

## THE BROOKINGS INSTITUTION

## WEBINAR

SCREENS AND CHILDREN'S WELL-BEING: THE LATEST EVIDENCE OF TECHNOLOGY'S  
IMPACT ON MENTAL HEALTH AND EDUCATION

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**WINTHROP:** Okay. Good morning, good afternoon. Good evening everybody. It is a real pleasure to welcome you to this webinar, Screens and Children's Wellbeing: Latest Evidence of Technology's Impact on Mental Health and Education. For those of you who have already sent in your questions, we've got lots and lots of questions. We have almost a thousand people registered and joining in here. If you want to send in more questions, please email [events@brookings.edu](mailto:events@brookings.edu) or post it to X, formerly known as Twitter hashtag #healthyscreentime. It's a real pleasure, to have all of you joining from around the world. This is a hot topic that, is if you're a parent, you're obsessing over it. If you're a teacher, you're obsessing over it. If you're a policymaker, you may be obsessing over it, depending on which country you live in.

For us here at the Center for Universal Education, which I direct here at Brookings, we have been looking in to this question over the last six years, pretty in depth around how you build strong ecosystems with the children at the center, really with parents and families and caregivers on the one hand, with community organizations, leaders on the other, and schools and educators as the third leg of the stool, it's clear to us, that we need to tackle any of the deep problems in education, from equity to relevance to children's well-being, especially if you look at the online world. We need these three groups really working closely together. And for us here at Brookings, we are still trying to get a handle on this topic. It is, one that we've been tracking from a policy angle, certainly, especially since the rise of generative AI. And none of it is obvious. There's no straightforward, clear, clear cut answers on a policy. On the policy stage, you've got the US Department of Education really providing guidance around making sure you have humans in the loop, particularly around generative AI. And you've got the EU coming out with probably the most forward facing legislation on AI in their, you AI act, listing seven prohibitions to how AI can be used, especially related to vulnerable groups, including children, including subliminal manipulation of children, including emotional tracking and social and, social scoring of kids in education settings. So there's a wide range of approaches in the policy space. I have to say, personally, as a researcher, we've been looking at this, with my colleagues and team members.

I'm in the midst of doing various policy related research on student engagement and student agency in this topic of the digital world comes up all the time. I have been doing a deep dive with my

coauthor, Jenny Anderson, for a book called, "The Disengaged Teen: Helping Kids Learn Better, Feel better, and Live Better." And one of the big takeaways we've done nationally representative surveys of kids and parents. And but we've also interviewed kids, lots and lots of kids. And the takeaway is they will get around anything, any parental or educator control. And two, they two are torn between the good sides and the bad sides. A lot of stories of kids, connecting and actually coming out of severe mental health problems because they found a community online with shared interests that they didn't find in their school or their family, and also the exact opposite of kids really being bullied, cyber bullying and causing severe, severe, impacts to their well-being.

There are and then there are also big debates, I would say in, in the US, certainly, Jonathan Haidt has, a new book out that people may have all read or heard of called, "The Anxious Generation: How the Great Rewire Rewiring of Childhood Is Causing an Epidemic of Mental Illness." But that has also been refuted. If you look at Candace Ogden's, new, work in nature article, nature really questioning a lot of the data, that he is using. So what's a person to do? I would say as a parent, I also have a middle schooler, so I live this every day, middle school boy who comes home and I say, what do you do at school today? And he said, well, I played Minecraft unblocked all day. Which, if anybody doesn't know, you can get virtually any video game unblocked on a Chromebook or other, school device that gets around the school settings, and at the same time, so he's not paying attention much to his lessons. At the same time, he's also online doing deep dive to research fossils.

And, so my major takeaway is that it's less about the tool and more how the tool is used, which makes it much harder to guide actions, would be much simpler if it was just about the tool. And so this is why we have assembled for you a fantastic group of experts who will answer all our questions. No pressure guys. I'm very pleased, we're going to do this in two rounds. We will have Michael Rich, who is a director and founder of the digital Wellness Lab at Boston Children's Hospital, who has a new book out which he will share his insights, with us, called, "The Media Tutions Guide A Joyful Approach to Raising Healthy, Smart, Kind Kids in a Screen Saturated World." And Michael will come up and, share his insights, particularly from a family community standpoint. What can we do as parents? And then we'll have Kathy Hirsh-Pasek, who's, wonderful colleague, senior fellow here at Brookings, but also a Stein professor at Temple University. And we'll have Elizabeth Milovidov, who's

the founder of Digital Parenting Coach, who will also join and give their give their perspectives. So that'll be the first half really focused on families, parenting communities.

And then we're going to go and switch to the educator perspective. And we will have Phil McRae, who is the executive staff officer and associate coordinator in the Government Research Department of the Alberta Teachers Association. He's been doing research around, teacher practice and particularly around the impact of screens on, teachers, pedagogy and teachers, wellbeing, frankly, across 50,000 teachers in Alberta. So we'll hear from him. Really, what does it look like on the ground? And then we'll, have our panelists sort of respond and give their perspectives. We have Kaya Henderson, chief executive officer of Reconstruction, and David Edwards, the general secretary of Education International. So with that, I give a warm thanks to everybody who's joining us around the world, but especially to our very busy panelists for taking time to share with us. So Phil over at, no, Michael, over to you, panel one.

**RICH:** Thank you, Rebecca. I want to assure everybody, first of all, that the kids are all right. And one of the things that we have to realize is that while they may be, in one sense vulnerable, they are also the leaders of the next generation. And we need to have it be, about them. And as they say, it can't be about us without us. And so I'm very much a proponent of really listening to the young people, and responding to them in authentic, meaningful ways. I am, in order of importance, a parent, pediatrician, a medical educator and, health researcher, and the founder and director of the not just the Digital Wellness Lab, which is our research arm, but the clinic for Interactive Media and Internet Disorders, where we actually take care of kids who have gone down the rabbit hole, if you will, of gaming, social media, pornography, or what we call information binging, which is the endless Reddit, Quora, YouTube videos.

And first of all, I really want to speak to what they are saying to me as a clinician. Once their parents are out of the room, I will often ask the young people I take care of, what could your parents do better? There's something subversive for you. And almost invariably, the first thing out of their mouths is pay more attention to me. The parents are saying this kid is non-verbal and surly. I don't know what's going on. And the kid's feeling like their parent is listening, in part because their parent is busy

staring at their device. When they are with their child. And so, one of the things that I have, really dived into as an approach, in the media guide, there it is. Which is to think about the three plus two terms of parenting. The first is model the behavior you want to see in your child. Don't tell them to turn off their video game, while staring at your all-important email on your smartphone. That to them, that's the height of hypocrisy. And let's face facts. We brought these beings into the world to enjoy them, to learn about them, to experience life with them.

And we are cutting ourselves off from them and modeling the way they should behave, because they listen to about 1% of what we say. But 100% of what we do. The second M is mentor them when introducing a device. A application or a platform, sit next to them and learn Snapchat with them, or literally play Grand Theft Auto with them. Why would I recommend that? Because what we are saying there is I love you, I respect you, I want to understand what engages you here, and you are coming into their space in some ways as their student, so that when you finally figure out how to steal a car and grand theft auto, you can turn to them and say, I finally figure this out. Let's talk a little bit about why you might want to practice this over and over and over again, and help them get a little more insight into what they are learning, what they're practicing, and the value of their attention to something.

And the third one in the one that parents and kids both push back against the most is monitor, have their usernames and passwords. The kids scream, I want my privacy. But the reality is that they will not be neurodevelopmental capable of understanding privacy until their mid to late 20s. And some never get there. But, the reality is that to them, privacy means. So Mom and Dad can't see, but they are completely oblivious to all the rest of those who can see what they are posting, where they are going, etc.. And parents scream as well because they say I can't spend the time to be in her digital space with her all the time she she's there. But if parents have the ability to monitor what their children are doing; the children behave differently.

It's much like random drug testing in the workplace, and the goodies of the plus two M's are when they achieve mastery, they're able to use these tools effectively, purposefully, and in ways that are respectful and caring to their fellow citizens of this continuous digital physical environment. And finally, and perhaps the best one is we make memories when we are in real life contact with people.

We don't make memories on screen. We don't remember much of what we do on zoom, but we do remember taking a walk, kicking a ball around the backyard, or just making a mess of the kitchen when we're, you know, cooking a meal. So I really emphasize that the kids are okay. We are never going to be perfect at parenting or teaching them, but that doesn't mean we can't keep perfecting it and approaching that. This is and will always be a work in progress. And we have to follow their lead as much as lead them.

**WINTHROP:** Hey, thank you so much, Michael. I would love Kathy and Elizabeth to, come on screen, and hear your hear your perspectives. We'll have a bit of a dialog here. Cathy, I wanted to start with you because Michael's reiterated it's very reassuring, especially coming off of COVID when there's a big narrative about learning loss, a lost generation. We're incredibly worried about the wellbeing of children and their learning levels. And you said the kids are okay. And how important is it, you know, to hear that message? And what is what is your perspective on, kids development, well-being and all this, all this tech?

**HIRSH-PASEK:** Well, I actually think the kids are okay, too. I agree with Michael. You know, they're growing up in a digital world. And, as Michael, I think you say better than I. It's kind of seamless, moving between these worlds and learning how to navigate it. So as parents, I believe our job is to help the children achieve some sense of balance. Banning isn't going to work. You know, anything you ban, they're going to want more. Think of chocolate cake. You know, they'll go right after it. They'll find it wherever you put it. What we need to keep in mind, however, is that for very young children, the social world is key. We are a social species with a social brain that learns from social relationships. And there's been a lot of research out there to demonstrate. This is mind blowing to me that the interactions between caregivers and children at a very young age actually help to build brain structure and brain connectivity.

So what we don't want to do is create a situation where we're constantly looking at our screens. And Michael brought up a very, very important point with modeling, because the research shows that when we start to look at our screens, we break that connection. That's that one on one social stuff that builds those brains. And I think we want to also just find that balance. We can use the information

from digital that takes us to worlds we could never visit otherwise, but use it in the same quantity that you would use food. Don't overdo. Just get a nutritional meal and teach that balance early.

**WINTHROP:** Right. Thanks, Kathy. Elizabeth, I want to come to you, and I. And I need to say one thing, which is that we sort you out because of your expertise. You are affiliated with Lego, but this in no way. There we are. We get funding from the Lego Foundation. But this has nothing to do with why we sort you out. They are a wonderful funder, and they always respect our independence. So I'd be really curious. Tell us a little bit about your work and tell us sort of what the main questions are and how, how you are. You're guiding families and parents.

**MILOVIDOV:** Thank you so much, Rebecca. I am always happy to, to speak on these, these types of webinars to talk about digital parenting. It is my passion. Anytime Michael says Elizabeth, I'm like, yes, I'm there. So the same goes for you, Rebecca. You just call my name, I'll be there. But first I really let me just say two things. So, I am a lawyer and a law professor, and I've been a consultant, at the Council of Europe and also for Instagram and Amazon kids. And so I've been in this space for a while. I created digital parenting coach.com about ten years ago, and that was to provide resources to parents and caregivers. Yes. I am, currently working at the Lego Group as a senior corporate counsel with Games and Metaverse, looking at digital child safety. But that has nothing to do with my site life, as digital parenting expert and sharing that expertise.

I'm also, on perhaps 24 news, their monthly, correspondent, if you will, talking about digital parenting. And so I just wanted to make another point. That was the first one. The other point was yes and no for the kids are okay. I think the kids that we're serving and the kids that we're looking at, of course, yes, they are okay. But a lot of the vulnerable children, the kids who are not in two parent, households or with different socioeconomic backgrounds, they're not as okay. And in all of that, even if we do say the kids are okay, because for the most part, they are. It's the parents who are not okay. And that is where all of this, you know, bubbling around is coming. And what has is just been so frustrating for me is that for the past ten years, I have been trying to get parents and caregivers on board and said, listen, you know, let's just do critical thinking conversations. If nothing else, just have a conversation with your child. And there's just been, you know, a lot of pushback.

The parents who show up to my webinars are not the ones that I need to speak to. It's always the parents who are not in the room. So I am really happy that we have this controversy, with Jonathan Hayden's book and the and the other, you know, conflicting research, because all of this means that people will finally talk about these things, that parents can finally get some aid and some resources. And I think that, Doctor Michael put it so perfectly with his ends and modeling. I mean, because the essence is right there, and it's truly that simple, but it's up to parents now and caregivers to, to uptake that information. And for those who, are concerned with families in nontraditional, households, it's up to government and community support to provide other ways of reaching those children and, providing them with that same sort of parental, guidance and mediation and modeling. And whether it comes from the local library community, from Girl Scouts, Boy Scouts, I don't know, but we have to find a way to reach all those children.

**WINTHROP:** Great. Thanks, Elizabeth. Let's, let's bring up Jonathan Haite, and his book. Michael, what is your perspective on it?

**RICH:** I am concerned that, first of all, that it is not based on all of the data. It's based on the data that agree with his preconceptions. And, I worry that it is. Problematic for the same reasons that it is the best seller. It's fear mongering and guilt inducing. So parents are simultaneously terrified that their kids are already ruined. I mean, even the title that their brains have been rewired, and, they're feel guilty that they somehow ruined their kids without knowing. And, I agree with Elizabeth that not all the kids are all right, but they can be if we pay attention. And some of it is, is government, regulation. Some of it is, frankly, the litigation that's going on. But as somebody who works with these kids every day and watches them grow up, I am concerned that both legislation and litigation are too slow. We have to deal with this right now.

You know, all politics is ultimately local, and there's nothing more local than the family and the classroom and the community. And so, I really want to, heed the Hopi elders that said we are the ones we've been waiting for. And really under understand that we can do this. We are not helpless. The kids are not yet ruined. And I very much agree with what Elizabeth said, which is that the kids who are in greatest need are those kids of families that aren't going to read books. They don't have

the time or the energy to read books. Many of them don't even have the time to go to parent teacher meetings and school.

And so, you know, while we talk about health disparities, it's usually around health care delivery. I'm concerned about health risk disparities. Those kids who in the 70s were called the latchkey kids. That are home with a tablet or a television. As a as their sole companion. And are really growing up with the influence of the screens, which are all about selling them things and capturing their attention, holding their attention, and then selling their attention to consumer products companies. So I do think that we have to be incredibly mindful about this and about our use of this and how we do with these kids. And actually, rather than trying to find killer apps, we should be developing our killer bees. And those bees are be mindful in our use of these screens, and also in knowing when they're not the best tool for the job, and turn them off and move on to other things.

Be balanced. So consciously seek out non-screen time. We can't even measure screen time anymore. The way we seamlessly move in and out of this environment. So we need to be conscious about a minimum of non-screen time in a child's day. And usually using that as much as possible for free. Child directed play, not adult directed play, not organized sports, but the kind of play that really builds the humans. They are going to be and, and I think the final one, what is be present. Be present for our kids. Put those devices down. It's not just modeling. It's also being present for them that matters. And finally. Bring back boredom. Boredom is the crucible of creativity, imagination, innovation, not just because it opens up the space that we otherwise fill with whatever meme or etc. is online it but that that space is a little uncomfortable. So we create the new in it. Right. So anyway.

**WINTHROP:** Let that bring back boredom, not boredom and unstructured time. I wouldn't be doing all this research on student engagement. The kids are bored and busy in schools. So you're talking about a different type of boredom. Kathy, over to you.

**HIRSH-PASEK:** Yeah. So there are a couple of things. What is I do think we should schedule in time to be bored. I know that sounds crazy, but it's almost like you schedule in a meeting. We should schedule in free, unstructured...

**WINTHROP:** Exercise.

**HIRSH-PASEK:** Or anything that is going to be good for children's health. But there are a couple of things I just wanted to build on. One, I'm glad that that Height's book has started or maybe reopened this conversation. I'm super sorry that the data were cherry picked and I could.

**WINTHROP:** Could you tell us the audience may not know you guys are in the academe and yeah, tell us a little bit about the data he used versus Candace Ogden's paper. The data company was Candace....

**HIRSH-PASEK:** Okay. Has done such a beautiful job. She's from UC Irvine. She did a beautiful piece in nature that maybe we can make available to people. There's also one in Forbes that she did that's like a review. I personally have reviewed a lot of this data last term, because I took it on just to see what was going on. The data is super mixed. And there's I'll tell you what, the data absolutely does not say. It does not say that, screen time, even though there's a heck of a lot of it, especially in teens, more than a full time job, it does not seem to cause anxiety or depression. So I'm just going to put a full stop there. And I think Candace does a better job than I will do of making that case. It just isn't there. The data does not support it. So, putting that out there, then why are we having all the ruckus?

Because we're all seeing our kids out there, and we're seeing their heads in the screens all the time, and they don't even at dinner, look up to say hello to the parents or look at the food that they're eating. So it's no wonder that it created a panic. And I think I took that opportunity to take it to a level that, is dramatic, but maybe not yet, data driven. All right, so the next point I just want to make is about what Elizabeth talked about. There is literally for young children and maybe for teens as well. Nothing more important than the conversation. Nothing, nothing, nothing. Having back and forth conversations with real human beings is a very big deal. And research has compared whether it's the same if you're playing Fortnite with somebody who's three miles away on another, you know, on another device. Answer no.

We have looked at whether when kids are reading and they're just reading the book by themselves, and then the little digital device has a voice. Is that the same as when they're sitting next to their parent and reading a book, whether it's a traditional book or a digital book, the answer is no. The kids get more out of the book when the parent is there. Now, that doesn't mean that you have to be strapped next to your kid all the time. But what it does mean that we need to look at the quality of what's out there. Common sense does a pretty good job of being a gatekeeper, but there is no gatekeeper.

Educational app can be used in front of anything, and when we looked at 120 most downloaded educational apps, two of them seemed to have some educational value. So that's a problem. And the last point I want to make is think of it as a prompt, not a substitute prompt, not a substitute. The digital devices can take us, as I said before, to places we cannot go otherwise. So let's use that as an opportunity to have the discussion, not as a substitute or parents handing back the digital device. I think it's called handing it back so that the kid is on that device wherever they go. And that's what I'm seeing everywhere.

**WINTHROP:** Great. And just briefly, Elizabeth, I want to bring you in. You said teens spend more than, more than a job in terms of hours. How many hours a week do our teen spending Michael or Kathy or Elizabeth on online?

**HIRSH-PASEK:** Roughly ten a day.

**WINTHROP:** Ten a day.

**HIRSH-PASEK:** Wow, yeah.

**WINTHROP:** Well, Elizabeth, over to you.

**MILOVIDOV:** Yeah. So once again, I not to be the contrarian, but I also want to point out that this is this is the same conversation. That we've had, maybe ten years ago when Jean Twenge wrote, in the

Atlantic about smartphones, killed a generation, and everyone got into a moral panic, and we had problems with the data. And so while I sit here and listen to everybody talking about the data and the research, and it's there, it's not there, at the end of the day, I don't care. We still need to find a way to help those kids and to help those parents and those families who just aren't getting it. And the other thing that I think is so crucial is that even though we don't have the data, if we were all sitting around at a campfire and we heard a wolf howling, but we had no data and we didn't see the wolf, we would still want to prepare. And I think that's what we have to do is find ways to prepare and help families. And the thing that kills me in all of this is that I feel like if they just had Michael's book instead of a fear mongering book, they would have the tools to, to, to, to take care in case that Wolf is really there. But I don't think the wolf is there.

**WINTHROP:** I have I have a question that I want to come to you about, because the question that's come on, come in online. Elizabeth, around what parents can do around safety. And thinking about safety, privacy. I know this is an area where you work, so we'd love some very specific guidance. Like explicitly what are the steps they should be doing? So I want to want to come to on that question in a minute. But I do want to circle back on the, question of, of the data. And, Kathy, you have looked at it through and through. You can't equate screen time with, anxiety or depression or mental illness. But there is a I think and I think it's important to clarify. And this might be where Elizabeth is coming from. There is a subsection of kids, though, right, for whom this is really bad if you're already prone to sort of...

**HIRSH-PASEK:** But then the question is directionality.

**WINTHROP:** And in fact, we have actually, let's come back to that. Well, go ahead, Kathy, because we have a question on line from George, who's from the government, education department in Scotland, who wants to know about directionality, like, is it unhappy kids use our on you on screens more and it makes it worse. Is it there on screens that makes him unhappy? That's his question.

**HIRSH-PASEK:** Well, I'm just going to briefly do it and then pop it to Elizabeth and Michael. You know, know it from the real vantage of look at your kids. But the data do show that it's more that the

children who are more anxious or who are more depressed are more likely to use these devices. So, as you said in the beginning, Rebecca, it's about how you use stuff. And I agree with you, Elizabeth. I think we really do need to know that the wolf is there. But, you know, it's not that there's no data out there. The reason I say this is the claim in Height's book is a causal claim. The and I do think it's important for us to put out there that the causal claim cannot be supported. And we have looked.

**WINTHROP:** Okay. Great. Elizabeth, over to you on this. And then certainly on the safety online safety.

**MILOVIDOV:** Sure, sure. No, I, I can't say I agree with Kathy I agree, I agree. I mean it's just it's a love fest here. But I do think, I just don't know how we're going to get everyone off the edge, and get them to, to be reasonable again, because that's what that horse has gone. But I think that just going to something simple and I really want to, use some of, Michael's, examples for just parents to think about privacy and safety before they hand over a device. Just imagine that they are handing over that billboard in the town square. That's it. I don't want it be any more complicated than that, because that's things where they can sit there and think about privacy and safety. Are they oversharing? What information is out there? If it's in the town square, do you want people to have all of this information about your children?

**WINTHROP:** Elizabeth. As in the whatever, the telling the kids, whatever you're putting in, it's going to be a think of it as you're putting it on a billboard in the.

**MILOVIDOV:** U.S. if you even give over that device, you are giving them the billboard to the town square, and you don't have to give them the billboard to the town square. There are other options. And so that's something that parents, again, that's this critical thinking piece where you just really think about it just because the Joneses do it, or because everybody in the in the classroom has the latest, greatest big parents have some ability to push back. And I know sometimes that's difficult to. But if parents can get together to decide the end of the year holiday gift for the teacher, they can get together and decide some rules for their classroom. It's, you know, it's again, it's kind of taken that the

tech out and getting into some parenting, just rolling up our sleeves and getting back to parenting basics. What do we want best for our children? How can we help them thrive?

**WINTHROP:** There's a follow up question. There's a lot of questions on this topic, Elizabeth, around, do you have any? What are your sort of top 3 or 4 concrete advice for parents or caregivers on what they should do, like tomorrow?

**MILOVIDOV:** Yeah. Buy Michael's book. Get some confidence. Critical thinking. You know, don't give up. That is like the concrete advice. Don't also, don't believe the headlines for everything. Another point that I want to push back again, because I think it's so important that we realize I'm speaking to you from London. I've lived in now in Europe for 29 years. Is that 96% of the research of the online harms that we're talking about is done with looking at children in the US and the UK and a few, a few European countries. There is so much more happening out there, and I think that if we in the, in the West, if we start modeling the, the correct behavior, then we won't hear about children in other countries and parents thinking, oh, my kids have to keep up with the tech people and just throwing them devices without anything. And, and you know, having the children go on to, to being exploited and, and all sorts of horrific things that I just don't think, that I'll go into right now.

**WINTHROP:** Okay, great. Michael or Kathy, any thoughts on either of these questions here?

**RICH:** oh.

**WINTHROP:** Go ahead. Go ahead. Michael. And then.

**RICH:** First of all, I want to put in a good word for wolves. Wolves don't attack people. Wolves are necessary to our ecosystem. And we should listen with wonder when they are calling to each other. And I want to push back a little bit on the internet safety thing, which I argue with the tech companies all the time. When we start from a position of internet safety, we are saying to our young people that this is a dangerous place, and we're teaching them to enter it back on their heels in a defensive stance. And not only do you get the forbidden fruit part of that, that anything that's dangerous is kind

of cool. But, they don't respect it in the ways that they should. And frankly, they have to live in this environment. So we should be talking about internet mastery with them much the way that we talk about driving an automobile.

We don't put them, you know, when a four year old screams bloody murder, we don't toss the car keys to them and say, have at it, but we will hand them an iPad. And to calm them down. And we're setting up a situation where we're saying it's dangerous. You know, you have to, avoid things and be careful in there. We don't teach them to drive a car that way. We teach them, first of all, when they're old enough to need it and are responsible enough to try it. But then we sit down in the front seat next to them, white knuckled, while they learn to drive. We don't say, don't hit that tree. Don't run over that pedestrian. We teach them to drive, and in the process, they learn to respect and take care of themselves and others.

And so I think instead of coming in in a fear based mode because no good decision is made out of fear, that's fight or flight. There's are poor decisions for the long term. We need to be very careful and smart about when we introduce devices, when we introduce platforms and applications and sit next to them white knuckled while they learn social media or a smartphone. And be present in their world so that they don't feel they have to hide what they're finding that weirds them out or upsets them or whatever, but that they can come to us and allow us to parent them and teach them in that space without being judging of them.

**WINTHROP:** Thanks. Kathy?

**HIRSH-PASEK:** I just I just want to add in that I think the critical thinking on that, Michael, is, is really important that Elizabeth is talking about. Some things are like fire and sometimes your teens end up in the wrong places, and we have to help our kids learn enough to be discretionary. I think that's actually super important. And I wanted to give an example of the billboard. So I teach college class, and of course, my students put their entire life, no matter what happens to them on any day on Instagram, which I'm sure is great and everybody cares about. However, one of the students they had didn't get a job and she should have gotten the job, and we wondered why she didn't get the job. And

it was because at a time when she was having some trouble in her life, she billboard did it, and the folks who were hiring decided that maybe they didn't want somebody who Billboard did something in that way. So I just want to put up a cautionary note that it is our job to teach our students and to teach our children about the billboard, and about how to critically evaluate when to post and when not to post.

**WINTHROP:** Right. Elizabeth, I want to come back to you or actually all three of you, on this question of exploitation. We've been dancing around it. There is a huge downside here. There is also a huge equity, dimension to this. And I'd love to hear everybody's thoughts. It is the international, Day Against Child Labor UN day to day. And in our prep call, David Edwards will be on the next panel was saying he was at a meeting. And a young person came up to him and said, you know, look, this is a new form of child labor. You know, in tech companies grabbing our attention and using us for all of our participation for sort of their profit in their game. So I really want to hear what are you most worried about in terms of exploitation specifically? And what should we do about it? Elizabeth, let's start with you.

**MILOVIDOV:** Yeah. I think that is a brilliant question because, as Michael was saying earlier, and I plead Kathy as well, talking about having the children involved, this is their world. This is what they're doing. And so, of course, creating content, is something else they're doing. But should tech companies then make profit off of that user generated content, that becomes a whole nother issue. What about advertising to children? And, you know, keeping their attention on the screens. I think that there are two things that I always that come to mind when I think about these things with exploitation and user generated content. And that is getting more diversity in the room. So in the beginning, when we're designing these things and, that we have, you know, people from, from everywhere that are, that are in there saying now and it's not just, you know, did not to talk about marketing people or sales people, but it's not just people saying, let's just make this app and make money, but, you know, to really get out there and find and have other voices that are really thinking about tech for good and social media for good. And then my second point, I was talking about, diversity. And I also think that really we have to start this the safety by design. We have been talking about this forever. Safety by design, well-being by design, privacy by design. And what I mean by that

is the idea that when designers and developers sit there to create digital products and services, that they really start by thinking, let's make this product safe.

And it doesn't become an afterthought, a Band-Aid. And I think that they really need to start thinking about the child user first. Let's face it, YouTube was not for kids. It was not created for them, which is why they did YouTube kids. Instagram is not created for kids. Roblox. Minecraft. These things were not created for children. And yet this is where the market has exploded. So I think we need to really create something first for children, for all the children, to make it accessible, to make it inclusive, and to also find ways to inform them. Again, as I agree with Michael about not saying safety. That's just call it about their digital wellbeing and let's help them truly thrive in this environment.

**WINTHROP:** Right. Michael you do you see this every day in your practice? Can you tell us just educate the audience who might not know? We have a very diverse group of people listening in. What are the main sort of forms of exploitation, online for kids and what are the problems that you're seeing?

**RICH:** Yeah. I think, the main, way there that kids are exploited is completely invisible to them, which is that their personal information, their personal data is being fed into massive databases to sell them products, political, leaders, all kinds of things. And that what that can create is an echo chamber where they are being fed information they already are inclined to believe. And so this can be a huge political force. They can be exploited for their images. Now that we're in Gen I, we have kids actually creating pornographic images of other kids in their class from their school photos or from casual photos posted online.

And, I think that what we have to really understand is that, they need to learn to be good citizens in this space also. And that means respecting themselves enough not to put personal information up on the billboard. And what I actually use with the kids I take care of, is the grandma rule, which is don't put anything online you don't want grandma to see, parents. They could care less. They get in trouble with their parents all the time. But grandma, they want to love and respect them unconditionally. And I tell them that what they put up there goes far, goes fast, and it's sticky. And it will be there some time when an employer, for example, is considering hiring someone, as in Cathy's students case. So I

think that that's a, a key issue, which is the invisible exploitation of their information, which is, as David Edwards said, the new child labor, one particularly high profile area of exploitation, is sexploitation, which is happening now.

Unfortunately, I've ended up speaking to law enforcement conferences about this because, what they will do is, post an image, usually of a, nude or sexy, young female. Put it out there. And young males who are often, you know, exemplars of, you know, the best scholar athlete whatsoever, get this. They get entranced by this. They get asked to send a picture of themselves, then to an actually usually an offshore criminal conspiracy that will then turn around and say, we're going to send this image to everyone on your address book unless you send us 500 or \$1000. Which the kid, of course, does not have. And unfortunately, in the last couple of years, at least in the US, there have been, I think 12 maybe more by now examples where that first image was sent to the child after parents went to bed and before the parents woke up, the child was dead by suicide. So I think that that is a very explicit and fortunately rare event, but it is one example of the ways that this environment can be manipulated.

**WINTHROP:** Okay. Thank you. Kathy. We have 30s before we go to the next panel. Okay. Let's, end with some positive optimism because we started that way. But there is a real dark side. What are your parting words of wisdom for everybody listening?

**HIRSH-PASEK:** The parting words for me are that the internet, the generative AI, apps, when they're well designed, there's a lot of quality out there. If you can sift through it and find it. I believe we need more gatekeepers. And right now, sadly, parents, you're in that role. But I think finding balance so that we can reap the benefits for learning, for social connectedness is the way to go. But remember, take that downtime, schedule the downtime, and look into your children's eyes. And my biggest message in parting is parents, put your phones down.

**WINTHROP:** All right. Well, thank you so much. Thank you so much. Michael. Elizabeth. Kathy, for your time and your words and your insights and most importantly, your work. We will let you go now. And I want to invite, the other panelists onto the screen. We're going to have Phil, kick us off, and

then we'll have a discussion with David and Kyle. We're going to switch now to thinking, about educators and the school context and what, what this digital world means for their work. And, Phil, you have been deep in this research and working with, classroom teachers across Canada, across Alberta. We'd love to hear your thoughts and insights. And I think you have a few, slides to share. And then we'll have a discussion with Kai and David.

**MCRAE:** Okay. Great. Thank you so much. And, and I just want to say good morning, to everybody, we're in Alberta. So I come from a Province in the North of North America, in Alberta, Canada, small place in the world of about 4 million people. And in 2010, what we decided to do is really get a better handle on the impact of screens, and what the, promise and peril was around technology, health and learning. You know, we in our education system obviously live in the space of, teaching and learning. We're recognized by the OECD as the number one English speaking education system in the world. We always rank high on the program of international student assessments. And so there was a lot of interest in, you know, well over a decade ago, what was this pervasive nature of screens going to look like in, in terms of young people's lives?

So we started a research project called Growing Up Digital Alberta and, or Good Alberta. And really, what it was meant to do is learn our way forward. And particularly we wanted to learn from experts. So we brought in Doctor Sherry Turkle from MIT. Doctor Michael Rich, you know, well over, 12 years ago, Michael and I started working on this research on growing up digital. Patty Solberg from Finland and lots of different expertise, to neuroscientists to really get a handle on what did this look like in terms of technology, health and learning. And most importantly, we went to students themselves. We went to teachers, school leaders, parents and grandparents to have a conversation, several public lectures with researchers, and started gathering data, longitudinal data, well over a decade now on what young people were doing with technology, what their experiences were, and then what are the implications for a big part of their day in schools? What do we do to really embrace the, technology is enhancing learning, but simultaneously distracting from learning? How is technology connecting young people but disconnecting them? One of the things that we saw in. Schools with young people would be going out, during the, recess, and they'd just be walking around the school looking at devices together. They, you know, we saw this massive decline of free play. And we also

saw in the early stages and throughout our, our work in, in, growing up digital Alberta, a decline in sleep quality and quantity because of late night nocturnal screen time, video gaming late at night.

So teachers and students themselves were reporting that, you know, they were fatigued, which impacted learning, which impacted their engagement. And also, we saw that there was this impact on relationships. Lots of issues with cyber bullying were emerging. In 2015, 2016, you know, pre-pandemic spaces. So we were tracking all of this and looking at how do we engage with technology? Because teachers use technology all the time in Alberta, really powerfully, but at the same time, not let it take over and really distract from that, that student engagement, relationship building and so on. One of the big concerns for us, especially in the early childhood, was the decline in free play. Now, while this is not directly related to technology, there's lots of variables that are in this. You know, whether it's in some cases, hyper parenting or scheduling.

What we found is a real concern over, what the implications were with this increased screen time all day. Not only was it happening at school, but it was happening at night. It was happening in the home. And it was just this ever present space. This is, I think a really, notable, example of what teachers have been experiencing. This is from a teacher in the US, Mary Garza. And what she did is she asks students to turn their phones on to kind of sound mode, loud mode. And every time they got a notification, they were to go up and tally a mark of, what happened in that one class period. So what you're looking at is a documentation of how this algorithmic pull through different apps and phones is constantly knocking at the door of children's lives during the school day.

And this was a real wakeup call because, you know, we already know. And I and I really appreciated your first panel because this idea that children are in competition with, others attention because of the technology we are mimicking, what's happening for young people, and they're kind of adapting in this space. And this is kind of the collection of pull that can come from them. It's not just things like Snapchat or, you know, TikTok and, and really popular apps right now. It's been, over the last decade, multiple different kind of algorithmic pulls or strands that are disconnecting while they're connecting young people. And one of the biggest things that teachers have been telling us is we now have a shorter attention span on the goldfish. And this isn't just young people. This is all of us, right? I mean,

the fact that we are kind of reducing things down to six second nuggets just shows you where we are in terms of this, attention economy, that we all live in, in inside the education sector.

The OECD data in the recent study on Pisa did a really deep dive in terms of how digital technologies were impacting learning. And they found that 43% of Canadian students are distracted by digital devices on a regular basis. And what we're starting to see across education systems, 1 in 2 kind of more globally in the OECD are starting to put in prohibitions around smartphones. So I want to just talk about what's happening now because of this 15 years of research in Alberta. What we've seen and again, this is not just technology, but coming out of the pandemic, we had chronic mental health challenges in schools, and now they're very much acute. And they've been accelerated post pandemic.

And the technology is, for us, one of the big areas that we've been tracking in our research and data in a recent, look at aggression in schools and school communities in Alberta, the number one issue related to aggression above culture wars, above declining empathy with social media. And so we're seeing an increase in aggression in populations of children and youth in Alberta. And teachers, 2500 randomly sampled are telling us that social media seems to be the common number one piece in that growing sense of aggression in schools, in school communities. And we know from other research this worry about anxiety and depression, the infinite scroll, spending a kilometer a day scrolling through videos. What we're looking at in the education sector is where's the research? So the research war's about whether or not it's addictive or not addictive or is.

Social media are not social media. Teachers have to live in the practicality of the moment every single day, in classrooms with young people, with mental health challenges and things that are going on. And so what's happened in Alberta? In May, we put forward a prohibition around smartphones in our classrooms. So this is now a new policy. As of a month ago, with 90% support from the delegates, there represent 98% of all the teachers and principals in Alberta. And basically, we're saying that smartphones during instructional times are prohibited to really promote focus, engagement and safety and learning environments. However, recognizing that professional judgment is really important, we have three exceptions in this prohibition. The first is that there's a professional judgment in terms of teachers making choices.

You go out on a field trip, you use your phone to take images, gather data. You know, that's one piece. Digital literacy and digital wellness is another exception. Or if a student has medical needs or something like diabetes and their phone or the device, digital device generally is used to support medical needs. Finally, I want to say that in education, because emerging technologies are rapidly changing. We're really focused now on where things are moving very quickly in biotech, artificial intelligence, quantum technologies, nanotechnology. We are moving in this rapid speed towards not just cell phones, but this digitally saturated, boundless environment. We've done a scoping study for nine years on artificial intelligence in education in Alberta, and there's three things that have popped up.

There's a lot of worry around. Trust the deep fakes that Michael talked about, where there's a lot of concern around judgment being given over to the technologies. Two days ago, I think Apple or yesterday Apple announced that they would be putting in, AI chips into phones. Siri would obviously get a massive upgrade. So this intelligence explosion with AI, artificial, narrow and generative intelligence is going to be something that teachers are paying attention to. And we're also worried about loss. What are the cognitive attributes that come with this? What concerns me the most is that where all the activity right now is that I will personalized learning, I will be the best tutor, I will solve all the problems.

And this is a promise that has been around for 100 years with technology, with every new iteration of technology. And the challenge is that it doesn't necessarily personalized learning. What we're trying to do is look at what knowledge is the most worth going into a fourth industrial revolution, with screens being a more ever present part of our lives, with attention being an issue for deep learning and what we're really focused on right now with all of these changes in the classroom environment, is how do we build human relationships and put the person into personalization, as opposed to this false kind of promise of algorithms personalizing learning or screens coming in and taking over? So that's my story kind of vision of where things are in education.

**WINTHROP:** Thank you, Phil. You put, a lot, of topics on the table for us to talk about. Kaya, and, David, I want to turn to you guys. Kai, I want to I want to turn to you first. I'd love to hear your reactions. I'd love to hear your thoughts about, you know, your experience using tech in an innovative new, way for education with reconstruction. Where, where what have you found? The personalization is actually is it different now with the tech, with the tech that we have? Where do you land on all this?

**HENDERSON:** So, I think a lot of, both what Phil shared and what the earlier panelists shared are absolutely correct and right and on point. But I also want to talk about some of the positives that come with screen time and what we've been able to do by using these technologies in education. Screen time is not just social media. I think we have a lot of appropriate, worries and cautions about social media. But when I think about screen time, I think about how teachers are using technology to enhance their instructional delivery. They're bringing videos and virtual field trips and immersive experiences into classrooms that kids, especially low income kids and kids of color you know, might not otherwise have the chance to experience. I think about how, for a career in technical education, we're able to expose young people to careers without having to run them all around a city.

I think about how, we're able to use technology to make the teacher's job easier. And so I think that while there are lots of cautions, and what I hear teachers saying is we actually warned you that social media was a problem. We asked you to put up guardrails and the technology companies did not. And now we're dealing with a youth mental health crisis. So as we go into this AI revolution, let's create together the pathway forward so that we can maximize the good of technology without experiencing some of the perils that we know are going to happen at reconstruction, where we teach African-American history and culture online, to young people all across the country. We started this company with a technological base because we wanted to be able to reach kids wherever they are, not just in large cities where it makes sense to concentrate, but whether you're on the West Side of Manhattan or the western suburbs of Charleston, you have access to, caliber of instructors that you might not have if you were only, relegated to what was available in your locality.

Now you have the opportunity to experience classes, whether the people are in your town or not in your town. And we've been able to help teachers get better at what they do by providing them with

using generative AI, by providing them with the opportunity to create lessons that are more culturally responsive in minutes. And so we see a lot of opportunity. I think it's also really important. You know, I've spent most of my career working with low income communities of color. And for these communities, technology is often, an access point that they wouldn't otherwise have. When I look at the teachers that are using generative AI positively for instruction. A lot of them tend to be wealthy, tend to be located in wealthy white schools.

And they are taught to embrace it. They are, you know, excited about what the potential is. And what we see in low income communities of color are teachers that are fearful of the new technology. And what we know is if those teachers are not engaged in using the new technologies and co-creating and providing feedback, then once again, we'll see the digital divide exacerbated. We'll see, you know, the bias will see all kinds of issues. And so for us, it was really important to embrace these technologies and to bring them to low income communities of color so that teachers can participate in what Phil is calling the fourth Industrial Revolution. Great.

**WINTHROP:** Thanks. We have lots of questions online coming in around bans on phones. So we're going to we're going to circle back on that, that heads up, phone bans in schools and as a prohibition of phone ban, fillers, something different seem something different. But I want to go to you, David. Before we do that and really hear from your perspective, you've got a big job. You're overlooking lots of member organizations of AI. And you're and you're based in Europe, where that you is takes a very different policy approach than North America.

And I'd love to hear your perspective on all of this.

**EDWARDS:** Sure. Well, thank you, Rebecca, and thanks for Brookings for organizing this. Yeah, it's it feels like a very big job. It's, about 32 million educators and 178 countries, 400 organizations, and very much experiencing sort of technology and screens in AI in very different ways is, I already mentioned and that maybe let me just start there, if I might on the on the equity issue. The pandemic, for example, was always talked about as this big accelerator. But for us it I, it was also, you know, a lot of more of the same because those who weren't connected continued not to be connected. And so in terms of the digital divide, which I believe is a divide that's not just digital, but it's an economic, it's a

social, it's a, it's a racial. It's an it's a historical divide. We're seeing that grow and, and be amplified by what's happening now.

I'm in conversations where there are those that are talking about building into teacher education programs, use of generative AI and making sure that's in there, make sure fortification programs, making sure that, you know, that school districts and in OECD countries actually have someone that can work with teachers and help them make the best use of that, understand what their rights are, or understand that the students know what their rights are. And you have, you know, teachers with master's degrees, and you have teachers that are, you know, have professional development afforded to them, paid for them, and then you have everybody else. And there you have. I think one of the most dangerous aspects is a conversation where, personalization takes on a very different meaning.

And in a number of countries right now, given a 44 million teacher shortage worldwide, reach the SDG four by 2030, there's a conversation where rich countries will be given the time, the tools, the trust, the wherewithal to be able to use these tools to be able to work with parents and students about the appropriateness to be on the design stage, not just on mitigating impact, but at the design stage, at the table. And then there will be countries will be told, maybe for you the best you can hope for a chat bots. So teachers, on one side we were talking about relationships, relationships, relationships, as Phil pointed out, and how absolutely important the relational aspect of education is.

But then for developing countries with financial shortfalls and for a whole host of reasons, it's going to be transactional and it's going to be, whatever. It's other people's kids. So whatever can be can be ever done there. And I think that's a real risk. And, one of the things that we're working with our members, member organizations is trying to make sure that we've got the guardrails and guidelines in place, but also make sure that they have the resourcing and make sure that they have the rights and make sure that they have, you know, the wherewithal to be able to make the right demands for their students. So that's something that's a concern of mine. I also think, you know, there's the issue around, professional autonomy, professional judgment, which is really important.

And, in those systems that are being able to sort of set up teacher labs or sort of teacher, you know, teacher, you know, consumer kitchens, I guess, to try out some of these apps and technologies. You know, those are the ones where the teachers have the space and the time to teach each other, and they have the ones where they can, like, say back to the companies or to the district or to the state or to the Ministry of Education. This shall not pass. This does not meet muster for a variety of reasons. Pedagogical reasons could be because of the way in which the data is scraped and used. And yes, in Europe it's quite different because it's the onus is not just on, you know, families or parents to make sure they read the fine print, and make sure that their kids are not being in exploitative places. But the onus is actually the companies themselves want to get certified to be able to bring their products into the marketplace, have to meet certain thresholds, they have to meet certain things that are happening.

And they those prohibitions that I think you talked about in the opening, you know, there's prohibitions around manipulation, right? Where it's not okay. The EU in the 24, I act is Artificial Intelligence Act is saying, you know, you. Cannot actively use disinformation to change people, to get them to do something they wouldn't have done otherwise. You can't exploit them. You can't exploit them based on their personality traits or on their race. You can't use sort of predictive, types of ways of not letting people have a job because you think for whatever reason, there's something that's built into the algorithm that will tell you the likelihood or the predictive score for jobs.

You can't, use scraping up sort of intriguing people's emotions, in terms of being able to predict, oh, this person gets angry easily, or this person is, not this, disaffected, both for teachers but as well as for students. Right. So, facial recognition, and biometric categorization, there are all these things you can put in place regulations, that, put the onus back on the companies if they want to bring these products in. And then there's the accountability, transparency and all the different kinds of things that you have to do there. And yes, we as teachers unions, civil society members, others, we have to be able to kind of put pressure as citizens, you know, to make sure that those regulations are enforced. Whereas I think in the US, we're doing we're trying to play catch up in the as much as possible, to, to, to, to hope and try to mitigate some of the bad effects.

But I'm, I think we wouldn't allow children to play on a playground with, like, broken glass and nuclear waste. So, I mean, it's I think it makes sense to think about what are those conditions and make sure that the, that the, that the, the learning environment that whether that's an online learning environment or a physical learning environment, that that is it. And I know Michael and I disagree in terms of safety. I'll say well-being too, for Michael's benefit. But, but I do think that the safety aspects are important, and I think that we need to make sure and work with and outside of the OECD countries. So the Global Partnership for education, we need to work with the bank, with UNESCO and others, the larger education community, to make sure that the things that are happening right now, extend to those countries that don't necessarily have the access to the technology, have the right to have access and that there's public funding for that, educational access to be to be made meaningful for those teachers and those students.

**WINTHROP:** Great. Before we get to phone bans, let's stay on this question of equity, because, Kaya, you've brought it up. David, you've brought it up. We talked a bit about it on the first panel. And there there's a huge issue, especially as generative AI. I have colleagues Michael Takano and Rose Luckin who are part of us at QE or looking at this. And if you just look at sort of the languages of large language models, indigenous languages in Africa are basically zip and none. So there's, you know, that will change eventually over time. But some of these languages don't have enough corpus of digitized, content to actually make a large language model.

So that's a big global perspective. But I'm really curious, you know, some of the risks around equity. Do we probably see it within countries too? So whenever you know, in Ghana you've probably got capital city, high schools that, are doing all the, you know, forward leaning stuff just as you have rural villages that aren't. So I'd love to hear a little bit about what should we do about this equity dimension? Because we know if we don't proactively tackle it, it will get bigger and bigger. Thoughts? Anybody can fill first and then we can look back to you. David.

**MCRAE:** Well, it's I mean, this is obviously the, more equitable in education system generally in a society, the better everybody does. So equity in a public system is obviously really, really important. And in Alberta, that's, primarily what we have. So I think, you know, globally there's equity issues. But even the digital divide, the bandwidth divides, the device divides. We saw that in the pandemic when

we pivoted to remote learning really dramatically, that young people, many young people didn't even have a quiet place to work, right, because they were at home. So it wasn't just the technology. They just didn't even have space to do this kind of, you know, online learning.

But I think one of the things that you brought up, it's a really, it's not discussed enough yet is around what? Artificial intelligence as it scrapes up what human beings have done, what that looks like within indigenous populations. So about a year ago, I met with the Blackfoot people in southern Alberta, and I asked them about AI in large language models, scooping up their, culture, you know, kind of a cultural appropriation where they're concerns about that. And what was interesting for me as the elders, they kind of they had a very wise take on it. They said, you know, we live very close to the land and land based knowing and land based knowledge is always changing. And so these systems that have been scooping up and kind of creating all of this magic, it's, you know, seeing a magic, they're not actually tapped into the here and now.

And I think we have to when we talk about relationships and judgment and teachers, the algorithms don't know if the student had breakfast. The algorithms and the technology doesn't understand the dynamics of the relationships within that body of people, that class, that home. And so I think that while we look at some of the promise of the future of technology and, you know, making sure there's equity, we also have to be really mindful that there are huge limitations and, well, this will change and probably become a collaborator very shortly instead of an AI tool. We have to put it into perspective that there are many things that cannot be digitized, in the human experience. And we have to be really mindful of where's that balance?

**WINTHROP:** Okay, great. Kaya?

**HENDERSON:** I think that's absolutely right. And we've talked about balance all through this webinar. And at the same time, I think that we can't allow, these technological advances to get so far out of balance that people are left behind. We have a history of doing that. And I think that this is more of a will problem than a skill problem. We can figure out how to how to collect, you know, remote languages and how to digitize them and how to make the technology work for us. If we think those

languages, those cultures, those people are important. And for me, the real challenge around equity is, I'll speak for the United States. We have not decided that everybody is important, that everybody needs to participate in this.

And so when we and I think, you know, people, the community, parents, teachers, educators, we actually have power in demanding something different from these tech companies, demanding that our politicians hold people accountable in a different way. And I'm inspired by what the Europeans are doing around creating the right settings and guardrails and guidelines. And we could do, if we had the will. But to me, the way we exercise that will is by including people. Right. Like co-creation is the way you get to better solutions, the way you get to more sustainable solutions, more sophisticated solutions, more effective solutions. And so when you're co-creating with the community, with the users, then I think the products actually serve the users.

The problem is these tech companies, if you look at how most education technology products are made, they're largely from companies that are started by engineers who have decided that there is a problem in education that their tool can solve. And they don't usually ask educators, what is the problem that you're trying to solve? And let us help you design something with that in mind. And so one, we've got to flip, flip the process and help educators and parents and students, frankly, drive the creation process or at least co-create with these folks.

But I do think that there is a huge will issue that we need to get behind. And I'm. Worried as I watched the increasing polarization and tribalism that's happening in many of our countries, that we might not ever find the will to be completely inclusive.

**WINTHROP:** It gets back a little bit to the Civic Commons discussions panel about like, this is about life and teach and educating and growing good humans and how they can be good citizens for their families, communities and countries. Two it's not it's not a separate question. It's just a different it's just a different canvas in which they're exploring their work. David, any last thoughts on this equity piece? And then I'm going to pivot to the to the phone ban question. Because it is it is a massive problem. It's and it's by the way, been there for decades. Sure. There was this, you know, when we

went around the world, including in the US and sub-Saharan Africa, putting, desktops and in schools, right.

We, you know, without the ecosystem to support their, fixing them when they would break, you know, not much happened in education. So it's been there for a very long time. Any last sort of thoughts of wisdom of what we should do about it calls to action. Because I do find it a bit hard because at the one point we, you know, it's not as complicated. It's not as easy as saying, you know, just give everybody a device like that doesn't work. We tried that. I think Kai's point about, co-creation, if you're not skilling up, the education workforce, schools with sort of the new possibilities of technology, especially generative AI, it's people are going to be left so far behind.

And then there are also great examples. One of my favorite example is using, personalized learning in Malawi to kids. The teachers, use personalized learning for literacy and numeracy. And it's they love it, thank God, because they have 150 kids in their class. So, you know, that's a good example. So it's not so black and white, but it is, deeply concerning. Any last thoughts on what we should be doing collectively?

**EDWARDS:** Well, well I have lots of thoughts, but I don't we don't have time to tell, do all my thoughts. But I will say right now we have countries spending more on servicing their debt payments than they do investing in it, their own domestic educational financing. So that's a debt that's owned outside the countries. That's a huge issue that should be forgiven. And those resources should be invested back in the educational systems, the public education systems themselves. You know, I think we also need to stop doing, you know, the engineers and I was talking about these the folks who know what's best for education. There was a lot of them right before the pandemic saying, the best thing will be, we can we can we can save all these recurrent expenditures. We don't need a place called school. We don't need teachers. The best thing would be personalized learning kids on laptops in their bedrooms.

And then it wasn't. And then it was very much not that it was a place called school matters. Teachers matter. There is a huge financing gap. There's a huge political will gap. I think we have to work on

multiple levels. I think we have to work in as the practitioner levels. In terms of one laptop per kid? No. Sometimes, actually, if you read Michael's book, he talks about the fact that it's the best. It's the ratio is maybe 1 to 3 or 1 to 4. So it's not that the property of the student, but it's a tool that can be used for collaborative learning in the classroom. You know, that's not the iPad isn't just mine. It's ours. And how do we work on it together?

That's a pedagogical choice that would come out through more engagement with the professional, the practical at that level. There's obviously industrial policies, there's collective bargaining issues.

There's a whole slew of things that need to be done in terms of how teachers time is used. Some of the technology can help in terms. We hear about the sort of what's making our lives easier. Not so sure that's happened yet, but we're still waiting to hear. And we're interested in some of that. And we unburdening of the of the bureaucracy and the testing and a lot of the sort of reporting requirements that have kind of taken the joy out of teaching so that there's that level.

And then I think at the global level, I, you know, we came out of the Transforming Education Summit and it's, you know, there was a big finding out call for financing, a big push. There was also a big push for global health. We have a climate crisis. We have a digital solution that actually adds to the climate crisis in some ways. But I think we need to be able to, to address it at those different levels all at the same time and not just not give up and allow ourselves to just throw our hands up in the air, just stay at it. Just like the teachers and the students do.

**WINTHROP:** A bit of a call to action, for both, from both Kai and David on some get digging in, getting some political will and staying strong. Phil, I want to come to you, and then I'd love to hear from Kai and, and, David, we have a number of questions around phone bans. And we have a, a question in particular from. I'm asking, you know, why have schools been on the fence about phone banning? And I think about your presentation, Phil, where you gave that picture of the, of all the tick marks the teacher was, was just kept telling up of the students in their classroom, you know, all the number of times they're being pinged throughout the day. So. Yeah. Why? What what's happening with phone bans? And, why do we still allow phones in schools?

**MCRAE:** So, I mean, ultimately we want young people to learn how to live with technology broadly, right. So I think, you know why we have taken. You know, we want focus, we want engagement, we want safety. So there's a there's a general prohibition. But we've said there are times when you have to really have a conversation about digital literacy, digital wellness. And like Michael said, in terms of engaging with young people, with the technology, sit side by side and participate with them. You know, we find our, my colleagues, my, teacher and school leader colleagues, 50,000 of them in Alberta. They've embraced technology for a long time. This isn't some, you know, Luddite movement or, you know, a kickback. They are almost 60% of them are using artificial intelligence, on a daily basis, personally and professionally.

So this is, you know, very much integrated into their worlds. But we're with a boundless digital era and with young people so pervasively on these social media spaces, teachers are really concerned about anxiety and depression and what they're seeing in their classrooms. And what's most interesting about the prohibitions that we now have in policy is that culture always trumps policy, and the cultural shifts have actually been ahead of the policy. In Alberta, we've seen several high schools, several elementary schools, several school jurisdictions that have already done this in the last year, and we've worked with them where they've just said, this is the right thing to do. But most importantly, they have the conversation with the students, with the parents, with the teachers, in the community. And what we're starting to see, I think, is a, a coalescing of commitment that we need places in children's lives to actually be screen free so they can play and have a highly relational space of learning. And that, you know, that balance is a tough one. There are many places where they call it a belt, a bell band. So it's a band from the beginning of the Belvedere to the end of the day. We've taken a real movement towards professional judgment for teachers and students and families to have that conversation. But we are saying that this should be prohibited generally during instructional time. So, you know, we'll see how it unfolds over time.

**WINTHROP:** You'll see how the walking that that fine line works. Well, we'll let you back in a year and see how it all goes. Kaya and David, thoughts? Hi. Go ahead.

**HENDERSON:** Yeah. It's interesting, you know, when I was running D.C. public schools, you know, we basically let schools decide how they wanted to deal with it. Just because we didn't know this was, you know, some years ago. And three years ago, I went to visit our highest performing high school. Banneker Senior High school. It serves lower than 90% African-American students, and the vast majority of them are low income. And they have had a phone ban forever. And it's interesting, when you walk into the building, there are these cubbyholes it's a new building. So they have programed for this that every kid has their own cubby hole and can lock up their phones. And the kids don't even do that.

They just throw their phones everywhere. If you walk into the lobby, the phones are everywhere because there's a culture of trust. There is a culture of collaboration, like everybody's phone is down. So I'm not worried about who's looking at my phone or what kind of phone. And they go in to this instructional setting, and what they know is we're doing something different here. We can't be distracted if we're going to get into the best colleges and universities. We're like, we have to pay attention. And when I asked the principal, you know, didn't you get pushback from kids? She said, no, actually, I got the most pushback from parents because parents are now accustomed to reaching their children at every moment.

And she said, you know, parents would say, well, what if I need to get in touch? My kids, well, we've been we've had kids in school for a zillion years. And you call the principal's office and say, I really need to get in touch with little kids. Somebody will go get little quiet. And so she said, it's been much easier to do with the young people who do want free play and who do want, you know, time that is undistracted and who do want to be able to focus and go deep. But she said that, you know, it was the parents, which I thought was really interesting. If we think back to the earlier conversation about parents needing to get off their phones and pay attention to kids, parent and parents needing to model some folk, I mean, parents don't read anymore because they're on their phones, and so there's not family reading time in those ways. We've got to help kids understand that this is a tool and it's part of our lives, but is not the driving thing in our lives.

**WINTHROP:** Yeah. And the part of this, is why we this is pre pandemic, but it's definitely accelerated because of the pandemic. Really started digging into this question of how do you build an ecosystem with the child at the center. And it has to include families. Absolutely. Along with community organizations and teachers. David, your thought?

**EDWARDS:** Yeah. So I've, I've been having this conversation, like all of you, for a very long time and trying to sort of distill what sort of wisdom I can from the different practices. And like, I think when you, when you kind of create that cultural space, when you have that trust, a lot of things can happen. Unfortunately, in a lot of school districts, in a lot of countries, you don't have the time, the tools, nor the trust to be able to be, assured of the, the everyone going along. And I think that for a long time people talked about we need to disrupt education. Education needs to be disruptive. Well education is now has Phil showed with his slide pretty disrupted. Yeah. So and what we also know is that in countries that have large class sizes, where there aren't teachers' aides, where there may be teacher covering different classrooms or doing different shifts, what, what you can actually expect the teacher to do or monitor or police is quite hard.

So in some, some jurisdictions they're finding sort of a district or a statewide, sort of prohibition is probably the best thing to take the pressure off of, of teachers, but with a, with some kind of timelines attached to it that allows for a revisiting so that when the conditions are right, when the bargaining has reached the point where there's some sort of language around, you know, the professional discretion of teachers and the use of, of those technologies, for, for given reason that they can come back. But like in the OECD, I think, I think Phil already said it's like one out of every two OECD. Countries have already moved into the area of, of banning or prohibiting. That's the smartphones. Obviously, there's not the only technology that that's available for young people to use. And, I mean, I, I think it's very hard time to be a teacher right now. It's a very hard time to be a parent right now or a student right now. There is just so much coming at us and we have so little, you know, sacred time to just be with each other, to hear each other, to exchange notes, to be authentically human, to be in the loop. And I and I think if we can create a space where human beings, that our humanity is what we it's the organizing principle around which we build our education and our and our, you know, design of sort of wisdom, principles and knowledge construction.

We're going to be better off. And that to get there, I think we need to have the rights and responsibilities clear, the right regulations, obviously, but I think we need to sort of scaffold that up so that we can be with each other like we are, even though we're using technology right now. I think we're being very authentically present. Not bored. But, not being bored is a bad thing too. But I, you know, I, I have I have a lot of trust me, I just have, I have a lot of trust, in our members and in the profession because they care so much about kids, that they will they will find a way through. And I think policymakers that understand that will be able to help them do it.

**HENDERSON:** Right. And I just add to that last point.

**WINTHROP:** I want to just say briefly closing last words. We have one minute left. So David, that was a pretty strong sort of vision of where you want to go. Can you. And then Phil.

**HENDERSON:** Could I just want to I just want to echo what David says. And like part we over rely on policy to do the things that we need humans to do. So somebody says we're going to have a ban and then we like at the end of the day, there's policy and there's implementation, and implementation is about humans interacting with one another, creating the spaces that we need to create the culture, the trust. And I think we can't over rely on policy expecting it to do the job that we as humans have to do. And so at the end of the day, for me, technology is a great enabler. It provides access and all of that. But we are still humans and we got to do the human work if we're going to get this done appropriately.

**WINTHROP:** Thank you. Thank you Kaya. Phil?

**MCRAE:** Well, you know, for me, I first of all, I want to thank everybody further comments because it, I think it's, it's there's a lot of wisdom that you've had this morning on both panels, but it's relationships, relationships, relationships. At the end of the day, if the technology enhances the relationship, if we can connect with people I haven't met before on zoom or my 92 year old mother on FaceTime, or young people connecting with young people to take away that polarization that Kaiya

talked about. If technology is in the service of enhancing, extending, and deepening relationships, great. If technology interrupts or is being used to commodify relationships or in any way damage that, then for me, we have a problem. We need to revisit it. So I just want to thank you, Rebecca too for the invitation.

**WINTHROP:** Thank you. Wise words of wisdom on a very complicated topic. Thank you all for joining us. We will be, in touch. We're going to be launching a new initiative at Brookings around AI and education, looking at risks and opportunities. So stay tuned for more on that. And maybe we'll invite you all back in a year to see, if we, we're right on our predictions. So thank you, everybody. Thank you for joining us.