

Pearson ED.tech Symposium

Future Forward

AI's Impact on Higher Ed and Beyond

With Sage Lazzaro and host John Howdyshell

VIDEO TRANSCRIPT

Erica von Lohr

We are now going to move into our next session, our next discussion, where we will take a forward-looking view of AI's impact on higher education and beyond. So to lead this conversation, I am going to hand the reins over to my colleague, John Howdyshell, who will be moderating a discussion with tech journalist Sage Lazzaro. John, the floor is all yours.

John Howdyshell

Thank you. Erica, it's tough to follow. Chris has sent you all, but we will do our best. Hi, everyone, and thank you so much for joining us today for this fireside chat. As we continue the conversation around today's big theme, AI, my name is John Howdyshell. I'm the senior director of sales augmentation here at Pearson, and I'm thrilled to guide us and introduce you all to Sage Lazzaro.

She is a technology writer and an editor specializing in artificial intelligence, data, cloud and digital culture. Sage has been at the forefront of AI coverage for well over a decade, before it became the buzzword that it is today. Her work has appeared in top publications like Fortune, Wired, and VentureBeat, and she's graciously joining us today to give her insights on generative AI.

Sage, welcome. How are you?

Sage Lazzaro

Hi, John. I'm great. Thank you so much for having me today. I am excited to be here.

John Howdyshell

That's awesome. Well, we have 30 minutes today. So I want to dive right into it, if you don't mind. I've got a list of questions. This has been on the forefront of my mind for a very long time, AI, so I'm excited to dive in. We've seen AI spark innovation across various fields. What industries do you see leading this charge, and what are some of the most exciting advancements that you've seen?

Sage Lazzaro

Yeah, really, every single field I would say has become interested in AI. Some have seen really leading the charge are the enterprise software field. Those companies, you know, are very interested and have a lot of resources to experiment with AI. The law

field has actually been really quick to jump on this technology as well for pretty much anything in their process.

You can imagine Some that I really find the most exciting, though, are how the scientific research and medical fields are adopting and looking into AI. For example, robotics was a field that was kind of stalled for a while. It kind of hit a point where they weren't making as much progress. And since they started implementing large language-model technology, there's been some breakthroughs and some movement in the field.

Also, therapeutic drugs are being discovered using AI and a number have actually gone into clinical trials. Just last week, a company using AI for drug discovery got FDA approval to begin clinical trials of a cancer drug, cancer treatment, that was discovered using AI. And just this week and including today, AI has been making a great showing in the Nobel Prize awards.

The AI pioneers who created the machine-learning techniques that led to the AI boom we're seeing right now were awarded the 2024 prize for physics, and researchers won a prize today for chemistry for developing game-changing techniques for designing and predicting novel proteins that could transform how therapeutic drugs are made. And, you know, this model is being used around the world.

John Howdyshell

Yeah, the possibilities are endless. That's incredible that it's finally getting in motion and recognized there. The conversation about AI, particularly in the last couple of years, has introduced the world to a host of possibilities, as you just outlined there. But there's also been a lot of conversation around its shortcomings and risks. What, what do you view as going well with AI?

And where do you see it needing to improve?

Sage Lazzaro

Yeah. I think what's going well for AI is that, you know, the awareness around it, like it has blown up. I think everyone is familiar with AI these days. The moment I realized that AI was really coming into its moment, you know, after covering it all these years, was actually a moment last year. I was out at a restaurant and overheard a table of teachers next to me all saying, ChatGPT, what are we going to do about this AI?

And that was just unheard of even a year before that. You would just hear people in conversation, like, talking about AI, so definitely just how aware and knowledgeable people are about it. And what's also going well is how quickly the technology is advancing. The, you know, what I just mentioned, the Nobel Prize award for these AI drug discovery and, you know, protein models.

Those were just a dream ten years ago that, you know, the researcher, you know, was thinking one day we could do. And already now it's in motion around the world. And,

you know, has won the Nobel Prize and even just the, the type of AI that's really boomed in the last two years, is advancing very quickly every day with newer and new models coming out and new ways to implement them.

When it comes to some of the areas of improvement, I would say there's even more. The fact that the technology is advancing so quickly, you know, makes it tough to keep up with. You know, transparency is an area of improvement. You know, what data is being used, when it's being used, is important. And everything that comes along with data privacy, thinking about a company's rights to use our data, then being transparent when it's being used. And you know, it's important to note the US is still the only major country without a national data privacy protection.

We could be doing better in terms of more competition. A few big tech companies are really dominating this space. And even though there have been a number of startups, they've been largely kind of partnered or, you know, semi-acquired by big tech companies and many have already stopped making models for themselves. And I think an area that we're all grappling with is, you know, deciding what we want to use this powerful technology for and how much we want it to be a tool that just assists us or how much we want it to take over certain processes.

So deciding what use cases, you know, a lot of the models that have been the most contentious and buzzing in these conversations are ones that create videos or create art or create music. These are things people love to do. You know, we want to make sure we don't eliminate the market for these things humans love to do, enjoy.

And that gives us so much joy and purpose. So in these conversations, just considering all of that, and balancing it, I think is where there's room to make improvement, especially considering how fast the technology is developing and being implemented.

John Howdyshell

Yeah, I don't think I've ever seen a technology spread so quickly, so widely. So, you know, broadly across the world. With that, you know, come a lot of misconceptions, right? About AI. So, so what misconceptions have you run into or run up upon as a tech journalist and how do you see that affecting the way people are interacting with AI today?

Sage Lazzaro

Yeah, the biggest misconception I see around AI is undoubtedly what AI actually is. I think a lot of people envision AI as just what ChatGPT essentially is or like the, you know, assistant in the movie, her like a type of thing that you talk to. That's really just one use case of one type of AI. What AI really is, is an umbrella term for techniques for enabling computers to do things without being explicitly programmed.

And I think it's really important to understand that. And different types of AI have been, you know, already in use in our society, you know, before this kind of boom of these

tools that you can chat with, and it's pretty wide ranging. You know, people wonder, is it a misconception that AI will, like, steal all our jobs and things like that.

And with those types of questions, I don't think we can say any of them are misconceptions because it's just so early. We're kind of in the first inning of this technology being, like, meaningfully implemented in our society. And you can compare it to any, like, technological revolution in history or the introduction of any new, you know, big technology.

There will be major impacts. You know, especially with the nature of this technology and what we are interested in having it do. You know, kind of come up against human intelligence. And then the fact that, as you mentioned, it is being developed and integrated faster than any technology before, and that's pretty widely agreed upon in the industry that the pace of this is just like nothing else. But what, you know, I've seen and you look at all these, these issues, it's really up to us, you know. There was a U.N. report from the United Nations this year detailing the potential harms AI poses to human rights.

And every single one of the harms listed came with the point that it's not actually the technology itself. It comes down to how we as a society are going to approach it and actually implement it.

John Howdyshell

Yeah, it's equally as frightening sometimes, on how we're going to use that. But so AI, right, reshaping the workforce in many industries, it's creating both opportunities and challenges. What advice would you give some of the professionals joining us today and educators in preparing the next generation for that AI-driven job market?

Sage Lazzaro

That's a really great question. And I already hear tech executives being asked this a lot. Like, what job can I get that's AI proof? Or what should I tell my kid to major in in college? And I really think there's not a golden answer for these questions because, again, it's still so early. Like, I think the best advice I would give is to stay flexible and open, you know, and aware of these changes, but also just lean on the attributes that make someone a strong professional or job candidate.

You know, today or in any environment, you know, whether we're using AI as a tool or whether AI, you know, takes over certain jobs and leaves us with others, like taking initiative, being reliable, being organized, these types of things that go so far today, and that, you know, make us human. Like we'll still go really far in the future no matter what the job landscape looks like with AI.

John Howdyshell

Yeah. It's inevitable. So, like just getting people used to it and familiar with it is, is key there as well. What, what do you think, like, are ways that AI will shape the future of

work? Do you have recommendations or, you know, how imperative is it for young people to be explicitly taught how to leverage these new technologies?

Sage Lazzaro

Thank you. You know, when it comes to really young people, because it's so early, like, I don't think that it's critical that, you know, a ten year old starts learning how to use, like, generative AI, like right now or anything like that. Like I said, we're still very early, and I think we don't yet understand exactly how this is going to impact us.

But while it is very early, I do think AI is going to drastically change the jobs we do, and how we do that and look at even just, like, the information age. Like, most of us work jobs now that didn't exist, you know, 30 years ago. It's kind of the nature of change here with technology. And, you know, the promise that companies that are developing AI are making is that AI can take over monotonous tasks so we can focus on more interesting ones, more, you know, bigger picture and fulfilling jobs that, you know, automation with AI can take over dangerous jobs that we don't actually want to be doing.

And, you know, that would, that would all be great. And maybe we could all work less. Hopefully these changes will be for the better. But, you know, as I said before, it's really going to depend on how we as a society actually go about implementing the technology more than the technology itself. If we do so in a way that improves life for the collective or makes a few companies, you know, richer, like that's really going to be up to us.

You know, and so for educators at this time, when it comes to approaching it, I think do so with curiosity but also skepticism. We know that there are still issues with AI models making things up that's intrinsic to how they work, actually. And yeah.

John Howdyshell

Yeah, that's yeah. And so it is important that we, we kind of monitor ourselves and how we implement that. So with that, you know, I'm sure there are bound to be scores of new regulations and necessary protection put in place around AI just in general. Where do you see policy regarding AI heading in the next few years?

Sage Lazzaro

Yeah. So AI regulation is moving very fast, which is appropriate considering how fast the, the technology is being developed and integrated as we keep going back to the EU AI act as one example of really decisive regulation, which for the most part targets the use of general-purpose models in very high-risk scenarios. And, it's, it's kind of paving the way.

But, you know, here in the US and everywhere, what I think we're going to see in the coming years is a lot of continued debate about the best way to regulate AI. There's kind of debates right now about do we regulate the models themselves, or the use

cases and applications of the models, and someone probably argue we should do some of both.

One thing that I think is really interesting around this is at the time there's a lot of bills coming out, like the one that was just vetoed in California, that kind of hinge on regulating AI models of a certain size, like the biggest AI models. Big pertains to, you know, how they work, the amount of information they were trained on, and, you know, the processing they can do, saying, you know, the biggest ones should be, you know, held to certain restrictions.

But one thing about that is this field is developing very quickly, and it may not be true, for so long that the biggest AI models are the best ones, or that models keep getting bigger and bigger as they are now because big models are very expensive to create and to run. It comes with a lot of downsides for a model to be so big.

So there's a lot of incentives to make models smaller for the companies creating them and for anybody using these models. So we need to be careful also not to kind of pigeonhole us to some of the ways this is functioning right now when there's so much that could change, even the types of models that are used right now—large language models predominantly—could change.

So that is really something to think about. And I think it's going to be, you know, challenging and a point of debate going forward.

John Howdyshell

Yeah, I've definitely been following it as it comes to, as it pertains to, like, music and photos, art, that sort of thing, but where the usage rights and copyrights fall into that, it's fascinating. The other thing, I mean, you brought up earlier about data privacy, right? The, and, just like the concerns around that growing with this model. How do you see AI, or how do you see industries balancing that innovation and with the need to protect user data, like how are they implementing it while balancing that need to protect that data?

Sage Lazzaro

Oh, some are definitely doing better than others. And I would say this is a main area where there needs to be improvement. Data is really the backbone of AI. It couldn't exist, AI couldn't exist without it. And it, so far, has required astronomical amounts of data to create these models. You know, companies have hoovered up a lot of data on the internet freely to create most of that.

And we've seen some bad examples of, you know, companies misusing or being a little fast and loose with people's data. You know, recently, LinkedIn started training its models on users' data, your posts, without updating its terms of service. And made it opt out without even, you know, telling folks they were doing this yet.

And a lot of people argue your data being used on AI models should be, you know, explicitly opt in. It should never just happen. And you have to go through a bunch of settings to do it. You know, just as one example, we've seen a lot of companies have to kind of backpedal the way they were using people's data or kind of covering it up, not being transparent about it.

And, you know, data privacy is a huge issue beyond AI as well. And AI is the next domain where it is really important. And because data is such a big part of it, so much is required for these AI models. That's really important. And even a lot of the AI tools people could use, you know, in their workplace software that, you know, interacts with your, your sensitive documents.

It's really important that, that is protected and data privacy is considered there. But these models are very vulnerable also to hacking and things like that. And your data being in the models is also a concern.

John Howdyshell

Yeah. That's yeah, that is a concern for sure. What role do you see for educators and shaping ethical considerations around AI use in schools, particularly regarding issues like bias and algorithms. And then as we're talking about data privacy as well.

Sage Lazzaro

Yeah, I think it's really important for educators to be aware of ethical considerations and be an active part of discussions around when and how AI is used in schools. Like, there are still some issues with it. It's early, as we said, AI hallucinates, as they call it. It can be inaccurate and make up information. There's been tons of studies showing how these models are biased against people who are users for whom English isn't their first language.

A recent study showed how large language models show a particular prejudice against speakers of African-American English. And, you know, when it comes to how we are using AI in schools, this is really important too. With some of those biases and inaccuracies, you know, advocating for responsible ways to use AI in schools, I think educators should do and be aware of, like maybe it's better suited for brainstorming and using as a jumping off point for creating lessons, than giving students feedback, considering these biases.

And one thing I want educators to understand that there are a lot of studies about, is that AI detection software that you can put a student's essay in and it will say this was created by AI or not has been shown to, to not work. I see stories all the time from students saying they got a failing grade or facing disciplinary action for using ChatGPT to write an assignment that they wrote themselves.

And there are lots of studies showing that these detectors aren't accurate. You know, like, like I said, especially for students maybe who English isn't their first language. There's a ton you can read about this. There's a great article in *Wired* called the "AI

Detection Arms Race is On.” It breaks down some of these tools and the issues with them.

And I think, you know, maybe that will change and it's something to keep an eye on. But I think before quickly using a tool like that as a solution for being concerned about, you know, students leaning on these tools when they shouldn't be. It's really important to, to understand a little more about them and how they may or may not be working.

John Howdyshell

At the same time, I think, did you write that article, that you're directing?

Sage Lazzaro

I did not. No. I would definitely disclose if I did. That was just one I thought put the story so well. There's tons of academic studies out there, which I'm sure the, the educators in here would enjoy as well. But that one just makes a great story out of it. But there's tons of resources on that.

I definitely encourage you to, to get familiar with that before using those types of tools.

John Howdyshell

Yeah, absolutely. It's not a, just drop it in and trust what comes out for sure. I have one more question for you, and I think it's totally appropriate that we leave this session on a high note, on a positive note, right? Because we did dive into some data privacy and just some of my nervousness around it.

But, you know, looking ahead, what excites you most about the future of AI and its potential to create positive change in this space, in education, but beyond that as well, in other industries?

Sage Lazzaro

You know, I really hope AI does enable us to make amazing new scientific discoveries. Kind of just circling back to what we started the session talking about. These discoveries in science and research and medicine, you know, that could, you know, I think they represent the best of what AI could do for us. You know, these new therapies for, for medicine that are being discovered are happening so much faster, and discover things we couldn't necessarily have before without AI.

And if we can use it for things like, you know, cancer treatments, Alzheimer treatments are also, you know, gaining some steam with AI. That would be amazing. But also expanding access to things like health care, to areas that are underserved. There's a lot of interest in these tools doing that. And just even helping the, the medical field in other ways, like decreasing burnout.

There are tools out there, to, you know, transcribe conversations between doctors and patients and take over some of that paperwork and notetaking and lessen the burden so they could focus more on actual patient care. That would be amazing. Just

anywhere where it could take over that monotonous work, if true, you know, would be amazing. A lot of people are burnt out.

We could really change our relationship to work. And I know teachers, educators can relate to that. So, you know, a lot have left the field for this reason and that we could, you know, really change that. And so AI has the potential to make our work lives easier, which would make our life, you know, easier and really change our relationship and with work and life and maybe reorient some of the way society functions for the better.

And like you said, this will really come down to how we actually implement it. But I think it's really encouraging to see some of these scientific breakthroughs and things that we already discussed and that we've seen just this week and come to fruition with Nobel Prizes. That's really amazing to see, you know, AI do that so quickly.

Like I said, one of the prizes for the, the protein model was just a dream ten years ago. It was released four years ago, won the Nobel Prize today, and just a few months ago, a newer version of that model was released that's even more accurate that can do more. And so, like, I'm just really excited to see where all that goes, especially considering how early we are in AI.

So there's so much unknown, but there is a lot of opportunity.

John Howdyshell

Yeah, the opportunity is endless. Watching the Nobel Prize winners, but then also, before our session here, listening to the students and how they're using it, maybe on a micro level, right. And, and doing kind of little things that add up to, to your point about the admin tasks. Well, thank you, Sage, for the, these thought-provoking insights and looking into the future of AI in education. I really appreciated the time. I hope everyone else did as well.