OPINION PIECE

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AI and the existential crisis of higher education: A self-examination

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Abstract

AI has caused an existential crisis in higher education. With knowledge and personalized learning available at the click of a button, questions about the meaning and purpose of education threaten to dissolve the need for the teaching profession as we know it. Yet research on AI in higher education focuses more on how to understand and adapt to AI than on how to revive and revise the raison d'être of education. By focusing on, 1) how to use AI to improve teaching (e.g. Shi & Choi, 2024), 2) how to use AI to improve learning (e.g. Sasikala & Ravichandran, 2024), and 3) how to teach AI literacy (e.g. Daher, 2025), researchers have turned the question of AI's impact on higher education into a technical-practical problem rather than an existential one.

'Indeed, the proper teacher lets nothing else be learned than—learning.'
Martin Heidegger (1954).

Introduction

The objective of this article is to help researchers and practitioners regain clarity and confidence in an AI era where the very existence of the education industry is at stake. It is hoped that thi`s article will provoke discussion about the fundamental purpose of education and lead to clear thinking and direction in AI in Education.

Viewing the advent of AI in education as an existential crisis, the article posits that the problems the profession faces cannot be solved with better and smarter technology, but only with better and smarter ways of teaching. To arrive at these better and smarter ways of teaching, researchers and practitioners must ask themselves:

1. Who are we as human beings?
2. Who are we as experts?
3. Who are we as educators?

Through this existential self-examination, educators will face the bad news that teachers are no longer needed to pass on knowledge. But they will also face the good news that it was never their knowledge that made students need teachers. Rather, it was their ability to make students seek – and work hard to obtain – knowledge. And they will realize that not only is this ability still needed. It is more needed than ever. In a world flooded with AI answers, the ability to distinguish between what is and isn't worth searching for is crucial to avoid drowning in indifference. Not to mention living and thriving in a world of constant change and uncertainty.

Whereas much of the current focus is on the technology itself, my perspective emphasizes the importance of rethinking and improving teaching practices alongside technological advances.

Who are we as human beings? Question animals

When asked what makes us uniquely human in the age of AI, Microsoft's AI specialist Advait Sarkar said: 'I think we get to decide what is uniquely human.' According to Sarkar, the millennia-long philosophical 'project of deciding what is uniquely human' is largely failing. And he thinks it's time we stop being human 'by chance,' and start being human 'by choice.' But is he right that we get to decide what is uniquely human?

Sarkar is just one of many AI specialists working for big tech companies who supplement their statements about the technology they specialize in with statements about what it means to be, think, and develop as a human. And although Sarkar, like former Google AI chief Geoffrey Hinton and former Meta AI chief Yann LeCun, know firsthand what it means to be human, they often get off on the wrong foot when they delve into philosophical questions. Like Sarkar's interpretation of 2,400 years of philosophical thinking as a 'project of deciding what is uniquely human.' And Hinton's suggestion to build 'maternal instincts' into AI models so that they don't want to wipe us out. And LeCunn's assumption that 'simple, low-level hardwired guardrail objectives' like 'don't run over people' and 'don't flail your arm if there are people around, particularly if you are holding a kitchen knife,' would be the AI equivalent of instinct or drive in animals and humans. These are all examples of how AI specialists not only fail to understand philosophy, but also fail to understand what it takes to be and develop as a human being. So let's consult some of the philosophers who specialized in asking big questions about humans rather than building AI for big tech companies!

The distinction between 'deciding what is uniquely human' and 'asking big questions about humans' is important. Because the 2,400 years of the history of philosophy was never about deciding what is uniquely human. Rather, it was about exploring what it means to be and not to be – human, but also animal, God and everything in between. The German philosopher Friedrich Nietzsche offered the best description of what it means to be human that I have ever come across. 'Man,' he said, is 'the yet undefined animal.' It's an excellent description because it captures how Nietzsche from his 1886 perspective was able to draw a historical line all the way back from the earliest Greek philosophers to the existential thinkers of the 20th century. 'Yet undefined,' he said, echoing the very first sentence of Aristotle's *Metaphysics* (350 BCE/1995), which reads: 'All human beings by nature desire to know.' Like Nietzsche, Aristotle knew that not only is it natural for humans to seek out knowledge, it is also natural for us to be in a state of not-knowing. That's why we desire to know, not decide to do so: because we know there is something we don't know. And that no deciding, defining, or developing will ever change that. Being 'yet undefined' and having a 'natural desire to know' means that our state of not-knowing is essential to who we are as human beings. It's not a flaw or a failure to decide what makes us human. It's what enables us to learn and grow.

In his 1988 article, 'Toward a History of the Question,' Dutch philosopher C. E. M. Struyker Boudier highlights the animal part of Nietzsche's definition by arguing that animals and gods do not philosophize because they have no questions: 'they are not "question animals," because to themselves their being is not in question' (Struyker Boudier, 1988). Later in the same article, he puts it a bit differently when he says that neither a complete non-being nor a totally complete being can ask questions, but only 'the fragile mixture that is the human being.' Drawing on 20th century existential philosophers like Maurice Merleau-Ponty and Sean-Paul Sartre, Struyker Boudier links the human state of not knowing with the act of asking questions. An act which German-American phenomenologist Erwin W. Straus describes like this:

> 'The act of questioning cannot be taught. Nor does it require a teacher. The first question arises early in the life of every healthy child, from the very roots of its existence. We are able to ask single questions because we are questioning beings at our very core.
> – Straus, 'Man, A Questioning Being' (1955).

I will get back to the point that the act of questioning cannot be taught – which is obviously important to educators who want to support human being, thinking, and developing in the age of AI – but here it suffices to emphasize that neither Aristotle, Nietzsche, Straus, or any of the other great thinkers in the history of philosophy failed to decide what makes us human. Rather, they considered it a mistake to believe that being human is something that a specialist, whether in technology, philosophy, or any other field, 'gets to decide.' Human is not something we can stop being 'by chance' and start being 'by choice.' It's a natural state of knowing that we don't know. Of lacking clear answers to why we are here and for how long. And therefore having to ask – and continuing to ask – what it means to be human. Unlike AI, we are not built to know or convince others that we know the answer to everything. We are born to think. And we do so by asking the questions that help us bridge the gap between what we know and what we would like to know. Deciding and agreeing on what is 'uniquely human,' and building technology that knows the answer to all questions, does not make us more human or better thinkers. Rather it makes it harder for us to face the knowledge gap that makes us ask our own questions and do our own thinking.

Who are we as experts? Ignorant scientists

'Knowledge is a big subject, but ignorance is a bigger one. And it is ignorance – not knowledge – that is the true engine of science.' These are the words, introducing professor of neuroscience, Stuart Firestein's book, *Ignorance. How It Drives Science*. And this is what it truly means to be an expert: to acknowledge that it's not what you know that drives your work forward, it's how you deal with what you don't know.

Anyone who has ever looked into the eyes of a 3-year-old can attest to this. Children understand that they cannot rely on their limited knowledge to guide them. So they spend their days asking: Who are you? What is this? Why, why, why? How do I know? What should I do? Like great philosophers, small children understand that it's not the answers they get that give life meaning. It's the questions they ask – and keep asking.

But for most people this tireless exploration doesn't last. We may start school to learn, but by the time school ends, we spend more time explaining what we know than exploring what we don't know. And when we enter the labor market, we think and talk about expertise as the opposite of Firestein's 'true engine of science.' Instead of exploring the bigger subject of ignorance, we spend our days defining and defending what we already know. We argue and guard our knowledge as if our lives depended on it, and we fight fiercely against the wonder, doubt and skepticism that threatens to push its borders. In other words, rather than working to expand our knowledge, we work to encapsulate it. With definitions, methods, measurements, theories and numbers.

To demonstrate the true engine of science, Firestein asks what makes a question interesting. And he answers with reference to mathematician, Maria Chudnovsky:

> A question is interesting if it leads somewhere and is connected to other questions. Something can be unknown, and you test it out for a bit, but then you can see, often pretty quickly, that it is not very connected to other things that are unknown and therefore it is not likely to be interesting or worthy of pursuit.
> – Firestein, *Ignorance. How It Drives Science* (2012, p. 61).

What's interesting about this perspective is that it does not evaluate questions on the quality of the answers they provide, but rather on the quality of the new questions they raise. And that the quality of questions is not evaluated on precision, but on whether what is being asked is connected to 'other

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things that are unknown.' This is different from how most educators use and teach students to use questions, namely to elicit clear answers about the knowledge that has already been conveyed.

In this way, Firestein not only insists that it is ignorance, not knowledge, that drives science forward, he also subscribes to German philosopher Hans-Georg Gadamer's understanding of questioning as the key to human thinking:

> The art of questioning is the art of questioning ever further – i.e., the art of thinking. It is called dialectic because it is the art of conducting a real dialogue.
> – Gadamer, *Truth and Method* (1960).

Just before this equating of 'the art of questioning ever further' with the art of thinking, Gadamer addresses the same challenge that Straus also mentioned:

> The art of questioning is not an art in the sense that the Greeks speak of techne, not a craft that can be taught or by means of which we could master the discovery of truth. [The Socratic dialogue] is directed, rather, to distinguishing the unique art of dialectic from everything that can be taught and learned.
> – Gadamer, *Truth and Method* (1960).

As we approach the third question in our existential self-examination, 'Who are we as educators?', this challenge becomes more and more pressing. For what if we accept, 1) that we should not define and decide what it means to be human, but face and embrace our inquiring nature, and 2) that our expertise lies not in what we know, but in how we deal with our ignorance – where does that leave our students? If it is not our definitions, knowledge, methods and theories that enable us to learn and grow as humans, and the questions and ignorance that do are not something we can teach our students, then what is our task as educators?

Who are we as educators? Ultimate learners

The good news is that Straus was right when he added 'nor does it require a teacher' to his provocative statement that 'the act of questioning cannot be taught.' All humans by nature truly do desire to know, and the first question truly does arise early in the life of every healthy child, 'from the very roots of its existence.' This means that, under the right circumstances, every human being is capable of asking their own questions, doing their own thinking, and taking responsibility for their own learning. The bad news is that most educators have been so busy cultivating their knowledge and 'expertise' as educators that they have neglected to explore and experiment with the 'true engine of science.' This means that today's educators have plenty of experience teaching what they know, but little experience in creating space for themselves and their students to deal with what they don't know. And the right circumstances necessary for people to ask their own questions, do their own thinking and take responsibility for their own learning are therefore rarely present in education and society at large.

However, in a world flooded with AI answers, students don't need educators to know everything, they need educators to help them be comfortable with *not* knowing, to accept and constantly adapt to the changes coming their way, and to take responsibility for what never changes. Instead of testing and rewarding their students' ability to come up with answers, educators must flip the script and make room for students to explore and experiment with the questions big thinkers and theorists have asked before them.

This shift from teaching what you know to helping students be comfortable with *not* knowing takes a fundamental shift in how you understand yourself as an educator. A shift that starts by accepting that you have as much – or more – to learn as the students you are teaching. As German philosopher Martin Heidegger put it:

> 'Teaching is more difficult than learning because what teaching calls for is this: to let learn. Indeed, the proper teacher lets nothing else be learned than—learning. His conduct, therefore, often produces the impression that we really learn nothing from him, if by "learning" we now automatically understand merely the procurement of useful information. The teacher is ahead of his apprentice in this alone, that he has still far more to learn than they—he has to learn to let them learn. The teacher must be capable of being more teachable than the apprentices. The teacher is far less sure of his material than those who learn are of theirs. If the relation between the teacher and the learners are genuine, therefore, there is never a place in it for the authority of the know-it-all or the authoritative sway of the official. It still is an exalted matter, then, to become a teacher—which is something else entirely than becoming a famous professor.
> – Martin Heidegger, 'What Calls for Thinking?' (1954, p. 380).

In this quote it becomes clear that making the shift from teaching what you know to helping students be comfortable with *not* knowing takes courage: To behave in a way that gives the impression that others have nothing to learn from you. To be okay with having more to learn than those you teach – because you not only have to learn the subject matter of your teaching (like your students), you also have to learn what it takes for your students to learn the subject matter. And to let go of the authority of the one who knows, if not it-all, then – as was typically the case before AI – best. Teachers who practice this take every opportunity to understand what drives their students: what their interests are, how they understand the world, who they look up to. And then they invite their students to discover and discuss how the subject they are teaching connects to this reality. In this way, they create a space where they have as much to learn from their students as vice versa. They make *not*-knowing their common starting point.

Before AI, educators were rarely in a situation where students knew the subjects they were teaching better than they did. Now, students not only have instant access to more knowledge than a single teacher can acquire in a lifetime, they are also often faster and better at using the AI-generated output than teachers. In other

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words, the days where educators enjoyed the authority of the know-it-all or know-it-better are over. And the battle to become the one who is most familiar with and can get the most out of the latest technology is lost in advance.

But the battle to continue to be, think and develop as a human being is not. Educators have years, maybe even decades of valuable experience of 'letting learn.' Experiences that are not defined, designed and developed out of data, but lived and paid for with the same wonder, doubt and skepticism that drive their students. Educators have something that is far more important than knowledge, namely the lived experience of not-knowing.

Of asking questions that no one – least of all a machine – can answer for them. And of finding meaning and purpose in expanding, not just explaining, their own and other people's knowledge.

Educators may have spent a lot of time defining and defending what they already know. They may have argued and guarded their knowledge as if their lives depended on it, and fought fiercely against the wonder, doubt and skepticism that threatened to push its borders. But unlike AI, they have spent even more time living and learning to navigate a world with more questions than answers. A world that, no matter how many definitions, methods, measurements, theories and numbers we come up with, remains uncertain. A world that we are not meant to control, but to take care of. And where we can only live and learn if there is someone willing to do it with us.

Implications for practice and future research

The thing about existential questions is that no one can answer them on behalf of someone else. Every researcher and educator must come up with their own answers to who they are as human beings, experts, and educators. But by undertaking this self-examination, it becomes clear that the current research and debate about AI in Education is insufficient. It lacks a common understanding and language for the fundamental purpose of education in a world where ready-made machine answers threaten to drown out the questions that guide human learning. To revive and revise the raison d'être of education, researchers must develop and offer a way of thinking and talking about teaching that transcends the use of technology and helps practitioners find clarity and confidence in the basic state of not-knowing that makes them human.

However, existential self-examination does not stand or fall by academic research and theories. Practitioners can explore and experiment with the fundamental purpose of teaching by changing small things in their everyday practice, such as:

- Focusing more on their own and their students' desire to know than on the knowledge that can be looked up in a book or explained by a chatbot, e.g. by asking students to formulate questions about the teaching topic and explain why they consider these questions more important than other questions (using students' basic state of not-knowing to activate their human thinking).
- Demonstrating their own way of dealing with not-knowing, e.g. by preparing and asking their students questions they don't know the answer to themselves (creating a space for students to experience how true experts are not afraid of acknowledging and admitting the ignorance that drives their work forward).
- Making room for themselves and their students to express experiences that are not defined, designed and developed from data and scientific theories, but from the fundamental wonder, doubt and skepticism that all humans have in common and that separate us from AI, e.g. by collecting and setting aside time to discuss questions that have no clear answers (using shared ignorance to 'let learn')

The answers to who we are as human beings, experts, and educators are completely different from the answers to how to use AI to improve teaching and learning. They don't consist of clear definitions and guidelines. They may even, as Heidegger's teacher, produce the impression that we really learn nothing from them. But they are a reminder that students never really needed teachers to know best. They needed them to be curious and courageous enough to explore the unknown with them.

And they still do.

Author bio

Dr. Pia Lauritzen is a Danish philosopher, tech founder, and keynote speaker whose work explores how the questions we ask, and don›t ask, shape our thinking, technology, and leadership. Her postdoctoral studies of how people living in different language cultures use questions to distribute responsibility was funded by The Carlsberg Foundation and published by Johns Hopkins University Press and Aarhus University Press. She has published five books, three peer reviewed, one based on her PhD, and one non-academic, created the Qvest and Question Jam platforms, and analyzed more than 30,000 questions asked by people around the world. Her contributions have earned international recognition, including being shortlisted for the Thinkers50 Radar Award for showing how questions, not ready-made answers, define our future. In her regular column for Forbes, she asks big questions about tech and transformation, and she shares her research on LinkedIn Learning, podcasts, TEDAI and TEDx events.

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