Transcript

Duncan: Thanks for coming. We've got people online obviously and people in the room. Um so today we're talking about AI and we're talking about uh as part of that the the recently announced Microsoft uh co-pilot partnership. We've got three fantastic colleagues who are going to join me in a bit of a conversation and then we'll open it up for questions and I'll ask colleagues to introduce themselves in a minute. I think what we're going to try and do is it's fantastic to see all the interest in I mean not surprisingly in AI and not surprisingly in what this partnership might mean for the university and the challenges and and questions that come with it.

So we're going to try and get through as many questions as possible. We're going to try to strike a balance between, you know, wanting to know uh, you know, the world historical nature of the moment right through or the downside of the world historical nature of the moment right through to when do I get my license and when can I get training and what will it mean for, you know, my my second year class in metaphysics. We'll try, you know, we're going to try and strike a balance between, I guess, those two sets of of the two pillars of the kinds of questions we're getting. So, we'll do our best. So obviously we'll gather up all the questions at the end and respond as best we can.

So let me just uh before we get started I guess there's sort of three things for me that are really important about you know our thinking about AI and our thinking about digital enablement more generally which is such an important part of our strategy both for the purposes of our student experience for the purposes of our our colleagues experience and for our role as a research intensive forward kind of looking university trying to grapple with the challenges of our day. And I guess what we're trying to do is how do we make sure that our students and staff have equitable access to this extraordinary technology. That's one thing we're grappling with. And the Microsoft partnership is one answer to that question, but not the only one.

The second thing we're thinking about is how do we make sure whatever we do in the AI space, we are reflecting on the the impact of that work whether it's on our our colleagues, our students, on the communities we serve, on the environment, on uh you know the country and more generally on the world. How do we make sure we're thinking through that and reflecting on it given the pace of change and given the nature of the challenges that this technology is generating and the political economy I guess of AI.

And then I think the third thing we're trying to think through is how do we make sure um we're doing this in a way that brings the you know we're we're all doing this together. We're bringing ourselves and each other along all the while acknowledging there there are some things we don't understand yet. there are some things we haven't figured out. So for me, those are three big themes that we're grappling with at this moment. How do we how do we ensure that we're we're we're tackling that digital divide, which is a

profound one uh in society and and making sure that we are the forefront of doing that. Secondly, how do we make sure we're reflecting on the consequences and impact of AI, not just for ourselves, but for the broader community and in line with the extraordinary research expertise, which Caroline and Cesar, Mark, and others will talk to us about in a minute. And then third, how do we make sure we do this in the right way, right? That we're we're bringing each other along all the while acknowledging that there are things we still uh have to figure out. Okay, so that's sort of the the general frame. So Caroline, do you want to introduce introduce yourself and then Cesar and Mark?

Caroline: Yeah, sure. So, hi everyone. I'm Caroline Jay. Um, I have a number of different hats. So, I'm head of research in the school of engineering and a professor of computer science there. Um, I'm also currently leading our research AI strategy group. So, I'm interested in how we build infrastructure within the university for helping us to use AI. That's distinct from AI research itself, which is slightly different. Um, and I also do a lot of research into AI. So my research area is looking at how people interact with technology and of course at the moment AI is very current and so some of my projects are looking at things like computer vision and of course generative AI.

Duncan: Great. Thanks

Cesare: Hi I'm Cesare. I'm a lecturer in mathematics. Um, in terms of AI um kind of two lanes one is I really worked a lot on creating benchmarks. Stress testing AI on expert topics in particular mathematics in my case and the second one is teaching and scholarship focused. So my work has been focused a lot on the impact of on our current models of scholarship what students do how students perceive it and also um whether some solutions that are proposed really work and to safeguard mainly our current teaching model in light of the external uh let's call it threat but also opportunity of AI.

Mark: Hi everyone. It's great to be here. I'm Mark Carrian. I'm a senior lecturer in the education department and I'm the co-lead of the digital education group there and AI fellow at the Institute for Teaching and Learning. And I come to this with two hats on really. In the first uh I study the practical challenges for academic practice. I wrote I think probably the first academic guide book generative eye for academics about how to use AI reflectively as an academic. But I've also got a more theoretical program of research which is trying to identify what these things are, what happens when we work with them, what happens when they're part of organizations. So I try and put those theoretical questions into dialogue with some of the practical challenges we have, what we do now, but also where this might be going in the longer term.

Duncan: Fantastic. So as you say, we got a fantast fantastic panel. So, let me just start off with a really general question and you can take it wherever you like and maybe um Caroline, we'll start with you and then I'll go to Mark and then come to Cesar. So, Caroline, I mean, if you So, we've we've got this partnership. We're we're going to be

offering all of our staff and students access to this technology. From your perspective, what should that look like? And what should that what should that feel like if we get it right?

Caroline: So I think the first thing I want to start with is that we recognize there are lots of people within the university who are already using AI right you know lots of people who are enthusiastic about it who are what we call early adopters who get you know the new iPhone or whatever it is first um and then there are loads and loads of people who don't really use it at all uh and some of those people are interested in what I can offer them um and want to know more and other people are quite worried about the implications of it for lots and lots of different reasons. And I think what what is great I think about today and about you know the mentimeter discussion and the things that have started happening already is that we are starting to have those discussions and we're starting to to come together as a community to have those discussions. And so I think ultimately what we want to see in terms of how we use um AI within the university is we we want to be doing it thoughtfully. So we want to be doing all those things like improving productivity and so on. and I've certainly been using it in my own work for automating things that I I used to have to do manually and that's been great. Um we're also sort of using it to help us in lots of different ways. You know, can it help um expand our horizons for example? And then we're grappling with those really challenging issues around we know that for example students have access to it and are already using it in various ways and how do we deal with that? So I think in terms of how we look at this within the university and what it means to us, I think it has to be sort of there is a new world out there which we're slowly coming to terms with. I think everyone's slowly coming to terms with it, but it's changing rapidly and it feels like we're a community that's really able to um deal with that together and reap the benefits from it, but also um you know tackle those challenges together.

Mark: Yeah, I think new world is a good term to use here because it is a new world and at the moment it's quite a chaotic world. The best evidence we have suggests that 90% of UK undergraduates have used generative AI in some form in their assignments. And my sense of many of our PGT cohorts is that actually that's probably pushing towards 100%. And so this is a very chaotic situation at the moment. And by rolling out co-pilot, we're able to make that something we it's easier to talk about. It's easier to reflect on together. And I think that's really important. And it also addresses the equity issue as well. I mean, if the majority of our students are using generative AI but only a minority of paid subscriptions, like that's clearly a big problem. And it also limits how far we can integrate this into teaching and learning. So, I think some big changes are on the horizon.

Cesare: Yeah. to build on what Mark already said, um we are in the brand new world already. We've been there for quite a while. So, uh it's not a matter of us choosing in fact

to have AI or not because we have AI and our students have AI and our staff and co-workers and everyone else has AI. But by doing this copilot partnership, we're doing two very very important things. And the first is about equity. Copilot is a good model. I know it wasn't. Right now it is. No, genuinely many people may have used it a year ago and he had a few issues. But right now it's a good model. Uh perhaps not the best at every task, but there's no such thing. But it's good.

Duncan: Well, that's my that's what my son thinks as well. He said, "Oh, dad, Microsoft, come on."

Cesare: Well, there are there are reasons, but as you know, AI changes every month and there's nothing you can do about it. So, forget about what you experienced a month ago and try again. But the other extremely important fact is about uh privacy, security and all that because as we all know most AI models especially the free ones use the data to train sometimes in transparent ways sometimes is non-transparent ways depending on what platform you're using it but by having a university copilot with all the reassurance it gives us which is the same as we have on all our other Microsoft documents including emails then we can really start exploring without worrying about that which is a specialist topic. It's a very complicated topic and we can take kind of the weight off our colleagues shoulders and generally start innovating. So a uniform platform for students but that's also secure and that has been a big problem even for me when I wanted to propose some projects and I was like but what if then this data is compromised.

Duncan: So, can I stick with you for a moment because you know you and I have been in frequent correspondence about the impact this has potentially on assessment and we had a great discussion at the Senate Board of Governor's meeting just before December and and to put it really simply, there are some colleagues who think this is a kind of existential challenge to the very possibility of us vouching for the integrity and quality of the work our students do. Let me put that in the most extreme way possible. It's an existential threat to assessment of university. There are others though who think this offers an a transformative opportunity to rethink our assessment given that our students are going out into a world suffused by AI that a young doctor coming out of FBMH is probably already facing patients who come in with a list of symptoms that they've looked up on chatgpt or Google and they're h they're having to sort of think about how they interact with that kind of patient think about the knowledge systems that are are now being created. So talk so so talk to us a bit about you know you you're a specialist in this area how should we think about assessment and how should we think about the integrity of our students work in this world by

Cesare: so just to start to build off something you said my doctor uses Chatgpt and that's good research proves is good it improves the quality of our data of course if the doctor just took what gpt says and gave it to me that would be bad

Duncan: you might want to yeah you might want to change your doctor but we are I'm still here you know

Cesare: but we're talking about a doctor seeing what gpt says and then using their own acquired internal knowledge and that is the existential threat because the pro the point is if our assessments are able to be completed by AI then it's on the short term maybe it's a bit unfair to let's say honest students that don't do not use AI as instructed and then maybe their scaling brings their results a little down but on the long run their degree loses the value it has because if we believe that there is an objective productivity reality that our degrees give which I think we should believe if we take the utilitarian point of view if you allow me well then these degrees would lose value because they don't correspond anymore to knowledge acquired by students so I always thought the first thing to do is to secure assessment.

I completely acknowledge the point of view where the skills we teach may be different and are certainly different in the new world but I think that's more of a long-term conversation I don't think we can we should suddenly flip everything on its head and say okay now we have AI so let's not teach polomials anymore it's a mathematical thing because AI can deal with polomials which it can um I think we should stick to what we know how to do so we have you know centuries two centuries in fact as recently um celebrated of human knowledge very based on the human element based on a lot of interaction and what we should do is keep teaching the skills we were teaching and just ensure that what we are doing is still valid, still certifies that these skills were acquired.

And of course, this may mean in many cases to change the assessment in the sense of it cannot be fully remote anymore. It cannot be something that the students are trusted to completely do on their own or even if guided there needs to be a way for the university to u mandate some steps that make sure there's some human involve elements involved. So the students actually contributed to part of the um project. It's really hard to say this in general. My my take is that every lecturer should be given the instruments to make this decision for their own course in the best way they can. But of course if the lecturer believes that AI detection technology works which it doesn't and the body of evidence is huge. If the lecturer believes that they can tell whether a task has been used written by AI or not again research tells us that this is false. Most people cannot tell.

Duncan: We we crossed the touring test what 2023.

Cesare: Yeah, precisely. But even even more advanced users can rarely tell. You can tell some of them the most obvious ones or if the lecturer believes there are some things AI cannot do. It cannot really reflect on the journey of learning. It can pretend it did in very convincing ways then we have a problem. So this also this copilot partnership also lets people experiment with AI a little more and since it's a good model they can realize that there is a problem maybe in their own assessment and make their own decisions.

Duncan: So I'm going to come to Caroline a second about research but Mark just given this is pedagog you know AI and pedagogies in your wheelhouse. What's your take?

Mark: I I think that question of people believing they can tell is a really interesting one because we are picking up on something. It's a very common experience now to see a kind of superficial fluency in student assessment that wasn't there previously. But I would argue that when we feel we can tell what we're actually picking up on is a kind of surface level polishing. And we can't know what deeper use of LLMs has been taken place. And we need to get better at distinguishing between the many different ways in which students use AI because what matters is how they use it, not whether they've used it. There are some uses that make very little difference to learning process. There are some that contribute to it and there are others that really hinder it.

Duncan: And sorry to interrupt. Give us an example of something that contributes to our students learning and then an example of something that doesn't that hinders it.

Mark: Uh so on the most extreme version of hindering it is someone taking an essay title, putting it into chat GPT and copying and pasting the response. But the evidence suggests that it's really a minority pursuit by students. This is not as widespread as we sometimes worry that it is. I I think the more creative uses of it are all about ideiation. they're all kind of downstream upstream of actual writing. Um talking to pieces of work. So putting in a paper the student has read but then having a conversation with the model about the paper to go deeper into it. An example from my own students in a panel we ran last year was when she was unable to get started on a piece of work. She described the task but then she asked chat GPT to give me 10 questions I should mull over to help me think about how to get started on this task. There were really creative uses our students are making of it and there are some very problematic uses as well and we need to create a space in which we can steer students towards creative uses and away from the problematic uses. And if we do start from the assumption that we can tell and that any sign of AI use is intrinsically problematic, we're not going to be able to have those conversations with students because they won't trust us.

Duncan: So Caroline, I want to talk shift now a bit to research and you know there's this concept of you know the AI paradox. On the one hand, AIS is the cause of many uh potentially arguably allegedly of many of the world's biggest challenges, whether in climate, whether in conflict or social disadvantage, economic disadvantage. On the other hand, AI could help us tackle some of those problems in new and potentially creative ways. So, how do you see AI being used by our researchers?

Caroline: I mean a similar maybe a structurally similar question to Mark to say Cesare like what are the ways that AI is going to help sort of support our research you know generate new ideas new questions new possibilities and what about the ways in which it's going to hinder hinder it and what do we need to do about that okay so yeah this is

it's a really interesting area um so firstly the first thing I want to say is um there's a really good uh article in nature that came out quite recently that talks about if you want to use AI tools in your research just Google like AI tools nature research and you'll get it. Um so for those people who are not familiar with the sorts of ways in which it can help you that's a really good starting point and it's just useful to tell the community about that. Um so how how has it helped? So obviously it's been used in um I'm going to say science and engineering. It is being used a lot in the humanities space as well um for a long time um for basically dealing with really large amounts of data that would be virtually impossible to do you know without without using some kind of automated process. Um so without going into the technicalities there are lots of different ways of of doing this but probabilistic AI has been used for tens of years for for doing this. So sort of making um lots of discoveries in things like physics and astronomy and then we've been using it um those technologies more constructively for things like um understanding where hypothesis generation. So understanding you know what might constitute a new material or what might be a really good basis for a new experiment. And again it's being able to do that through through data right. So be able to troll through you know lots of data about chemical reactions and that kind of thing and then say oh actually if you want to solve this problem then this might be the thing to explore.

So fantastic uses from that perspective and of course then you go away and you do the experiment and it can help you design the experiment now it can do things like that and then in some cases we've got a robot that actually does the experiment. So you know you've got you've got kind of the pipeline is is coming now but I suppose uh so so that is fantastic. There are two cautionary notes. So one um that I'm really interested in personally as a computer scientist is that um obviously we use uh computer code for analyzing quantitive data quite a lot. So people will write um data analysis programs um and obviously they'll use things like AI and stuff for you and we have to be really careful when it comes to analysis right when we're doing our stats because where people are using it to write code and they don't understand the code it's producing it might not be correct and we need to stop is to get better at making sure that's robust and we're sure about our results.

So that's something I'm personally kind of interested in and how that fits in with the process because we we know from research that this is an issue at the moment. So that's one thing that's that's a problem. Um and then the other thing which is really interesting which I was reading about a couple of days ago is that um in some ways it's massively accelerating scientific perspective uh uh progress but actually it's only in certain areas because of course it does this based on data and where it has data you can accelerate progress and you've got more data and you can accelerate more progress in that area but actually it kind of narrows and silos and funnels research into particular areas if we just rely on these tools.

So that's a a really interesting challenge to us I think as as researchers kind of we still have that role at the moment of going where are the gaps here though.

Duncan: So it's I guess it's that idea that in the age of AI genuine originality and creativity just becomes even more important because AI is all about pattern recognition and probabilistic you know anticipation is it based on existing data. So it's how do we so and universities have to be the place where that space for originality and creative thinking is is is given room to grow and I think that's going to be a real challenge isn't it not for all kinds of reasons but that's got to be that's got to be part of it.

Okay lots of concern also so great so we've heard sort of the the the kind of two sides as it were of uh the agony and the ecstasy of of AI in education and research. Let's think about future employment and the impact on jobs more generally. So let me Mark maybe start with you. If you're just reflecting on the students you're teaching now. What do you see as our responsibility in terms of preparing our students for you know they're not only here to you know to we're not a job training center but of course for our students it's super important to think about the careers they're going into. So, how do you think about that in terms of your students preparing them for that new world they're entering into?

Mark: Well, we teach digital education which has a big technical component to obviously because it involves using software and using technology, but we also stress purposeful reflection. So, can you explain why you're using a tool? Why are you using it in this way rather than another way? And that's really important because with employability there's a risk that if we seize too rapidly on the idea of technical AI skills we lock in things that would be quite out of date fairly rapidly. I mean take chat GPT3.5 just 3 years ago. Prompt engineering was necessary to get a good enough output. With the models we have now you don't really need to think and write in structured ways to get a good enough output out of them. And so the pace of change means that our curriculum for AI skills always risks getting slightly out of date in terms of the actual workplaces our students will inhabit. And it also risks obscuring some of the continuities with what we already do. If we can get instant answers, then asking questions, asking good questions becomes absolutely crucial. We are writing to these chat bots and the degree to which that's writing is often overlooked. If you can write fluently, if you can write in a domain informed way, if you can write richly, you can literally get more of the complexity out of these chatbots. So the things we already teach teach our students don't become obsolete. In fact, they become more important than than ever for employability.

Duncan: So Cesare, for for you, given the students that you know, you're teaching whether mathematics or other subjects you teach into, how do you think about the kinds of skills that you're clipping them with or we should be if we're not equipping them away?

Cesare: So um I completely agree with Mark in that I think that what we're teaching right now in terms of general skills learning objectives should largely be unchanged and that just because it's been built on centuries of good practice it works and also because ultimately if we're building real experts out there because um university's job is also to train the most expert people on the topic um then we need some kind of mirror to the AI whatever it may be that is still able to verify. So maintaining human expertise is a challenge and where if not in universities where maybe we're a little less worried about quarterly results of or financial issues and the other the other very important thing that Mark also mentioned is that um the modes may change a little and I'll give you one example from mathematics um automated proof verification which is a way to make sure that when you do a theorem it can kind of machine verify that the proof is correct. We don't have this in general. The proofs are assessed by peers who judge their formality. This is now becoming quite big and right now we don't train students on that because it was quite a niche around up until now. And there started to be questions of should we do this?

So of course that requires a little adaptation of the curriculum but the core skills we teach the mathematical knowledge that they acquire in their head and the ability to do exercises prove things that will not fundamentally change. And I don't think it should change because anything you offset to AI you've lost in a generation and I don't think we should be losing anything here as human beings.

Duncan: So Kellyanne so you you Kellyanne helps um well runs our our our student employment service. I mean what are you just briefly we've got a microphone for Kellyanne. What are you listening to Mark and Cesare how does that sort of line up with what you're seeing from our employer colleagues and partners?

Kellyanne: Absolutely. Thank you. Hi everyone. Um I think the first point I'd like to make is that this isn't about replacement. It's about balance. And when we look at graduate recruitment, we can see that employers are using AI and have been using AI for a number of years at that front end in terms of sifting applications and the volume. I think now we are seeing such an increase in applications. It's a huge challenge for employees. Um we're seeing the labor market contract by about 5% year on year across the top 100 employers and we're seeing vacancies um sorry applications increase by about 23% and some employers are actually reporting double the amount of applications that they've got now coming through compared to a couple of years ago and a lot of that is due to the quantity of applications that our students can put forward. So I think our role as university is to equip our students to not only use AI who you know they are time poor they're using AI to support that application process but there should really be an emphasis on that human element and recruiters are still testing for that so those shortlisting decisions are still a human-led decision and our job really is to prepare our students for that reality. So that includes ensuring that through the

applications that they're making, they're getting that kind of the skills attributes that they're acquiring at university in that application process that it isn't just a copy and paste. Um, so it's twofold really. It's around preparing for the application process and preparing for that human element when applying for jobs. And that's something that I think we've still got a job of work to do really on the we were joking the other day that we should encourage our students to slip in spelling mistakes into their so that the algorithm goes yeah you know being here employers have genuinely fed back to us that you know the rate of application the volume that they are getting you know years ago it used to be we aren't going to short list because we spotted a spelling mistake here or a grammar error here whereas now on the flip side it's actually this must have been written by a human because it's got a spelling mistake in there but that's a genuine challenge that employers are facing. Um, so it's it's really interesting. I think we're seeing that shift from supporting students just to navigate I use AI and applications, but also to make sure that we're giving them human skills development because a lot of the recruitment and selection is coming back to that inperson uh mock assessment centers, assessment days, interviews in person. So, it's ensure we've got that.

Duncan: I mean it sort of reinforces I guess what all three of you said but especially Mark and and Cesare about not like not resiling from those core human centered skills that universities have been focused on for a few hundred years now. I mean there's obviously we can do them better but those are still a core that's a core value that we continue to offer. Yeah.

Kellyanne: And it's still something that recruiters are testing for in the recruitment process.

Duncan: Yeah. Good. Okay. Let's move to questions now. We've got lots of questions on mentimeter which we'll come to but let's start with questions maybe in the room. So who would like to kick things off? Lots more things to talk about. We'll bring Caroline and Cesare and Mark in um in their areas of expertise but let's kick off questions in the room. Who would like to ask the first question otherwise we go straight to mental? Yes. Yes. Go ahead. Is it time? Okay.

Question: So thank you for the discussions and for organizing this event. Uh I'm Boris a lecturer in the computer science department. So my first question is more about the data that we create by using these tools. Where is the data? Uh is it stored in Europe? Is it stored in the US since Microsoft is a US company? How do we manage export control?

Duncan: Good. So maybe PJ I'll ask you to answer specifically about where the data is stored and secured. That was an easy one passing the microphone.

PJ: So um the data is actually stored in the same place where your emails and your teams and one drive and sharepoint data is stored. That's here in the UK. Um the the way that we're storing the data that is produced, it gets um saved into your one drive file.

Um the enterprise service agreement that we've got with Microsoft indicates that we have to keep the data here in the UK. Um, and we've got data protection rules around that as well. So, so succinctly here in the UK.

Duncan: Good. Thanks. Other question in the room before we go to Mentimeter. Yeah, I think there's one right right in the center.

Question: Hi, thank you. Um Duncan, when you started, you said of of the three kind of core uh things that you wanted to make sure that we were thinking through it. The third one was how to ensure that we're doing this together. And to go back to um where I think Caroline went in terms of we have both early adopters and we also have I'm going to call them AI skeptics. um how do we do this together whether in terms of training or other things in a way that everyone feels like they're part of it and especially for those who are feeling skeptical that they're not feeling that they're being sort of marched into this against their their principles or their their pedagogical will.

Duncan: Yeah, great great question and I'm I'm happy if any one of the panel have a view about this but I guess the way so the first thing to say is look this is as much about training and support as it is about the technology. So there's a lot of thought and work being done right now as we speak including led by by Caroline and others uh who are here and who are online uh in terms of putting in place the kind of training and support that's going to be accessible and usable by students and staff and that's work that's happening now. So that's been a really important principle all along. We weren't simply dropping the technology in and saying going for it. We're actually going to provide um structure and support uh as far as we can and that's going to be an evolving process. We also are doing a lot of work led by uh Jen and uh Sarah around um the guidelines and policies we need in order to ensure people are clear about what happens in the classroom. You know what happens uh in the laboratories or what happens uh in various parts of the university. Again that that's work that had already started but we now need to accelerate and update. But in the same way that you know states are struggling with the regulatory environment, I think we're going to have to be continually returning to that sort of guideline policy environment to the extent we'll need to. I think just given the nature of the technology, as you said, the difference between the platforms to today compared to even 3 years ago is quite remarkable. And then the third thing I'd say is no one's going to be forced to use AI. It's not something going to appear necessarily in your job description overnight, but you know, I was reflecting on, you know, we had Simon Johnson uh the Nobel Prize winner alum of the University of Manchester give the Cochroft Brotherford lecture last year and he he he told this he he compared he gave an analogy with the emergence of you know the combustion engine and and and Ford in the US. um is yes jobs change but more importantly tasks change. Whether jobs change is is is is something that we we can't really predict yet entirely as to what that means. But tasks will change. So no one's going to be forced to use AI, but

I'm sure you're having the same experience as I am, which is increasingly it's there in front of you and for various reasons you're using it, whether at the university or in other parts of your life. So it's certainly going to be the case that there will be lots of opportunities to use AI and in some cases it might be that there are certain processes which are relying on AI and people are going to be you know as a result engaged in it there. But this isn't you know we're not we're we're we're not AI evangelists per se but we are trying to lean into this technology understand it figure out how to use it responsibly and figure out how to use it to benefit our colleagues and students. So it it is going to it is a bit messy. I'm trying to be careful not to say, "Oh, well, you can just completely opt out of it." I mean, that would be unrealistic to say, but certainly people are going to have choices to make about how they use it and when they use it. Um, but even that will begin to get probably a bit gray in places as we just live in a more AI suffused world. Final thing I'd say is I mean, one thing that's important for me about this partnership, it's also about agency. It gives us a chance to make some choices and decisions rather than just sit back and let it happen to us. It allows us to exercise a bit of agency over how we want to use this technology in um the institution and the first foundational basis for doing that is that everyone has equal access to it to begin with and then we we kind of go from go from there. Okay, let's go to Menti.

Question: Yep. So the top question on menti at the moment is AI relies on rare earth minerals mainly being harvested through exploitative means from countries in the global south. How does this align with the university's United Nations sustainable sustainable development goal commitments?

Duncan: So it's true I mean I mean I mean this relies on a lot of rare earth minerals as well. So it's a challenge we face in just about every technology. If you drove to work in an EV, came, you know, on an electric bus this morning into work or going home this afternoon, we're facing the same question. I think to put it I I think for me to put it really simply is yeah, we have to ask that question and ask well, what can we do about it? What kind of conversations can we have here uh to address those challenges? Um we know that uh in a in a world of geopolitical competition as well it's getting increasingly uh challenging to to to make sense of that. Come back to the AI paradox. I mean I think the very same technology which is using rare earth um minerals and in some cases coming from conflict zones and in very challenging circumstances that very same technology potentially can help us think through how we address those challenges. So I just think we have to own the fact that this is a feature of just about every new AI related uh piece of technology and not just AI but just digitally related technology that we have and we're going to have to we're going to have to grapple with that and where else but a university should we do this as I said this is not a conversation that's necessarily happening in the boardrooms of the various tech companies but they certainly can happen here. So I think we have to grasp that. I don't know Caroline, do you have a view of again it sort of go goes back to that AI paradox sort of question?

Caroline: Yeah. So I I a couple of things. So first of all I think it's it is impossible for us to not engage with the technology and it is absolutely the case that the technology can help us with finding answers to those questions. So I think that's a really important point. Um I think as well locally what we're thinking about doing locally is really important. Um so uh we have an AI what is currently an AI sustainability working group and it's interesting. So it's um we have various sustainability groups within the university and this one's called AI but actually it's looking at all of our computation. Um so it's very difficult to separate separate these things out. Um so Alejandro who's in the front row down here is chairing that that group. So thanks for coming along. Um and what that that group is going to be looking at this stuff locally. So um it is true that so every decision we make about how we live has a sustainability implication, right? and and so some people you know we all make different decisions you know whether to fly or get the train and these kind of things so we we always have to be making those decisions but I think data is really helpful uh and so one of the things that the group is going to be doing is and and we've got various other projects around the university doing this as well is looking at things like how do we use our compute resources how can we be more efficient you know where people want to be more efficient in computation generally how can they do that and so so there is this kind of data collection going on so we so where people you know they want want to make informed choices about that they can do to help you know support them.

Duncan: And I guess the other did you want to say something quickly because you're chairing the to give you the microphone just briefly maybe say a bit more.

Alejandro: Well, I I basically fully fully agree with with what we have been saying, you know, at the end um I think everything that you you do have an an impact, you know. So, and and if we want in the to go in that direction, we have to be uh what we have to do is try to tackle those impacts and try to reduce them. That's that's the key thing you know and that's that's where um the university and well we as individuals as well can can have an action know in that sense for example you know like we have to analyze you know like when do we really need to use artificial intelligence you know and maybe in some cases you know it's even easier to just do uh a web search you know that and use it responsibly you know don't use it for know it's a stupid sample But not using it for doing memes for example you know because that has an impact you know use artificial intelligence for what it really really needed from the point of the university you know we have to measure you know how much this increasing and or impact or not you know because maybe we are doing things more efficiency and therefore we are consuming less energy and we have less emissions you know that's what we have to see and if this increase the amount of electricity that we are using we have to take the actions because we have clear commitments you know and those are not going to change you know and at the finally also we have a partner here that is Microsoft you know which actually is where the majority of the environmental impacts rely in the data centers or data centers

from from Microsoft you know so we have to work with them we have to have them accountable for the very um important commitments that they have as well you know and that's that's the how I see it from an individual perspective, from the university perspective and also for um all partners, you know, that's the the triple uh vision that I think we we have to to consider.

Duncan: Good. Thanks, Alex. I mean, one one thing we might want to think about is what are the sort of research projects we can sit alongside the partnership that maybe measures, you know, increases decreases in our in our environmental footprint. Maybe another question from menti Yeah.

Question: Um so the top one now is how much did this partnership cost?

Duncan: So let me be really let me try and be very careful about this because the actual the actual number is commercially in confidence. But let me say it is of a factor less than what we would be paying if we were simply renewing our existing Microsoft license. So in other words, it's act we're spending less on the co-pilot uh uh licenses in this next iteration than we are than we would have if we were simply renewing the thousand what did we have a thousand licenses originally. So we're going from a thousand to 65,000 and we're spending considerably less per year over the terms of the deal than we would have. So that's basically I think the best way I can put it maybe another question from oh we'll go we'll go right at the back and then we'll we'll come back to menti

Question: yeah hi I'm ninu from planning seeds uh my question goes back to the data which is we and the question is is co-pilot kind of a university of Manchester knowledge entity that will learn from what we do I we are a big university we are always trying to yeah collaborate more we don't know what each other do but it knows right to a great extent so is this something that we about to use like a collective knowledge base a local our own model that will help us improve our own internal process and knowledge about ourselves

Duncan: yes I mean the short answer is absolutely yes I mean I'll ask PJ can talk about organizationally but maybe Caroline or Cesare Mark can think about this there as I understand it. I mean, there are massive opportunities for us to learn as we deploy and use this technology both in a classroom environment or a laboratory environment or a research project environment. And part of the challenge over the next couple of years is really taking that opportunity and and and leveraging as much as we can. So absolutely it is a collective knowledge project and in some ways well as we know doing it in the way we've done it means we we we've got the necessary kind of security around that data that we're sharing. But absolutely so maybe start organizationally then I'll come back to you guys to think about ways in which we might do that.

PJ: And I've I've actually got two um two parts to the answer. The first part is from a co-pilot perspective that has access to your data. Um it doesn't have access to the

university's data. It only can access what you can access right now. Um as we look at future phases, we're going to be looking at something called Agentic AI. Um and that's where agents start to um look at um other systems that they've got access to as well. But from a knowledge management perspective, that's where we're going to be relying on Agentic AI. Um and that's in future phases. But for co-pilot right now, um, think of it as an intern and then as an OITU.

Duncan: Do you have a Yeah. Yeah. I actually think this is something that we need to be really careful about.

Cesara: And so the the way I see is the best way we can use AI right now is an extension of our own mind, which is big in terms of privacy, right? Because I wouldn't want any of you to read into my thoughts or private notes or diary. And I think AI should have exactly the same level of privacy, which as far as I understand about this. Yeah, before the panel is guaranteed. I there's I'm still a FOI, freedom of information requests. So maybe maybe you can pitch in on that, but as far as I understand is at least as private as emails. And so of course when if you were trying to build some kind of collective um mind, then you would have to give up some of that. I don't think AIs right now are mature enough to do it. And I think it's very very important to preserve the privacy of one's interactions with AI because it enables them to be genuine. It enables me to honestly brainstorm truly without worrying about what someone may read in the future.

Duncan:So yeah, that's just might be private but mine isn't class but Mark who knows

Mark: that that privacy is obviously crucial and if you are a routine user of a language model you will usually experience it as something very private. Um, but I think there's a middle ground between that privacy and the sort of collective intelligence you're hinting at, Nuno. Uh, which is particularly in terms of publication. So, for example, there's so much scholarship that gets done at Manchester and I don't think we're very good at learning from the scholarship that's been done about Manchester and how we could opt into ways of pooling knowledge in particular areas I find really exciting. for my ITL projects. I'm trying to do that over the next year and a half with research that's been done about generative AI empirically at Manchester to see what we can learn collectively through that. And I think there's huge opportunities. It's just it's never going to be off the shelf. Uh and the idea of off the-shelf automation I think is quite dangerous. We're going to have to do creative contextual problem solving work to see how we can leverage this in practice. But the fact we do have access to all this resource uh this material internally, there's some huge opportunities here. We just need creativity in how we address them.

Duncan: Caroline.

Caroline: Yeah. Can I give an example actually of how we're starting to use it internally, it feels mundane, but also like it saves a lot of time. Um so uh thinking about our so I think

where we're thinking about things like chats absolutely we need to be careful about you know those interactions and so on where it comes to just like documents that s sit within our system whether that's papers on pure or you know um so I've used it quite a lot for sort of looking at um stuff that's held internally at the university and it gets you a little bit further than a search engine. And so I do some research in this area as well looking at how we use it for discovering data and it's able to sort of retrieve documents that are relevant to your and tell you a bit about those documents so you know whether to read them or not. So that's quite mundane but we're actually use starting to use it for um interrogating exactly as well said the sort of papers we're doing. So the experiment we've done recently is one of our AI pathfinder projects is looking at uh the papers that we have in the university and trying to understand how people are using our research facilities like what research facilities do we actually have things like that you know where do they sit who's using them and then we can think about what's the impact of that research can we use that to generate narratives about our impact you know rather than having to rely on people answering emails so there are all these kinds of things which we wouldn't have been able to do previously which gives us this really rich information about the university and this opportunity to provide that narrative to the external world as well.

Duncan: Maybe just say you mentioned the phrase AI pathfinder. Maybe just explain what that means.

Caroline: Okay. So, some of you may remember a while ago um there was an opportunity to provide um ideas about how you think that we could use AI within the university for helping to speed up processes or helping to uncover knowledge or you know all of these kinds of things. Um, so lots of colleagues submitted ideas to that and we're now starting to operationalize some of those and I believe there is another call that's going to come out at some point. Yeah, Ricky's nodding. Good. Um, and so so yes, it's really this is a really great way that colleagues can engage with the potential for this. So if you can see a problem that you think needs fixing, it's an opportunity to sort of raise your hand and you don't have to do it yourself, right? You don't have to be an expert in AI. That's the important thing. Um but we have a team of people who can potentially look at that and that's that's how we how we use AI to tackle those problems that actually really cause issues for people or you know people who are doing their day-to-day jobs say if only I could help with this thing and so that's one of the pathways for us to improve the way we do things.

Duncan: Good. Okay, we'll go back to menti.

Question: um how do you square this decision with the established and emerging evidence of harms both to learners cognitive development and to young people's social and emotional development?

Duncan: So I think we have to I mean it' be very interesting to see what Mark in particular this is an area of your expertise but Cesare might have views on this too. I mean I think we have to sit with these two things. So, first of all, what what are the harms and what are the dangers that are posed by this technology in relation to young people's well-being? And shouldn't we be actually testing that those hypotheses and actually using this opportunity to to try different ways of deploying the technology in less harmful ways if indeed we do feel that there there is harm being done? um universities are should be the place where those kinds of discussions and those kinds of projects are being pursued both in terms of testing the claim that harm is being done and then thinking of responsible ways. I mean this is such a big topic in the broader public culture and there's so much debate and so much I think lack of clarity about it. You've seen some extraordin and this is not only an AI compsai thing. This is also a public policy thing. So you've got you know in Australia banning uh young people slightly different issue from use of social media not so much co-pilot or chatgpt but from social media um do these policies work should we be adopting those kinds of policies so I think universities are places that have that multi-disciplinary capability to actually tackle the questions and again it's do we want to lean into that or do we want to step back and watch it from the sidelines I think we want to be engaged but Marcus says are you guys work in this area

Mark: So yeah, and you know, we need to remember that the the harms are not contingent on what happens in university. Uh academic staff often fall into seeing AI tools as things that students relate to mainly as educational instruments. And the evidence is really clear that most students using them see them as kind of friendly presences in their life. You know, increasing numbers will ask for advice, treat it as a friend, treat it as a kind of source of emotional support. And the complexity of the relationship that young people are developing to AI in everyday life has has emerged very very quickly. And when we think about the kind of impacts of learning, we have to take account of the we have students coming in who have already been using AI for three years now. And that problem is going to grow with time. There's a socialization issue. And if we respond to the real issue that AI can be used in ways that are harmful to learning and cognition by stepping back from that space, we lose the opportunity to try and steer that use in more helpful and constructive directions. It's it's a huge problem, but the technology I do not think is intrinsically harmful. But there are modes of relating to the technology that are quite common and we have to understand what's driving that to ensure we don't reproduce those modes and to understand how we could encourage support students in using them differently. This is something we can do.

Duncan: I believe you have to you got a slightly more skeptical view than that I'm sure.

Cesare: No actually um I believe that is not on us. So AI is again an external factor that we're reacting to and kids, children, students, college students and those who come to us have been already exposed to it. That we only had a short time window where we had

students who were new to AI and that is gone as of last year. So um so I don't think we should be viewing this partnership and giving us a giving students a better way to experience AI at least in terms of how good it is compared to the free models and also how secure it is compared to privacy uh should be seen as a bad way then of course again it's up to us to figure out in each context whether it's good or bad and how to integrate it and I think it's up to the individual course leads even because every course is different And that is an important point because right now stuff is not yet AI literate enough that we want to say that and we need to bridge a gap really quickly. Uh but once we've done that it may be of course that there are harmful uses in which we design a course in a way that steers students away from AI. Maybe in well maths is a bit hard but maybe in some philosophy or critical thinking courses you would like the student to think with their head at in some occasions at least and maybe there are other situations in which you do something else. So the body of evidence seems to suggest that guided usage improves outcomes and unguided usage harms them slightly. So I've le seen many many papers on this but we're still figuring it out.

Duncan: So guided outcomes is sort of the frame we should be maybe reflecting on. Questions in the room will come back. Yeah. Right. right at the back.

Question: I very sort of um uh don't get you said that agony and the uh I we haven't heard the agony and I would like to say this in the room. LNMs are built of the of our culture and are labelled by third world workers working under exploitative conditions. that did not say I'm not sure that an ethical AI I'm not sure if there's an ethical banker another banker will have but I don't need short uh but I I would like to come back and question

Duncan: sorry sorry to interrupt I just I I I think I misheard you did you say built on the the death of our culture I just wanted to understand we got mic the death of our culture theft sorry the theft sorry sorry the theft slightly less Uh but yeah, yeah. Okay.

Question: Um that I think those are the agonies um of of uh of AI. I do I do have a question about about the data. Does this deal with Microsoft mean that or maybe I'm being naive and they already had access to my one drive and everything in it.

Duncan: So I think the answer is no. But PJ um just confirm that

PJ: um Microsoft they're not looking at your emails or your one drive um

Question: and they're not feeding their model

PJ: and they're not feeding their models. So um since before I started the university we've got a Microsoft um M365 agreement. The best way to think about co-pilot is just when we activated SharePoint, One Drive and Teams over the last 5 years. This is an add-on to the your data is not leaving our instance. Um however um things do go wrong. Um if we need to allow Microsoft to access our environment, we've got strict controls on

on how that happens and protocols. Um and that could be data engineering etc. But that's done under our supervision.

Duncan: I guess the point about large langu models being built on exploitative work practices in the global south. I mean again I think it's similar to the question about rare minerals. I mean, we we can we can lament that and we can criticize it, but then I guess the question is what what do we what do we do about it and are there other ways of building or uh engaging with LLMs that are less reliant on those kinds of exploitative practices? But at the very least, we can have those conversations and discussions here and highlight them in ways that they might not otherwise be in other parts of the culture. So, um, you know, the point about theft of culture, I'm not sure I quite get, but I but yeah, the point about, you know, workers in the global south being exploited in in in the process of of those models being built, I think is absolutely something we should be cogniz cognizant of and thinking through. I'm not sure it's a reason for stepping back from the partnership, but I think it's an important thing for us to acknowledge if indeed it continues to be true, which I think in some cases it is. I don't know if you guys have a view certainly

Cesare: just um about the theft of culture. So the way LLMs are built is they're trained on a huge amount of data uh which mostly consisted at least initially of the so-called common core which is data scraped from the internet. Now that deals with for example Reddit famously which provides training data to some um some AI companies and there have been documents instances of some big companies um training on uh content that they did not quite have the right in terms of copyright. Yeah. Two to use.

Duncan: Two of my books on

Cesare: Okay. Yeah. So so that has happened. Um but whether that means whether that means I don't think this means they're built on that.

Duncan: Yeah.

Cesare: In a strict sense and there are also um there are opinions. This is a very much a debate. It's a debate in the courts. Yeah. Where some courts have ruled towards this is fair use. Some courts have ruled this is not fair use and you should be compensated. But the point is of course this is a new era because if I read a book from a library or if a friend lends it to me a book which I don't have the rights to reproduce which none of us does when you buy it and then I use some of that knowledge in academia we just we cite it right but that may be way more implicit. I don't think I cite every book I've ever used about mathematics. I don't cite my high school book when I write a paper yet. Trust me that played a role. So it's it's a new gray era and as you acknowledge I completely agree with you. We should this is not a reason to stay away. We should be mindful of this. We should demand accountability. We should demand to know where the training data comes from. But um I think built on theft is a bit too much. At least

that's my two cents. There has been there have been some questionable practices involved in it. The vast majority of the data is not does not come from theft.

Duncan: Okay. I know we're running out of time. Maybe we'll go to Menti and then come back. We'll come back in the room for the final question here. Yeah. Um so last one from menti.

Question: Does this mean any impact on jobs? Is the university planning to use Microsoft C-Pilot to replace roles?

Duncan: Like I said, I go back to that um sort of insight that um Simon Johnson I think made. I think tasks will change and evolve. And I think we're we're we're we're thinking about AI in terms of, as Caroline said earlier, how do how do we make sure we're focusing now on how do we make sure it helps people do their jobs more effectively and how do we how do we make sure it is improving people's experience at work and improving productivity. The medium and long-term impacts, I don't think any of us can really predict at this stage, but certainly tasks will change. I mean, I think about, you know, PJ is now hiring engineers now that we didn't even imagine existed four years ago. And there are jobs that existed four years ago that are no longer required because of the way that the technology has developed. So, I I imagine that's also going to be something that's happening in other parts of the university. But again, this this, you know, I think this period we're in now gives us a chance to reflect on that in a really open and transparent way. It has to improve the experience of our students and our colleagues in some way. If it doesn't, then I think we've really failed. Uh but we have to think that through in a really responsible and transparent way.

Duncan: Okay, final final question and then we'll wrap up. Thank you.

Question: Hi, my name is Kennetha and I'm an MSSE digital transformation student. I don't know if students were allowed but please don't kick me out. It's okay. Don't kick me out. But um I'm also a student ambassador and from the digital transformation perspective, I guess we're learning about AI implementation and adoption, you know, how to advise companies and all that stuff. But a lot of what I've heard today, including um AI pathfinders and the the guided use and evolving uh guidelines seem to be staffled. So what room is there for students to feed in feed in on that? And are you open to looking for like student champions or student reps, student AI reps, anything like that at all?

Duncan: So you know the meeting we had just before this earlier today was with the student union officers precisely on this question and they so students are involved on every important committee um that uh is looking at this issue and actually I'll ask Sarah who's leading our work in this area say just who you are Sarah briefly then

Sarah: hello everyone I'm Sarah Dyer the new associate vice president for teaching excellence and innovation um absolutely it's really important and lots of the work that we're doing with staff is around supporting them to to foster conversations with their students in in disciplines in modules. I believe there's some student ambassadors being yeah being created paid roles that are being created as part of the co-pilot program. I'm sat next to Jenny who works in the library who's got this the library library student team and we were talking earlier about how we're going to um kind of engage with those kind of pre-existing networks. So obviously the with the student union, but also with this with our AC student academic reps to make sure that they're kind of feeding in. So I I mean I think it's really easy to kind of focus on this on the staff bit and it's just I mean it was so lovely that you you're kind of you know that you your voice is is the last kind of voice that we hear really but um they're absolutely kind of central to everything that we're doing um in this space.

Duncan: I think the challenge and we'll finish up here. I think as I said it earlier, we do have we do have to move at pace to kind of bridge this gap between bringing our students and colleagues up to speed with the opportunity they have now with the technology. But that doesn't mean um we need to rush it. If I can make a distinction between moving at pace and rushing, I want to hang on to that distinction. We need to move at pace, but we need to make sure we're we're bringing the community with us as we do it so that they too can feel that they're moving at the appropriate pace.

Okay. Well, thank you very much, Caroline, Cesars, Mark. Really appreciate the expertise and insight you brought. Thank you all for coming. I know there are lots more lots more questions um on Menti and I'm sure in the room. Please pass them through. There'll be many many opportunities to engage in this this conversation over the course over the next few months and and years ahead. You you've heard reference to the AI Pathfinders. You can talk to Caroline or Vicki over there. Wave Vicki who's helping lead some of that work. Uh you know, as I said, we want to do this together even when we're trying to figure stuff out we don't know the answer to yet. So, thanks very much everyone. Thanks for coming. Great. Thanks guys. Thanks so much.