Event summary transcript: July 18, 2023 AI and Education: Existential threat or an everyday toolkit? Committee Room 14, Houses of Parliament

Keywords: Artificial Intelligence (AI), teachers, education, schools, technology, regulation, children, products, edTech, classroom, data, rights, students, UK, communities, teaching.

Introduction

Lord Jim Knight and Chi Onwurah MP opened the event with remarks on recognising that we want technology for the public good. Jim set out some of the opportunities as well as some of the potential challenges. Chi followed up by saying that tech is not something that just happens to us, or that its impact is entirely up to the market to determine but something that we shape, whether through regulation, funding or research, and through supporting the adoption of different technologies: but should be something that is co-owned and co-curated and understood by those for whose benefit it is designed. Both acknowledged the delays in getting the Online Safety Bill passed and said that we mustn't do that with AI but rather we have to recognise the opportunity is now and to recognise a regulatory framework is needed. And debates like this are part of the process in ensuring that we do that.

Chair, Jen Persson: *Thank you Chi terrific, raising some of those critical points and real questions already about what is regulation and mentioning contested terms, like "safety". So without further ado, we're going to move through our speakers whom I have to thank enormously for coming along this evening. And you'll see from the agenda and also from your invitation, that our aim is to do this from a macro to a micro level. We're trying to get on the table the breadth and depth of a range of the issues that are most important to different aspects of this sector. And we will also spot some things that were missing. For example, one of our speakers not able to join us this evening has a specialism in law. I'll speak to some of that at the end. But we're going to have our first speaker now, Dr. Wayne Holmes, who will introduce himself and the key issues that he sees from his perspective, and I also declare a connected interest in that he and I are both members of the Council of Europe Working Group on Artificial Intelligence Education. So just to declare that before we start, as well, so Wayne, over to you.*

Lead contributors

Wayne Holmes
So to begin with, some of my credentials for my being here. I've been in education my entire life, and I've been working on AI and education for 10 years now, as a social scientist. I've co-written several books, including the "Ethics of AI in education. Practices, Challenges and Debates", and I've co-authored several international reports, including "AI and Education. Guidance for Policy-makers" for UNESCO, and "AI and Education. A Critical View through

the Lens of Human Rights, Democracy and the Rule of Law" for the Council of Europe. So as I said, I've been working on AI and education for a long time.

Following the launch of ChatGPT, the world is now full of AI and education experts. The problem is that these new experts seem to be caught up with all the myths and the hyperbole that are constantly being promoted by the commercial sector and are being repeated naïvely by this country's leadership.

But there are many issues here. First, is the conflation of the use of generative AI like ChatGPT in education with the whole of AI and education. Now, probably we're only talking about AI and education today because of generative AI. But we shouldn't assume that that's all there is. In a recent paper, we identify around 20 types of AI-enabled education tools, of which generative AI is only one.

Second, there's the popular claim that AI can personalise education for every learner. But there are at least three problems with this. It's a claim that's been made about education technology for almost 100 years, and it's never come about. Meanwhile, no AI-enabled education tool today actually does personalise learning. Instead, they tend to homogenise student learning. In any case, why do people think that this neoliberal, Silicon Valley, American dream, of personalisation is such an unalloyed good thing? What about the social and collaborative aspects of teaching and learning?

Third, there's the claim that AI can save teacher time, another claim for education technology that's been around for almost 100 years. But I'm prepared to wager money that that's not going to happen. There's likely to be a displacement of teacher time from one activity to another; but teachers will still be as overwhelmed with work as they are today.

And even if you dismiss everything I've said, the reality is there is no independent evidence at scale for the efficacy or the safety of the use of AI in educational contexts. In fact, there's one leading commercial UK AI and education company that turned down the opportunity for a fully-funded independent evaluation. My question is, what were they trying to hide?

To conclude, I just want to mention the work that Jen mentioned, that I'm involved in with the Council of Europe. We are proposing to the Council of Europe forty-six education ministers that we develop a legal instrument to regulate the use of AI in educational settings, using an approach that draws on the ways in which we regulate medicines. We're also proposing developing a recommendation to help Council of Europe member states develop everyone's AI literacy, in the human dimension as well as the technological dimension of AI.

If our proposals are agreed, at a meeting in September, the legal instrument and recommendation will be developed during the following year and debated by the Council of Europe in 2025.

Chair: Thank you Wayne. Professor Dasgupta, RAI consortium will bring us now from the overarching principles and from transnational and international regulation into the national UK domain.

Professor Dasgupta, RAI consortium

The RAI UK is about creating an International ecosystem for responsible AI research and innovation, enabling responsible and trustworthy AI to power benefits for everyday life

My own focus area is healthcare and robotics, and I have just come from surgery at Guy's, but the RAI UK objectives are broad, including education and skills. The first things we want to do include the following;

• Ecosystem creation through a portfolio of thematic areas, translational activities, and strategic partnerships with academia,business, and government and associated impact metrics. We will initiate national conversations to discuss concerns, opportunities and challenges of adopting AI at scale in different sectors and parts of society.
• Research & Innovation Programmes, in fact the first announcement for funding was last week:

- Keystone projects consortia-led research that address fundamental challenges with multi-disciplinary and multiple stakeholder perspectives
- Integrator projects integrative research projects that link established research teams across the community, and
- Pump priming projects early stage and industry-led research and innovation projects to expand the UK's ecosystem and develop the next generation of leaders.

• A Skills Programme. To translate research into skills frameworks and training for users, customers, and developers of AI, and contribute to the call for the UK AI Strategy's Online Academy.
• There will be Public and Policy Engagement work with the network of policy makers, regulators, and key stakeholders to respond to arising concerns and needs for new standards, build capacity for public accountability, and provide evidence-based advice to the public and policymakers. Work with key parts of government to shape strategy and execute research projects.
• Business Partners Develop an industry engagement plan defining collaboration approaches. Outputs will include world-class research, strategic national and international partnerships, 10-year roadmap for AI in the UK, policy recommendations, business cases for new research programmes, Skills Observatory and Online Academy, fellowships, new networks, responsible innovation, EDI, and Skills frameworks.

Now you might wonder, how you can work with AI UK.

1. Join our Townhall events that will convene UKRI investments, key stakeholders, and the research community to learn about and help shape the AI UK plans. The first just happened and there will be more within the next few months.
2. Invite AI UK to join events organised by the funder, government, civil society and industry to present our plans, gather feedback and connect.
3. Join the AI UK Peer Review College, a diverse multi-disciplinary community of academic and industry experts who will review proposals received in response to various AI UK funding calls. The invitation will be issued shortly after AI UK launches.
4. Apply to join an AI UK Working group (WG) that will be formed around key themes and application areas (e.g. Responsible Innovation, Defence and Security and the Judicial System). Calls and invitations to join will be issued in the next few months.

4. Apply for funds from AI UK for a range of research and innovation projects, including large Keystone projects and smaller investments as well as skills programme activities, outreach and creative engagement, policy engagement, and network creation projects. Projects will be awarded through open calls and processes similar to UKRI.

5. Apply to join the AI UK Strategy Group that will be formed from existing UKRI investments, industry, government, and academia, as well as Keystone project PIs. Additional members will be recruited either by invitation or through an application process to be determined by the leadership team and in consultation with the wider community.

6. Collaborate with AI UK researchers through the coordinating Keystone project (CKP) that will run alongside other keystone projects. Researchers involved in the CKP will aim to build collaborations with industry, academia, and government.

7. Join us as an official Partner if your organisation (business, funder, charity, industry association, thinktank) is interested in Responsible AI research, innovation, and skills. We welcome collaboration.

So this is a real opportunity to build a 10 year roadmap with responsibility and your vision. Welcome, join us.

Chair: Perfect, Professor thank you for and with that we can also start to think should then we know where the focus is for AI and the UK strategy? Healthcare obviously is the first often that comes to mind, but is education going to be part of this strategy? Will education research be part of that funding? Would UKRI and others look at education as well as perhaps a question we can come back to later on. Mary over to you from the TUC.

Mary Tower, TUC
At the TUC we've been carrying out a project looking at the use of AI in the employment relationship, looking at how AI is being used to recruit and manage workers. The project has had three stages- research, legal analysis and a manifesto for change. In our manifesto we set out key values which we articulated in the context of using AI to manage people, but are also of relevance in the context of the use of AI in education: the importance of worker voice, equality, health and well-being, human connection, transparency and explainability, data awareness and control, data equality, and collaboration.

I can tell you more about this project later, but I'd like to use my opening remarks to introduce three thoughts about AI to provoke discussion:

- Firstly, I would like to challenge the idea that AI is a separate entity that we do not have any control over. It is not inevitable that AI will be rolled out in the classroom. If we accept this as an inevitability that we do not have any control over, there is likely to be a repeat of what we have found to the case with algorithmic management where the technology is rolled out into the workplace at pace, without fully understanding the risks, and workers then experience harm. It's best to ensure that harms are not going to be caused, before rolling the technology out.
- Secondly, I would like to highlight the importance of education workers having influence at all stages of the AI value chain. This includes at the development stage, the importance of co-creation projects between technologists and teachers. Last year I was at a lecture by an academic at Radboud University (AI an Education- Inge

Molenaar – Radboud University, Behavioural Science Institute) in the Netherlands who specialises in Ai and education, who said that she expected to spend at least the next 10 years on co-creation projects of this type. But also, the input of workers into a system of constant co-governance of technology, ideally written into a collective agreement- with the right of review, trial and also, a right to say no.

- Thirdly, I emphasise the vital role of trade unions as a collective counterbalance to unchecked corporate influence over AI. This is of relevance in all sectors of work, but in relation to health and education there are very particular ethical considerations. Unions give collective voice to education professionals, the value of their experience and judgement, and their professional responsibilities to their students – without this collective voice, corporate interests will dominate the development of AI in education and this will corrupt our education system.

Thanks very much.

Chair: Thanks, Mary. Now, I'm going to ask Tracey, if you can pass the microphone along to Daniel, we're going to stay with the unions, as Mary said "in the context". And I'll also take the chance also to say, Geoff Barton at ASCL and Anthony Seldon who had got together a group of which he was part, were invited but they're unable to be here tonight but want to be kept in touch with what may come going forward. I'm really delighted that we have such a wide breadth of union representation this evening, to look at this from different aspects from the employer and employee rights, we're going to come on to hear from Sonya at NASWUT about the classroom and principles for AI and education. But first, we're going to go to Daniel from the National Education Union, the NEU.

Daniel Stone, NEU
I am a policy specialist within the National Education Union, which is Europe's largest education union with around 500,000 members.

Our members obviously have an interest in AI and its uses within the education sector. Our point of departure is that - as other speakers have already alluded to - technology is not a neutral thing; it doesn't emerge naturally but is the product of processes and interests within society, the existing systems of control and political structures.

The key question for us is to understand who controls the technology, how it is developed and utilised and in whose interests.

To give a crude, hypothetical example: if AI could reduce the amount of time a teacher spends on various tasks by 20%, under current conditions what is likely to happen with that extra time and saving? Would we see more teachers employed; class sizes reduced; more time for CPD, for rest, for engaging in curriculum development? This seems highly unlikely. Under current conditions, I think that seems highly unlikely

And that's because of the structures and priorities of the education system as it is now.

More subtly, we could ask: are the "solutions" that are being sought through AI, responses to problems identified by teachers or education workers, do they reflect their priorities, and what they value and understand to be important about education?

Some examples: lesson planning, curriculum development, marking, these are all things that are touted as areas where a lot of time could potentially be saved for teachers. But they are also things that teachers value, that are intrinsic to what they do, to their professional identity.

Sure, given teachers' huge workloads and the pressure they work under, I'm sure they would want to be able to save time on any of these tasks. But, even if AI made it possible, would these things be the priority if they could choose?

The other day I was speaking to a teacher whose school had a policy of only providing verbal feedback on students' work, rather than written marking. This was a policy that teachers valued and had pushed for. In this context, what value would an AI marking system bring?

It's not that AI doesn't offer many potentially transformative benefits and uses, but the priorities of those driving the technology, and its introduction in schools may often be at odds with the values teachers and staff have, also with what the public think is important in a public education system.

So, in short, the basis for a response to AI and should be that we want to have a system in which teacher decision-making about curriculum, pedagogy and assessment is central.

 This necessitates much greater accountability, democratic input and public discussion; much more than we have now in an increasingly centralised education system, one in which private organisations have more say, and in which there is a huge amount of pupil data collected and made available, but very little control or accountability about how that happens.

Those are broad principles of our approach. There is a lot more to say about the specific uses of AI and how they are talked about but the general position that we have is to focus on thinking about how this technology is developed, controlled and introduced into schools. Whose interests and priorities are being served, and how can we respond to ensure that there is greater democracy and control from educators?

Thank you

Sonja Hall, NASUWT, 12 Ethical Principles for AI and Education in the classroom
The NASUWT's principles for the ethical use of AI and digital technologies focus on teachers and teaching as well as learners and learning. They set out what good and effective practice should look like. They are intended to support our policy work and help our reps to negotiate around the use of AI and digital technologies in schools.

Key issues start with equality, equity and inclusion. We are concerned that digital technologies are widening the divide between the advantaged and the disadvantaged. In the pandemic many learners from disadvantaged backgrounds struggled to access remote learning because they didn't have tech at home or because they had to share equipment. Pearson's School Report 2023 finds that only half of secondary schools have

access to reliable wifi across the whole school; and that only 44% of schools have one device per pupil in class.

Second, digital tech/AI - workload and monitoring teachers. It is often suggested that digital technologies and AI will help teachers by reducing their workload but we find that tech often adds to workload. Hybrid education means that teachers are often expected to do more – e.g. prepare for face to face teaching AND for remote teaching. There are more possibilities for managers to monitor teachers in the workplace and at home, e.g. being expected to respond to emails in the evenings and at weekends; e.g. using video recordings for performance management purposes. A teacher who thinks that they are being monitored is likely to behave as though they are being monitored meaning that they may feel compelled to work 'above and beyond'.

Next we think about AI, digital tech, the curriculum and assessment. Some advocates of tech appear to be more interested in using the technology than questioning whether it is appropriate. The starting point should be clarifying the educational goals and purposes. Then considering whether AI or digital technologies will support or enhance teaching and learning and whether it will support inclusive practice or exclude. If teacher and schools are to harness the potential of AI and digital technologies through the curriculum, they need to be supported to do so. The school accountability system drives priorities and practice in state funded schools and this prioritises traditional subjects and ways of working Jobs, job roles and professional responsibilities.

Shaping digital education (OECD, July 2023) emphasises the critical role of the teacher in enabling learners to achieve positive learning outcomes (and the negative association between student led-learning and learning outcomes). However, some suggest that AI could replace the teacher. Some MAT leaders have suggested that hybrid education can be used to rationalise teaching posts. Will schools use AI to fill unfilled teaching posts? There are risks that AI could change the role of the teacher. If this removes professional judgement from the teacher, it de-professionalises the role.

Fourth, commercial actors and Big Data. Some companies are using the lack of technical expertise in schools, to tie them into using products and services that don't meet the needs Products and services that are offered for free often come with strings attached and schools may not be aware of what they are committing to. We have particular concerns about Big Data and the lack of transparency and regulation around this issue.

Key messages
- Whether AI and digital technologies are an opportunity or a threat depends on context, power and control – understanding the bigger picture is key: who is in control and who is making the decisions?
- Teachers and unions are assets and should be actively involved in decision-making at all levels
- Equality, diversity and inclusion are not add-ons. They must influence ideas and shape plans and decisions at all stages of the AI and digital tech 'value chain'

- AI and digital tech must support and enhance teaching and learning. They should be implemented in ways that reduce workload but must not replace teachers or de-professionalise the role of the teacher
- Teachers and leaders need to be trained, developed and supported to make effective use of AI and digital tech.
- There is a need for wider education reforms if the opportunities offered by AI and digital technologies are to be realised

For us the really critical point is, the teacher has to be involved.

Chair: Thank you Sonja for raising a lot of very significant questions. For those who haven't already had a chance to read them. The NASUWT website has the 12 principles laid out a great starting point for some of those more in depth questions, if you haven't already had a chance to look at them, who controls what gets into the classroom. We're not only talking about AI, then but also AI within ed tech. And with that we move then straight to Julia from visa the British Educational Suppliers Association (BESA).

Julia Garvey, Deputy Director General, <u>British Educational Suppliers Association (BESA)</u>
We represent 400 companies that supply services to schools, of which around 37% are tech companies or are involved in edTech delivery, and they represent around – the value of those services – is around 80% of the products that are purchased by schools, so it is quite a large body.

We represent companies across the whole range of this debate. So that includes publishers and content providers who have challenges with IP and copyright, as AI scrapes content and repurposes it without permission or referencing its source or providing payment for the work– that obviously provides challenges to them, and also challenges for the delivery of content in the future if payment models are being turned on their head.

We also represent edTech companies who are already using some of the non-generative AI products that were referenced earlier, so things that are more machine based learning in order to provide more personalised learning products to customers.

We also have companies providing assessment solutions, which are likely to be challenged as AI impacts the way that student attainment is assessed.

And then we will have innovators working at the cutting edge who are working on new AI based solutions that we haven't yet seen.

We see that our role within industry is to facilitate information to schools, and across the commercial sectors, and as many of my colleagues have already referenced, the best products are those that are developing innovation in schools. So we see that as being essential.

But it's also about collaboration between the industry and government and policy. We are working to help inform the policy debate. We have worked with our members to put together

a response to the current call for evidence [on generative AI at the Department for Education] and we are collaborating with industry, and writing an industry wide response to that. We are collaborating with the DfE on the production of digital standards.

Once standards have been set, we ensure suppliers at BESA sign up to code practice, and our policies will adapt. And we provide additional guidance to ensure that our suppliers work within that framework and work with the guidelines it is clear that teachers are feeling challenged in terms of knowing what guidelines they should be following and what is there to help them how to pick between any AI products that is ethical or those that don't follow those same goals or good standards. We feel it's our role to help deliver that responsible AI piece.

We also think it's important to be part of a wider societal discussion, because we also work internationally, and different societies and different countries will have their views on what is acceptable to them, also enabling suppliers to adapt to that as they continue to work, as the UK is a massive exporter.

So I think, there again, it's looking for those case studies and best practices, where we can also help influence internally with our members as well, by providing them with case studies.

I recently went to ISTE conference in Philadelphia and saw a presentation from Canva where they had rolled out AI in their product in collaboration with the school boards, many of which had an initial response to ban [generative] AI in the classroom. But by open collaboration, and giving them that ability to turn the AI on or off at classroom level it gave teachers individual control in the classroom, or down to whatever level is right for that particular institution, and that was important. We will continue as part of our role to gather those examples of best practice in order to help suppliers in the UK to work in a framework that is best supportive of education.

Chair: Thank you, Julia. Some really interesting questions coming from how other countries do things as well. I think Industry certainly offers some fascinating case studies. But I know people can also struggle with them. Even the Institute for Ethics and AI, set up a few years ago here in the UK by academics and an industry partner, turned out what at first really looked like a terrific set of principles and work collaboratively with lots of other people – but on launch day one, we had to point out there was a great big flaw in their legal position. They had to withdraw it and edit it, because they had written into the ethical framework that schools could make consent choices on behalf of the children in their classroom. This was around data processing questions of whether and how a teacher can decide we're using that product or we're not in our classroom or in our school. And that, of course, under current legislation would not be lawful in the UK. So we come up against challenges where it might be a great idea and really working really well in the US, but could it, should it work here? Here this is a different set of laws and therefore questions. So – great to get these things on the table. John, we're going to move over to you as Julia was talking about some of how educational content is delivered, you can best because you wear a number of hats, and you can say how you fit into that.

John Roberts, Product and Engineering Director, <u>Oak Academy</u>

I'm John Roberts, Director of Product and Engineering at Oak National Academy. I've worked in education and ed-tech for around 15 years, first as a teacher and then in product and engineering on multiple different projects.

Oak was a pandemic start up that was rapidly developed during the first COVID lockdown to bring over 60 million online lessons to teachers and pupils when schools were largely closed. Last September, we became a DfE arms-length body to support lowering workload and supporting curriculum development, and we're currently re-developing our platform, curriculum and teaching resources.

Now, we're not making these resources ourselves. We're working with a wide range of partners from across the sector - schools, trusts and charities, a leading publisher, a university and a subject association. These new resources will start rolling out an open licence from this autumn. All our resources are totally optional, free and created independently of the DfE. Ultimately, there'll be around 16,000 openly licensed lessons which will be released over the next 2-3 years.

This will have a lot of value for the sector. We do see considerable potential for AI, particularly generative AI in education, and particularly in reducing workload for teachers. And we've started to do some experimentation around this. But of course, there are risks too.

The US Office of Educational Technology produced a report on AI in ed-tech (link: https://tech.ed.gov/ai-future-of-teaching-and-learning/) with a really helpful summary showing how students and educators are held at the centre of all of these issues. I think all of those areas of risks have already been covered by some speakers today. The areas pertinent for Oak are related to generating new content and resources rather than individualised learning applications, and this really relies on context awareness, an aligned vision for pedagogy, and keeping humans in the loop.

A large part of these risks in the educational context is due to the mix of reliable and unreliable content on which general large language models are trained on. The quality of underlying education content with new education specific AI products are targeted at, are context aware of, as well as fine tuned against, dictates how good the generated outputs are.

So general LLM products like ChatGPT and Bard, might be very good in general, but are less good for the quality and accuracy required for education. Teachers and pupils need 100% pedagogical and content accuracy. They can't, yet, rely on generative AI to create quality we need, and we need, currently, to keep the human in the loop to ensure high pedagogical quality and accessibility of the content for all learners, including the most disadvantaged.

AI was a factor in our decision to offer the majority of Oak's new resources on an Open Government Licence. And this means that anyone - schools or trusts, subject associations, to teaching or ed-tech and publishing firms, including those training new AI models, will all be able to draw on any of Oak's resources and reuse those resources when they are developing products to help schools and teachers.

It means anyone developing an AI educational software or tool has a totally reliable, freely available, high quality set of resources to use as a launch pad for their AI products. We really believe this will remove a big blocker for AI and education in the UK.

Like I said, we're starting to experiment with what we could develop and offer to teachers to help them manage workload, reduce their workload, and ultimately free up more time to work directly with their pupils' work. And then to perhaps shape workflow, but also find better ways to work with that human in the loop.

It's really early days, with only around 17% of teachers in the UK saying that they use AI in their practice so far. And it's right to proceed with caution, but we are excited about the work and think it has great potential to support both innovators and professionals in the sector.

Chair: Thank you John. So–some things to get excited about, some things also to disagree with, I see some fervent shaking of heads in the room and questions and people starting to get excited. So get your questions starting to form in your minds. If you've got something you want to ask, I'm going to ask you to be very, very brief, because we are going to be very short of time as we wrap up this evening. I am enormously grateful to all of the speakers that have been so far. But the part that matters to me most is the children themselves. And so we're coming on to speak to Mark who's going to lead into this sort of final third of this evening's panel session.

Mark Martin MBE CITP, <u>on curriculum and skills</u>
My name is Mark Martin, an assistant professor in Computer Science and Educational Practice, and a co-founder of UK Black Tech. I have been in education for the last 20 years, teaching IT and Computer Science. Additionally, I have served as the head of the department, a lead digital specialist within schools, and a thought leader in the field.

I am probably one of the very few teachers in the world who has achieved all the edtech expert badges from Microsoft, Google, Apple, Adobe, and BCS I can demonstrate how edtech tools can enhance teaching and learning in the classroom. As an edtech specialist, my focus is on supporting teachers and students in understanding how these tools work and the methods they can employ to enhance their everyday activities while also staying safe online. It is essential to realise that just because students are proficient with digital devices, it doesn't necessarily make them tech-savvy; they may only be general consumers of these products.

My goal is to encourage students to question technology, use it to solve real-world problems, and provide them with insights into running a tech platform. This holistic approach helps to make our students well-rounded individuals when it comes to technology and its effective use. Furthermore, as these tools and algorithms are extensively used in the outside world, our students gain a competitive edge beyond the curriculum and develop an awareness of how these tools can influence their daily lives.

However, we must challenge the makers of these edtech tools because many of them come into education with outlandish claims, driven by profit rather than impact. In the last decade, I have witnessed a rise in edtech companies making bold promises but disappearing after a few years. Additionally, when you look at these edtech companies, they often fail to reflect

the diversity of our students and the communities we serve. Diversity, accessibility, and homegrown talent pipeline should be integral to all edtech products from the start, rather than being an afterthought, which is often the case.

This is why the work Digital Me is doing is vital and crucial to safeguard our young people.

In my remaining minutes, I want to ponder how we can use edtech effectively within the school system. Edtech can be divided into two categories: first, edtech that schools use to manage their everyday operations, such as registers, lunch, and grades, and second, tools used in the classroom to enhance teaching and learning, for example, Quizlet, Microbit, and Kahoot.

Management edtech tools are typically used by all teachers within the school, and senior management ensures their correct usage. However, these tools, whether used for performance tracking or taking attendance, can be overwhelming, especially if they are mandatory. On the other hand, the creative edtech tools used in the curriculum require teacher training, consistent use, and confidence. However, many of these creative edtech tools do not fit into the curriculum, so teachers have to use them in lunch and after-school clubs.

I have a special request for the government: how do we support students in using edtech within the curriculum to bring their creative and innovative skills to the forefront? For instance, I once took the initiative to introduce air sensor kits into the school so that students could track air pollution coming from the air vents into the classroom. The students were excited to see their digital skills come to life. I worry that if we don't strike the right balance, we might discourage students from incorporating their ideas, identity, and culture into the things that matter to them. Consequently, this hindrance could affect their aspirations for higher education and the tech sector.

I am aware that I haven't mentioned the issues of data privacy, surveillance, and online safety when discussing edtech. However, it is equally crucial to acknowledge that despite the ongoing discourse, students continue to use edtech and technologies beyond school. Therefore, it is vital that we teach them how to use technology responsibly and understand the mechanics of these tools so that they aren't manipulated or misguided by them.

Chair: Ed Tech, and its place in the UK education sector, also means we have to consider education as an issue of geographical place, it is a devolved issue and policymaking sector. So we're going to go straight to Janis, and you can explain why that's particularly relevant as a question for your work.

Dr Janis Wong, Postdoctoral Research Associate on the Public Policy Programme at The Alan Turing Institute (AI literacy and children in Scotland)

We are delighted to be able to share with you some of the research that we're doing at The Alan Turing Institute, which is the UK's National Institute for AI and Data Science, and really, the key message that I'm hoping to share with you all today is that we need to ensure that children's voices are heard, and that they are actively engaged in the design, development,

and deployment process when it comes to AI technologies not only within education, but also beyond, as well.

One of the projects that we've been doing working, alongside Dr Mhairi Aitken and Sabeehah Mahomed at the Institute, as well as the our partners, Children's Parliament and the Scottish AI Alliance, is that over the past 10 months, and over the next year and a half or so, we have been working with and learning from approximately 90 children aged 7 - 11 across all four corners of Scotland through in person and online workshops to learn about what they know about artificial intelligence, what their experiences and relationships are with the technology, what they are curious about in terms of AI.

From our research, the children wanted us to share four key themes with you.The first, of course, is about AI in education. But importantly, not for the technology to take over teachers or replace teacher, but to work in harmony with technology to enhance their learning experiences as well as prepare them through increasing their digital literacy and for the continued data driven society that they are growing up in. Secondly, as mentioned already by other speakers, fairness and mitigating bias was really important. This involves addressing both the access challenges to AI and technologies but also in the creation of these technologies for equitable practices. Many of you are familiar with the third theme, which is safety and security and how we can ensure that children are happy, healthy and safe when it comes to engaging with AI as well with us. The final themes is looking at the future of AI as many have already said, because future is not inevitable.

From our desk-based research and engagement that we're doing over the next year or so, we are now trying to incorporate these themes into practical policy considerations as well. If you are interested, I really hope that you have 10 minutes of time to listen to the children themselves and have a look at the video and report that we've created with them which is available on our Turing project website to explain a little bit more about this project.

And just to conclude, I want to share with you a quote from one of the children we worked with, which is that "It is important for children to know about artificial intelligence because it is the future and it is good to learn new things when they affect our lives." And so it's really up to us as researchers, practitioners, policymakers, developers, and regulators to listen and engage with children to ensure that their voices are actively being considered in context of not only education, but also in other sectors as well. Thank you.

Chair: Brilliant, thank you. And Tracy.

Tracey Gyateng, Data, Tech & Black Communities (edTech community research and practice).
Thank you Jen for inviting me to speak at this session. My name is Tracey Gyateng and I am one of three stewards that lead a community organisation called Data, Tech, & Black Communities. DTBC for short.

We are building a community focusing on people who are of Black and mixed Black heritage and who want to ensure data and data driven-technologies enhance Black lives, rather than curtail or surveil them. So we seek to build community capability and capacity to engage in this. We got started on this journey in 2021 and we juggle full time jobs at the same time, but

given our collective backgrounds in the data science & tech fields and community organising, we feel this is something we just have to do. We are interested in health, crime and justice, employment and of course education, which is the topic for this evening.

I'll share three key concerns we have in the way the Edtech sector is developing.

First, we are concerned with the unfettered profit making opportunities for Edtech coupled with very little regulation and loose governance and that this creates a dangerous environment for which data about our children can be exploited and their current and future prospects harmed.

Second, as Dr Holmes has already mentioned, we are concerned about the lack of evidence of the benefits of many Edtech applications; and that more needs to be done to cut through the hype to what is and isn't working for whom

And finally we are concerned that even if our first two concerns were rendered moot- the inadequate funding for enabling all children to benefit from use of digital devices and internet data needs further action. In the forerunner of this work, we heard from parents and teachers describing the struggles they had with lack of access to technology and internet data.

So with some funding we have developed a project to engage Black communities in the use of Edtech in primary and secondary schools in Birminghams. We've just finished recruiting our team of community organisers and data analysts and our aim is to:

- raise awareness and build community with people interested in this area;
- develop community data and research skills in both quant and qual data collection and analysis to scrutinise Edtech;
- Through this community research, we want to shed light on what Edtech is being used in our schools, which companies are selling them and understand what they are doing with our children's data; and
- understand the extent and impact of digital exclusion on children living in economically deprived areas.

The project should be completed within a year and we will share our lessons learnt and findings throughout the project.

So to wrap up: we think the most effective way of assessing how just and empathetic data-centric and digital applications are is to consider whether they serve marginalised communities well or reinforce existing inequalities. Black communities and marginalised/vulnerable communities in general are often "canaries in the coal mine" that is, we serve as a de facto early warning system because in many cases we are amongst the first to experience harm. Understanding how data-centric technologies impact us is instructive not just for Black communities, but for all marginalised communities and society as a whole.

Chair: Tracy, thank you. Thank you to all the speakers.

Chair (Defend Digital Me)

We are tight for time this evening but we do have technically the room to half past, although we said we'd wrap up by quarter past to try and give some time for networking. But I'm keen that we get people who really want to add something to the debate or ask a question can do so. And obviously, parliamentary participation has meant some people have left to go off to vote and so on, but I know we have representatives from the Department for Education in the room and others, we're grateful to you for joining us, and please feel free to contribute.

We really do appreciate everything that's been said so far this evening. I will add something just before we get to you yourselves, to let you sort out what you want to add or indeed ask a question of the experts in the room.

It is that Ada Lovelace Institute today published a report on their analysis of the legal gap between current regulation and what they see as necessary or desirable in AI regulation in the UK. One thing that's rarely talked about is how and if things are different for the child, in terms of regulation, and why that might be different. So just one point for me is that why I think this matters and why education is a special case, is because children, for the most part, are disempowered in the educational setting. They rarely have a choice of whether they are there. And that means you do not have a consent basis for both what is done with or to children in terms of products they're using, and also when it comes to the legal aspects of data processing.

The use of their behaviours, their data that they turn out during using an artificial intelligence product is being turned into data from which the company can train its product, enhance its product, or even develop a new product.

Together with Professor Douwe Korff, I have been writing a report that will be published by Privacy International in the autumn, which looks at that analysis of that gap, whether in fact, questions of whether there is a lawful basis for AI companies to be using children's data and behaviours as training data for developing new products at all under UK or other European data protection laws. We challenge it, in fact, that there isn't.

So there's lots to be said that we haven't said around what we're missing. That includes the representatives of voices in the room.

There's also questions not only of children's rights that Tracy and Mark also touched upon, but also parental rights when it comes to children and education. These two overlap in terms of international legislation, such as the UN Declaration of Human Rights that looks at how these two intersect. If we get into the position where Julia's been talking about, that control, more control is given back to classrooms or to teachers or even to parents as it's done in the US to either say yes, or to say no to certain product use, what does that mean for teaching and for inclusion for equity in the classroom? I think these panellists so far raise really, really fundamental questions about the nature of education, in education in the UK. So we've got some really, I think, tough questions to be asked before I can be; as I know, Jim would love for us at Defend Digital Me to be; much more excited about the possibilities, that the opportunities that technologies offer for education.

Now, Anyone who wants to add something to this already and any questions in the room, if you choose to, you can give us your name and your institution. If you don't, that's fine. We have the wonderful Sophia here in the middle of the room who's busy sketching. She has been illustrating the event as we've gone along. And we'll be publishing that afterwards.

From now on, we will not report names of the participants. So to be that sort of Chatham House rule we will include in the transcript what was said but not who said it, but if you wish to give that in the room so that we know a little bit of context you're welcome to, and if you'd rather not, just fire ahead and ask your question.

But first I'm going to ignore that off the bat and impose a little bit on Dr Kruakae Pothong here, who I see sitting at the front, because I know she has probably got questions and your background speaks for itself in terms of work with Sonia Livingstone, LSE and she now at Ada working on AI and this area specifically – Have you got anything you'd like to add or ask?

Audience contributions and Q&A: please note that this section has not been checked for accuracy by lead contributors who may have responded to questions or remarks, and should be used as a point of reference rather than strictly a verbatim record.

Audience member Dr Kruakae Pothong
Yes, I'd agree that everything's secondary to the need for more consideration of children's rights and parents' rights. Regulations forthcoming and any development of standards should also take that factor into account. Also, in terms of the criteria for evidence of benefits and risks of edTech, these two things should also be factored in. And I do have a question for Julia, about the additional standards that you're working on with the DfE. If either of you could clarify where that's coming from, the context was taking into consideration whether there's still room for further engagement that you have at a DfE you're working with?

[There followed some discussion between Julia and the DfE representatives in the room about standards that are in development at the Department, and that there have already been some published on infrastructure for example, but work was still in progress. This was indistinct in the transcript recording so has been summarised to prevent inaccuracy.]

Chair: *Thanks for those, both good questions, and good contributions. I'll also add, if I may, that the DfE has an open consultation on generative AI at the moment.*

And I'll also put a little bit of a challenge here, in around what else we believe the DfE has in discussion just now, and I'm sorry that she's left because I have the utmost respect for Baroness Barran. I'd love for her to have seen her beautiful photograph in Schools Week, because I have it here [Jen held up an A2 printed poster of the Schools Week article headline and image, "[Minister wants schools to benefit from AI revolution](#)"] ….. [Chair broke off as Baroness Barran waved from the back of the room as she had been able to return after participating in a vote]

Chair [cont.] *Ah I didn't see you there. Welcome back and great to see you here, thank you for coming. As I was saying, it was a terrific article in Schools Week, talking about what AI will mean for education and talking about the idea that Ministers were asking questions about national pupil data and if and how it [the National Pupil Database] could be considered as part of some sort of AI training data. Again, you know, big questions there about repurposing data, both in terms of its lawful basis if it has any and the challenges of child rights, parental choice and opt-in, data quality and so on. Especially after the questions raised by the 2020 ICO audit. But lots going on at the DfE in terms of thinking about this, obviously.*

Now. Question on the left, the front, and if you're able to pass the mic, thank you.

Audience question

I spend a lot of time in Silicon Valley. I'm one of those types, unfortunately. And what shocked me, I can only say so while but what shocked me over the last, kind of nine months, is how quickly everything is going. And also how quickly businesses are adopting these technologies and radically changing their business models by law courses. And my question is, I guess I get this question. If the world that we're preparing children for is completely different from what we're actually preparing them for [curriculum and so on] : What do we need to change in terms of what education system teaches and how, rather than just looking at how we adopt our technologies, but are we actually, you know, empowering children? And then my second comment, which is maybe more appropriate for universities, is, what does it say about the university system that all of the technology that was created we're talking about now, largely came out of American universities?

Chair: *Raising those questions about what education is for, what is teaching and with what sort of standards in our different systems – and what sort of values are going into those systems and products if they're coming out of places in the world that aren't here? How do we regulate that, what sort of laws are catering for products coming in, as well as who makes them and in whose image these types of products are made?*

Thank you for your voluntary help here, passing the mic. This is brilliant. Terrific.

Audience question

My question actually is for John. It was interesting to hear you talking about some experiments you're doing on trying to reduce the workload of the teachers – So I would like to know: How do you decide on what you want to experiment on? Presumably there will be lots of issues in terms of teachers workload? And also how on what criteria will be decided if this experiment was successful?

John Oak Academy

Yeah, that's great. It's super, super early days. Right. [....] [There followed some discussion between John and the audience member in the room about the potential for Oak to use what it has learned from gathering pupil data from the use of materials on the Oak platform and how they might create new content from the high quality content that Oak already has to perhaps produce new content or our distribution. As regards, evaluation criteria, anything

around that is, it's very divergent as well. This discussion was indistinct in the transcript recording so has been summarised to prevent inaccuracy.

Chair: *John, can I ask that you add onto the back of that is, are you involved with the EFF what the Education Endowment Foundation is doing? Are you tying that together? This is not Oak research coming out of the blue when the EEF they've been working on research in schools for some time is it?*

[John answered more broadly, but to summarise, they were not working with the EEF].

Chair: *So we've got lots of different silos of things going on in different places. Lots of research that's been around for a long time perhaps seeing new competitors for the space. Really good audience question. Thank you, one at the back so we're going to challenge your legs, Richard, sorry, to take the mic all the way at the back. And then we're going to come to the gentleman in the green shirt.*

Audience question
Hi, thank you so much for being here, John. The interesting point is about having a good quality data set available for other companies to be able to use for products. I love the idea of targeting setups for good and not necessarily for profit, combined up and we're going to learn percent accuracy for teachers. How can you see maintaining that data set and screening reviews like biases?

[John answered, this is not verbatim and any errors at by DDM]

John Oak Academy
So just to be really specific about the difference between the content and the data, it's actually like, we're not doing anything on the pupil data that we have already from the pandemic. In terms of usage and AI around that it's purely on the content that's being built. So it's a corpus of work …. life that's high quality, and for us to build further resources off. And of course, you know, I think all of the issues that are raised around accessibility are absolutely critical for us some of the some of the work going on, you know, sooner or later, I think you're absolutely right that it needs to, it really needs to think about that. And keep assuming students at the centre of regulation around what we can do to make sure that biases and existing models

Chair: *Lots of great questions coming on regulation, but perhaps we also need to stop and ask, what does regulation really mean? There's a terrific paper just out recently on AI and global governance from Michael Veale, Kieran Maus and Robert Gorva I will give a plug on, asking the questions about defining regulation.*

[Veale, M., Matus, K., & Gorwa, R. (2023). AI and Global Governance: Modalities, Rationales, Tensions. Annual Review of Law and Social Science, 19. <u>*https://www.annualreviews.org/loi/lawsocsci*</u> *]*

We need to ask if we are actually regulating the right things at all, when we talk about governance is that contracts and licencing standards, international agreements, regulation,

governance as framing, governance as establishing something like talking AI into being or wishing away another AI winter; lots of questions around what does governance actually mean? I think we've got lots of things to debate, we can have a whole event just on that.

The next question, from the gentleman at the back.

Audience question
Lots of really interesting discussion about regulation in schools, but children are using AI systems outside the school, right? It's freely available on Snapchat, and my daughter uses it. So presumably, there are lots of other chat bots I've never met and technologies thrown into the parents life to regulate and that's going to vary enormously. So then, what else? What's the policy in relation to schools or schools going to do about things like Snapchat, you're gonna have to embrace it and talk about it?

Chair: *Thank you; so if I understand correctly, talking more now to some of these more human dimensions of AI and understanding the impacts on outside of the classroom, coming into the classroom, in effect, in essence, a societal question for the curriculum? And that is something very much that Wayne's work touches on in terms of these human dimensions of AI and of course Tracy was talking very much about impact on communities and Janice's work [at Turing] around understanding what does it even mean to children?*

I think there's a lot we can have another whole event just on that topic, again, something I think we should follow up on. And anyone that's looking at discussing this further needs to be considering this in the round. Again, bearing in mind when we're looking at the narrower framing of education, it has a different context, because there is no consent, there's no choice over use in educational settings. And I think that's a really critical aspect of what separates talking about children and AI in general, from children and AI in education.

Perhaps two more questions if we don't get kicked out, I'm going to carry on if you want to.

Audience contribution
I think getting past old binaries is really useful. Because there is no point in the "doomer versus evangelist" split anymore. It's already here, in our lives, in our schools, in our classrooms everywhere, to greater or lesser extents. So what I'd like us collectively to think more ambitiously about is how we do tech well. And actually, I would like to take the question of demanding agency, even further to expecting agency from the education sector, rather than being done *to* by the tech industry.

So I would like to put a really "dreaming big" idea to you all now, which is: could we not ask for a sector wide, free-to-access AI platform for education, trained on the highest quality academic content possible that the country can put together, that flattens hierarchies, that removes barriers for young people in terms of accessibility, and can be reliably said safeguarded etc? I don't think that should just be in the hands of commercial interests, I think it should be part of our national interest.

Chair, Jen Persson, Defend Digital Me

Thank you, one of those big picture questions that we're also looking at Defend Digital Me in terms of what does good education look like? And if and how AI fits into that is an important, current question. The question of how those interests are then defined is perhaps one that we've seen reflected, has no consensus yet, I think in there even within this room.

What is the national interest here? How do we understand this idea of what good looks like in education? And how do we then say, if you have some sort of national guardrails and national quality standards and offer that platform, who would oversee that, who would make those decisions? And it comes back to much of the questions that came in at the start of the meeting: Who controls that? Who has the authority? And we come back to your question here [points] of parental influence and curriculum.

One of the questions I think we have not yet addressed in depth is how AI changes the nature of power and authority.

Both from a looking at it from the micro level in the classroom, if you are saying a teacher has bought a product they cannot see inside, it is proprietary, it is closed, we can't see what data it really produces, apart from the dashboards that it chooses to show us designed by the company, we can't see what's actually being generated. And therefore, the company behind the production of the product is making the definition of what comes next, what the curriculum will offer the child next and so on. What does that mean for authority? What does that mean for accountability? Or in terms of outcomes for the child? Does it mean that the teacher has authority over the classroom? Does it mean that the developer has authority in terms of what the curriculum is? How has the product been designed? Does that accountability lie with the company? Are we therefore outsourcing accountability to companies for the delivery of our state education system?

And if, to come to your question [prior audience question], about those products coming from the US or from other parts of the world, indeed, many of them are imported from all around the world, what does that mean for state sovereignty and understanding what it is we're delivering to children in terms of education, into educational pathways, educational outlook outcomes, in terms of then what's <u>coming into</u> the classroom? And then in terms of data, of course, what's <u>leaving</u> the classroom and where that's going in the world, not only in terms of individuals, but in terms of communities, what is then known or not about them: where it's not equitably understood, where it's not shared, where it's proprietary, and where power is then being redistributed in the world in terms of understanding our education sector.

Huge questions. We could talk about this all evening, I think we'll choose to wrap it up there, that gives us then a few more minutes for chatting amongst yourselves. Unless anyone has a burning comment, or one really last thing they want to say. One more contribution as we come to the end. If you wish to speak, now is your chance, grab the mic.

Audience contribution
Just really quickly. I'm also a teacher in the UK, I think I wanted to actually just ask about the kind of control within actually using stuff in the classroom. So Mark, you actually talked about teachers being unable to bring a new type of processor in if they want to. So I think one of the barriers is that the curriculum is also way too narrow, they're being imposed based on

around. But also, I think that there's another side to that where right now there's like a flood of AI tech companies coming out. And teachers and schools are kind of lost in this flood of companies. And we don't really know how to navigate this ecosystem, especially with all these systems that they were subscribed to, they're already out of depth on all the sort of AI – and second, I guess it's kind of a question for John, I'm just wondering if there is a some kind of like a plan for DfE to support schools and trust to validate this kind of ecosystem to make sure that everything that their product is actually fit for their purpose or their contacts? And especially considering the impact on those schools' budgets.

Chair: *Great questions and comments, thank you. I think we'll close this Q&A and contributions part by simply saying thank you enormously to all of our speakers in the usual way.*

Closing remarks: Jen Persson, Defend Digital Me
To conclude, with what I think the questions are, that we're still not grappling with well or at all really, is around having a proper grasp already of what kind of high risk products are in the classroom. We talk about much of this as if it's a future question of what if and what will the impact be?

But we know we do have AI in the classrooms and in schools today: as you said [audience member] "teachers and schools are kind of lost in this flood of companies".

For example, that is using facial recognition or other biometrics which are high risk, high value data for trivial matters in schools, we know of schools rolling out despite the ICO coming out with a sort of pretty damning, but sort of sitting-on-the-fence opinion on whether facial recognition is lawful in the UK after the North Ayrshire case, when its use was banned in a case in France, banned in Sweden, use of fingerprints ruled unlawful in a case in Poland, similarly in Bulgaria and the US – questions of simply not having a lawful basis under data protection law, again, because schools don't operate on a consent basis, and children can't give it. And they certainly don't have another lawful basis for these companies to re-use data from these products in schools really at all.

We have AI in schools, that is inferring risk about children from everything they do on a computer, everything they do on a digital device, which suggests risks to themselves, risks to others, but even gives them potential risk scores for being interested in extremism and terrorism. These are high risk labels that have been given to children, not only in the classroom, but at home because these products work 24/7 365 days a year. We have no visibility of how these products work. We have no visibility of what the error rates are, whether they actually work at all. If you look at the research coming out of the states, there's no doubt about that. But we're not doing that research here in the UK. That kind of AI is the kind of product that the EU is looking to say would be unlawful because it's too high risk. It's not necessary, and it's not proportionate, and it's where they've already regulated with the EU AI Act, looking at these types of high risk, unproven technologies around mood, around emotion and around neuro-signals. We are nowhere near looking at that in the UK.

And to-date, and especially our recent data protection, regulation and enforcement of existing law on AI and edTech has not been strong. And it's not doing our children any

favours at the moment. We also need clarity and consistency for teachers in the classroom, to know what is good, what is working, what's not, what we can change and what we need to be doing together.

So again, I say an enormous thank you to everybody who's come tonight, all of the speakers, but also all of you and your great contributions. If you want to carry on this conversation, do follow up with us. Look at our website, we'll be following up by putting a transcript out, and the artwork from Sophia. We hope that the Department will be open to inclusive broad conversations with a wide range of stakeholders about this, because as we've seen, this is not about products, as much as it's about people. And those people are children.

At the moment public policy in the UK does not serve children well. No matter which political party we have after the next general election in power, (we're a non-partisan organisation), we must prioritise children better and that starts with education with or without technology and how that's going to look for them in the future. And I hope we'll all carry on that conversation to make that the very best we possibly can collectively.

Thanks very much.