Courage My Friends Podcast Series VII – Episode 3
EdTech, AI and Platform Capitalism in the Classroom

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ANNOUNCER: You're listening to *Needs No Introduction.*
Needs No Introduction is a rabble podcast network show that serves up a series of speeches, interviews and lectures from the finest minds of our time

RESH: How are education technologies and artificial intelligence, EdTech and AI impacting teaching and learning across our colleges and universities? In order to prepare students for the tech economies of tomorrow, must they become a market for tech corporations today? And are we losing public post secondary education to privatization through Platform Capitalism in the classroom?

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COURAGE MY FRIENDS ANNOUNCER: Welcome back to this podcast series by rabble.ca and the Tommy Douglas Institute at George Brown College and with the support of the Douglas Coldwell Layton Foundation.

In the words of the great Tommy Douglas...

TOMMY (Actor): Courage my friends, 'tis not too late to build a better world

COURAGE MY FRIENDS ANNOUNCER: This is the Courage My Friends Podcast.

RESH: Welcome to episode three of this season's Courage My Friends podcast, *EdTech, AI and Platform Capitalism in the Classroom.* I'm your host, Resh Budhu.

In this episode, we welcome researcher and faculty with Brock University's Department of Educational Studies, Dr. Rahul Kumar, and Political Economist of Communication, Media, and Tech Industries, and Faculty in Communication and Digital Media Studies at Ontario Tech University, Dr. Tanner Mirrlees.

We discuss the rise of education technology and artificial intelligence across colleges and universities, its impacts and disruptions on teaching and learning, and how public post secondary education has become an incredibly lucrative business for privately owned EdTech corporations.

Tanner and Rahul, welcome. Thanks for joining us.

TANNER: Thank you, Resh.

RAHUL: Thank you.

RESH: Tanner, you're with the Communication and Digital Media Studies Program at Ontario Tech University, so tell us about your work.

TANNER: Thanks so much. A lot of my research falls within the international political economy of communication, and my writing and research and publishing has encompassed topics like the history of U. S. empire and communications media, work and labor and the transformation of work and labor in the digital media, entertainment and tech industries, globalization and also EdTech and the transformation of higher education and public education in particular by the venture capital-backed Silicon Valley-based EdTech industry as it goes global.

RESH: Okay Thank you. And Rahul, you are joining us from Brock University. So tell us about your focus.

RAHUL: Thank you, Resh. Yes, I'm from Brock University in the position of assistant professor in the Department of Educational Studies. My research work has been on the changing nature of education, and obviously technology is a big part of it. Prior to my work as an academic, I worked in IT industry. So I bring that practical component to my examination of how technology, of late AI, how that has been affecting education, disrupting education.

RESH: Lovely. Now, just to get the conversation started Rahul , what is Generative AI and how is it being used in colleges and universities?

RAHUL: Generative AI is a way of harnessing the power of artificial intelligence where it generates new content, new as in something that might not have been created before, seen before. Since the launch of ChatGPT in November of 2022, it has taken education by storm. We conducted an empirical work of over 1,000 participants across the globe, and we discovered that over 74% of the students were using it to do academic work as early as 2022, 23, in the middle of when ChatGPT earlier versions came out.

So it is changing what students are doing, faculty less so perhaps, but we don't know the exact survey of that.

RESH: Generative AI. It's less than two years old, right? In fact, EdTech and AI have proliferated at a stunning pace across all levels of education in recent years.

Tanner, give us a quick definition of EdTech and what are the promises and attractions of EdTech for colleges and universities?

TANNER: Sure. I think in general, EdTech refers to any digital technology that is made for or used in an educational context to facilitate the process called teaching and learning, which is itself a very open set of ideas.

EdTech can include anything like, you know, hardware, computer system, smartphone or software, platform services like social media, now in the case of

generative AI, the sort of platforms that we are using to do that. Basically technologies that are supporting various educational processes are being integrated into the practice of education.

But beyond sort of that tool-centric idea of EdTech, Shahid Alva and I, in our book, *EdTech Inc.*, argue that EdTech is very much a multibillion dollar industry. So we wanted to move away from just thinking about EdTech as a tool and thinking about the larger economic and political context that is making and shaping it for various ends. So we defined the EdTech industries as all the privately owned companies that are involved in the financing, production, distribution of commercial hardware, software, goods, services, platforms for what these companies consider an educational market with the goal of turning a profit.

As for the promises, EdTech has a long history that precedes the digital age, that precedes computers, that precedes generative AI. It goes back to the early 20th century. And new communication technologies and new media forms are always surrounded by promises of what they're going to do. And usually they're imagined as doing things for the better.

EdTech is currently surrounded by promises of technological determinism. The idea here is that EdTech is in itself an autonomous agent that's just driving fundamentally positive transformations in teaching and learning around the world in Canada, Ontario, Toronto and elsewhere.

TANNER: It's also sometimes seen as just a tool that is value neutral that doesn't have any sort of embedded biases or power relations. And as something as simple as a value neutral tool well, Yay!, you know, educators. teachers, learners, we're all using these tools to improve what we already do. And the impact is understood to be positive.

And then there's another twist on the theme, which is usually framed as technological solutionism. So here, the idea here is well, the public education sector's in crisis or in jeopardy or in peril, or it's not delivering the goods and services that the public expects or needs. And so Voila! Silicon Valley has a solution and EdTech is now branded as a solution to the problems inherent in public education, supposedly making it more cost efficient or personalized or accessible or equitable or diverse, inclusive, democratic and so on and so forth.

So these promises of EdTech are very pervasive , but don't think they're sufficient to really understanding what's going on at all. I see this more as a bit of a hype cycle that again accompanies most technologies that are emerging and being diffused in society. So we want to be careful about the promises.

Because when we actually study EdTech, historically, we see that these new innovations, these advances are hyped massively in the first 5 to 10 years and then usually the dreams don't come true and we're disappointed. And instead of reflecting upon what went wrong, we usually just get back to sort of, imagining that the new

and emerging or the latest tool or innovation will save us when in fact the previous 100 years of tools in this area have not.

RESH: Right. So, again, these promises around increased learning outcomes, helping to reduce workload for workers, as you said, access, affordability, and so on, but it's not living up to the hype, right? Well, is it? Are we seeing more or less benefit at the post secondary level?

TANNER: I think it's too early to tell when we're looking at generative AI. But again, if we look back to history as opposed to say, venture capital-backed speculative bubble surrounding EdTech startups and their services. There's a lot of really wonderful research on the history of educational technology.

And I think back to Larry Cuban's work who did a history of this, basically argued that throughout the 20th century, each medium considered novel or, you know, radical in its respective time, things like the typewriter, the motion picture projector, the radio, the TV set, the computer. All of this was reconfigured as EdTech and advertised as a new way to improve how professors teach and students learn. And then these tools got applied to educational practices. But after emerging with a lot of fanfare, these new EdTech tools were not really adapted well, or even utilized by teachers and students altogether. And they kind of didn't really improve anything.

There's no real longitudinal study. There's no longitudinal data that would suggest that there have been qualitative improvements in the practice or the outcomes related to teaching and learning as interrelated to any of these previous technologies.

So it's curious to see now in this phase of say generative AI, EdTech hype that we're all imagining that this will change everything and for the better. Perhaps it will. I mean, this is not to say interesting things are not happening, but there's also great consequences as well. And I think we need to have a more balanced and measured and dialectical approach to these developments. Otherwise I feel that we've in some ways just get duped by what is basically a PR marketing machine for a number of different companies that are trying to sell their EdTech products and services to public education systems.

RESH: Right. And we'll get more into that private ownership of it.

Now, a KPMG survey last year found that more than half of students using generative AI are 18 years and older, so the post-secondary crowd. And they're using it, Rahul, as you mentioned, for assignments, exams, etc.

So what is the impact of AI on teaching and learning and what are the issues? Because it seems a lot of issues are coming up around this.

RAHUL: Yeah, there are a lot of issues starting from very basic things such as privacy, and you don't know how the data is being generated, the prompts that are

entered, the documents that are uploaded, how they are used by the companies, etc. The issues of intellectual rights and so on and so forth. But they are citing some positives, such as hey, it's providing me with answers and solutions to the questions that I have, clarifications in ways that my professor does not.

Say for instance, I'm interested in basketball and I'm learning physics to provide answers or explain concepts in those particular ways. So on that side it could be helpful.

To the point that Tanner was mentioning, I think it's more than just a hype. If we take the idea that Zygmunt Bauman mentions that technology begets more technology, then before the hype goes down, a new version, new issue, new form of tech becomes available, and that becomes the new seductive force that we take on.

So imagine a triangle where we have pedagogy, privacy and privatization. So here we have got issue of pedagogy, we need to teach these things. Oh my goodness, we need graduates to be well versed in it. And that becomes the entry point.

Well, you buy this piece of software, which is the private part. And it is going to lead to providing solutions. Meanwhile the tool is being used for surveillance, which allows for better improvements, etc., which leads to that idea of more technology begets more technology.

TANNER: I agree. The solution to the problem becomes a new problem to be solved by the new technology.

And before we have the time or the space to reflect upon what's happened, we're investing in the new technology and throwing the other pieces away.

RAHUL: And once you buy into that ecosystem, you are essentially that brand of educational institution, be it Microsoft, Google or whatever.

RESH: It's interesting, we get used to one technology and then we sort of dump it for the newest one around. And I say this as somebody who in high school spent hours learning typing, , And then suddenly, you know, I wasn't using it anymore, right? Those typewriter skills.

TANNER: I remember those too, Resh. I remember those classes in high school.

RESH: Yeah. What fun, what fun they were, right?

So with generative AI in particular, we've also seen issues of plagiarism, inherent bias. What seems to be coming through ChatGPT is not necessarily a neutral view on things. If you're talking about politics, a very Western-centric view on what is happening in the world. Going back to you, Rahul, are colleges and universities able to adequately deal with these issues and how are they trying to deal with these negative issues or negative outcomes?

RAHUL: I can tell you what I have found through my empirical work first, which is an attempt to try to put toothpaste back into the tube.

Colleges and universities are trying to discover ways in how to ban it, restrict it, and prohibit its usage. All that is accomplishing is taking the use of AI by students, etc. underground, so to say. Which is causing more problems in terms of not recognizing and dealing with the biases and issues that emerge from it, and also creates academic misconduct, right? It violates academic integrity principles.

A better idea that has been proposed, which is in its theoretical stages and not many colleges, universities have adopted it yet, is post-plagiarism. Post-plagiarism is akin to like post-spelling. An example would explain the point that I'm trying to make.

If I send you an email message and it's full of spelling errors, you would say, My goodness, that Kumar didn't even have the courtesy of spell-checking the tools that are built into various programs. There would be a negative dispersion.

If, on the other hand, I send you a message, the same message, without any spelling errors, you wouldn't think for a moment, Does Rahul actually know the spelling or did he use the spell-checker? We have come to accept those tools that they are going to be used and going to be used for effective communication.

Likewise, post-plagiarism contends that human and AI hybrid writing is going to be normalized over time. And it is saying that we need to come to accept it because we cannot prevent it.

What we do need to do at the college and university level, this is the point that I was mentioning earlier, is to revise, refine our assessment techniques such that stuff that generative AI produces is not what the professor wants or requires their students to submit. That's an intermediary step.

Like my grandfather used to say, the tests that I used to have were what's 12 times 12. And you had to on the spot, say 144. Otherwise your hands were spanked. Since then, because of the tools, etc. that are available, we don't have to memorize necessarily - we know how it works.

We are given word problems where we have to tease out the right numbers to multiply, right numbers to divide and then subtract and add, and all those sorts of things, for which we can use calculators, then produce the result. So it's a higher order thinking.

Likewise, until now, what we produced as form of writing was the demonstration of learning. And generative AI is forcing us to confront this reality where we need to separate these two out and demonstrate learning in different ways. Not by just writing stuff that generative AI can do.

RESH: All right. Thank you for that distinction between what we can do, and especially the way that we're trying to deal with this in terms of banning.

Tanner in your book, EdTech Inc, you point out that to understand the rise of EdTech, we need to see this not as a tech issue or even as a natural progression toward some sort of digital future, but rather within the context of the current political economy. And you started to speak about this earlier. So from this perspective, what is driving this really accelerated and drastic shift to EdTech within post secondaries?

TANNER: I want to start by saying I'm neither a technophobe nor a technophiliac. I'm not somebody that rejects technology just because it's new and different and offers something new and different than before. And I'm not somebody who spends my days and nights promoting and cheerleading the unproven benefits of new and emerging technology.

I think there's a healthy balance between those two extreme poles, those ideological poles. And that healthy balance starts with the real political economy of the world we live in, which starts with things like capitalism, with things like government and policy and neoliberalism. And starts with things like the actual institutions and organizations of education that are facing a tremendous amount of pressure to change, internally in response to a number of external forces and relations, those being economic and political, primarily.

So the bigger picture to consider here, I think, is a growing structural power imbalance between higher education institutions and EdTech corporations that are the owners and controllers of all of these new devices and platforms and software services, including AI.

This isn't to say that these devices, these platforms, these services are not useful, are not interesting, are not affording us new possibilities for reimagining what teaching and learning is or what education is. But we have to see this is also a moment in time where there is a very, very big transformation happening due to choices and decisions made by governments, Parties.

For decades, states have imposed austerity measures upon public education systems, cutting their funding. This is not a Left wing or a Right wing thing. This is a bipartisan thing going back to the mid 70s.

During the COVID-19 pandemic, EdTech corporations marshaled billions of dollars from venture capitalists, millions from government subsidies, millions more from schools that were basically put in a situation of buying their products with the rapid shift to emergency remote learning.

So cash-strapped public education institutions became basically dependent, integrated with a bunch of very cash rich EdTech firms, most of which are based in the United States. So government dependency on EdTech companies results in them not developing their own tools, but basically relying on an outsourcing process,

where many of the new innovations, the new models, the new practices related to teaching and learning in the digital age are privatized, are commercialized.

And this basically hands over control of things like teacher and student data, of decision-making, of platform design, of privacy of autonomy to companies that are not even based in Canada.

So as governments rely more heavily on the EdTech industry to do what they do, this vital public good of education is becoming semi-privatized. It's being integrated with some of the biggest and most contentious tech companies in the world.

So, the rise of the EdTech's commodities and property rates may exacerbate, over time, the demise of public education or even the idea of public education as a public good or a human right. We're in a very, very strange time.

I think that as universities and colleges, and even high schools or elementary schools really, really feel these pressures, they're also being lobbied aggressively, right? By the trade associations working. on behalf of EdTech companies that really do want to get a foothold within this market that historically has been closed to their exploits.

So when we look and we read what the business executives in the EdTech industry say, they're sort of like, we want to disrupt this market and basically conquer it. This has been closed to us because education has been, for lack of better words, a state monopoly, a service that the state has largely delivered to the public. And we want a piece of that, just like we want a piece of everything else that used to be public, like healthcare, like the transit system, like arts and culture.

So this is sort of the latest frontier of accumulation in the digital age, and there are very, very powerful corporate and private actors pushing these changes. So that's a larger structural assessment.

RESH: So basically the strategy of "starve the beast". Defund public education through austerity cuts, which then makes way for private businesses and corporations to come in and make up the shortfall.

RAHUL: Could I offer an example of what Tanner is saying?

RESH: Yes, please do.

RAHUL: So just think of Turnitin. com, which was presented as a solution to the problem that students are cheating. They're copying and pasting stuff. And through that process where it would do matches against the collected student essays, student assignments, etc., it has built up the world's largest repository of student work without the consent of students necessarily. Universities and colleges have bought into it are paying top dollar to gain their services.

New problem emerged with generative AI and they were amongst the first to go in and say, Hey, we have built in this tool where you can click it and it will check for whether the assignments have been done using AI.

So see how because of the circumstances, because of what is happening, they identify the problem, they offer solutions, which are then readily accepted because public institutions, education systems can't do that on their own. And the meager amounts of money that is available to education, instead of going for teachers and student welfare, are ending up with big companies.

RESH: It's interesting we've got issues of data mining and surveillance capitalism.

RAHUL: It starts off very benignly. The proposition is, Hey, we are only collecting data to be able to serve our "clients" better. And what that means is collecting, Okay, what is it that students are doing? What is it that the clients are doing? How they're doing it? And mining it to discover where there are gaps, where there are problems that might be wanting.

Develop those things and offer them as solutions to the existing problems to public institutions, schools, colleges, universities, and so on and so forth. And once you are committed to their ecosystem, it is hard to make shifts .

It's so much easier, cheaper, convenient to just check on one thing. Hey, we have addressed that. We have handled that. Because that's part of accountability of the money that's coming in. And that becomes the way through which EdTech companies continue to penetrate into the functioning of educational systems.

So each technology, if it is accepted without critical examination, permeates, exacerbates this problem even more so.

That's why I think instructors, people in our field, need to take an active role to understand these technologies, so that they could educate both on its potential, but just as much on the harms and dangers of these technologies.

RESH: And again, going back to this idea of surveillance capitalism, which was coined by Shoshana Zuboff.

RAHUL: Surveillance capitalism is monitoring your footprint on digital platforms. And based on that, mining it and providing you services or incentives for purchase. For instance, you could be surfing or talking about buying a bike. And suddenly your Google device has gotten it and next time you go into various websites there are advertisements for it. That would be an example of surveillance capitalism.

RESH: Right. I was saying to my students that years ago I was dying my hair red and green and blue and this and that. And then suddenly I'm on my computer and I'm seeing ads for green hair dyes. And I thought, wow, I started a trend. But,no!, I'm not that brilliant. Because it was actually, surveilling my buying choices really.

RAHUL: Exactly.

TANNER: Absolutely. And so it's interesting to see the very same business model that all of the big platform and tech giants have used for the past 20 years to become some of the most wealthy and prosperous and impactful corporations on the planet, according to say, the Forbes Global 2000 lists of the world's most powerful publicly traded corporations. The Googles of the world, the Metas of the world, the Amazons of the world.

The very same business model that these corporations have developed and advanced In all facets of social life are now being advanced throughout the context of public education. Whereby Platform Capitalism is becoming the classroom. Surveillance Capitalism is becoming the classroom. Data is being aggregated about all of the users of these services, teachers, learners, administrators, everyone. And that data is not staying within the public realm. We're not even sort of able to open the black box of this data and see what's even happening to it.

It's very much being shipped back to a number of data centers based in and around California and other states in the United States where these big tech companies have their data warehouses. Raising questions about things like informational sovereignty, data sovereignty, privacy rights.

And very much the concern is one of privacy violation. Shoshana Zuboff's book is all about how privacy is basically being negated through these processes. Entities like the ACLU, you know, is bemoaning the EdTech industry for invading teacher and learner privacy, engaging in online surveillance practices that violate children's privacy rights.

A Human Rights Watch study reviewed many EdTech products and found that 89% of those are basically monitoring kids in the classroom without their consent. Harvesting personal data from kids that are actually learners and not even aware of how these apps or these devices or these services are aggregating data about what they're doing when they're logged in.

Data breaches in the ed sector have compromised the protection of teacher and student information. And there's been companies that have been rocked by scandal because of these data breaches.

These are real issues surrounding surveillance capitalism or platform capitalism, whereby basically our private personal information, everything that we do will log into one of these platforms or apps or services that is owned and controlled by a company in the United States is basically being turned into a site of accumulation. A way to turn what we do online into sort of data points that can then be turned into a data profile that then could be monetized and then exchanged for basically advertising revenue.

So just as Meta or Facebook will generate advertising revenue by selling access to our attention when we're online, I think that that's very much the game plan for these EdTech companies as well .

RESH: So to borrow a question from your book Tanner, this isn't necessarily about a digital revolution, which is what EdTech companies are claiming within post secondaries, but rather as an extension of capitalism by digital means.

TANNER: Absolutely. I like the idea of revolution when it's applied appropriately or correctly to a historical social context. But I feel increasingly annoyed, irritated when I'm faced with ubiquitous marketing and public relations for EdTech gadgets that frame them as revolutionary.

I mean a revolution entails a fundamental rupture or break from the existing dominant structures of the economy, of the state of the cultural ideology at any given moment in time. And then from that process, bring forth something new and different. It might be better, it might be worse, but it is new and different.

There's nothing really new or different about the fact that EdTech companies want to aggregate our data and find ways of monetizing that. There's nothing different about an EdTech's imperative to generate revenue to pay dividends to shareholders by disrupting an existing sector or market that was closed in a public sphere or a common sphere and finding ways to privatize and commercialize that.

So I want to sort of just advance a healthy skepticism to so much of the advertising, marketing and PR hype that is really being used intentionally and consciously to sell us things.

You have to remember that all of the EdTech companies that are offering these new services to us, these new EdTech products and services, have large marketing, PR and advertising budgets. And they have full-time personnel. Numerous advertising, marketing, influencer personnel, whose job is about day-in and day-out, 24/7, touting the value and benefits of these goods to the primary targets, which are teachers and learners and administrators in higher education institutions. And of course, government policy-makers that obviously infrequently have the depth and breadth of understanding to know what these EdTech devices and services are even all about. They're not teachers. They've never had that experience of actually being in a classroom and teaching students and adapting themselves to the process of teaching and learning.

So again, we just have to be very, very cognizant and very, very conscious, very, very reflexive about the intentionality behind the sell of these tech devices and services.

Now again, this is not me being like a, a technophobe. I've adapted all kinds of digital technologies into my pedagogies over the past 20 years. But we do have to be aware, I think, of the risks, the consequences and the cost of these processes and who benefits and who potentially loses.

RESH: So let's talk about who wins here and who benefits, because the big winners seem to be the largely private developers, as you said, of these technology, including the Big Five, Alphabet-Google, Apple, Amazon, Microsoft, and Meta, as well as a lot of EdTech startups.

Tanner, say you were at an EdTech convention, and there are many of those, and you were making a pitch for a startup to potential investors. What's in it for them and how lucrative a sector is this?

TANNER: This is an incredibly lucrative sector. It's a sector that has basically exhibited almost continuous growth up until one or two years ago, particularly during the COVID-19 period, where we had the shift to emergency remote learning. Every educational institution on the planet found themselves in a position of being compelled, nudged, urged to adopt remote learning tools, various forms of software and hardware, EdTech. The profits were just vast.

So this is a very, very lucrative industry. It's basically an industry that is a hierarchy of sorts. At the top, as you mentioned are, you know, Alphabet-Google, Apple, Meta, Facebook, Amazon, and Microsoft. So all the big tech firms have very, substantive educational technology subsidiary wings now. They are very, very powerful.

They also are accompanied by, I guess, a middle rung of firms. These are sort of exclusively EdTech firms that are not part of these bigger vertically and horizontally integrated tech conglomerates. And they do a lot of different things. They sell Chegging, access to digital and physical textbooks, Canvas learning, you know, management systems. Think about all of the different universities and colleges that are now using Canvas. Udemy Inc., online marketplace for skills training courses sold for $29. 99 a month. You know, Cahoot. Like, basically, there are these companies that are not just developing tools that we can use as teachers and learners to teach and learn, but they're actually developing full-fledged curricula. They're developing courses. And they're selling courses a la carte, sometimes in partnership with colleges and universities, that see this as an efficient way to immediately develop a full curriculum without having to actually even consult the developers of curriculum historically, which would be teachers.

So a university says, Oh, here's the new hot and emerging area of learning that we need to jump into so as to prepare our clients or our customers or our learner consumers for the future labor markets and the changes in society.

Things are slow with veteran bureaucracy due to collective governments, processes, collegiality, and so on. So why don't we just outsource this to a private company that can develop it within a month or two and basically sell it at a lower price point to us than it would be to actually hire people internally or pay people internally to do it.

So you see sort of universities and colleges now outsourcing even curricula, curricula development and course design to other companies that are then basically doing that and selling that back very much like a film studio.

A film studio develops a movie. The movie becomes the property, becomes the copyright of that film studio. The film studio then has the propriety right to license or sell that film to a distributor exhibitor, let's say a TV network or a theater for a set period of time in a certain territory.

EdTech companies very much treat courses, curricula, as IP content, as copyrighted content that they license out, that they sell out, that they rent out to buyers around the world. And they're making millions and millions of dollars.

Resh: Billions.

TANNER: Billions even, yeah.

RESH: Rahul, do you want to add to this? What's in it for tech companies? Why as maybe an EdTech entrepreneur would you want to be involved in this sector?

RAHUL: I've been thinking about this for a long time, even while I was in the IT industry, and there are few principles that come to mind. Let me begin with an example, a very non-technical example.

I know exercise is important. I even have got membership to gym. Do I go regularly? No, and if you could see me, I will present my figure as Exhibit A.

The reason is convenience. And the same thing happens with technology. Even if we know that this is what's going to happen, the arguments you hear back from people, Oh, well, but it's so easy just to ask Google or ask Meta what to do. It's not merely matter of knowing, which is where we as educators are failing.

We are trying to persuade them by, Hey, this is what needs to be done. This is the hard work. It will pay off in the end. But convenience pays off now, right? So to fight that battle, and there's no shortage of arguments furthered. I mean, Tanner's book is a fantastic example of that. There are any number of papers written on it.

But how do you overcome that convenience?

On the altar of convenience, privacy is sacrificed. That's one thing.

And the second thing is why do companies target education? The point that you mentioned. Where else would you get 8 to 12 years in K-12 system or post secondary system, a sustained group of people. You get brand loyalty. Once you have that, you have done your job. You don't need to worry. This is why the vetting companies, etc, which is starting to come online, they would give off free access to this stuff to play. Why? Because once you get involved in that ecosystem, you've got it.

And then the arguments go against privacy and your data is being used and so on and so forth. Ah, well, I've got nothing to hide.

Well, really you do have much to hide, but even if you understand it, you ignore it in the face of convenience.

RESH: So they're getting these contracts over post-secondary institutions. They are getting sort of a lifelong consumer public. I imagine that people will say, well, I used this platform when I was in school, so I trust it. I'm going to keep using it in my working life and my future life and whatnot.

TANNER: I think that we could also think about this in relationship to the long history of labor-saving or labor- killing technologies in capitalism, now being applied to the educational sector. It's about trying to make the labor process of teaching and learning more efficient, which allows the entities that preside over that process to do more with less resource inputs.

Teachers are a cost, we know that again, due to austerity measures and other forms of defunding public education. There's the cost challenge that many universities and colleges are struggling with, especially with the enrollment downturns as of late. And so they're looking ways to deliver the same service or good with less resource imports, less costs. And I feel that in some ways EdTech can become a new sort of form of automation, whereby teachers can be partially deskilled or ultimately displaced.

So even when we're talking about generative AI, all of a sudden we're going to have self-learning. We're going to have learners interfacing with generative AI systems to basically teach themselves. They can basically use ChatGPT to develop a whole course, curricula. And ChatGPT will scrape its data set or the internet for all available materials pertaining to that topic or that subject matter.

And within a few minutes, generate a course syllabus and then develop its own course lectures and then create PowerPoint slides. And voila, the student doesn't need to have the professor as an intermediary.

RESH: You know, it's interesting. There was a, and I think you mentioned this in your book as well, there was a 2020 documentary, *The New Corporation: The Unfortunately Necessary Sequel* and a segment of that focuses on a chain of private schools, Bridge International Academies in Kenya, backed by tech billionaire Mark Zuckerberg. And at these schools, you have low-paid untrained, non-unionized workers who are essentially teaching from a tablet where their teaching is entirely scripted by foreign corporate developers.

So again, essentially removing the teacher, which is the most expensive part of education, from education, right? And delegitimizing local public education while they're at it. And it was interesting because a spokesperson for this company started proclaiming, very happily, And this is a way anyone can be a teacher.

So you're saying that we could potentially be seeing this happening in terms of Canada, which as a teacher, I find very, very worrying.

But where is the money coming from? Is it government or directly from post secondaries or student fees or a combination? Who's paying these corporations?

RAHUL: It's a combination because it's such a substantial part of it that no single source would be able to satisfy the maw of this EdTech giant, right?

So it's all based on usage, number of students, number of full time equivalency and all those sorts of accountability things.

So, you know, another thing that happens, it's not the convenience of the students or teachers themselves. Sometimes it's the convenience of the administrators because then they can say, Hey, yes accountability check number eight, we dealt with academic integrity by giving, I don't know, $200,000 to Turnitin or so and so forth for next year of examination of it. Along with that, all the intellectual property, etc., that should be students' property, goes to them as well.

RESH: Okay. So Tanner had brought up COVID and the impact that COVID had on this, right. And this decade has been marked by two really big things. Of course, the pandemic, COVID-19, but also to Oxfam International, corporate-driven inequality and monopoly power. In the title of their 2023 report on the rise of EdTech during COVID, the United Nations Educational, Scientific and Cultural Organization or UNESCO refers to it as an EdTech tragedy.

And so Rahul, could you just go a bit more into the role that COVID played in the rise of EdTech? And why a tragedy.

RAHUL: Yes, indeed. COVID-19 was like a drug for EdTech in terms of, Oh my goodness, here's a perfect opportunity wherein post secondary institutions are scrambling to try to salvage their academic years, etc.

How can we get in to this and provide the ready-made solutions - as I had said - to the existing problems because that allows for sales and surveillance, which then repeats that triangle between sales, solution, surveillance and the same points could be privatization, pedagogy and privacy.

So how did it do so?

We propose that there are three logics. My colleague, Michael Mindzak and I, we wrote on this.

One is inertia. Hey, we are already doing this. Let's continue doing that. Or do we already have connections with our EdTech partners who can help us deal with this situation? So that physics law of inertia, just continuing.

Number two, automation. How can we do so without involving human beings, because, as Tanner and you mentioned, too, from the documentary, humans are the most expensive part, how can we do so using technology?

And the third is the data, which is often neglected, ignored component. How it is used, misused and incorporated. Zuboff mentioned in terms of mining and then preparing us, priming us for better sales, more personalized sales and hence the capitalism.

So it's like a vicious triangle and COVID-19 really just gave it that shot in the arm, the extra boost and the effects of it would be felt long into the future, and sadly, that has further been exacerbated with generative AI. And this is why I think the hype cycle suggests that things fall down and we return to the other form.

But if at the peak, as soon as it starts to come down, you have a new technology that comes in, it just ramps it up further up.

TANNER: That's such a great point.

RAHUL: And there's never coming down.

TANNER: And I think as that report, if I could just jump in as well, Resh, I mean, it's fabulous 653 page report by UNESCO must read for everyone on the EdTech Tragedy. So thank you for mentioning that.

And I think that that work also, just extending Rahul's point, highlighted during COVID-19, this digital divide in EdTech. This gap between people who have access to digital technologies and those who don't. And that research is well established.

But there are currently talks about, you know, an AI sort of, digital divide and EdTech digital divide these disparities in access to EdTech hardware and software and Internet connectivity and digital literacy, within and between countries, North and South.

Not everyone can afford these essential digital devices, tablets, smartphones or AI services, all is sort of a prerequisite for participating in what is imagined to be this digital revolution in EdTech. But it's very exclusionary. It's very exclusionary on geographic and regional lines, on racial and socioeconomic lines.

RAHUL: And sometimes it's not even available.

TANNER: Yeah.

RAHUL: Like certain tools like BART, etc., were not available in certain geographic regions, whether you had the money or not.

TANNER: Exactly. 2023, an estimated, what was it, 2.6 billion people around the world lacked Internet access. You know, we often think of the United States as the center of digital capitalism, digital revolution, digital society. But even the United States, there was still digital divide with 9.6 mIllion people lacking internet access, which is just the prerequisite for even logging into one of these EdTech platforms or services.

But then there's contradictions here as well, because we've just sort of launched this quite intense kind of political economy critique of what happens when you do get included into the digital revolution of EdTech. Well, then they mine your data and they monetize your personal life and then they commercialize, teaching and learning and they semi-privatize higher education.

So it's this tension I've always found in digital divide discourse applied to all subjects whereby how do we parse that gap? How do we minimize that divide? How do we create accessibility, inclusivity for everyone so they can enjoy and reap the benefits and affordances of these new tools? Whereas at the same time, when we look at the political economy of the owners and controllers of these tools, there's also great consequences or costs involved. It's always been a tension in digital divide discourse, I think.

RESH: Right. Now, just to get a sense of how ubiquitous EdTech and AI are in colleges and universities, what would a day in the life of a typical student look like in terms of the platforms and tools they encounter at school? Rahul, you want to start us off on that?

RAHUL: Oh,for sure. I mean, all the social media, whatever you can think of. Creation of not only just surfing and seeing what's available, but also increasingly students have got their own communities, etc. The first day of classes, people, okay, what's the WhatsApp Group, let's create that, let's create a Facebook group and let's share our assignments and so on and so forth. Oh, let's go on Chegg as well. So all that social media stuff.

For doing assignments. At least in my survey of little graduate class, several had paid accounts on generative AI and everyone has been using it 100%. That is something to at least be mindful of. I don't know what actions should or could be taken. Everyone has got Facebook, Instagram, and all those sorts of accounts. LMS is of various kinds. I don't have an empirical study of that.

RESH: Not to mention what's being used by faculty, admin, staff, counselors, librarians, for accessibility. As faculty, just the learning management systems or the LMS. Those have been switching quite frequently as well. .

Tanner, do you want to come in and add to this list?

TANNER: I think Rahul has covered a lot of it. But yeah, students are logged into all the major social media platforms. They're compulsorily logged into learning management systems, Blackboard, Canvas, and the like. There's also a much

broader digital infrastructure that usually the University IT presides over and manages. which is also basically, you know, outsourced or contracted in from private sellers, which has its own set of rules and practices.

There's now, of course, ChatGPT and the various generative AI tools that students are using, as Rahul mentioned at the beginning of this discussion, to do things like Generate an entire essay and then try to use another tool to rewrite that essay to avoid the other piece of technology that has been trying to determine whether or not this is plagiarized or generated by an AI system.

So it just goes on and on and on.

But I think what we're learning is that EdTech, or generative AI in particular is changing every facet of teaching and learning. The level of curricular and syllabus design. Whether students are being encouraged to develop their own syllabus for a course and their own sort of modules to teach themselves with the support of the AI guide on the side.

Educators in turn, like us teachers, we are being invited, encouraged to design a full curriculum syllabus that outline course objectives, readings, materials, methods, everything.

Instruction. the idea here is will we teach with ChatGPT on the side? We have our power point slide that historically would take us 9 to 12 hours to develop if it's of any quality, with sort of just this open window for ChatGPT that's you know, accompanying what we're doing as lecturers.

Assessment methods. Students are basically being invited to assess themselves with the support of AI tools. Professors are starting to tinker and play with developing full quizzes, essay assignments, rubrics with AI. People are using AI to even assess and mark the quality of student papers. I know that some people are doing that.

You know, people arguably are developing AI skill sets through this period of experimentation and disruption and change.

That's an early question that you raised, Resh. I mean, I wonder what the future or the long term outcome of all of this is. We are in this period of change where AI is new and emerging. Everyone is adapting it in practices of teaching and learning. And now we're emphasizing full curricula. You know, AI is this fundamental skill set that all of the learners of the future will need to be socialized or educated into so they can succeed on the job market and have the requisite skills for all the new positions that will require us to be hybrid communicators using a mix of our traditional communication skills with these new AI systems.

But I was worried about this mismatch between labor market supply and demand. Are we sort of overproducing a very, very skilled, talented supply of workers who are AI savvy and knowledgeable and can apply all the best tools and tricks and

practices, but then the economy is not necessarily producing an equivalent number of, well paying jobs or careers for these graduates. Creating this disequilibrium.

RESH: It's interesting because you also bring up in your book *EdTech Inc.*, that this seems to be a tension particularly with the rolling out of EdTech and AI to the STEM disciplines, right? Science, technology, engineering, mathematics. And yet when they translate into jobs in the field, these are also the places where we see AI sort of taking over and getting rid of workers. So we're using AI to train people into these jobs. But then these sectors are also perhaps seeing people losing jobs because of AI.

TANNER: Precisely. And this is fascinating from a level of sociology and social theory. So when there was a shift from the Fordist to post-Fordist or industrial to post-industrial economy, say post-World War II, especially in the 60s and 70s, we had a lot of information society theorists writing about this. Like Daniel Bell and basically saying, okay, we know that manufacturing is done. It's been totally automated, or it's basically been outsourced to a labor market where workers are paid less by companies based in the United States and Canada.

The basic strategic goal, the administrative goal, the governmentality goal is to invest in higher education so that individuals can invest in their own human capital so that they could prepare themselves to develop the knowledge and skills requisite to competing for jobs in this new and emerging information society, digital economy and so on and so forth.

The premise of that was that the knowledge, the intellect, the creativity of the new and emerging post-industrial post-manufacturing jobs was unautomatable. That this was going to be safe. That this would be protected. So education and higher education was always the best bet for people.

If you develop those capacities to think critically, analytically, abstractly, conceptually, if you develop these skills for these new and emerging sectors, especially the STEM, you're going to have access to a good middle class, upwardly mobile life. Because this is where all the jobs will be created in the future, not in the factories that we know we've automated and outsourced and eroded over time.

And with generative AI, we are now faced with that problem of jobs that require knowledge and skills, that we historically imagined as unautomatable are now being efficiently and swiftly automated across the board, across the economy. This is going to be a crisis, I think, for higher education and how it understands what it's doing. And then also how government policy-makers imagine what education is doing for the economy.

RAHUL: Could I add a point to what Tanner is saying, because I totally agree in terms of elevating the prominence of human capital theory and why we need to invest in it.

The problem with generative AI, and this is something that not very many people are getting into is writing can be outsourced to generative AI, which is fine, and that's a skill that people need to learn. But if writing is a way of thinking, are we unwittingly farming out that thinking ability? Would it atrophy because of disuse with our students? And how are we dealing with it?

The example that I use is we all drive cars. We don't need to know how the engine works. We need to know the rules of the road and how to safely operate the vehicle. Those skills are sufficient to put billions of people on the road. But those that are working with the inner workings, etc., need to know the internal mechanics, etc.

So fine. Journalists, people who are writing very sophisticated aspects need to know this. A cook who is reading the recipe and communicating how he created a new recipe need not perhaps know those skills and can offload this.

But if thinking is dependent on it. What are we doing in post secondary education if all of it is farmed out? When should it be retained? When should students be taught? How are they going to be taught? How are they going to be persuaded its value if they see my buddy is offloading the work and party and get a good mark. Meanwhile, I'm slaving over this and I'm still not getting it. Is it an occasion for us to reassess our own assessment techniques.

And I think that's what post secondary education systems have not even started talking about. They are getting distracted by other important components, but I think it's like know thyself As post secondary I think we need to somehow come to terms with what it is that we are assessing.

RESH: Yeah, and what it is that we're teaching. And this is obviously part of what you said. We're in Canada, the land of media philosopher, Marshall McLuhan, who famously declared that the "medium is the message". Where EdTech transforms pedagogy, how we teach, how does this impact what we teach in terms of curriculum?

TANNER: Well, it's interesting to think about the history of education and curricular design and the development of these very siloed disciplines within sort of departments or programs attached to them with a number of specialists or experts in a very, very narrow field. And how this has just emerged over time. There's a lot of reasons for these separations, these siloings of spheres of knowledge of inquiry, of disciplinarity.

But maybe something's happening today where this is, kind of falling apart.

I think that what we're seeing is more than ever an effort to try to think outside of these disciplinary boxes and forge , genuine cross or interdisciplinarity. Not only because that results in much more holistic dynamic thinkers, and professionals, but also because we understand that the problems of the world, and there are many, require a much more holistic understanding of the world that a segmented, silo, disciplinary, singular approach would not afford.

At the level of maybe day to day curricular design, I've noticed that at my university in particular, I mean, we're moving forward very quickly with full-fledged program curriculums in AI. Multifaceted studies of AI, from again, the political economy of it to the social shaping of it to issues of equity, diversity, inclusivity, to culture, to you know, texts in society studies, science and tech studies. Trying really just to sort of develop curricula that will help us understand what's happening and what will happen as AI becomes ever more ubiquitous in the world. And how we can adjust and adapt ourselves to these changes. That's something that's happening for sure.

But the bigger question I think that's being raised here is not only what do we teach, but why do we teach. What is purpose? I mean, what normative framework can we imagine or apply to ourselves and to know ourselves as teachers is having value in a very, very rapidly changing world where a lot of the known are being unraveled. A lot of the historically standard operating procedures are being disrupted, decoded, and recoded in new ways that are confusing and confounding and scary and exciting. And this is a question that we all, as educators, have to ask ourselves. Like, what is our purpose? What is our value? What is it that we do when we teach and we invest in a learning process in relation to others?

RESH: Well, I'm assuming that for all of us, we probably have an idea of what that is that drew us into this profession in the first place. So can we quickly answer that question, in terms of what is the value of or the purpose of post secondary education? What brought you into this? So Tanner, just to continue with you, and then Rahul.

TANNER: I am a first generation university student the first of my family that went and earned an undergraduate degree and then moving on to the professorship and so on was certainly a challenge with numerous ups and downs. But I'm absolutely privileged and delighted that I'm here and that I do what I do, and I'm grateful for that every day.

I primarily see myself as an educator for democracy. I feel that, yes, I have a role to play in supporting the professional development of my students, to ensure that they are aware of and able to integrate and apply the most emerging forms of knowledge and skills that will help them in the economy and so on and so forth.

But I think at the core, I see myself as someone who's deeply invested in the project of democracy and the pursuit of critical thinking people that can identify and understand the problems of the world and intervene in meaningful and purposeful ways to address and change those problems to make the world a better place.

If I can introduce students to new readings, new ways of thinking, a range of problems and the problems of the many solutions related to those problems and get them thinking dimensionally and holistically and critically and analytically, I think that I've done my job in that context.

Right now, more than ever, the idea of education for democracy is being delegitimized by very powerful forces. And I think that we need to continuously

reaffirm the value of what we can do, not just as a subsidy to business, but as a service to society. And I see myself very much as a servant of the society of which I'm a part. And I want to play a part in understanding the society and changing it for the better and education is a space to do that. And it should be a space to do that. I want to do this as long as I can live.

RESH: Okay. And Rahul.

RAHUL: Yeah, there are two very distinct propositions of what post secondary education is for. One comes from our long lost friend, Aristotle. It's an Aristotelian idea that just by engaging with the best of thoughts in the Isle of the Blessed, we are all better for it for people going to post secondary education.

If we are to come up with one idea that through the Dark Ages and so on and so forth, how did we make progress in physiology, in anatomy, in urban planning, in agriculture, and so on and so forth. There's no single term that would suffice, but only one term would be a non-laugher, and that is post secondary education, universities.

It's the institution its mission is self perfection through debate, argument, putting in glosses understanding under the new context. So that has got to be an objective of the university. Only universities can refine itself in the kilns of debate and reflection and so on and so forth. So that's one part.

The second part is very instrumental, which is find its graduates its job. And there we have to be careful to manage between that Aristotelian argument and preparing graduates for their future, not our past.

This tension is resolved in post secondary institutions. We have created different kinds of institutions to deal with that. And it is our responsibility to cater to both sides, like both hands. We exercise, we need to exercise both hands, not just one. And I think that's what the purpose is. And sometimes we get so caught up with one over the other, doesn't matter which one, that we lose sight.

In the survey conducted by Chronicle of Higher Education, over 74% of the people said that the main purpose of the universities and colleges is to find their graduates a job. That means neglecting that Aristotelian ideal.

It is so pervasive that that's all we think of. Performance-based funding models that are being contemplated in Ontario and are already in place in, Alberta and many states in United States like Kentucky and so on and so forth. It is based on finding graduates their jobs. You know who it excludes? People who have retired and people who are genuinely interested in the knowledge for its own sake, not as a means to an end. They would skew our data It would affect the funding so they are being ignored and neglected.

So given this. It is not what we have set up at the college institution level, what the purpose is, but what the governments have set up. And governments If we are honest, they are not to be blamed either. It's the public.

I mean, look at the Moral Act, which produced so many universities in United States in the 1860s. There was a commitment understanding even during the tough period in the US's history that having universities is good for the public and they created institutions and they were willing to fund them.

Now we have public universities in, say, for instance, Canada, Ontario, who were fully funded, then partially funded, then assisted, and now molested by the governments. Because we have lost that idea that it is a public good.

And in this talk of capitalism, neoliberalism, one of the things that we have lost is the Public Good vs. Private Good, because everything is seen through Private good, be that be at an individual level or an EdTech level.

RESH: And thank you for that point that yes, education seems to have really shifted towards the outcomes based model and we're losing the spirit of learning and debate and dialogue, the intellectual climate of colleges and universities.

To that end, the message to education systems seems to be that, in order to prepare students for the tech economy, they must become a market for tech corporations. But if the State, as you've both pointed out, has funds already earmarked for EdTech investment, because a lot of funding is coming from government, then why not for EdTech development as a public option, which would then get rid of the whole corporate profit motive, a fundamental problem with all of this. Are there discussions? Are we seeing any of this happening?

TANNER: I think that we're seeing discussions of this happening, perhaps not as much within the educational sectors of the world, though there are developments, but there's certainly proposals to, you know, socialize the platforms, to bring these private platforms into the public sphere, into the public good, into forms of public ownership. To essentially decommodify them, deprivatize them and make them genuinely accessible and inclusive of everyone as a right of being a part of a society, of wanting to teach and learn. And wanting to do these things without again being subject to the forces of surveillance, capitalism, data mining and aggregation, data breaches. And basically turned the process of teaching and learning into some sort of form of unpaid labor for companies whose operations we're frequently oblivious of.

 Just as you know, there's different proposals to make these private platforms, public goods and services, I think that there is also reasonable proposals to take EdTech platforms that universities and colleges are spending millions and millions and millions on every year, to acquire the licensing rights to use and so forth, into their own domain.

 One could argue that this might be, initially quite a big startup cost. But once you have the infrastructure in place and operational, you're going to save costs over the

long term. And you're not going to turn this valued public sector into just another source of accumulation by dispossessing us of what we have a right to, which is a high quality, accessible education.

I would like to see more of that moving forward.

RESH: You're probably not the only one.

RAHUL: I would like to add one point that Tanner mentioned, which is reclaiming EdTech-like services at university and colleges.

There's a technical problem there. And the technical problem is this. When things are centralized, let's take an example of academic integrity because we had brought that up in terms of plagiarism and so on and so forth.

Unless the repository is central from which to access and compare. The courses that are similar across colleges and universities cheating can happen across them through social media by sharing of assignments and so on and so forth.

We know how difficult it is for two universities, let alone 24 colleges and 24 universities in Ontario alone to agree on and be able to sustain something of that nature. It's not just a one time cost. It's an ongoing cost. So I just wanted to mention that.

RESH: And here we are, three faculty, teaching at university and myself at college. And this has become a labor issue, right? And Rahul, could you expand on this? How is EdTech and AI impacting education labor?

RAHUL: How is it not?

RESH: Okay. Take it, take it!

RAHUL: My colleague here Michael Mindzak, he has done some amazing work and he's doing some conceptual work on difference between labor and work brought on by generative AI.

The distinction between that, not only for faculty, but also at the student level. And what is merely doing stuff for a remuneration, be it money or be it degree, is very different from the kind of work that involves putting your soul into it because you are interested and compassionate about. And that works both ways.

Would generative AI at the student level lead for them to take on subjects, etc., because with this tutor on the side or whatever you want to call it, agent on the side, such and such discipline has got better prospects for the future? Or would they follow their passions? What would be individual cost? What would be the public cost in either of the two scenarios.

And the same thing happens at the faculty level. If the curricula is going to be designed by, and oh my goodness, all you need is this tablet example that you cited earlier. Would it lead to different kinds of people getting into it for wrong reasons, and supplanting people who are committed for teaching and learning for its own sake.

That's at a larger level, but you can extrapolate from it at a very micro level how it will work out. And it is just so scary to imagine and see.

I remain hopeful that saner heads would prevail and this would be curbed because look at the other 26% of the students who did not use it. What were their reasons for not using generative AI? What it is that they either had already discovered that it can't do, or wanted to know it themselves. Could we enlarge that population?

RESH: That's a really great point Rahul. And yes indeed, saner heads are definitely needed. Now Tanner part of the Neoliberalizing of education within the last couple of decades, what we've been seeing happening is increasing workloads, the growth of part-time faculty and whatnot. So how is this impacting labor within colleges and universities?

TANNER: Sure, I'm not aware of instances where we could point directly to whole sectors of educational workers being automated out of a career or a wage or a salary, but I do feel that EdTech is disruptive to the labor process of teaching and learning at every level of the public education system.

In some contexts it may contribute to deskilling of teachers' labor. Basically a skill that we once possessed is designed into the machine or the AI tool that now students will use without us. It can displace traditional tasks associated with teaching with new AI-based systems and tools, course design, delivery, assessment. These things that we hitherto had I guess domain over, that was part of our own labor process as teachers are now very much being uploaded to or outsourced to these AI tools where students basically do the jobs that we used to do with them for them.

I think this does threaten in the long term job security for educators. It's not inevitable. It's not natural that would be the outcome because certainly in the environments in which we work and we labor there are collective associations and forms of action to push back against these processes. As we're seeing in other sectors, such as the entertainment industries, where everyone from writers to actors through their unions and their collective associations are pushing back against the efforts by management to relieve themselves of having to pay workers by exchanging human labor with automated systems and AI systems.

But there's a lot of fear. There's a lot of fear that generative AI as a whole will lead to technological employment in every sector, in the knowledge economy, across the knowledge economy, killing more jobs than it will create. Putting millions, if not billions out of a job in the future.

Now fears of technological employment are nothing new. Marx writing *Das Capital* talked about this, John Kenneth Galbraith talked about this. There are no shortage of economists and political economists that have been concerned about technological

employment for some time. It never quite happens due largely to a combination of the following.

The first sort of logic is applied to AI right now is that we're in a race against the AI machine. So the idea here is that yes, we're in a moment of disruption of displacement, a certain quantity of jobs displaced or eliminated by AI is a fact and the role of business and government and educators is to try to keep up and try to beat the AI systems at beating us. That means investing more in education, investing more in entrepreneurial startups, investing more in retraining programs. Doing things to try to prepare learners for this fast changing world. The fear here, of course, is that maybe we won't keep up this time. But it's an open question.

The 2nd, I think, proposal in response to the fear of technological unemployment or full automation by AI is social assistance or forms of public provision. To find ways of ensuring people can live a good quality life without having to sell their labor power to another entity in exchange for the wage they need to live and flourish.

If A I is truly on the cusp of automating more paid jobs than it is in generating new ones for the future, we need to think very seriously about universal basic income or maximal public service provision. Forms of extra economic support that capitalism fails to provide, but that other entities such as government or public agencies or entities could do for us. Then we get into sort of more micro political debates on the Left between those that are proponents of UBI and those that are saying universal public provision of goods and services is much more effective. But those two positions are being advanced right now into the fears around technological employment.

And then the third piece is always resistance or collective action by workers themselves. Workers faced with technological obsolescence, collaborating, communing, cooperating with one another to develop forms of collective association that pushed back against capitalism's historical tendency to develop and apply technologies to eliminate its need for human labor.

So going back to Luddism, we have forms of Neo Luddism being proposed. And Luddism of course, isn't just knee-jerk anti-technology. It's basically a criticism of technology that's been designed and employed by capital to relieve itself of its dependence on human labor.

We're seeing new forms of collective association emerging across the communication and media industries, within the institutions of education that are challenging the power of AI's owners, of AI's corporations, of AI's controllers. And recognizing that those that exercise power over AI will see nothing without collective demand and action.

So that does give me some hope to see all of the new forms of activism and collective action emerging in response to AI, within the public sector of education and beyond and other sectors that we once thought were immune to collective action by workers. I mean, Silicon Valley itself was very much an anti-union environment. It

was never imagined that tech workers with all of these university degrees and college diplomas and forms of great creativity and imagination and engineering and mathematical and entrepreneurial acumen, would think about forming unions and pushing back against those that are owning and controlling the companies that employ them and also trying to shape their labor processes in ways that can be quite degrading and exploitative.

So if Silicon Valley workers are developing a class consciousness, certainly within the classrooms of public education in Ontario, we all are as well.

RESH: Okay, so here's to unions, a public consciousness and maybe a revitalization of now 21st century Luddites as well.

So, Rahul, what needs to be done moving forward in order to both keep pace with the emerging digital economy, while also preserving the integrity of public education for the common good?

RAHUL: Yeah, if I had that answer, I would be making lots of money, I guess, or be famous.

I think what needs to happen to preserve public good while keeping pace with educational technologies, AI specifically, is finding that right balance between preparing students for what it is that they would need in their workforce to succeed in their lifetimes, while equipping them with the skills that we think are worth carrying on from the past and passing on to the future generation. And combating that convenience component.

I honestly don't know the answer. I do know the challenge. And I do see the validity in trying to find the solution to it. But I don't know the answer without resorting to generalities like critical thinking and so on and so forth.

RESH: And Tanner, did you want to add into that?

TANNER: I think having the types of discussions that we're having today together is of immense value. We're in a period of disruption and change. And the future is without guarantees, as Stuart Hall famously said.,

Technology's future is not a future that is chosen by itself. It is chosen and decided by all of us in all of our complex intersecting power relations. And so we have a stake in the future and the discussions we have now and the choices and decisions we make now will very much impact that future.

So more than ever, it's important to have collective dialogue and increasing forms of discussion and debate about the drivers, the roles, the impacts, the uses and the consequences of EdTech and AI within the classroom, within the education sector and beyond it throughout the entire society.

And so I would encourage educators and members of the public moving forward to neither, be technophobic, just sort of knee jerk reaction, rejection of everything new because they're clinging to some notion of a traditional better past, but not technophiliac, techno utopian either. There are a lot of harms and there's a lot of consequences of each new technology as it's introduced and diffused throughout society. AI is no exception to that. EdTech is no exception to that. So I think it's very important as educators that we continue to have these discussions. not only among one another, but with our friends, with our family members, with the communities that we're embedded in.

And also raise this to the level of policy discussion and debate within the Parties we may be part of. Raise this to the level of social movement strategy and tactics that may inform or intersect with how parties are moving on educational policy in the present.

I think the political economy of EdTech and the political economy of communication offers us some tremendously useful tools for thinking and acting in relation to EdTech and generative AI now and for the future.

RESH: And with that, Rahul and Tanner, thank you so much. It has been a pleasure.

TANNER: Thank you so much Resh. It's been a real pleasure.

RAHUL: Thank you very much. I learned a lot from both of you.

TANNER: Me as well.

RESH: That was Dr. Rahul Kumar, researcher and faculty with the Department of Educational Studies at Brock University. And Dr. Tanner Merlis, political cconomist of communication, media and tech industries and faculty in the Communication and Digital Media Studies Program at Ontario Tech University.

And this is the Courage My Friends podcast. I'm your host, Resh Budhu.

Thanks for listening.

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Produced by Resh Budhu of the Tommy Douglas Institute, Breanne Doyle of rabble.ca and the TDI planning committee: Chandra Budhu and Ashley Booth. For more information about the Tommy Douglas Institute and this series, visit georgebrown.ca/TommyDouglasInstitute.

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