat, and we've also got some widgets on the screen. So you can pinpoint exactly where it is that you're joining us from this morning. And then you can have a look on there and see if you've got any students nearby, which is always lovely. We just ask that within the chat you don't share any personal information throughout the session.
But, yeah, lovely to have you with us. I'll be putting your questions to the panel, so feel free to pop those in the chat, and enjoy the show.

ROB MOORE: Absolutely. Thank you, Heidi. And yeah, please get involved. These sessions are all about you asking us questions and giving us feedback. So we've got things planned, but I love it when you trip the guests up and ask them things they don't expect. So feel free to get some questions in there.
So before I introduce the guests, there are two widgets on the screen at the moment. So little things where you can add your responses. So the first one is, what subjects are you currently studying or registered for? So that's a word cloud, and you need to put three answers in, even if the answers are just full stops. You have to put three in before you press Enter. So tell us what you're studying.
And then the second question is, which of these sustainability areas would you most like to contribute to? Which interests you the most? So you've got a choice of the economic area, environmental area, or social area. And you can supplement these in the chat box and tell us a little bit more about your choice as well. So those are the widgets. Fill those in, and I'm going to introduce Victoria, Tom, and Ramla. Hi, guys. Great to have you with us.
VICTORIA HANDS: Hi.
ROB MOORE: Give us a wave. It shows your mics are all working. So I'm going to ask you just to say a very quick introduction. So, Victoria, tell us a little bit about yourself.
VICTORIA HANDS: Hello, everybody. Yes, I'm Dr. Victoria Hands. So I'm actually Director of Sustainability at the Open University. So I work across the whole institution, and I work really closely with OUSA, the OU Students Association, because you students are so important to what we do, and you tell us that sustainability is really important for you. So that's my job here at the OU, to take forward your suggestions on sustainability.
ROB MOORE: Thank you. Victoria. Perfect. And Tom, if you'd like to introduce yourself.
TOM ARGLES: Hi, yeah. I'm Tom Argles. You might guess that I've got a cold today, so apologies for the really ragged voice. So I'm a Senior Lecturer in the School of Environment, Earth and Ecosystem Sciences. I always struggle to get those the right way around.
And until fairly recently, I was the Director of Teaching in that school. So I've been involved in creating and designing and planning a lot of curriculum over the last 5 or 6 years or so. And I've also contributed to a lot of modules along the way as well. And one of the things I've been really interested in just recently is writing a whole bunch of curriculum material on using GIS, which I hope to talk a bit about later.
ROB MOORE: Excellent. Thank you, Tom. And Ramla, lovely to have you in the session.
RAMLA KHAN: Hi. Well, I'm not a doctor, but maybe in a few months.
ROB MOORE: Yes.
RAMLA KHAN: Yes, maybe. Yeah. I'm a PhD student in earth, environmental, and ecosystem sciences, and I work mostly with trees. But my research is I'm looking at the impact of heat and the rising temperature on urban trees, specifically in Milton Keynes, because I'm a very patriotic person. And I'm on campus right now. So if anyone is around, I can meet them later.
ROB MOORE: Excellent. Oh, yeah, I've just been told we got the widget to show what you're studying. So before we move on to the first topic, let's have a look at the word cloud and see where most of you are currently studying. And this is where my glasses would come in useful.
Digital comms, psychology, maths-- oh, we've got quite a few people studying sustainability, which is fantastic. This is definitely the conversation for you. And I'm really looking forward to having my eyes opened a little bit. Sustainability, it's something I think I know about, but I wouldn't actually call myself an expert, or even competent at it. So I'm really looking forward to finding out a little more.

So I'm going to put some questions to our guests. And also, remember, put your questions in the chat, and we can get those questions asked as well. So first of all, then, Victoria, we're going to come to you first. And we're talking about sustainability. What do we mean when we talk about the sustainability industry?

VICTORIA HANDS: Yeah. Well, you summed it up really well. So sustainability, traditionally, is the three pillars of society, economy, and environment. But, actually, what's really critical is the biosphere. So with the biosphere, the environment, that's what enables society to operate, which enables the economy to operate.

So I think we've got a little demonstration or a little film here. But one of the ways we define sustainability is through the United Nations Sustainable Development Goals, the SDGs. And the SDGs in this picture that you're going to see now, they fit into one another.

So this is called a nested model, where we see here the biosphere, which supports society, which supports the economy. It's really important to see it that way around. Without the biosphere being healthy-- so that's water, the oceans, nature, the trees-- society can't function. And so some of those sustainable development goals for society are no hunger and no poverty.

And, obviously, what enables us to achieve that is a functioning economy, where we have materials that are sustainable. And tying them all together is that 17th goal, which is around partnerships. So that's a nice little animation of how we can explain what sustainability means. And in society, in industry, in jobs, in employment, it's up to all of us to put sustainability into the work we're doing, whatever sector, whatever we're studying, because we all share the same biosphere, the same air, and water, and food.

ROB MOORE: So we've asked you the question, which of these areas would you like to contribute to the most? And we'll just show you what you've come back with. So most of you are talking about the environmental area. So the biosphere, as Victoria was saying,

Heidi, if we had anything in the chat about this? Anybody making any specific comments about what they would like to contribute to?

HEIDI: We haven't so far, Rob, no. People are just still doing their introductions at the moment and having a little bit of a chat. So no, they haven't responded beyond the widget yet in the chat, but I'll be sure to let you know when people do.

ROB MOORE: OK. I'm rushing ahead here. I'm not giving you enough chance to write your answers in. So, Victoria, we've looked at the development goals, Sustainable Development Goals there. How is the OU responding to the need for these?

I noticed that-- because I work in the Business School. And we're noticing that these development goals are appearing in annual reports now. They're on everybody's website. And even though they've been around for a very long time, they seem to suddenly be exploding and becoming very important. So I just wondered, how is the OU responding to the need to cover these?

VICTORIA HANDS: Well, it's great there's an explosion, and more of us are seeing how we're all responding. So those Sustainable Development Goals, the idea is to achieve those by 2030. So that's just 6 years away. And so every faculty at the Open University has a role to play.

You can see those Sustainable Development Goals relate to all of our courses. And we heard that we've got a lot of students here studying sustainability, which is excellent, but we need to know how to apply it to all areas of work.

And then we've got a lot of psychology students. Well, one of the things that stops us applying sustainability as we learn it is how we feel. So many young people and people who work in sustainability, myself included, feel quite anxious about the impacts on our biosphere which we're seeing, which aren't all good. So eco anxiety is a big thing in terms of enabling our staff and our students to take action for sustainability.

So what the OU is doing is we're taking a two-pronged approach, if you like. So on the one hand, we see OU as a business. So we need to be compliant with all the environmental legislation, and we need to ensure we're bringing social value. So every pound that we spend, you could say, is a green pound, and it's bringing social value. So bringing value beyond just the financial return to the local economy, to society more broadly.

And then the other area that we look at is our core business, which is teaching and learning. So we're working closely with all of the faculties to understand where in our modules are we already teaching sustainability as defined by the Sustainable Development Goals, but also more broadly. And are our students happy with that? Or do they have other ideas?

And we're also working with the bodies that accredit those courses. So the professional and statutory regulatory bodies, they're the membership bodies. So for instance, it might be the Engineering Council or the Chartered Institute of Marketeers. So they all have standards and guidance, and we're working with them to say, how can we embed sustainability in those specific courses and offerings?

So within the OU, we're really busy. We're engaging all of our staff and students. So OUSA, the Students Association, has an environment working group. So I would encourage all of our students here today to sign up to be part of that working group.

And then our staff, we've just gone through our first audit of evidence to show how we're embedding sustainability in the curriculum. And we trained eight of our students. We paid them and we trained them, and then they undertook an audit over 2 days of our evidence. So we're waiting to hear the results, but there were some thumbs-up and positive signs.

But that involved over 200 of our academics submitting evidence to say how their modules already include sustainability. And, of course, we want to expand that across all of our modules so all of our academics are engaged.

ROB MOORE: Absolutely. So thank you, Victoria. I notice we're getting some points in the chat. So, Heidi, what are we hearing from students about this area of sustainability? Any comments coming through? Any questions?

HEIDI: Yeah, yeah. We're just having some conversations at the moment. So Simone has put a comment in the chat advising that she's currently doing a BSc, Geography and Environmental Science, and is about to start her third year. And Simone said that she's really interested in sustainability and renewable energy as a career option, and is wondering whether postgraduate study would be required in order to move into that area.

And then Georgina, my colleague, has put some really interesting information in the chat there, saying that the UK job market is embracing sustainability like never before. And according to PwC's Green Jobs Barometer, which measures the success of the UK's regions and industries in creating green jobs, the number of sustainable jobs advertised has almost tripled in 2024.

So I'm not sure if it's a question for now or perhaps one for a little bit later, Rob, but it would be really interesting to give our students a little bit of advice if perhaps they're looking to move into this area. What

are some of the steps that they can take if they can't immediately launch into, perhaps, like a postgraduate study, for example?

ROB MOORE: Absolutely. And as if we almost planned this, which we occasionally do, we're going to be covering those questions in the next section. So the next ticker question which is floating across is about transferable skills. And we'd like you to tell us about any transferable skills that you feel you have developed that would be appropriate in the sustainability industry. So pop those in, and we'll look at some of your answers in a short while.

And now I'm going to bring Tom in, because employability in the skills area. So, Tom, this is your area. So looking at Simone's question, if you want to get into the renewable sector, do you need to have postgraduate study? Or are there different ways to get in?

TOM ARGLES: Yeah. I think there are definitely different ways to get in. We have quite a lot of curriculum aimed at sustainability within the undergraduate curriculum. And I think, as you were mentioning about, the employers these days are picking up on sustainability.

So it doesn't have to be necessarily a sustainability-focused employer. It can be any number of employers in all kinds of different industries. But they are starting to have environmental or sustainability leads, or departments even. So within other industries, there's often a little niche that you can actually use your transferable skills to work into sustainability.

But, of course, there are other sustainability-focused industries as well. There's a huge raft of careers in environmental science, for example. That's certainly-- a lot of our students from our school go into environmental science careers. And that can be things like water testing with the Environment Agency. The Environment Agency has a sort of wide range of jobs as well.

Even with mining companies-- lots of companies-- extractive companies, resource-based companies, energy companies. They're all looking to be more sustainable, and they're looking for sustainable solutions.

Now, obviously, you learn technical skills in your undergraduate degree, and some of those will definitely be enough to get into sustainable careers without worrying about postgrad. We do have some master's programmes, though. So we have master's programmes particularly in things like environmental management, for example. So that's one big area.

And not just in STEM as well. There are master's programmes in other faculties as well. So you can have a look around and see some of the master's programmes that we offer. You could also look, dare I say it, elsewhere.

But you could also consider a PhD as well. So I think Ramla is going to be talking about her sort of journey and her career later. You could also consider a PhD to get further skills and very specific skills in a particular bit of the sustainability industry.

But another thing to just mention, which I think we haven't touched on really yet, is the role of volunteering. So in sustainability, in environment in particular, in geography, volunteering is a really good way of gaining experience and gaining skills without actually doing more qualifications, more learning per se.

So it's a really nice, informal way of getting in on the ground level, getting a foot in the door, networking. So you make a lot of contacts with people within the kind of sustainability sphere and the environmental sphere, and that can open all sorts of doors and take you into all sorts of different places. So it's definitely worth considering volunteering as an avenue as well.

ROB MOORE: So you talk about volunteering. There are lots of different ways that we can get involved in some of this research. And I know when we spoke before the session, you talked about some of these-- I might have the terminology wrong-- community experiments and things like those. So what sorts of experiments, different areas, could people get involved with so that we can help generate some of this data?
TOM ARGLES: Yes. So yeah, community efforts, but citizen science is a term that's often used.
ROB MOORE: Citizen science--
TOM ARGLES: --and the OU has-- citizen science-- that's the one. So the OU has been involved in citizen science projects for years, decades actually, some of them have been running for. They had a fantastic one where, not just OU students but all across the world, there was a website for counting banded snails. So lots of the snails in your garden have these kind of yellow and brown bands, but those vary in terms of the genetics but also in terms of the environment.
And so there was a whole experiment collecting citizen science data from people just looking in their gardens at these snails, counting the bands, sort of logging the different types, taking photos. That was the sort of classic little citizen science project.
And while I was writing some curriculum recently based on GIS, I came across a study in New South Wales in Australia where people had been sending in sightings of a particular type of parrot called a superb parrot. And they'd been doing that since the '60s. So they built up this most amazing database of sightings of these superb parrots. And that was really useful for the scientists because it gave them a long-term vision of how these parrots were faring in the environment, how development was impacting on them, how wildfires, increased wildfires, were impacting, all sorts of things like that.
So the OU runs some of these citizen science things. A couple of the examples that are still running today, there's one called Treezilla, which is called the monster map of trees, which is aiming to map particularly trees in urban environments, because we're doing research into how beneficial trees are in urban environments in particular.
And, of course, trees in urban environments, there have been some conflicts with local councils recently where the trees have been cut down without any warning, and people have got up in arms about that. So that's something you can get involved with anywhere, really, in the UK.
And there's also something called iSpot, which has been going for a couple of decades I think now, which is looking at the biosphere, looking at wildlife basically. So it's a platform, online again, where people, anybody, any expertise, can just take a photo of a particular beetle, or a bee, or a plant, anything really at all, and send that into the website. And within a very, very short space of time, a whole load of experts will descend on this and ID it for them. So give them a bit of ID, but also tell them a little bit about that organism.
And I think a few years ago there was even an eight-year-old girl who discovered a new beetle that way. So it's not just here are some beetles, here are some bees. Every now and again, you do make discoveries through citizen science, which is just phenomenal.
ROB MOORE: And, of course, you don't have to be studying science to be involved. This is open to everybody. And as you've just said, an eight-year-old girl discovered a new beetle. Something to help get your-- get the kids involved, get them excited about things and share some ideas. So, Heidi, we're going to have a quick look at the widget, the-- sorry-- the chat responses and the widget about areas that

people would like to get involved with, the sorts of transferable skills that people feel have they've created that would be suitable for sustainable industry.
HEIDI: Yep. Got some great conversations going on, and some tips as well in the chat. So Louise has been really helpful, and people are super grateful to Louise for some comments that she's made. So Louise has advised that local field groups on Facebook are really helpful for volunteering.
So she says, "I'm biodiversity mapping near my local airport through an opportunity advertised there on Facebook." And she has suggested to our students that they go and have a look on SOS-UK. Apparently, they advertise loads for students across the UK as well, so it's really worth signing up to their newsletter. So, hopefully, one of my colleagues can dig out that link and pop that in the chat for our students.
I've got some other great comments in the chat as well. So Lee has advised that, "I'm trying to convince my global company that sustainability is something to be concerned with at board level. I'm studying an open MSc and just looking at ways I can sell my skills to my employer whilst encouraging them to consider greener practises."
And then Fiona said that she's "currently doing a master's in online teaching, and I want to see how I can bring sustainability to this teaching method." And she's asked whether anyone's done Climate Change, Transforming Your Organisation for Sustainability. Fiona is wondering if it's something that she should do to add to her skill set. And, again, my colleague Georgina has put the link to that in the chat, which is really helpful. So yeah, lots of great conversations going on so far, Rob.
ROB MOORE: Absolutely. And I think Victoria wants to answer some of those points. So, Victoria, what would you like to say on those?
VICTORIA HANDS: Yeah, lovely. So with teaching resources, we launched a couple of months ago a free online OpenLearn course which our academics in Wales have written, which is exactly that. It's about supporting teachers to use sustainability pedagogy. So ways of teaching which teach sustainability.
And we talked about transferable skills, but some of the transferable skills, you have already. So you might be surprised to learn. So they're listening, like deep listening, and being able to really understand the diversity of stakeholders.
One of the pedagogies that we feature in this course is compassion. So being able to teach compassion to a room of students, and teach about diversity, and teach about caring for nature, and thinking about the long-term impacts of our actions. These are all really important, what you might call transferable or soft skills. Tom spoke about the technical skills, but there's a wide range of other skills which you already have, which you can hone. And that's what organisations are looking for, people who can transform the Organisation.
And then I have to sort of just say I wrote the Climate Change, Transforming Your Organisation for Sustainability course. So I would say do it. It is 10 hours, 10 hours over 10 weeks-- sorry-- 10 hours a week for 10 weeks. So 100 hours of content. But it does aim to empower you to do just what one of our students said, which is to go in and convince your board of the absolute necessity to engage and take action on sustainability, to transform your Organisation.
So that course gives you a 3-week facts-- which can be quite shocking-- about the heating of the planet, sadly the decline in biodiversity, the impact on our animals and habitats, and social inequality. So it's quite shocking. The 3 three weeks, it's science-based facts.
But it also encourages and empowers you to take action. And so some of the other-- and it features for the next 5 weeks some transferable skills, which you have already, we all practise on a daily basis. And

these are taken from the Well-being of Future Generations Act in Wales. And that was the government who most recently reviewed all of their legislation and their progress on sustainability. And they drew on good practise from across the globe to define five ways of working for sustainability.
So they are long-term thinking, prevention-- so designing and solutions which prevent unintended consequences. And, really, if we'd have been doing that, we wouldn't have so much pollution to clear up at the moment. Involving a diversity of stakeholders-- so they're all the range of people who might be impacted by your projects, involving them.
Collaborating-- and we all like to think we're good collaborators, but there's much more beyond people collaborating. It's about the data, the systems, the processes, organisations collaborating. And integration-- so that's integrating what works for me with what works for Rob, or what works for my Organisation with what works for your Organisation. So really collaborating to align our policies.
And so much of what we see in society comes from people operating in silos, organisations operating in silos rather than integrating their objectives. So a little plug or encouragement for the course, but also to empower you, because you already think about your degree over a period of years, or you might be thinking of a pension. So you're long-term thinking. You might have a mortgage-- you're long-term thinking.
You probably floss every morning. You're preventing decay. You probably involve all of your family in decisions around holidays, or spending, or how are you going to spend the weekend. So you're already involving a diversity of stakeholders. And you probably collaborate. We all collaborate every day.
So you're already got loads of transferable skills. It's just honing them and ensuring you communicate them to the industry, the sector, the Organisation that you'd like to work for.
ROB MOORE: Absolutely. So some really good points there to take away, some good ideas on how to engage with your own Organisation. And, of course, we've got lots of support we can give you to help you do that as well. And I think, Tom, you've got something you'd like to add to that answer as well.
TOM ARGLES: Yeah. Just talking about the transferable skills, we had a really lovely story from a student who got in touch, Andy. He's actually-- I noticed he's my age exactly, which was quite a nice coincidence. So he was recently made redundant when the company he worked for closed his work site. He was an electrical engineer, and he was casting around what to do. And he thought he would start studying with the OU. So he picked up and started a BSc in Natural Sciences. He really took to it.
And then he was obviously looking for employment as well, and he applied for a role at the British Antarctic Survey, sort of slightly inspired by his interest in the kind of science and the environment. And he mentioned that at the interview, sort of trundling along quite happily.
But then as soon as he mentioned the OU and the fact he was studying with the OU, he could see the interviewer's ears prick up and take notice, and think, oh, actually, hang on. This person's got something a bit more to them. Because they know that OU students have perseverance. They have resilience, they have self-motivation, they have all those kind of transferable skills that we've been talking about.
And so in the end he got that job, and he sailed out to Antarctica over the winter, our northern winter, for the summer. And he is now out there in a role as an electrical engineer, exploring how they can generate power sustainably on Rothera Research Station on the Antarctic continent, which is something really special. So a really nice story, but it kind of illustrates where your OU degree can take you and how important those transferable skills are.

ROB MOORE: Wow. That's a fantastic story. And, again, we often say that sometimes we look at difficult times in our careers as real blockages and down times, but sometimes they can open up so many opportunities. So thank you for that. That's a fantastic story.

We've got another ticker question coming across now, and this is about what you might want to study. So if you were to take a postgraduate qualification, what sort of area would you like to study? Not necessarily one that exists now. This is your chance to get into Victoria's ear and make some suggestions.

But what sort of area would you like to study around sustainability? And then once we've had a chat with Ramla, we're going to come back and we're going to put your questions to the panel. So over the next 10 minutes or so, think of some questions you would like Heidi to put to our experts, and we'll come back to those when we finish this next topic.

So, Ramla, lovely to have you with us today. Thank you for coming along. You've got some really interesting areas of research. Would you like to tell us about it and what you hope to do with it?

RAMLA KHAN: Yes. So I'm interdisciplinary researcher, because I did my undergrad in civil engineering. I did my master's in remote sensing and GIS. And right now I'm doing a PhD in the ecology environmental sector.

So what I would like to say is that all these fields are related if you look deep enough. And that's the thing about postgraduate degrees, that it gives you an edge over other outside candidates, that not only one but you have three different specialisations. Or like you become an expert in one field.

So right now I'm looking at the impact of temperature in urban trees in Milton Keynes, and I'm using the same citizen science project that Tom mentioned, Treezilla. So using the Treezilla, I found out which tree species are more common, not across only the Milton Keynes but across UK as well.

And so field maple. I'm working on field maple. I'm looking at it-- so how much temperature it can survive. So I'm not going to get into too much detail-- I ramble along. But I did some controlled experiments and stuff to look at their resilience.

And so this experiment specifically can also help the Council of Milton Keynes and other councils as well which tree species can survive the climate change. Because it's a truth. Climate change is a truth, and we know that the temperature is on the rise, and we have to be prepared. And that's why these kind of experiments are important. And thinking ahead, these tree species, are they're still good enough to be planted, or should we make some changes?

ROB MOORE: So of course, I always think with my business head on. So we think about sustainability as being something that's going to cost, something that's good for the planet, something that can help.

But we have to remember that sustainability also makes sense, and your research seems, from my business head, is making sure that what we invest, we actually get a decent return on. Because these are the trees that will survive. They will thrive. They will give us the best return, require the least amount of maintenance.

So I can definitely see how my area of business could link very closely with this work with the councils. So where do you see yourself going with this? I'm really interested to see. Once you've done your PhD and we can properly call you doctor, where do you see you going with that? What will you be doing with that?

RAMLA KHAN: To me-- because I worked in industry sector before, and now I'm working in academia. So for me, anywhere where I can make a difference. Like research like this, that it's not just about having a livelihood or anything. It's also about knowing that what you did made a real difference, like you made the

world more sustainable for our future generations, I would say. So I don't think about my business head. I don't have one.
ROB MOORE: Well, this is where we need to integrate. And this of course is the advantage, as somebody mentioned, doing an open master's. This is where you can bring the different ideas together. You can bring your sustainability and your business together in your master's degree. So thank you for that, and feel free to jump in and tell us-- contribute to the rest of the discussion on the opportunities. Because I'm coming back to you now, Tom, about PhD opportunities. We mentioned them earlier, that there were some. So great example of the guy that went to work in the Antarctic. What other opportunities are there? What are the types of areas are we supporting students in studying?
TOM ARGLES: Well, I think one of the advantages, as you said, thinking about an open master's, is that you can pick and choose from across the curriculum. So you can actually-- it's the sort of interdisciplinary nature of sustainability that gives you a lot of opportunities. It opens a lot of doors.
So you're not sort of restricted. In many degrees, you're kind of going down a very restricted kind of narrow focus into a particular career. So you might be going into IT, for example. And that has applications in various different things. But if you're looking doing physics or chemistry, it's a fairly narrow range. But with sustainability, you can actually sort of cut your cloth to all sorts of different careers.
So you're not restricted to science or even STEM. Obviously, engineering is very big with sustainability and other STEM industries. But you've also got the sort of economic side. You've got the social side.
So we have quite a bit of curriculum looking at sustainability through the geography lens. So in the sort of geography curriculum. And I think one of the students mentioned that they were doing geography and environmental science earlier. So there are a couple of crossover degrees like that. We're crossing over from STEM into FASS, two different faculties.
And then you've got the business sort of perspective as well. So, obviously, sustainability, I think it's moving from being regarded as kind of fluffy and sort of hippy and environmental. And more and more commercial operations, more and more global companies are thinking, actually, we have to take this seriously, not just because to pay lip service, but actually because there are economic bases for adopting sustainable practises. And it makes financial, it makes economic sense, as well as just being altruistic and saving the planet.
So I think that's a really important shift. I think, that we've seen. And it might be behind this shift in the sort of popularity of the United Nations SDGs recently, is that people have woken up really, and said, actually, yeah, this is serious stuff. We need to take this seriously, and it will impact on our economics if we don't.
[INTERPOSING VOICES]
ROB MOORE: Carry on, Tom.
TOM ARGLES: No, no, carry on, carry on, carry on. No, carry on.
ROB MOORE: I was just going to make the point that that grouping that we talked about earlier of the economic, social, and environmental, it covers right across the whole of the Open University, across all the faculties. And yeah, so it really is a good fit.
Did you want to say something else? I know Heidi's got some questions to bring in, but did you want to make another point before I go to Heidi, Tom?
TOM ARGLES: Well, so just very quickly. And thinking about looking for PhD opportunities, for example, that can seem somewhat daunting. And I think a lot of people might think that you'd need to know people,

you'd need to do networking, you'd need to have a sort of foothold in academia first. But there are websites online. There's OU jobs. There's findaphd.com, for example, which I think we've got as a link. So those are really worth looking at. I mean, I got my PhD by just literally sending letters out. I mean, I didn't know anybody particularly. I just literally took a bit of a punt and sent some letters out. And one of them came back and said, oh, OK, actually, why don't we do some research on this together? And so I've been ending up-- I've been researching mountains like the Himalayas for the last 30-odd years as a result of that.

So there's a lot of serendipity involved, but the jobs are out there. I really love that story that came from the chat, that the student was talking about local Facebook groups, because that's actually really powerful. I use local Facebook groups for sort of other purposes, and also to advertise the sort of geowalks that I do in my hometown because I'm an Earth scientist. I'm a geologist.

And so they're really powerful, actually, and they're really good at connecting those local communities together. So it's always worth looking in all sorts of places you wouldn't normally expect.

ROB MOORE: Yeah. And one of our questions is, can we have an MSc in geology? So you be the geologist. But I'll let you think on that one. We can only offer so many modules because there is a finite number we can fit in.

So, Heidi, what questions have we got coming through? What do people want to know?

HEIDI: Well, I think Tom must be psychic, because he just went and answered Lee's question for me, which is great. So that was the question I was about to put to Tom. Lee was saying, "I'd be tempted by a PhD but wouldn't know where to start." So I think that you've just responded to that, Tom. So that's really helpful. Thank you.

But I do just want to pick up-- so I think Ramla has inspired many of our students with her PhD studies. So Fiona says that she's thinking about maybe doing a PhD at some point in online teaching in sustainability, but she said she'd better finish studying her master's first and start saving money for the PhD.

Now, this is something that puts a lot of people off, doesn't it? I'm very fortunate that I've just got a fully funded PhD scholarship with the Open University. And I know that STEM are phenomenal with the various options that they've got for students that are looking to study PhDs and being fully funded.

So could we perhaps just pick up on that and just make our students aware that, actually, money doesn't have to be a barrier. And if they've got a great idea and they want to throw themselves into that research full time, we've got lots of opportunities for them.

ROB MOORE: Absolutely. And, actually, Ramla, if you'd like to come in, tell us about how your PhD came about. How did you apply? Because, again, that's an area I don't really understand the process myself.

RAMLA KHAN: Yes. So, well, first I would like to say that volunteering is also a good opportunity for networking. Because I have met quite a number of undergrad students of OU, not on campus but every time I'm-- either I'm volunteering at an event, like the sustainability ones. And even quite a number of them in Belfast this year, because they were volunteering at an ecology conference.

So, actually, I'm an international student, I applied to findaphd.com. And, actually, you don't have to be worried too much that a certain project, it's not exactly in the area you are expert in or something, you know something about. I applied at a hyperspectral imagery remote sensing kind of project. I got selected. I had interview and everything.

I came here, and then this project, the one that I'm working on, kind of became my brainchild, because I told my supervisor we can do this as well. And it became the focus of that. So I think you don't have to worry about the money and PhD, anything, because real thing, council does not ask you for tax as well. So all the PhD, you can get all.

And the student body and OU is really, really helpful. We have proper groups. Even when the new students come in, we kind of encourage them. We help them find a place. We help them, everything. So I think a PhD is a very good option. And if it's at OU, then it's more better, I would say. It's a bit biassed, but--

ROB MOORE: And you get to study on the campus for some PhDs. You're actually based on the campus?

RAMLA KHAN: Yeah. No. So that's the brilliant thing about OU, that they give you offices to all the PhD students. I am on campus right now in Robert Hooke building. But there's not many students around, like undergrads and everything. So it's quite peaceful environment as well, and you can research in a very research-focused environment.

ROB MOORE: Thank you. Just looking at the widget, we haven't got any answers yet onto the word cloud about What you would like to get involved in. So if you would like to spend some more time filling in the widget, we can have a look at that in a moment.

And also, in the ticker, remember-- actually, in the chat box, remember to ask us the questions you want us to put to our experts. We've got them for a little while longer, so it's a huge opportunity to get some questions to them.

So I'm going to come to Victoria, as we've not heard from you for a little while, Victoria. So around these opportunities, what's your involvement in helping to support students that want to do postgraduate study? If you were to give them some top tips on choosing something to do and a way to go about it, what would that be?

VICTORIA HANDS: Well, I think it's really important that everybody's unique. So choose something that you're really passionate about, because that's unique to you but it also carries you through any difficult times. And also not to limit yourself, because if you're passionate about something and you feel it's a bit niche, or there isn't actually a course on the thing you're passionate about-- this is an emerging field. We need it to emerge really rapidly to cool down the planet, but it is an emerging field.

So Tom pointed to serendipity. Ramla said, don't worry, you can shape things. And I would say that's absolutely true. I had no idea that I'd end up here 10 years ago or 20 years ago. So, usually, life-- in retrospect, life-- your [AUDIO OUT] study, it looks like it makes sense. But, actually, when it's happening and you're going forward, it's about being open to opportunities.

But bringing in your unique background, your unique experience-- they might be language skills. I studied French and public administration for undergrad, and I loved translation. So for me, in the beginning, sustainability was purely about communicating and translating a new concept into somebody else's sector or industry. So I really came at it with a translation mentality, and then I've grown obviously into that.

The other thing, just to flag, is if you're a current student at the Open University, we have fully funded an 8-hour carbon literacy training, which is 4 hours of online learning on OpenLearn Create, and then a 4-hour interactive session online. And we've trained some of our own students to deliver those sessions.

And we will train you up. If you do that course that's 8 hours and you fill in a pledge form about how you're going to embed some climate reduction actions either in your personal or professional life, then you'll get carbon literacy certified. But if you want to carry on training with us, you can become a facilitator.
So, also, if you're a personality that likes presenting, we have the game, the bananas game, How Bad Are Bananas? looking at the carbon impact of different materials. And all of this is about raising awareness. So it could be in school groups. It could be with your family members or a sports team. So there's lots of ways of gaining experience to understand where do your unique existing skills, where can you flow and grow those skills?
ROB MOORE: Wow. So I've been a STEM ambassador in the past, where I've gone into schools and run activities. And I'm guessing that's the sort of environment where this training could really come into its own. And so I'm hoping I've got the link to that in the chat box so that people might-- sorry. Carry on, Victoria.
VICTORIA HANDS: Sorry. Yeah, I'm sure we've got the link, and we'll share that. But, in fact Rob, the STEM ambassador scheme has extended. So there are climate ambassadors within that scheme now. Because in England at least, every educational setting-- so that's from nurseries all the way through to colleges and universities-- by next year, 2025, they have to have a climate action plan. So the Department for Education has specified that.
So I think that's another opportunity. When you're studying with the Open University, you're studying at a level where you could be really helpful to nurseries, primary schools, and secondary schools. That's another good opportunity to offer your services. And you could sign up for a climate ambassador scheme, and you can go in.
And sometimes sustainability isn't about knowing the answers. It's about facilitating the conversations so that we can have discussions and together reach the answers. So it's about asking the questions.
ROB MOORE: I've just done a note up on the screen to say that the link to How Bad Are Bananas? Is now in there. My little granddaughter will be devastated, because at 2 years old, she absolutely loves bananas. So if we start telling her they're bad, I'll be really--
VICTORIA HANDS: So, Rob, what we do-- so bananas aren't bad. I just want to reassure.
ROB MOORE: Oh, thank goodness for that. So Daisy would be heaving a sigh of relief there.
VICTORIA HANDS: What we often do is compare a kilo of tomatoes grown in the UK in March with a kilo of bananas. And just to give you a quick example of the sort of critical thinking skills that engenders, let's have a think. Everybody, in your minds think about which is going to be the most carbon intensive.
And so, Rob, you might have made the assumption that bananas are bad, but bananas grow without any-- in their natural environment. So they don't need chemical fertilisers or heating. They have natural rainfall. And then they're picked just before they're ripe, and they're shipped to the UK, slow shipped. Whereas tomatoes grown in a hothouse in March, that greenhouse needs to be heated. And if it's in the UK, then it's using fossil-- I know we have a renewable grid now, partially renewable, but it's using some fossil fuel energy. So that's the difference. It teaches you to think about the wider picture.
ROB MOORE: Ah, I see. So bananas aren't bad. That's a relief, I've got to say. I think Ramla wants to talk about how bad bananas-- no. Ramla, what would you like to add to that?
RAMLA KHAN: Yes. Actually, I was going to talk about that, because I facilitated that game myself to the finance department of OU, I believe. And when I started facilitating, I didn't believe it. But then, afterwards, it actually made a difference, because all of them, they said, we are going to shift to not using

those reusable-- sorry-- the cups any more of the big chains and everything, because it was wasteful and everything.
And yeah. So bananas are not wasteful at all. Because when I started, like the first time I joined that game, and that was the first thing I thought-- well, why are they picking on bananas? But no, no, no. The thing was bananas was actually the best. It's kind of like in a word play.
ROB MOORE: I see.
RAMLA KHAN: Yes.
ROB MOORE: Your example is great because it answers that question we had earlier about how can we convince our board to take sustainability seriously. And it's the sort of thing that you might run within your Organisation. It might be a team-building activity. And I know from experience-- sorry, carry on.
RAMLA KHAN: So I said it actually was a team-building exercise. Because the lady who arranged it, she said, this is a team-building exercise. So this is what we did. We divided into two different groups, and they were kind of competing against each other. We would show them two flash cards, like the banana and the tomato one, and ask them which one do you think is more sustainable, and give me reasons. So it was all like-- they were like kind of giving their ideas to each other and everything. It was like bonding, and it was like learning and bonding at the same time. It was quite good.
ROB MOORE: Again, back with my business head on. These sort of STEM ambassador, climate ambassador type activities are great for business, because if you are a manager, if you run a business, sending your staff out to deliver these types of activities in schools gives them new skills. Some of those transferable skills we've been talking about, that they might not get the opportunity to develop within the workplace, they can get to do out there working with schools.
I'm going to come back to Heidi now. Heidi, we're coming towards the end. So any final points? Any final questions we want to put while we've got time to get them answered?
HEIDI: Yeah. So I just want to touch on-- obviously, we asked the question, if you were to take a postgrad qualification in sustainability, what area would you like to study? So Lee said a module on industrial sustainability challenges, combining engineering, materials science, maintenance challenges.
And Jenny came back saying she'd like to study biodiversity and conservation. And then just a couple of comments, and then there is one question at the end. So Layla says, I'm coming to the end of a law degree, and the international environmental and space module is what prompted me to apply for the environmental job I'm doing now. I want to find a way to bring together my law degree and interest in the environment to a sustainability role. So that's fantastic to hear.
And then my colleague, Kat, a brilliant question in the chat. She said, "I really believe conservation of the planet should be number one importance above all, as with no planet nothing else matters." So Kat's question, which I'd love to put to the panel if we've got time, is, "How would I educate or prove to friends or family that don't believe in climate change?"
ROB MOORE: Oh, what a good question. So anybody want to put their hand up and take that one? How do we convince those climate change deniers, even those that don't wear wigs? Yeah, go, Victoria.
VICTORIA HANDS: Well, I think the citizen science, engaging in citizen science, is really, really good. So I remember a couple of decades ago, when I was younger, driving along the motorway, and your windscreen, you'd have to stop to clean your windscreen, right? Now you don't, because there aren't so many insects. So that's a classic example of reduced biodiversity.

So I think engaging people in what's in front of them, getting in their shoes and looking at what they can identify with is really helpful. I don't find it helpful to go head to head, which is part of the old way, but listening, and coming alongside, and understanding what those concerns are.

One of my favourite cartoons in sustainability is a cartoon giving a checklist of a cleaner planet, healthier people, more delicious food, more beautiful nature. And it's a checklist of everything that would come about if we enact sustainability. And somebody in the audience is saying, but what happens if it's a hoax? And so I think that cartoon-- which we haven't provided, but I can provide that as a resource-- is really helpful. Because if everything's going to be better if we do sustainability, what does it matter whether it's a hoax or not? Don't we all just want a better world?

ROB MOORE: Yes. Yeah. If it's a hoax that makes us better, let's embrace the hoax. But my background is in the energy industry. And 14 years ago, we raised the red flag about climate change at the point where there was the big debate about, oh, is it real? Is it not? Is it just natural variation?

And those voices now, 15 years on, are almost all silent. There are very few that can deny it now. But back in 2009, when I worked in the industry, it was very much-- it was very different, a lot more voices.

I think, actually, we're more or less there, unless someone's got another quick point? Tom, have you got a quick point you wanted to make there?

TOM ARGLES: Yeah, just very quick point, yeah. It's a very conflicted area. And as Victoria says, it can be very combative. And so I see a lot of stuff on Twitter, which is people kind of just mouthing off about stuff. And it can be very difficult, because climate science is extremely complicated, to come up with a very quick and easy refutation, and sort of say, no, that's wrong.

But I did, in writing some GIS materials recently for the OU in one of our courses, I did actually set up a little activity that you could do with GIS software. And so the students are doing this, which was comparing the idea of volcanic eruptions with power plants. So we had a global database of power plants, and then a global database of volcanoes.

And on Twitter, it's quite often that people are saying, oh, I mean, one volcanic eruption will just-- emits so much CO_2, more CO_2 than humans have ever emitted in the history of time. And they get this idea from the fact that there are always something like 20 or 30 volcanoes erupting in the world.

But then if you think about the number of power plants there are, there are tens of thousands. There are nearly 10,000 fossil fuel burning power plants, and all of them are on full time, basically 24 hours a day, emitting CO_2. And so it made you realise-- I sort of set it up for the students to kind of explore for themselves through the data-- that, yeah, actually anthropogenic CO_2 emissions are massively, massively more than even just volcanoes, which is really quite something. So it's just picking those-- it's kind of, I guess, cherry picking those kind of examples, because otherwise you get lost in the data and lost in the science.

ROB MOORE: Absolutely. So thank you for that. And thank you, everyone. We've come to the end of the show. So Victoria, Ramla, Tom, thank you for your time today. That's been fascinating. I've learned so much about sustainability and different aspects I hadn't considered before. So thank you for that. It's been great having you with us.

Heidi, would you like to say something just to come to the close? Caught you-- you were grabbing your tea then.

HEIDI: I know. I'm just having my cup of tea. I thought, oh, I'll just sit back now and relax. But no, he's going to put me on the spot.

I would just say, so when I did my postgrad, I did race, crime, and justice, that is, criminology, race, crime, and justice. And I had an unexpected module in there which was all about ecocide, and it was my absolute favourite module. It was really unexpected but found it absolutely fascinating.
So ecocide-- if people want to google that, there's been some really amazing developments with ecocide recently, different laws, et cetera, EU laws. So, yeah, that was my favourite module. So I've really, really enjoyed today's session.
ROB MOORE: Thank you, Heidi. And looking forward to our next session. So just a quick reminder, the link to the feedback form is in the chat. Please fill it out. The feedback form is how you tell us what subjects you want us to cover, what you want us to revisit, what you want us to do more of or less of. And we really do listen to your feedback. So please complete the feedback form and send it in.
Just a reminder of some of the sessions coming up. So next week, we've got a session with me and Heidi on the 26th looking at equality, diversity, and inclusion in arts and social sciences. So that's a look at how our modules are becoming more inclusive, and what we do to make sure that they're as accessible as possible to everyone.
Then we have a couple of workshops looking on learning from feedback and how to apply other people's ideas. And then on the 4th of July, I've got some of the senior people from the master's programmes to come and tell me what's the real value of a master's degree. What can it do for you? So if you want to join us on that on the 4th of July, that would be great.
So remember the feedback form. In the meantime, thank you for spending the morning with us. We've had a great time. And I look forward to seeing you all again soon. Have fun.
[AUDIO LOGO]