Rewiring Learning for an AI-Enabled World (S8:E5) – Transcript

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We need to revolutionize not the education, the learning experience
AI is going to redefine the roles and skills needed in workplaces – so then what should students learn at school today? If they don't need to memorize facts, what knowledge is required? That's the question that my guest today grapples with as a researcher and author on how our schools, teachers and learning environments can better equip students for the jobs of tomorrow.
So in the age of ai, what's the role of the teacher? To make sure that the student is going through a period of reflection to develop this critical thinking while they're using those digital tools,
Welcome to Work Better, the Steelcase podcast where we think about work and ways to make it better. I'm your host Chris Congdon and my guest today is Mario Chiasson. Mario is an internationally recognized researcher and thought leader in learning innovation, system transformation, and future-ready skills. He's the associate researcher at the University de Moncton in New Brunswick, Canada.

With AI taking on so much of our knowledge work, Mario argues that critical thinking will be even more important, and teaching those skills requires the right teacher training as well as the right physical environments.

Let's jump in.

Chris Congdon: Mario, welcome to Work. Better

Mario Chiasson: welcome as well. Thank you so much there for inviting me.

Chris Congdon: Well, I think this conversation is gonna be really interesting because so many of our listeners are thinking about learning and learning environments.
Your research, you know, it spans AI and learning environments and system leadership. And one of the things that you've said that I found really interesting. Is the idea that modern society is pressuring educational systems. Can you tell us what you mean by that? What are the things you're seeing and maybe worried about?

Mario Chiasson: Yeah, I spend most of my life in the education system and, uh, you know, I'm closely to 30 years into this and, uh, along the way as a journey as to being part, as a teachers or school principal or a district staff and working with the Department of education. You are realizing that as we move forward, it seems that the speed of our societies has evolved much faster than the pace of education. And, as a whole, you know, it slowly increases the pressure on how the school system can adapt.

And this whole inertia kind of started when the digital age occurred. I would see maybe like around the, the eighties and the nineties when the industry have transitioned to analog technologies, to the digital in technology. Our societies have adopted much faster digital technologies as an organization and in how they can operate and automate kind of the business and the school system, as they evolve, we kind of lost the momentum of its evolution in a sense.

Chris Congdon: Talk more about that.
Mario Chiasson: Yeah, exactly. So we are in the midst of adopting or transitioning to the fifth revolution of the industry. We all know that the first revolution of the industry was the steam industry. And the second part was the electrical, which kind of gave birth to our science into the education system.

Chris Congdon: Sure.

Mario Chiasson: And then the third revolution was the automations. And along the way the role of the schools within the community was capable of responding about how we equip our students? You know, we can talk about the three Rs and, and the skills necessary during that time. For this, right when the digital industry kind of occurred, it seems to be that the education system as a whole kind of became stagnant and a lot of questions have occurred.
But how are we embracing this digital industry way back then? How do we are redefining or transforming, you know, the education system into a digital ecosystem, for lack of a better term. And, how are we going to redesign, you know, the learning and the teaching experience while adopting the digital industry?

I had a lot of confusion about how we're going to be able to do that. So that kind of was kind of the first stopping block. And we have continued to struggle to adopt the digital industry. You know, how can we do that. Now we're transitioning to the AI world. So we're moving from a human who used to do the work to the digital industry, who's automating the work. Now, AI is gonna create an autonomous workflow.

Before the eighties, the role of the school was fundamentally to increase knowledge, but with the digital industry, because our society sped up so fast, it kind of gave it kind of a double homework. So assuring that we have the essential, but also assuring that we are developing the competencies at the speed the new technologies evolve.

Chris Congdon: Some of my friends and colleagues who are educators and professors, like when we're talking after work hours and they're telling me some stories about their students, like I find it really worrisome. You know, I've heard stories about, you know, young people who are using ai, like literally to prep for job interviews, but literally taking the script from ai, not not doing it themselves or of course, you know, applying AI into a particular homework assignment or a writing assignment and really kind of relying on AI to do critical thinking.
And like I want to hear more about that because I think there's a lot of educators and organizations who are worried about what our kids or young people are learning as they're moving through the school system into the workplace.

Mario Chiasson: Yeah. It is a profound question. This, and yeah, we're still struggling to answer those questions in a large way but in bits and pieces it's clear that we have a mismatch.
I'll give you an example. Uh, humanity, uh, took 50 years to adopt, like the telephone, like the wooden telephone. Okay. This, that took like 50 years. And after that, it took seven years to adopt the digital industry. So organizations that were analog and now they embrace digital. That kind of transition took like seven years. When the social media came in around the 2000, 2004, 2007 in that area, depending, it's more specifically 2007 than with the iPhone. There's a burst of, you know, of new, economy about, but to be told is that it took three years. So we went to 50 years. We went to seven years to adopt the digital industry. It took three years to adopt social media. And now it looks like between two and three months we're adopting ai.

Right now we are seeing students or teachers using AI assistant. To amplify the current activities. So let's say for a teacher that would like to create a lesson plan instead of starting with a curriculum, okay, and create a scenario, a learning scenario this, now they're using you know, AI agents, uh, any platforms to facilitate, to amplify that. That's a proper way to use, you call that digital citizenship.

Okay. So that's a form that they can help and it can maybe improve the quality of preparation so that the teacher can spend more time supporting the interaction with the student than spending more time preparing. That's kind of one way of doing it, but you got the other side of the coin. How can I use this ethically?

So we can have this relationship that the teacher prepares, you know, a great lesson plan that provides deep learning and allow students to develop those computational thinking skills we're talking about.

Mario Chiasson: So it's up to the school system now to create an environment where they can use those tools ethically so they can make sure that the student gains knowledge instead of being dependent on it. So to be independent, it's an opportunity to use an AI agent to amplify the intellectual capacities of that student instead of using the other way. Said, okay, but how can I cheat?

So that's one form of doing that. So if we're spending a lot of time educating our students, say, look, you cannot use AI to do tests, or you cannot use this to create or to design while the industry is doing so. Because they need to evolve at the same speed of the evolution of technologies. So they are adopting it. And they're using it in a different way to simplify as they work.

The challenge becomes how do you align those skills. How do you align the working environment with the learning environment? So to say that the student learning experience from kindergarten to grade 12. It's capable of transitioning to real world. That's the challenge that we don't have the answer. It's not clear because we need to align the curriculum, which is the knowledge, the learning condition, which is the practice, how the student learns. So instead of listening, how is he acting? How is he authoring, how can he actually contribute to his learning?
So what's the role of the teacher instead of doing in front of the class? Does it need to be in front of the class? It's so complex as a solution, but we part of our research, we understand that to bring some equity and understanding on how to, to respect that, there's a lot of professional development that needs to get done to make sure that we're not abusing the technologies, but we're respecting it in how that we can use it in a good manner. That's connected to the knowledge experience of the students..

Chris Congdon: I was reading an article just the other day and it was talking about how. Because AI is, you know, it's totally ubiquitous. It's available to anybody, anywhere. And so the use of AI isn't necessarily a competitive advantage for organizations. It's table stakes. The competitive advantage comes from the human mind, the brain, people's ability to think and to solve problems. And so I'm curious, again, from an educational perspective, how do we teach that? Like how do we begin to emphasize that in our curriculum?

Mario Chiasson: I think it's the first time in humanity that we're living some kind of a Promethean moment. Right. The word prometheum coming from, from Prometheus, you know, the gods who give the fire to humanity, completely changed the world.
I think that we're heading into that kind of same adventure, so when you do that, we need to revolutionize not the education, the learning experience. So we need to redesign and redefine the role of learning as part of the learning institution because in order to close a gap, we need to understand how the world evolves.

And if we don't know how the world evolves, how can the education system adapt? And that is a challenge because how do you align the curriculum? We're facing a situation that our society is evolving so fast that we need to move the mindset of I'm going to school just in case. So I'm gonna learn that pithy algorithm theorem, just in case of a learning experience that I see just in time. So if I'm going to use just in time learning a complete redesign, the role of the student and the teacher.

So I used to go to school to listen. And to learn just in case, I'm going to the school just to create and to produce and acknowledge or utilize the curriculum so I can learn just in time to do the task.

So in the age of ai, what's the role of the teacher? To make sure that the student is going through a period of reflection to develop this critical thinking while they're using those digital tools, because right now we're using AI as a digital tool, but AI is a digital species. Eventually, it's maturity. They're gonna learn how to think. They're gonna learn how to create, they're gonna learn how to collaborate with us because what we are developing is a digital species.

Chris Congdon: Before we move on, I just wanna say something back to you because like, I, I'm just gonna use your analogy of Prometheus.

I’m glad that in my education I had to learn about mythology. I had to learn these stories. Now, maybe that was learning for, as you said, like the just in case kind of scenario. When am I ever gonna use that in my career? Like is, does my employer care whether I know anything about Prometheus or not?

Probably not, but it feels like that analogy that you’re using is speaking to the idea of how do we as humans understand our experience in the world? And some of those stories tell us a lot about what it means to be human. I mean, so just a simple question on that one. Like, should we still be teaching, you know, about ancient mythology in schools, or is that just, it’s no longer relevant? It’s passe.

Mario Chiasson: It will be relevant just in time learning instead of just in case. Okay. It won’t be relevant. Mm-hmm. But it might be relevant just in time. So the context of the learning will be redesigned to have that information on the spot. That’s the role of digital industry.
But the AI will be converted as AI assistant. So now I’m going to have an AI assistant who’s going to help me, utilize the agent industry in probably, I’m gonna have an interaction with my AI assistant. ’cause there’s a lot of abstraction or it’s complex.
Okay. Let’s imagine. So we’re going to class, okay? And there’s 25 students and one teacher. So this is just like a normal classroom, but now in the AI world, I’m going to a class and there’s 25 students, but there’s 25 AI assistants per student.
You are looking at the teacher now, they’re gonna have an AI assistant as well, but now this AI assistant is gonna be the teacher assistant. And this AI agent for the student is gonna be the AI learner assistant.

So we’re gonna be able to decentralize the teaching practice, and you’re gonna personalize the learning. When that occurs, it will completely redesign the space. So how that space could look to make sure that student is still connected to humans.

Chris Congdon: I see. So you were starting to speak, Mario, about some spatial implications to all of this. Like what does this mean to the places that we’re creating for this transformation to happen? Can you talk a little bit about your vision for that?

Mario Chiasson: Yeah, I’ll, speak in, in three matters. The first one is the mindset. So the first mindset is that the principal needs to say, okay, I’m not the principal of the school, I’m the principal of the community. So how I’m going to be able to intervene with my environment with this when we embrace that we need to respect three principles. The first principle is well-being.
So that’s how that makes sure that the student, the teachers, the parent, the custodian, the resource teacher are well, they feel good. I feel like home when I’m at school. The second principle is a sense of flexibility. That flexibility could be about the schedule. It could be that the student can have some flexibility. Talk about the student can have some flexibility. Talk about flexibility about the utilizing of the space. Can I move the furniture? Can I, utilizing the walls as a writing, can I utilize every bit in space? The school has a learning opportunity. So this whole notion of flexibility in this.

And the third element is the sense of community and that sense of community is that the student feels that I'm not going to a school, that I'm going to my learning community. This is where I'm gonna learn how to socialize. This is how I wanna learn how to collaborate. This is how to learn. I'm gonna communicate. This is where I'm gonna learn how to listen, how to think. Instead of just listening to teachers about a specific curriculum.
Those are kind of the foundation or, or the principles right now from a concrete point of view is how, how do you use that?

So we're talking about the characteristics of space. So every space needs to be multifunctional, meaning that it can be configured and reconfigured without, you know, 30 seconds or one minute. Depending on the context, therefore the teachers do not own the space the student does. So that's the first kind of phenomenon about the multi functionalities.

The second one is about engaging and this whole engagement is that the student is a lot of collaboration, but it's also provides autoregulation.

So the third characteristic of the spaces has to be, it has to be diversified. And the diversity is that you get a lot of tools that the student can have the choice of the tool, they can do their task, but also the methodology on how that the student would like to learn.

So I'm a type of guy where I'm a student that, you know what I prefer using pen and pencil and under a table, I feel good. I feel secure. I feel safe. Other students can use things like, you know, a digital pen and an iPad and they can be, you know, working in the hallway. So I'm talking about the way that they would like to learn, but also the accessible resources that allow the students how they would like to learn.

So that's the diversity. The fourth one, I think is the most important one, is comfort. So when a student will learn and they're comfortable, they're capable of concentrating. If I'm not comfortable, I cannot concentrate. So we're talking about for the physical component, but also we're talking about the noise.

So those are the four characteristics when we talk about multifunctional, engaging, diversified, and comfortable. So from a design point of view, if you wanna create a deep teaching and a deep learning. We need to work with them to design that with them so that they can own their space.

Chris Congdon: Yeah. So Mario, I know you've done a variety of projects and since our audience here is listening and not able to see, like, can you paint a picture for us of what this kind of classroom might look like?

I'll give you an example. So there's one school in Mehin in New Brunswick, and one of their staff came in and they were very emotional and the student felt and said, are you okay Miss? And the story was that the parents of that particular staff were living in a senior home and that senior home was going to close.

So it created a context for students to say, oh my God, we gotta do something about it. What can we do, Uhhuh? So now you have this network of students, which was started by students, get involved with other students, and now you have this motion to say, wow, we have a community task to do how we can do this. So when they get on the phone, they learn how to communicate. Teachers would say that this is how you communicate. And they were trying to tally some kind of a context to say, our objective is to make sure that senior homes stay open. What do we need to do? So they did a lot of research.

They communicate with our superintendent of the district, can we have two buses? Because we need to go to that senior home and we need to do some activities with them and say, what kind of activities? Play cards, read stories, listening to them. So that was part A. Part two is problem solving. How can we sit down with the CEO to say, how can we help? And they ended up that the student did a presentation to the community council and they worked with business partners and they made it work. And the senior homes stayed open.

Chris Congdon: That's so amazing to think about a bunch of middle school kids, you know, engaging that deeply within their community to try and solve a problem. And they learned a lot of skills in the process. Just using a phone, getting on the phone and talking to people about problems is like, that's a key skill.

Mario Chiasson: So how, how do you design a school that you know is, socially, emotionally, integrated? How, how do you feel that wellbeing, the sense of belonging, the sense of contributing, the sense of usefulness is that you redesign and you're creating a context. Those spaces allow those types of engagement.
Instead of sitting down and listening to teachers who're delivering curriculum to a situation base that engages a whole community and participates.

Chris Congdon: Mario, like I think, before, you know, we wrap up today, would just really like to have your thoughts about like, if you, if you're looking ahead, say over the next 10 years, what are some of the things that you think we should be thinking about if we were a bunch of eighth graders who are gonna jump in and help solve a problem? What are the things that you think are the opportunities or the things that you're most concerned about looking ahead?

Mario Chiasson: Let's talk from a work perspective, from a business perspective, from an education perspective, and ask you like, you know, something out in the world to be worried about is. I think that the speed of adoption of this new technology is going to create a lot of stress to businesses. And it's gonna stress the system leadership, and we need to move to an adaptive leadership kind of mindset and try to have a better understanding how we are going to redefine the human role within this new organization because we're moving from automation to autonomous. From the workplace or that workspace, they will need to go through a new kind of mindset structure of working which correlates very well with the schools as well.

So how are we going to be able to redesign the learning and the teaching experience using that? It's a great opportunity, the fact that we're transitioning for doing that. What worries me is at the speed of adoption. It needs to be faster and when it's faster it creates more stress.

How are we gonna be able to adapt to that? But yeah, I think that we have an opportunity to be able to innovate and completely redesign the teaching and learning experience. Because the role of the school system is not to produce a student But to prepare. Prepare a student to contribute to be healthy.

Chris Congdon: Sure. Mario, it's just been delightful and educational for me to be able to talk to you and hear more about what you're learning in this space. And, you know, again, I would just echo what we, what we all know is that in this age of AI. Humans are uniquely critical parts of this. We can't just just say, well, okay, we're gonna let ai, take care of everything for us, and adopt our learning systems to be able to do that, it's gonna be really important. So thank you so much for joining us today. I really appreciate you being here, Mario.
Mario Chiasson: Thank you so much as well, uh, for having me.