It's my great pleasure to welcome you all this evening. My name is Richard Partington. I'm the Senior Tutor here at St. John's College. And it's an honour for the college to be hosting the first Kirsty Wayland Memorial Disability Lecture, which will be given by Dr Emily Nordmann on widening access to higher education through lecture recordings.

Now, forgive me, I have to start off with the usual boring safety stuff. There are fire exits, they're in there, either side at the back, and at the back up the stairs, but if you go for that one, you'll get tangled up in bunting! So I would advise you to go for the two at the sides. And there are no fire drills planned.

I'd like to take the opportunity, first to say a few words about Kirsty Wayland, and it's a real pleasure - let me stress this - to have Matt, Kirsty's husband, with us this evening, and other members of the family. Kirsty was the first permanent employee of what was then the Disability Resource Centre, the DRC. Now the Accessibility and Disability Resource Centre. Very sadly, Kirsty died earlier this year after over 22 years of dedicated service to students and others with disabilities in Cambridge, working to promote greater understanding of disability equality and to embed inclusive practice across our institutions right through the Collegiate University.

Kirsty was deeply loved, and she will be missed by so many people. From a personal perspective, I always found her advice incredibly helpful, penetrating, appropriately uncompromising, but always delivered with deftness and with kindness. And, as so many of you know, time spent with Kirsty could also be an absolute riot, which made the training sessions she provided something that one looked forward to for a whole range of reasons that had nothing to do with practicality.

One of Kirsty's greatest achievements was her work in initiating and then planning and running the Annual Disability Lecture. The first lecture was held in
2003, and we are in our 18th iteration this year after some COVID-related hiccups. Of course, when held in person, this lecture has always been hosted by St. John's College, which is a matter of pride for us. Kirsty was rightly proud of the lecture and its positive promotion of disability, the quality of the speakers, and the debates inspired each year. And thinking of fitting tributes to Kirsty and in recognition of her dedication and hard work in making this lecture series so successful, the ADRC has now renamed the lecture, which from this year onwards will be known as the Kirsty Wayland Memorial Disability Lecture. And to help support the continuity and sustainability of the lecture series, the University has also set up the Kirsty Wayland Memorial Fund. Details of this fund are available on the ADRC's website.

I'd like to thank the ADRC team and the ED&I team for all the hard work that you've completed in setting up and running this event, and I'd also like to thank St. John's conference and catering teams for their support. It's always our pleasure in the college to support the Collegiate University's primary annual disability lecture. And it's an important thing.

Over the last two decades, great strides have been made in enabling people with disabilities to enter and thrive in higher education, not least here in Cambridge. Being a student with a disability is in 2023 an experience shared by a very substantial minority of Cambridge students. Such a substantial minority that it seems to be that being a student with a disability here is now essentially a mainstream matter. And it's certainly something that I can talk about and colleagues can talk about when we're out talking to prospective students about applying to Cambridge. Of course, we get many questions from students and parents about students with disabilities and how they go on. And we say, it's completely mainstream. It's normal. It's just part of the fabric of the university in a way that, in the past, it wasn't, and that seems to me to be really important. But we also need to recognise that some of this welcome progress has resulted from new conceptions of disability, new definitions, and it remains the case that enabling students with disabilities to participate as fully as they ought to be able to be a struggle, sometimes a really bitter struggle. It's imperative that we have events like this, where topical issues relating to disability and the confluence of disability and education can be discussed, debated, explored. It's my great pleasure to introduce Professor Bhaskar Vira,
the University's Pro Vice-Chancellor for Education, who will give a short opening address and introduce our lecture this evening.

Thank you very much, Richard, both for that welcome but also for hosting us as you have done for many years. It's a privilege to be here. I've taken over relatively recently in my role as promotions and working closely with the Accessibility and Disability Resource Centre has been a really important part of the work that we've been doing. I want to start though by paying my own personal tribute to Kirsty and to recognise today's moment, as Richard has already said, because she worked at ADRC, was the Disability Development Consultant and had an extensive role across the institution with disability training consultants, consultancy provision, coordinating the mentoring scheme, planning events like this. She leaves a mark which is really important in the work of the university in the collegiate University. It is entirely fitting that the disability lectures have been named in her recognition, and we would be pleased to continue to run these events over the coming years. This is the 18th such lecture, so it just shows quite how profound an impact that has had. It is also the first time we're back in person, I think since 2019. So it's been a long time of us being unable to put these lectures on, so it's really good to be back in person. The choice of topic is current and topical, the roles that technologies of different sorts are playing in the learning and teaching environment is becoming increasingly the subject of debate and discussion. In preparing his notes for me, John Harding, Head of the Centre, asked Chat GPT to provide me with a prompt for a speech. I was remarkably impressed by what it turned out. I chose not to use the words provided by Chat GPT. I thought I might ad lib on my own, but it did a really good job! The themes of the lectures often use a very expanded idea around not just disability, narrowly defined, but about accessibility in the educational experience more broadly. And I think that's really important.

Obviously, it is really important for us to pay attention to the full range of the spectrum of issues that we should be covering, and this year it is firmly about the wider education experience and the importance of that. But the other thing, obviously, is we hope to think that we're an evidence-informed institution. And it's really important to hear from cutting-edge research in the educational experience so that it can inform better our own educational practice. So these lectures provide us with an opportunity to hear from those who are at the
forefront of the disciplines, thinking about these issues, thinking about our own pedagogic practice. So it's a real opportunity for us to learn from the experts in the field, and I think that's exemplified by our speaker today. I will move over to introducing her. You're here to listen to her, not to me, and she is the expert, and I'm looking forward to learning from the work that you've been doing. So, our speaker today is Dr. Emily Nordmann. She's a teaching-focused Senior Lecturer and the Deputy Director for Education at the School of Psychology and Neuroscience at the University of Glasgow. Her research focuses predominantly on the relationship between technology and learning, with a specific focus on lecture capture, and how it can be used as an effective study tool. In particular, she's been interested in how lecture recordings can help widen access and support students with disabilities, with neurodivergent conditions, caring responsibilities, commitments to paid employment, and those who have just not yet developed effective study strategies. So, the use of lecture recordings addresses a wide range of students with a wide range of learning approaches. The title of the lecture today is "Widening Access to Higher Education with Lecture Recordings." Fittingly, the lecture is being recorded and will be available on the ADRC website in an accessible version with captions and transcripts. So, without further ado, Emily, I look forward to hearing from you and thank you.

Hello, thank you so much for the invitation. Obviously prestige is nonsense. But when you're invited to Cambridge! So before Covid, my main research interest was focused on lectures and lecture capture. But obviously, the events of the last few years have meant that what this actually entails has gone through several transitions. And not only that, but my thinking about lecture capture and teaching and research practice has also changed, or at least it's evolved from the last few years. So in this talk, what I'm going to do is present my research on lecture capture and the different phases of my thinking. I'm going to touch on a few different topics. Some of this talk will be about issues specifically related to disability and neurodivergence. Some of it will adopt a wider lens about study skills and what the point of academia is. But don't worry, even in those moments where you might think: "Where's she going with this?" it will also call back to a single central argument, which is that at their core, lecture recordings help widen access to higher education. And after my talk, we're going to hear from the student panel as well, so they can give you their perspective. My final note
before I begin is, as you may suspect, given that I'm giving this lecture, I have quite strong opinions on all of this. But I already know that not everybody shares my views. And that's a good thing because disagreement is a good thing. So, I'm hoping that it will at least generate some good discussion.

Before I get stuck in, I just want a quick note on terminology because it's really important for the argument I'm going to make. When I'm making the argument about lecture capture or lecture recordings in this talk, what I'm referring to is the recording or capture of a live lecture. Now, this is often an in-person lecture, but it could be an online live lecture as well. It might be recorded with or without the video feed. It could just be the slides and the audio. And it might also be automatic. The lecturer doesn't have to think about it. They can walk into the room, it happens, they walk out, something, you know, magic, technological pixies happened in the background! And the general intention here is that the recording is very much a plan B. The live lecture is intended as the superior experience. The recording isn't really intended as a one-to-one direct alternative. The key contrast here is then with instructional videos that have been specifically designed for asynchronous engagement. Some of what I'm going to talk about today applies to both, but most of my work has focused on lecture capture as the recording of a live event, which of course comes with the concern that the recording will replace the live event.

So let's go back to 2015 to phase one. My first approach to studying lecture capture was as it was for many researchers, it was to investigate whether there was a relationship between providing lecture recordings, lecture attendance, and then subsequent achievement in final course grades, because I was really aware at the time that there were a lot of lectures that seemed to think that if we recorded our lectures, that attendance did plummet. Of course, you can't learn anything from a video, so that would be a terrible thing! As will become very clear throughout this talk, I now think that this question of attendance and lecture capture, as addressed in this way in my paper was problematic. However, it was the results of this study that led to phase two of my thinking.

The key selling point of the first paper, which I do realise I have forgotten to put a citation for, is that we had data across all four years of our undergraduate programme to Scottish degree, so four years. And overall, what we found was
that there was no relationship between how much students were watching the recordings and their attendance in class, but actually really interesting results came from what happened when you looked at the different levels of study. So unlike the older students where there was no difference, first-year students who had English as a second language use the recordings more than first language speakers. I thought this is a really nice finding for lecture capture because, remember, this was the first semester of first year. This is when their transitional language difficulties would be at their height, and they were using the resources we provided to them. You know, this was a positive impact of providing lecture capture.

The key takeaway though from that study was that for our first-year students, both attendance and recording use were positive predictors of their grades. So the more lectures they went to, and the more recordings that they watched, the better they did, but there was also an interaction with their GPA, their grade point average, that makes it a little bit more complex. And what we found was that for the average and the good students, if they had low attendance, then the more recordings that they watched the better they did. Essentially, they were capable of studying independently and catching up. However, for the weaker students, the ones whose GPA was kind of in that lower quintile, watching the recordings didn't make up for not going to the lectures.

However, for those weaker students, if they did both, if they went to the lecture and watched the recording as a supplement, this then boosted the grades of those weaker students. What this finding made me realise was I was thinking about lecture capture in entirely the wrong way. Regardless of the statistical technique you use, the interpretation and discussion that surrounds lecture capture often comes with the implicit assumption that the impact of lecture capture and how students use it is relatively uniform, that we can make these generalizable statements about the relationship between attendance and recording use and achievement. And it is to my genuine professional shame that I did not realise how limited my approach was. Before this, phase two of my approach then was driven by this idea that different students will use lecture capture differently. We don't find it particularly controversial that some students will take better notes than other students, or that some students might learn more from the reading than other students. And our concerns about these
differences don't manifest in calls to stop students taking notes, stop them reading. Instead, we hopefully provide guidance on how to do these things better to improve the effectiveness of their study behaviours. So why then is it so controversial that the use and the impact of lecture recordings might not be “one size fits all”?

One of the things that happened about the same time that I was contemplating the results of that first study I just showed you was I started reading about self-regulated learning, which is a field and a theory that's been around for decades. And there are several different models of SRL. But a reasonable overview would be that people learn best when they take control of their learning. So when you plan and you set goals, when you use effective strategies, and when you reflect on your performance and make changes to your approach based upon that reflection.

And when I read this, I felt like it just all clicked into place with lecture capture. That actually, this isn't about lecture capture. This is about a much bigger conversation and one that's already been recognised in the literature, which is that self-regulation is predictive of success in all learning environments, but it's even more strongly predictive of success for online learning environments when you have that increased independence. So with that in mind, we synthesized what was already known from the educational and cognitive psychology literature about effective study strategies to create a set of guidelines for how students could maximize the effectiveness of lecture capture. And we wrote a paper. But it also had associated infographics that could be shared with students. And the driving motivation of that paper was that we wanted to take a holistic approach that included information on things like how to use recordings for revision, versus if you're watching it for the first time, the importance of distributed learning rather than binging the box set at the end of the semester, and, yes, attendance, but attendance framed in terms of an effective study strategy, rather than this binary choice between good and evil.

To pull out just one of these to highlight why I think this is so important, there's a section about how to take notes, and it has very little to do with lecture recordings. If you're not familiar with the note-taking literature, then the most effective way to take notes is to try and summarize as you go. Because it means
you're processing the information, you're processing the meaning, you're chunking the information. What you want to avoid is writing down what the lecturer is saying word for word because you only engage in the shallow level of processing. And the thing is, it's really hard to take good notes, and one of the reasons it's hard to take good notes is that in order to summarize the meaning, you have to understand what the lecture means. One of the myths about lecture recordings is that they're going to contribute to the last start of note-taking. And for me, this is backward to what the evidence supports. We want students to move away from verbatim note-taking and move to summarisation. One of the easiest ways to support that is to ensure that they don't have to write down every word, and without a recording, that's far too risky.

So, this is what I mean when I talk about taking this kind of holistic, evidence-based approach because, just as some students don't recognize what makes effective learning and rely on how they feel about something, the same is true of the people who teach. I also self-promotional plug! These guides are available in English, Dutch, German, French, and Welsh. So, if you'd like to use them, there's a Creative Commons license.

So, phase three. In phase one, I was so concerned with evidencing that lecture capture was not about to bring an end to academia as we knew it that I put all of my focus on that link between attendance and recording use. And aside from the issues I've already touched on, I think that in doing so, I neglected the most important point of lecture capture: its humanity. Lecture capture at its core is a second chance, and that is a good thing.

We already know that online learning has many benefits from kind of true online distance learning programs and institutions like the Open University. The demographic profile of ODL programs is very different from the profile of on-campus institutions. ODL students tend to be older; they're more likely to have families; they work at least part-time, which means that without audio learning, their audio programs, they would be essentially excluded from participating in higher education because the traditional model does not fit with their lives. You know, audio programs allow a huge number of people access to education that have been historically excluded.
When it comes to the flexibility offered by the traditional lecture capture of face-to-face lectures, in some respects, it isn't too controversial. We know that learners who are studying in their second language, students with learning disabilities, and deaf and hard-of-hearing students appreciate and indeed rely on the provision of recordings. And we also know from the many studies of staff attitudes pre-Covid that these were the reasons that staff would deem kind of acceptable to provide recordings for. But Lecture Capture is more than this. In some ways, it ever so slightly narrows the gap in accessibility between the traditional programs and online distance learning programs. What's surprising, particularly if you look at this with a post-Covid lens, is that there was very little work done on how lecture capture impacts the experience of disadvantaged students more broadly. So students with physical and mental health issues, those that need to work or have other financial constraints that affect their engagement. And I believe that part of the reason there was this research gap is that it was, and it still is, politically difficult to make the case that allowing students the flexibility to miss your class is a good thing.

In 2018, we received funding from the Quality Assurance Agency in Scotland to look at how lecture capture could be used to support widening participation students. So the standard definition of widening participation tends to focus on socio-economic variables, trying to encourage students from deprived areas into higher education. But in recent years, the definition is getting a bit broader to include: people who have caring responsibilities, first-generation students, and refugees. The widening participation work that we did involves conducting focus groups with WPA students. These were from Glasgow, Edinburgh, and Aberdeen, about what lecture capture meant to them. You can see the socially progressive case for electric capture jumping out so clearly from these quotes, for these students, lecture capture allowed them to earn money. It was a safety net for health issues, and it was also about balancing cost and reward. It allowed them to make a choice. Not through poor study strategies, not through laziness, but a rational choice that a huge number of us now make on a daily basis about whether or not to go into the office, or put that one meeting online so that you don't have to put your make-up on or whatever! You know, why is that okay for staff, but it's not okay for students?
Phase four, good old Covid phase four! When it all kicks off, I had quite a few people say to me, "Well, this must be great for your career"! And I nodded and I smiled, and I was screaming inside because, you know, aside from the plague, I realised quite early on that the entire debate about lecture capture and the relevance of my expertise just changed overnight. By this point, Covid here, I'd spent about five years trying to develop what I hoped were quite persuasive arguments for why you should record, and then everything changed. Not only was everyone forced into recording their classes, but things like the union who said that recording our lectures would put all of our jobs at risk, was suddenly advocating for recording.

And it was interesting to see the overnight arguments about job security and copyright didn't go away, but they certainly became proportional to the actual risks involved. Suddenly, academics who previously told me that they couldn't or they wouldn't record, either because students wouldn't learn anything from the video or because they couldn't possibly talk about their research before it was published in Nature, suddenly, again, those arguments disappeared. And I found myself in a very, very odd position. As we started to transition out of the pandemic, or I suppose more accurately, I should say as we started to transition to living with a pandemic, what I found myself arguing for wasn't initially that we should record our lectures, for that there's a small period of time, which I now realize was the eye of a storm. You know, it was job done. You know, most people were on board with recording. Thanks, Covid! Instead, I found myself in this strange, strange position where I had to argue that face-to-face lectures with lecture capture still had a place in higher education because in that kind of initial transition out of Covid, there were increasing number of calls to abandon live lectures and just focus on providing lecture recordings. And I'm going to describe a couple of things we did during Covid that helped shape my view.

So when Covid hit, we had a lot of discussions at Glasgow, as happened everywhere, about whether or not our online lectures should be synchronous or asynchronous. And the staff knew the tide was leaning towards asynchronous because there were just a huge amount of anxiety. People were worried about, "if I do it live, what happens if my internet messes up?" Or do you remember when we were all panicking about Zoom bombing? You know, there was all of these, so many unknowns, and the idea of just having the recording done, went
down a lot better in advance. But myself and my colleague Karolina couldn’t predict, so we were really worried about taking away the lack of routine and contact. I am Head of First-Year Psychology and our overwhelming concern was if we just made the lectures asynchronous, we're going to lose the students. None of them have had to do online learning before, and they didn't choose to do online learning. So we needed to give them a routine, a set time to come together. Flexibility is great, being left alone on your own when that's not what you signed up for, sucks. So our response was “watch parties”! We recorded the lectures, and the lectures were timetabled as usual, but rather than delivering them live, we streamed the pre-recorded versions, and we chunked them into a couple of sections and put quizzes and Q&A in between. The great thing was, because we weren't actually lecturing live, you could sit down, you could kind of answer questions in the chat as you were going along. The feedback from the students was really, really positive, but it was all centered around this fact that they liked coming together. They liked the routine and the structure these parties provided.

My other lesson from Covid was about belonging and community, because this is what we struggled with the most as traditional on-campus programmes. If we look back at Covid, no one's takeaway is, "Well, I wish the videos had been better." You know, like the thing we struggled with was: creating connections between staff and students, about isolation, peer support, identity, study skills. That's what we lost. And that's why many of us are struggling with engagement problems. Now the foundations crumbled, that doesn't matter, what we're doing on top. We have to repair the base.

And what all of this made me realize was that in some respects, it's not about lectures or lecture recordings, which might seem like a bold statement for someone who's built their career on lecture recordings, but it's true, and it's always been true. But hopefully, people are a little bit more receptive to this argument following the pandemic. And it's true regardless of whether you teach undergrads or post-grads or you're in a Russell Group or whatever.

Rather than asking, "Should we be recording our lectures?" these are the questions that I think educators should be asking themselves: Who are your students? Why did they choose you? What skills and experience are they coming
in with? What skills and experience do you need to give them? What's the point of each part of your curriculum? And what's the point of each class or each video?

For me, in my context at Glasgow, I was gonna say they're mostly 18 because of the Scottish education system. Actually, about 50% of them are 17, which makes first-year coordination an interesting job. You're essentially taking children and turning them into adults at that point. They're at a very particular developmental stage of their lives. They chose to come to university because, yes, they want a specific education. But they also want the experience. They want the socializing, the drinking, waking up with people they shouldn't! And we've all been there. They come in with some academic competence, but when it comes to things like critical thinking, independence, working as part of a group, often they're not great at this stuff. That's the stuff we need to give them, which means that the purpose of what we do is quite broad. Some things we do to teach them content, other things we do to teach them academic skills, some things are about life skills, and other things are entirely social, pastoral.

If I consider all of those questions when I think about what traditional lectures are for, this is what I think: in-person lectures give my students a structure and help them develop a routine. They also give them an opportunity to be part of their wider class and part of their wider community, which we know can help increase their sense of belonging. It helps in the formation of a social identity as a student, and all of this stuff is related to well-being and, cynically, to retention rates. To help support all of this, my lectures have interaction and breaks. Essentially, I took my watch party structure and never went back. I kept the breaks, I kept the quizzes, and so on. My lectures are more than their didactic content. The social aspects of lectures are arguably most critical for new and non-traditional students who have not yet developed the study skills to succeed with more independent learning. Yet, the thing that we find ourselves arguing about when it comes to lecture recordings is knowledge transmission. And this should be the least controversial aspect. You know, is the function of lectures to transmit knowledge supported by providing recordings? Yes, it is. If you miss something, it's useful to be able to review it. That's the non-controversial bit of what we're doing when we're giving lectures. What's lost with lecture recordings? What they don't provide is all the other stuff. And I think for me, if
you are worried that students will not turn up to your lectures, then the first question you should ask yourself is whether your lectures provide anything other than knowledge transmission. If you can be replaced by a recording, you should. I told you I had opinions!

Phase six, the final phase. As I mentioned earlier, I thought that everything had changed. I really did. And then, over the last year, I’ve come to realize that we are in a new, yet oddly familiar phase, which is that, to my genuine surprise, we appear to be going backwards or, at the very least, in circles. These are all articles that appeared since September 22. The one at the bottom right here is my favourite because the author not only does not work in a university but went to university before Covid and has never taken an online class at all. But you know why let experience or expertise gets in the way of having a hot take in The Guardian!

In this debate, it feels like we’re back in 2015, which, if I’m being cynical, is great for my career. But it's not great that we’re seemingly failing to learn anything from the greatest disruption to education that we've ever had, and also the greatest period of upskilling we've ever had. Pre-Covid, you could reasonably argue that people wouldn't record their lectures because they didn't know how, and now that doesn't really apply to most people. Okay, what’s really frustrated me with this regression is the impact on inclusivity. The pandemic was awful for everybody. But we also know that for many of our most disadvantaged students, their university experience actually opened up for them when everything went online. And you know, it's one thing to be told that your accommodations aren't possible. It's an entirely other level of cruelty to show people that their accommodations are not only possible, but possible at scale, and then take them away. I see lots of furious nodding dog heads here, so I’m in the right room!

Just to finish up, I am going to present the results of a new study that we've conducted on lecture recordings and their usage, particularly by neurodivergent and disabled students. This study is so new that we're still in the process of writing and analysing it, and this is the very first time that I have presented it. So if the narrative of this section feels a little bit less polished, it is okay, and there should hopefully be a preprint available in June/July of the full thing. So we used a mixed-method survey,
analysed quantitatively, and then additionally, open questions that were analysed using reflexive thematic analysis, and all the questions focused on three broad areas: Why do you use lecture recordings? How do you use lecture recordings? What are the advantages and disadvantages? And I'm just going to focus on the quantitative "why" data and the thematic analysis for this talk.

It's 310 complete responses. And for neurodivergent conditions and disability, participants were allowed to use open text, and then we recoded them into categories. So the four categories are we have: neurotypical and non-disabled, neurodivergent students, disabled students, and then those with multiple conditions. So these were students who reported that they were both neurodivergent and had a disability. And I should also say, for the disability category, this includes both physical and mental health issues as well. And I should also highlight that thanks to John sharing the link to this study, actually quite a lot of the participants in this study are Cambridge students. Okay, so if you’re sitting here thinking that this might not be a population that applies to you, these are your students!

Okay. So first of all, we looked at why students use recordings, and in the quantitative questions, they were given three reasons to rate from never to always. So for those of you who care, we used an ordinal regression modeling to look at this. So we asked them: "How often do you use lecture recordings to make up for missing a lecture, to revise a lecture you've already attended or watched, or because you prefer watching the recording to the live lecture?" So the first thing we found was a main effect of reason. I realised you can't really see the text here. So this blue bar at the top here is to make up for missing a lecture. So it goes from never, along to always, and this was the most popular reason. The yellow bar at the bottom there is to revise lectures you've already attended, which was in the middle. And then finally, we've got the grey bars in the middle there, which is, "I prefer recordings to attending live lectures," and these are all significantly different from each other. So making up or missing lectures, then revising attended lectures, and really bringing up the rear here is because people prefer watching.

Okay, this is, you know, the death of the lecture has been greatly over-exaggerated! We also found a main effect of disability. So, neurodivergent
students and students with multiple conditions were more likely to report using lecture recordings across all three reasons compared to neurotypical and non-disabled students. And there was no interaction between disability and reasons. So it’s not the case that disabled students were more likely to say they use lecture recordings for one reason or another, although I will say that for the multiple condition group, the sample size is quite small. So there are some issues of power there that would need replicating, but descriptively, no interaction.

We then followed that question up and then said, "Okay, if you use lecture recordings because you miss lectures, why do you miss lectures?" And these questions, students were given a list of reasons and asked to indicate whether they was ever a reason for missing lectures. So the options they were given were: mental health, physical health, issues relating to neurotype and learning disabilities, commuting time and cost, and kind of other capital bracket that we then did open text responses for: quality of teaching, interesting topic or not, employment commitments, and caring responsibilities.

And I don't think these results will come as a surprise to anybody who's worked in higher education in the last decade. Mental health was the number one reason. That's this yellow bar up here, followed by physical health, and then we have issues relating to neurotype and learning difficulties coming third, and commuting time and cost also coming in quite high there, with the others kind of bringing up the rear with a smaller number of responses.

But importantly, there was actually an interaction. So there were differences between the disability groups depending upon the reason. So it's not the case that disabled and neurodivergent students are more likely to report missing lectures for all of the reasons. It did depend on the context. And again, these findings are not surprising. But it is nice to have the data on them. Disabled students and those with multiple conditions are more likely to say that they miss lectures because of physical health issues compared to neurotypical and non-disabled students. So that's the blue bar and the yellow bar here compared to the darker blue bar here. Similarly, disabled students were more likely to miss lectures for mental health issues compared to neurotypical and non-disabled
students. Okay, so this is the disability bar here, and then neurotypical and non-disabled down here.

It's also worth noting the y-axis on this graph which you probably can't see. But this the lowest value on this graph of students who miss lectures because of mental health concerns is 40%. That's the lowest group, okay? And remember, that group is not going to be registered with a disability at all. And it's 40%. The differences for learning difficulties, neurotype or sensory challenges are not surprising, but they are quite stark. So all groups were more likely to miss lectures for these reasons than the neurotypical students. So this is the neurotypical and non-disabled group, and every group after that having more and more problems and missing lectures because of these reasons.

Finally, in contrast, there was no difference between the disability groups for the other kind of non-disability reasons to caring responsibilities, computing time and cost, employment, interesting topic or not, quality of teaching. There were no differences between neurotypical and disabled students and so on. And this might not seem surprising, but I think it's really important because these are the kinds of things that are going to affect people who aren't registered with a disability service. And if you look at, for example, commuting time and cost which is this bar here, and caring responsibilities which is this bar here, I want you to consider the impact of only providing recordings for students who are registered officially with the disability service. You know, particularly, for example, if you happen to be at an institution in which the proportion of students from a private school is higher than the national average. The numbers' effects might be small, but you will be compounding disadvantage on your most disadvantaged students.

So in addition to the quantitative questions, we also asked students to expand in their own words: why and how they use recordings, and the open text responses were analysed using reflexive thematic analysis, and there are three themes that were constructed from the data.

The first theme was that lecture recordings are an inclusive tool for learning. No surprises here. Just over 40% of the participants wrote about using lecture recordings to complement and consolidate their learning, rather than replacing in-person attendance. So, many talked about a need for consolidation and
revision, and they did this immediately after attending the lecture to clarify points of ambiguity, to supplement their note-taking, or to create notes and study. Additionally, participants also frequently reported using recordings or utilising functional flexibility, so using the features of the technology, such as being able to pause them, slow them down, speed them up, and use the subtitles to overcome, for example, auditory processing issues. And what this meant is that they could adapt and control the pacing in a way that supported their needs. And I'll say two things in interim summary here.

First, we know that metacognition is something that all learners struggle with. The things that we think are effective for our learning are quite often not the things that are actually effective for our learning. So whilst many of the participants reported using the recordings in a way that they felt led to better learning, it is an entirely subjective assessment that may or may not map on to reality, and that is what research on lecture capture should be focusing on. Not the attendance all the time, do something more interesting. Look at how they’re using it, look at the efficacy of those methods, and then provide guidance for them to do it better.

And second, the reason that the attendance debate frustrates me so deeply is that the framing of the discussion, particularly by people who are against recording, it’s so often framed in this kind of like lazy “students-think”. If you read these quotes, do these look like disengaged students to you? Do they look like people who aren't trying, who aren't putting in the effort? Are these not the type of learners you would want in your class? If I think back to the definition of self-regulated learning I gave you earlier: that self-regulated learning is when you plan and set goals, when you take control of your own learning, and you reflect on your learning and adapt your approach depending on that reflection. These students are hitting every single box in that.

The second theme was that recordings provide a flexible safety net that allows students to accommodate competing demands, adapt to unavoidable environmental circumstances, and gave them the opportunity to prioritise the care and safety of themselves and others. And this is reflected in two sub-themes. So first, personal flexibility reflects how lecture recordings support the fact that occasionally, life gets in the way. Hey, nearly 50% of the participants
wrote about, how on occasion, they couldn't attend in-person lectures out of necessity. So this was things like health issues, caring responsibilities, and they needed the recordings to keep them on track. And a common concern in these open text responses was the time and the financial cost of commuting, and that this was very much a factor. And then you add in things like unreliable public transport and strikes and the weather and all of that stuff. It's out of your control.

The second sub-theme was care and safety. And this reflected participants choosing not to attend lectures for their own safety. So we had quite a few chronically ill and medically vulnerable students who felt that the lecture environment, the big room with lots of people, was simply unsafe for them. But also, and I'm really happy about this, there were a number of responses cited about not wanting to make other people ill. So, when you had a cold or cough or whatever, not going to the lecture to avoid spreading it. And as someone who lectures first year students in the first semester, when you can't hear yourself talk over a microphone because of all the coughing, I'd love it if more students were like this! I told my first years not to come if I had a cough and they just kept coming. Okay, I was the only person in the room with a mask on!

What really leapt out to me from this theme is something I have already touched on. Almost every single academic I know uses this type of flexibility in their work. I do not know anybody who's in the office five days a week anymore. For some, it's commuting. For some, it's caring responsibilities. For some, it's when they're ill. And again, I ask, why is that okay for us and not for the students? You often get the argument that university should be preparing students for the real world as if somehow your time at university is make-believe. Succeeding in the real world now requires being able to successfully work hybrid, online, at home, keep the core business and have that self-regulation to be a little bit more independent. That's what we need people to be able to do now. You know, we have to adapt.

Final thing was about questioning assumptions and prototypes and rejecting these kind of traditional assumptions of what both learning and learners should look like. So a number of responses questioned the wisdom of conventional learning environments, and particularly the assumption that long, uninterrupted
in-person lectures are the ideal for students to learn. But this was also supported by a lot of students who said that they still preferred in-person lectures. They didn't want them to become the default or even their default. It just sometimes wasn't possible for a range of different reasons. And there was also recognition that lecture recordings aren't without issue. Motivation and self-regulation are an issue, and they will impact how successfully they use them. But also, you know, they are adults. And I think at this point, it's maybe important to clarify something when it comes to my views on attendance because despite either the way the debate is framed, I think attendance is super important. I am one of the few lecturers I know who takes lecture attendance, and my first year students get an email every few weeks about their attendance stats. Don't penalize them, don't punish them, but it's really important that they're there, and I hammer home to them that they should be there in person, and that the recording is for flexibility. You can still care about attendance and provide recordings. You can still instill good study habits and provide recordings. And one of my arguments for writing the practical recommendations paper in that holistic way was that: if you talk about lecture recordings, students will know about lecture recordings. If you teach students how to be self-regulated learners, that will set them up for success in a range of environments.

I'm not naïve. I don't believe that recordings are a universal panacea that comes without any potential drawbacks. There's always a trade-off. My question is: who are you willing to punish to avoid a handful of undeserving students failing to attend your lecture?

So, to sum up before I go to full unhinged rant mode! This has been the subtle version!

Lecture recordings provide a pragmatic solution to supporting an inclusive learning environment for disabled and for neurodivergent students. And the word “pragmatic” here is key. My other obsession, apart from lecture recordings, is workload. And generally speaking, whilst lecture recordings are not no cost, they are low cost in terms of the impact they have on the number of students they support. And actually, it's less work to give lecture recordings to everybody than it is to just limit them to the ones you've deemed worthy. And more importantly, I think we all need to recognize that there are more people in need
than those who are formally registered with the disability service. And also that those additional factors will interact with social class. If you are from a widening participation background, you are also more likely to have a longer commute, carrying responsibilities, part-time employment, but you're also less likely to come to university with well-developed study skills or to be able to ask someone in your family for support and advice because they went to university as well. And that's before we get into the barriers of social class on asking for help, particularly if you're at an extremely prestigious institution.

One of the many reasons I love living in Scotland is that most Scottish people cannot place my accent. I am just generically English to most Scottish people. For the last 45 minutes, a part of my brain has been fully committed to hearing every northern twang in my voice that portrays my upbringing and screaming at me that I do not belong here! And I am the invited speaker!

There are so many ways in which providing a bit of flexibility can help support a more diverse range of experience. This can be from allowing students to recap something they missed without having to speak to a lecturer they think will laugh at their voice. I have been there. It did happen. To giving the single parent with a sick child the chance to catch up and keep on track. Like so many things in life, you do not need to have had the same experience or even understand the experience of others to listen to what they are telling you. And what they are telling you is very simply that lecture recordings help widen access to higher education, and that is something we should all be working towards. Thank you very much.

Questions from Dr Emily Nordmann to student panel

Hello, I’m Neve Atkinson. I’m the Undergraduate Access, Education, and Participation Officer. have she/her pronouns. I studied history. I don’t identify as disabled.

Hi, I'm Elia. I use they/them pronouns. I'm the SU Disabled Students' Officer. I identify as disabled, and I studied natural sciences.
Hi, I'm Evie. Are you she/they pronouns? I am an undergraduate student in the Faculty of Classics. Yeah, I think that's me!

Thanks very much. So, my first question is, I've talked a lot about the different types of flexibility that lecture recordings can provide. How does having access to lecture recordings provide flexibility for you? What do you think the impact of that flexibility has been?

I guess I'll start. So, the importance of flexibility for me as a disabled student means, to put it really simply, that I learn. Because of a convergence of a few different disabilities, my attendance is struggling, but the fact that the recordings give me flexibility means I simply get the content I wouldn't be getting otherwise. It's really basic, but the flexibility to not put my body and my mind through how to get to a lecture and still get the content is irreplaceable. It's what I'm here for. I want that content. And some days, I just can't, and that flexibility is what gets me through.

Yeah, I'd probably say similar. Like on the days that I couldn't make it into lectures, it was very useful. But even on the days that I could, which, to be fair, and I really love going to them, but sometimes concentration wasn't there, and it'd be really useful to be able to go into the lecture and still be in that environment, but then be able to go back over the things I missed and wasn't able to concentrate on. But also like, as an ASCII, I had Saturday lectures, and sometimes there's no other chance, for example, to go home or to see people, and sometimes it was just nice to be able to catch up on a lecture but also then be able to see my parents and then want to study because I wasn't miserable and hadn't seen them in many months. So those flexibilities, go home and actually see my parents but also to go to lectures if I couldn't concentrate and stuff like that.

So in my faculty, recording lectures was not a thing until the pandemic, and actually having certain lectures recorded in the pandemic made me really want to see the lecture speak in person. And so, having the flexibility to. Also pandemic lectures tended to be like two hours long because they could be, and that you could stop, have a break, eat some food, go outside, that sort of thing. But yeah, it just also made revision easier, and it didn't mean that I was, like, rewatching every single lecture I'd ever watched in the year. It just meant that
like: "Oh, I'm pretty sure that they mentioned that in the lecture. I can go back and check. It was about halfway through, I think...." And like, you know, watching a lecture the day before one of my final exams, I answered a question that was directly answered in the lecture. And it was just like, "Yeah, without that, I just wouldn't have been able". It's accessible. Yeah, nice, I guess.

So the link between providing lecture attendance, recordings, and attendance, I haven't actually said this. I should have said this in the talk. It's entirely inconsistent. There have been so many studies done on it. There's a handful that find that it reduces attendance. There's a handful actually that found increased attendance. Most of them don't find anything. That's kind of the summary. Despite all of that, it is still the most frequent concern of teaching staff that it will lower your attendance. So, what are your thoughts and experiences on this from yourself and others? And please do be honest.

Yeah, as I just said, sometimes recorded lecture makes you want to see the person lecture in person because they're so engaging like 'Why have they done a weird cover of the song? What would they do if it was the actual lecture?' That's hilarious. I want to be in the room with that energy! But also, if I went to a first lecture in the series, and it was like 9am on a Wednesday, and it wasn't particularly engaging, I might give the next one a miss because I knew I could watch it online. And wouldn't have to sit in a room that had kind of dodgy energy. I didn't want to think that. If you give a good lecture, people will want to attend and you should want to be giving a good lecture.

Yeah, I'm like I said, I also enjoyed in-person lectures. I think it is being an actual scientist, my lectures were pretty much recorded from first year, which wasn't common, and I loved going to in-person lectures. Like we got free chocolate if we got the right answer and they would do cool practicals and have cool videos, so I loved it! But I did also find that, again, if for example, I was having a bad day or just couldn't get into the lecture, it was very useful and I wouldn't attend but I would still be able to get the content. Yeah, I loved my lectures, so I always wanted to go to them. So that was a great thing for me.

Yeah, so a really fun thing is I matriculated in 2020, meaning I started my university experience with 100% online lectures. I think just about anyone in my cohort would tell you that by the end of two lockdowns and never having had an
in-person lecture, we were chomping at the bit to get in the room. It doesn't replace a lot of aspects of why you would go to a lecture. The watch parties that Emily seemed to do sounded amazing! We personally didn't get that sense of community. The difference that it makes being able to even just after a lecture go get a sandwich and then do some studying with your fellow students. Doing peer-to-peer learning just doesn't happen if you're not getting in the room with them. And so, although I'm a massive advocate for the recordings for flexibility reasons, it's an era where certain aspects of live lectures are irreplaceable. And I think almost everyone I know and would talk to would say they would never want live lectures to completely go out the window because they want to be in that room with that academic. It makes it easier to ask questions afterwards, and with the other students for peer-to-peer learning.

Thank you. My point of reference for you is that when I was in my first year, which was 2004, there were no lecture recordings, and occasionally I would miss my 2pm sociology lecture so that I could watch the first viewing of Neighbours, which was one at 1:45! And that was before lecture recordings. So sometimes it's just being a first-year student!

My final question to you is: if you could tell any academic who refuses to record their lectures one thing, what would it be?

I guess I'll start. I was really hoping to come up with a pithy one-liner, but just do it. Like I said earlier, I think I deserve access to my education. I don't deserve to have additional burdens placed on me because of class concerns or disability concerns. I'm here because I want to learn and not here because I want to post your lecture online. Yeah, it's just people like me, people who are struggling the most already. Let them learn from you. Because we want to.

I think one of the things I would say is that students are people too. I think, especially from what I've heard, some of the arguments are very much like: students can't make decisions, we might not always make the right decisions or what you might think will be the right decision, but we should have the freedom to make that decision.

Yeah absolutely agree. We have spent a lot of time this year figuring out all of the reasons that anyone could object to lecture recordings. I understand why people wouldn't want to record lectures, but I don't think those are good enough
reasons. And like, even if that's a fundamental disagreement that people will never overcome, I just don't think it's good enough.

So thank you so much. It's so great to hear the actual students!