

Transcript

Nadia Badrawi

Hello Everyone. I'm so happy actually to be with you today and this is a series of webinars that we hope that we continue this in the future. Also with the CHEA International Quality Group. Today actually we are talking about a very interesting topic, which is AI in education and how we are going in the future in working in AI education. We have our first speaker, Dr. Fengchun Miao. Dr. Fengchun Miao is the chief of the unit for technology and artificial intelligence in education at the education section in UNESCO. There is a leading UNESCO program on technology and AI in education, including the programs on guidance for generative AI in education, AI competencies, framework for school, student and teacher, the report on AI and the futures of learning. Dr. Miao also--highlights of his achievement include leading the organization of the fourth edition of International Foreign on AI and Education 2019 sequence 1 22 and the development and adoption of Beijing Consensus on AI in Education. The launch and continuous organization of mobile learning week and digital learning week at UNESCO for 12 years, he's the lead in over 30 important publications of UNESCO in various domain in digital education, with eight of them ranked a top 50 by download among all UNESCO publications. He has coordinated the support for more than 70 countries in the formation of national digital education.

We're very proud that you are with us today, Dr. Miao, and he is going to talk about ethics in utilizing AI in quality assurance and accreditation.

Fengchun Miao

It's really my honor to share some ideas about the use of AI in assessment, in quality assurance and in accreditation. So it's thank for the organizer for inviting me and first of all, I would like to share some resources from UNESCO. We have been publishing a series of guidance on the use of AI in education, so they are highly ranked in UNESCO's publication. So in September, 2024, we had four ranked the top 10, including the "AI Competency Framework for Teachers," ranked the number one; "AI Competency Framework for Students," ranked number two; and we also have "Guidance for Generative AI in Education and Research." It was ranked the number five and the Spanish version was ranked the number nine. And we also had others. For example, we have the "Beijing Consensus on AI and Education," "AI and Education Guidance for Policymakers,"--it has been top 10 and if the pushed out of the top 10 by the three new publication.

And so with this, if I copy this print edition with the organizer, you can scan the QR code and download them. They are free of charge and they are being available in multiple language. For example, for all this, they are available in six official UN languages. So based on this, I would like to start because I'm asked to present the ethics. To understand the ethics, I suggested that we should go deeper to look at controversies around the AI that are behind the ethics of AI. I use this diagram to try to unlock or review the black box behind the ethics of AI. So we need to think quite deeply about what AI means for us. For example, what's the intent of the design? So for us, for the public good, we want to have the human control the AI, but for some of the AI companies, they would like to put the machine in the center because we want to design it and to use the AI to control the consumer and especially even sometimes to weaken the consciousness of the users and to manipulate the human behavior.

And this has been noted by the Europe AI Act and the category of the banned AI should fall under this kind of category. So we need to understand what's the intent of the design. And then all the AI now are using data. So we need to think when we use the data, we have this controversy because we want to put the human rights at the center. But the developers, they simply want to strengthen the capacities of their machine, which means they want to maximize the mining and the use of data for the AI machine, that's a controversy. So we want to maximize the human privacy, but they want to maximize the training data. And what kinds of algorithm and methods are used by the AI machines or devices? We should be

very clear because all these AI companies do we have, they will decline that we can do this, it's (unintelligible) and there's a lot of hypes around AI.

But for us, we need to check the robust needs of the AI methods and also explainability of the AI methods, whether it's explainable, whether it's reasonable, whether it's rigorous enough for us to trust them, which means whether the methods are trustworthy or not. So we need to understand this conflict. And also we have the intent by the deployment, not only the design, but who is deploying that at the institutions. Sometimes we may have the administrative bias. It's really to serve the humanity and our sustainability or to have kind of passive consumer habit or addict. We need to understand this. If we understand this, we will understand the ethics. I would like to use the human-AI interaction model to examine the use of AI in education, in learning assessment, and also for accreditation. I have been using it for many times. So I would like to unpack the human, we have individual human, we have a human interaction including the social practice, but we are all living in sovereign states.

For example, now we have, U.S. has the new president, you have the administration and this kind of governments, we are managers, and we also need to consider our relationship between human and environment. Then we need to understand what do we mean by AI because AI is moving, is developing very rapidly. And then to check the proportionality for any kind of purpose. So we need to again unpack and divide the key technology step of the entire life cycle of AI, including who is producing data, how we manage the data, store the data, and then who can access the data, who can control the data and what kind of data we collected. I mean the AI developers collected and what kind of algorithm to use to generate AI devices and what kind of architecture they're using. And by the end, what kind of devices they are producing the interface including the functionality.

And based on this, we can unpack any kind of AI tools. I will not talk about the details. For example, what can language distribution of the ChatGPT and where the data from starting mining the data from 2012 and we use 10 years to collect the data to train their AI model. And with this human-AI model, human and action model, we can also flatten them into a two-dimension or three-dimensions table or metrics to analyze the ethics of AI, for example, individual technology dimension. And we can find any kind of ethics data can fall under different cells of these metrics. For example, data privacy, data security, the right to control the data and also digital divide and including the information cocoon but also some value cocoon. And we can analyze that. So I think that's how I analyze the ethics of AI. Again, I will not go to the detail, but we can analyze from these two dimensions--we cross-cutting them--we can find to reveal to surface different ethics and analyze the reasons behind them.

And also we need to think of the historical dimension, which means AI is developing very rapidly. That may be more stronger and stronger AI coming out. We need to think what will the implications for ourself for education and for the next generation. And more specifically, I want to unpack--further unpack--what do we mean by because we are talking about learning assessment, quality assurance, accreditation. So we need to think what's the evolution of what we mean by quality of education? What do we mean by qualification and what we are talking about in terms of accreditation? So in the guidance--UNESCO's "Guidance for Generative AI in Education and Research," we try to encourage the educators to think the long-term implication of generative AI for our learning outcome, also for the quality and for the qualification. So from the first following perspective, first, we should not forget the value because the value is one of the core parts of education because we are not only talking about the qualification accreditation of academic linear outcome, but also the value development, social and emotional development.

So we need to think what kind of value we need to foster, especially the human-centered values towards the design and the use of technology and AI. And we should make this the needs for the human-centered values explicitly not kind of a hidden learning outcome. And there will be some

implication for the foundational knowledge and skill. We know that now in some of the domain, AI can do better than human, but even in this kind of domain we should not see that the fundamental knowledge and skill will not be important. Simply that we need to redefine what do mean by the fundamental knowledge and skill. For example, if AI can help us to write our essay, it does not mean that the human will not need to learn how to outline article and draft article because if we lost--the human lost--the capacity of drafting, planning and also polishing the article in the future, we will not have the ability to make judgment on the quality of the output of AI.

We still need to learn them, but how to learn and how to test them is another question. And then higher-order thinking. Of course we are talking about higher-order thinking creativity and they may become more and more important. But the question is that whether we can have higher-order thinking and creativity without foundational learning, without the lower-level thinking. For example, can we do the creativity? I always think without memorization of factual knowledge and conceptual knowledge, can we have a creativity without understanding of the subject knowledge? We need to question this and to really define the relationship between the lower-order thinking and higher-order thinking. What's the rules of the lower-order thinking and the lower-order knowledge as a grounding foundation for the higher-order thinking? I think it's not simply to see that we only highlighted higher-order thinking, ignoring the lower-order thinking or the lower-order learning outcome.

Of course we also need to respond to the vocational skills, which means to face the challenge, the directive challenge of finding a job and the employment skills of course, including the AI-related skills. What kind of posts we will be displaced due to the introduction of AI and what kind of new skill unit will be or task unit will be introduced or driven by the use of AI? We need to be clear about this. And again, we want to use this model to analyze how can we define the quality and the qualification for human. Basically we are talking about subject-specific or interdisciplinary knowledge and the skills and we need to think of both the behavior performance but also the latent abilities. And we need to talk about what the values the human can perform, but also what are the tacit knowledge about values. And also we have the job- related task, the job task-based problem solving.

We are talking about problem solving, but actually we are talking about the problem solving skills for jobs and for employment or for entrepreneurship. And then we are talking about the communication and the collaboration skills including language, but also intercultural interpersonal communication. And we also talk about the values. The values include the sympathy and the empathy and also some how to help or test the people's qualification in terms of internalized social responsibility. And now with the climate change, we need to talk about the climate knowledge, climate skills and also the climate actions and including the global citizenship. And going back to the AI to reveal what AI can do for us and what are the ethical issue. For example, if we still have the digital divide, AI divide, many people do not have the AI tools. Their data are not represented in the AI tools. There will be kind of inclusion and discrimination of the data.

And of course there's data privacy, but also our data should have some public value. How we can get balance and if we promote the collection of data based on anonymous kind of method. But this will be a problem of the credibility of the data. We also need to think if we're using the data to recognize the pattern; that's one of the possibility when we use the algorithm. But also that might be if we are using the match of the voice recognition, major recognition for the lending assessment for the accreditation, it has huge potential but also have a discrimination against the voice and image that are not stored or reflected in the AI tools. And we also need to find what are the algorithm that are designed for assessment for accreditation. And if more and more now people want to use GPT, that might be more and more the learning assessment facing GPT, which means to train some models specifically for the assessment purpose.

This may be emerging, we need to pay attention to that. And also some people are using assessment generators or they use generative AI to generate AI assessment quiz or small test and examination. So we need to pay attention to this. And also in the history we are using the scanning technology to do the L2 grading. Now we have the image recognition and we can use AI to do that. And some people are testing the use of face recognition AI to facilitate the remote test. Then also encounter some ethics, whether the local market or local government alone, the use of face recognition AI. And also we have the test embedded in the learning management system and we may also have more and more application specific for assessment. So that's my summary of what kind of AI we are talking about and for what kind of assessment and accreditation purpose.

And of course we should not forget, we have the formative assessment, summative assessment and we need to make decision on whether some people is qualification qualifying or not and how we can entitled the accreditation. And with this we can also further to analyze the process. I propose that we should think of human-accountable AI assistant accreditation. We need to look at what kind of AI system we are talking about. We need to really, really make it clearer what kind of AI techniques we are using, what kind of AI applications we are talking about. And we need to make sure they are trustworthy and they are explainable, they're human controlled. And we need to ensure that there's a human accountability behind the AI system. And also to reconstruction the cost of the test and accreditation and think of the process, what's the needs, what's the needs of the qualification?

And we are thinking of from a rigid qualification to the contextualized kind of competency test and what kind of result we want to generate and what will be the process. So we need to identify, clarify the purpose, and then think of the process and think of the long-term implication. I don't think I have the time to unpack this model, but in general I think we need to promote a kind of human-accountable AI assisted accreditation. And based on this we also need to think of the storage sharing of the, and we also call it encrypted-the result of the assessment and accreditation. So from UNESCO, we have another publication talking about the education and the blockchain, talk about how we can use blockchain to help the management of accreditation. We are not saying that blockchain is perfect for that purpose, but we need to consider an alternative technology that can help us protect the linear outcome but also share the accreditation cross border.

And I want to share probably how we summarize the controversy around the generative AI and their implication for accreditation. We summarize eight fundamental controversy around generative AI. The first one is that because of the mining of the data, because of the data divide we did, the use of AI privacy use of AI may generate account of data poverty or even AI poverty or sometimes we have with the AI colonization, which means if the AI tools are true only based on the dominant language and the dominant culture like US and the European country, and they will undermine the representativeness of the local language, the minor language, and the minor community. So in this also, if we go on to use AI without any consideration, it may also cause a kind of accreditation divide or accreditation poverty, which means the people do not have digital technology, do not have data, do not have AI may be further marginalized.

We need to consider this. Second, we think that the use of AI development is outpacing the national regulation adaptation. And we have this mapping how many countries have, with the general data protection law, how many countries have national strategy, how many countries have with the regulations. For example, only around 30 countries have the regulations on ethics for AI, which means many countries are not managing the AI tools, which means the AI we are using invalidated AI for assessment and for accreditation. And which also means that if we're using AI tools for quality assurance, the AI tools themselves are not quality assured. The third advice is that we summarize the controversies is that the generative AI, many of the AI tools are using our content without the consent.

It is also concerning. Obviously everybody knows that there's an ethics in the using of data for assessment and the accreditation, we need to follow the ethical principle.

The first one that the model, especially in the generative AI, is unexplainable. And to generate an output is something wrong. It has the hallucination. The developers, the designers of the generative AI system may not be able to explain why it goes wrong and what's the reason. So which also means that if we are using these kind of tools for assessment, does it mean that we are using unexplainable methodology for assessment and accreditation is a question mark. Five, the AI-generated content, it's polluting the internet because the output of generative AI is kind of identified, confirmed the pattern, which means they are cutting the long-tail data from the data distribution only identified the dominant the data in the center of the curve. And this kind of data, this kind of content are now rushing into the internet, which means the second generative will need to use the content generated by their generative AI to train.

the further model is also mean that there will be the loss of the significance of the long-tail data. We should be careful about this. Under the sixth one, the AI some of the AI tools especially generative AI, may not understand the real world, which means if we're using the output with hallucination, with tools without understanding of the real world for assessment especially to determine the entrance examination for that interest to a university, a qualification for certain job, we need to be careful. We need to examine the reliability of the using this kind of output for assessment and for accreditation. The seventh one is that is written the plural knowledge construction. We talk about this, it is projecting the values of the data owners that they are used to train the model, which means it's not reflecting the values of the local people, margin model people.

Their datas are not used for the training of data for AI model. So it may in the AI-generated output for evaluation, we already approved that many, many article is talking about that. We'll project value, there will be bias. So we need to be careful whether the tools we are using have some bias against certain risks, certain color for skin and certain ethnic groups. And the eighth one is that of course the generative AI is generating I call the deeper deepfake. And which means in the future we will facing more and more cheating, which means there will be some deep fake to provide the proof of their qualification and for the quality assurance and for accreditation, we should be careful. And the last one I want to conclude that we have the AI competence framework for students, I think is example to set up a benchmark and also how to assess the competency.

So we call, we need to defend in the future what kind of society we want to build and we promote that we should build the AI, define the AI society citizenship, what kind of citizenship do we want to build in the AI society? And then we go back to talk about what kind of human competency do we want to prepare for the desired human society in the AI era. So we define the AI society citizenship in the AI competency framework. And we come up with this AI framework for students with four aspects, three levels and for three group of students. And we proposed that the country should consider to consider developing a kind of criteria in referenced assessment of student AI competency. It could be an example for us to consider how we can defend the transdisciplinary competencies and also to defend the standard, the framework and then come back to think of the criteria in reference assessment and accreditation. So with this I just share some ideas and thoughts. I'm not an expert in accreditation quality assurance, but receiving this invitation, I feel honored and I try to draw some point from our thinking pieces, from our publications to share some ideas with you. And I'm looking forward to your criticism or comments. Thank you very much again for the invitation.

Nadia Badrawi

Thank you so much, Dr. Miao. We actually, the presentation was really insightful and your expertise stand out actually, actually your expertise is really impressive. You provided us with valuable knowledge

and understanding of the complexity of this topic and it's this important topic. Thank you so much again for your precious time and valuable input. Now I'm going to present Dr. Cato. Dr. Cato Rolea is assistant director of the digital transformation at Ecctus, a UK-based provider of international education services and the designated national agency for the recognition and evaluation of qualification and skills. With over 10 years Dr. Cato work in this field. He has led projects in student mobility, transnational education, digital transformation, quality assurance and higher education. And also he worked at Nottingham Trent University. He expanded actually the institution reach across Africa, America, Middle East. Cato is also a founder of UniGlobal Careers where he developed an AI-powered career toolkit to support international education. I really would like any one of you to see this kit is very impressive. His work centers on blending innovation and emerging technology adoption with ethical practice to enhance quality and accessibility of higher education globally. Now Dr. Cato will actually talk with us about AI and quality assurance in higher education. The floor is yours, Dr. Cato

Cato Rolea

Many thanks, Dr. Badrawi. Many thanks CHEA for having me today and many thanks to Dr. Miao for the very insightful presentation. So without further ado, I will be sharing my screen and I'm going to take a slightly different approach to the current topic. I know it's a very complex topic, let's say it's something that we've been confronted with that we're kind of forced to deal with. But before I start, can I just check that you can see my screen okay? Okay, great. Thank you very much. So what I'm going to talk about in this presentation and what I'm going to delve into is in the perspective that we need to make sure that we do tackle quality assurance in higher education when even thinking about engaging or interacting with AI. You'll see here the title, the subtitle is "Lessons from the Titanic." And that's again just because I will be drawing some analogies from what we know that can help us decide how we want to move forward.

To start with it would be very useful to kind of ground our understanding of the terminology. So I'm not going to go too much into the theory of artificial intelligence, which is quite expansive, but what I will do, I will be going through some major concepts, some fundamental definitions or issues, and then we'll see how we can apply to quality assurance and the higher education wider sector. Artificial intelligence is interesting because it's been around for a while and it has been defined over the years. I think there's two definitions that stand out for me that are quite very accurate in describing how AI has been evolving. So if you look at the definition on the left from Popenici in 2017, AI is defined as "computing systems able to engage in human-like processes." Now fast forward to the advent of ChatGPT and generative AI.

We can see that the OECD defines AI in similar terms with a very important distinction. So now how the OECD defines the artificial intelligence computing systems are that yes, they are generative, but also they can lead to "predictions, content recommendations or decisions that can influence physical or virtual environments." And I think this is a very important addition to the definition and this is a very important acknowledgement of how impactful artificial intelligence can be in our day-to-day lives, and we kind of knew this throughout the years, but AI has been pretty much a black box, let's say that was kind of only accessible to computer science experts or to big companies that had the resources. But obviously now with the advent of generative AI and things like ChatGPT, it's becoming mainstream. So AI was mainstream to be consumed from a company backend perspective. Now it's becoming accessible and easily consumed by anyone, whether you're technical, non-technical, whether you're a student, whether you're a child, whether you're an adult, it doesn't really matter.

So now it's pretty much everywhere. One thing that I think it's very important to also acknowledge is what artificial intelligence isn't. I know there's a lot of talk about ChatGPT and when people now refer to AI, they will simply mean ChatGPT. And I think this is what we need to address because artificial

intelligence isn't just ChatGPT. So ChatGPT is a type of generative AI. And if we have a look the graph on the right, we can see that really here we're dealing with a subset of a subset of a subset of the wider artificial intelligence ecosystem. And this is by far anything new. AI has been around as a concept since the forties. That's when the first computational systems were designed in the fifties. The terminology has been designed to take into account the artificial elements of the intelligence that was being built.

And what's important to notice here is that this is not a breakthrough technology that appeared overnight. Generative AI and tools like ChatGPT are the consequence of progress over 70 years if we think about it. So every single progress within the AI wider field has led to the development of generative AI. And I think there's two ways we can look at it. As I said, this is not a lesson in technology, this is a presentational perspective. We have one perspective where we can say, well, it's quite amazing, it's quite great that now we finally can interact with this powerful technology. What the creators of these technologies have done is they've not just allowed us to interact with these models for free, but they've allowed us to actually plug in or plug out from their technology and connect it to our own system. So what it means that now we have the power to build AI solutions without necessarily understanding how neural networks, deep learning, machine learning or AI in kind of general terms works.

We don't need to be experts, we don't need to have a department that's expert in machine learning or AI to be able to use generative AI in a product. So I think that's the quite revolutionary moment and this is the reason why we see thousands and thousands of companies now that are offering AI services, especially in education, we see every single educational platform now has an AI component to it. If we were to talk about this before 2022, this wouldn't have been possible. So the reason why we're seeing these companies adopting AI or offering AI services is not because they've become experts in AI, it's simply because they're using the technology that's being provided by these big companies that are creating this technology very cheaply, very affordably or sometimes free of charge. Now this is where we get into the other part which is a bit scary because we're talking here about a lot of computational power.

The problem is if anyone's got access to it, obviously this power will end up in hands who are not very wise or who are not very intelligent. And we all know what happens when power is concentrated in the hands of the unwise or the ones that don't have the best of intentions. So obviously there are reasons for us to naturally fear the potential impact of AI. That's why we should be very cautious when adopting it. But again, coming from a slightly different perspective I would say this is nothing new. If we look further back in the past, on the top right, we can see there an illustration by Jean Marc Cote, which was an illustrator that actually designed a few postcards in 1899 that tried to predict what education would look like in the year 2000. So interestingly, I think if we look at that image, that's quite scary. There we see students connected to wires through helmets that are then connected to a machine that turns out books and obviously that machine is controlled by the teacher.

Now I've used ChatGPT to reimagine what that might look or might have looked in the current time if that prediction would've come to be real. So on the left we can see slightly more modern approach or on the top on the bottom right, we can see the more modern potential approach to it. So in my eyes, that's quite scary and concerning for you to think, "oh, this is where it's going to lead to." However, if we look at what's actually happening in practice, this is what we see currently. So all of a sudden not as scary, quite familiar. All we see is yes, these technologies being adopted at very many levels. It's on our smartphones, it's on our laptops, computers probably soon coming on a number of gadgets as well. But one thing that we have certain especially in education is that we know who the main users are.

So there've been several studies, there have been several conferences that I've attended recently. And the consensus is I think unsurprisingly that students especially in higher education will be the most

active users of generative AI. On the other hand, we don't see the same with educators, which are quite low compared to the students. And I think this is really what, this is really where the quality assurance issue comes in. So if you look at these stats, for example, from an institutional perspective, if we have the majority of students using models that can easily plug into academic journals and then write very high level, very specialist type of knowledge, whether it's in reports, papers, theses or answers to exam questions or take away home questions. And we have educators at the same time that don't understand the technology, it's hard for institutions to really understand the quality process of the learning and of the teaching experience because then really we have a disconnect because of students that are using technology and not quite sure on how to use it.

And then comparing to educators that haven't engaged with the technology and are not sure how to guide the students to use the technology properly. So obviously because of these nearly three quarter of students from most of the surveys that are presented here, do expect the university to offer more courses on AI literacy, for example. How many of them are there? Hard to say from a quality assurance perspective, for example, I think we have an even bigger job, is that to ensure that universities or educational institutions have processes into place to ensure that the staff can engage with this technology properly from a variety of points of view and especially from the ethics perspective and all the other very valid points that Dr. Miao presented in the previous session.

And it is not hard to see how this is being widely adopted. So if you have a look at, for example, ChatGPT, that's the most popular tool that we have in the current landscape. It has already partnered with some of the biggest universities, officially. Unofficially, it's probably used in a lot more. Now what I find interesting about this, it's a company so big that has an EDU plan that stands for Education Enterprise type of plan, has actually very limited instructions for educators or for higher education professionals to actually use their tools. For me, when I look at their education platform, it doesn't seem very different from their regular one. And then again, if we look at Microsoft, it's another example of a company that has invested heavily with open AI in driving adoption at universities. The only resource for educators I could find was prompt library on GitHub that was unofficially maintained by a user called Matt the Ogre.

Now this is on GitHub. I wouldn't really expect anyone of the attendees or on the panel to actually understand what GitHub is, what a merge pool request is, what a committee is, simply because unless you come from a technical development background or you've worked in IT before, it wouldn't make much sense. Now what does this mean in terms of perspective is that these companies, they don't really care too much about what is accessible to who and how educators will be using this and what the real impact was is on the students or on the users. And they do expect institutions to take ownership of it. And very rightfully, we have voices in the higher education, in the quality assurance community that are saying why should the burden of regulating and governing and adopting this technology fall on us as institutions? Why don't these big companies do it?

Why don't they come? And even if they sell what they want to sell commercially to educational institutions, why don't they actually guide us and provide proper training materials, resources or ways that can really help personalize higher education? And why should we do it? Why should US educators be involved with this? And here I think I'd give a very simple answers, it's because we care and that was always the answer. We know that the big technology companies will serve their commercial interests and we know what our interest is, which has always been the student experience, the student experience, the quality of educators, educating the future brights minds of our society. So we can already see who is struggling the most in the current landscape. It's students. Students that are not using AI, for example, feel left behind compared to the ones that are, students that are using generative AI.

Some of them know how to use it quite well, but they still get flagged as potential plagiarism. Some don't know how to use it and they use it to cheat and then they get caught or they don't get caught and others would like to use AI but don't know how to use it because they don't have either the financial resources to access the better models or the training opportunities to understand how this technology works. So again, I think we have to remind ourselves who do we care most about? What's at the core of our services and mission? And that is ensuring that students will have a good learning experience and teaching experience. And then if we go at a higher level, obviously as institutions, we want our staff to feel empowered to be able to form these bright minds and students, but also at a higher level quality assurance agency,

we want to make sure that all these institutions have the right policies into place, the right governance, the right methodologies to go through and the right frameworks to put into place such as the ones that Dr. Miao mentioned before. But again, if we look at it, it seems like everyone is concerned. There's a lot of concerns, there's a lot of concerns in the media, but it's nothing new. So again, going back to this is a session on perspective. So if you look back 30 years before in the analog world, what did we have then? We had a massive uproar as well because that started with Google and Wikipedia. Those were the main disruptors. Twenty to 30 years ago, we had universities scratching their heads on how they can catch students that are using the new way of searching the internet, Google or Wikipedia and copying and pasting stuff in their assignments.

Eventually we found a way through tools like Turnitin and better engagement in the classroom. And for that reason, I'm quite optimistic that we will find a way as well with generative AI when it comes to ensuring this quality when it comes to the teaching learning experience, but also at the university policy wider and the organizations across the board. Google is still around. I mean, it's not to say Google has been the default search engine about anything that's online, but what we have interesting now is that we have a very different challenger and that's ChatGPT and the others. But if we have a look at ChatGPT welcome screen, we go back to Google, we look back at ChatGPT, what can we infer? It's very similar. So what we can draw from this, the way ChatGPT is positioning itself is as the new way of interacting with knowledge online.

When we used to Google things before, we'd find the information online, when we ask ChatGPT, now we get the information online. So again, a matter of perspective of how ChatGPT is trying to position itself. And obviously we know who uses the internet mostly, especially when they're trying to study or learn something new. That would be students. So AI has been promised, as I've said, there's the big companies in here, we can really count them on our fingers. We've got Open AI, Anthropic, Google, Microsoft, Amazon, and Meta. These companies will have the main ingredients needed to run these powerful models and they're all racing to developing the next stage of AI terms as artificial general intelligence. And that would be a very theoretical, powerful model that would be able to perform at least as good as us humans in every single area that we can think of.

Now the problem with this is again, as I've going back to my previous statement is we have these very powerful companies. They're building these very powerful and very hyped up technology and going at full speed. It's going at full speed and the whole of the education sector is on that boat that's currently being driven and there's not a lot of control at the moment anyway of where this direction of this massive ship is going. So you probably get where I'm going. If you look back in the past again, we have had a similar, let's say example where we had a very new powerful technology that went full speed, that had a lot of people on board that had a lot of expectations and high hopes. And we all know how that ended.

And again, when it comes to who is really on board, we know who's on board, we've got students, we've got staff, we've got teachers, and we are sure that what we want to ensure is again that all the people

that we have on board, all the education sector has the power to take control of that ship has the power to shape this technology in a way that serves the education sector and teaching and learning and quality assurance as opposed to vice versa by simply using technology and serving these big companies and helping them in the race to the next big thing in technology. One of the hardest things most likely is again, we are, as I've said Titanic analogy, we have built a very powerful technology. We are moving full speed ahead and it's hard to see beneath the surface. I mean Dr. Miao went beforehand in quite a lot of detail about what's beneath the surface.

But again, from what we can see, obviously we've got the discussion about ChatGPT about how helpful it can be an administration about how can it potentially help teachers in classrooms or students in classrooms. But really when it comes down to ethical considerations, data privacy, long-term impact on educational outcomes, this is something that's not widely engaged with. And probably again, one of the most important one, resistance to change. And here I've put a famous quote by Mark Twain, like the only person who likes change is a wet baby. And that's because change sounds great in theory and it sounds like we can do a lot of great things, but when it actually comes to implementing it into practice, it becomes painful, it becomes difficult. So if we put everything into perspective, what I would say the main way that we could take back and we can take control of the ship and at least steer it in the right direction for us to potentially avoid an impact with a technology that we're not fully aware of, what potential consequences it could bring would be to start engaging with it.

And I think one of the biggest issue we face in the higher education sector in the quality assurance sector is that we've been talking about AI for the past two years, but we haven't even gotten to engaging with it. And after engaging with it, I mean engaging with it is just the first step. The other step would be properly adopting and implementing it. There's no ways to cut corners, so we can't go from just talking about it to implementing it because we will be risking a lot of potential consequences that we can't foresee. So our advice or my advice as well is to start engaging with the technology to understand exactly where the impact is going to lie. And from there you can go and choose the right policy, decide on what implementation plans could potentially look like and who the stakeholders affected will be in this scenario. But anyway, I think I will leave it here because running out of time. But many thanks again. It's been a pleasure to speak and yeah, happy to take any questions.

Nadia Badrawi

Thank you so much, Cato. Actually, it was a very nice presentation. As usual, you always give a nice presentation and we appreciated very much the time and effort you took to share with us your knowledge and experience in this topics. Actually your expertise and perspective on the integration of AI technology into education and quality assurance were really truly enlightening. So your contribution was inspiring to all of us and thank you again to be with us and then we'll go to questions. I think Dr. Miao can answer some of the question because he's reading the question and he will answer directly and then we'll come back to Cato. So maybe I just will see if Dr. Miao will respond to any questions so I can read it and answer it, but I don't see, and he doesn't hear us actually because he is in travel thanking very much because he's in travel and he could participate with us this. So maybe we go to Dr. Cato until Dr. Miao can respond to us. Dr. Miao, Dr. Cato, there is a question from Dr. (unintelligible). She's asking you, do we need to redefine plagiarism in the era of AI?

Cato Rolea

That's one of the main questions, and it's interesting because I think it's hard to redefine plagiarism and what I'm going to say is going to be even harder, but I think we have to redefine the learning experience and what assessment will look like in the age of this very powerful technology because obviously the

main challenge now is to shape students to be able to use this technology as a tool as opposed to as a replacement and obviously as a replacement, since this technology can generate fairly unique sounding stages, you'd be very hard, I think to come up with a comprehensive plagiarism framework. And I think it's been demonstrated that these kind of detectors don't fully work. So I would say we probably need to think a bit higher and look at redefining the student experience, the learning experience, and the assessment methodology that we're going to use.

Nadia Badrawi

Okay. There is another question from Dr. (unintelligible). She's a professor at the AUC actually, and she's asking, so are we going to change or starting to do research on what AI is doing in learning creativities? I think you can answer this because it's true. And what impact does it have on the human brain? Yeah, this is very important. What do you think? And does it have any way to lead to a decline in certain competencies? Dr. Catto to answer this.

Cato Rolea

I think it's a very common question; it's very pertinent. So I think that's probably the main concern is that the use of AI will help students or individuals cut corners when it comes to learning or even expressing creativity. But again, I would like to take an optimistic perspective on it and it would be, again, you can use generative AI to cut corners or you can use it to engage with it critically. By understanding how AI works and what it can do, we can also understand how we can use it for learning. So to give you an example, it is a very basic example. The student can ask ChatGPT what the history, let's say, of the American Civil War was, but he could also ask it to have a conversation with it about some of the conceptions that the student has or something that the student is learning about.

Same, it goes in teaching where teachers can use AI to better define, for example, workshops as opposed to them asking AI to create it. So it's a lot of, I think, mindset setting at the moment because I think the current perspective everyone has is that of AI is the answer to everything when it shouldn't be. And we need to shift that mindset to AI is a simple tool that will eventually stop referring to it as such. And one good example I could give you is Netflix is AI, Google is AI, we've never termed it AI, they just became this algorithm just became part of our lives. We know some of them might know more about us than what we do, but again, as long as we learn how to use them wisely, we will avoid those pitfalls. Creativity is another interesting one, and I would recommend reading or watching some of Dr. Alexander Manu's publications or videos online.

He's a professor of creative studies at OCAD in Canada and he has a very interesting take on creativity. So he believes, for example, he makes a very interesting case that AI will just be another way to express ourselves creatively. And he gives an example of himself who's a poet as well, and your average walker down the street, which is let's say not a poet. And he's saying the way he can engage with AI poetically to either get inspiration or build a piece of art would be completely different to the average person on the street that wouldn't necessarily understand that. The only problem we have now is that we have the different level of understanding how to use these tools, but as long as we all be on the same page, I think that's when we'll be able to plateau the skill disparage and then we will be able to get the real benefits of the technology.

Nadia Badrawi

I have another question here. What would you suggest as next steps for accreditors?

Cato Rolea

So the next steps would be understanding, it's what I said. I think we haven't engaged with it enough, so I wouldn't advise adopting it. I would advise engaging with it and engaging with it is really breaking that barrier of this is a very complicated technology because now it's accessible to everyone. So if we can engage with it to understand what it can do, then we can reverse engineer it and find the potential problems that he has. And I would say something accreditors, they're probably one of the most advantaged ones simply because they are knowledge workers. And I think AI can really help knowledge workers because knowledge workers will have the best critical mindset to identify the problems with these systems. So we can do benchmarking, we can look at surveys, we can collect how people are using this technology and understand and evaluate the responses and the quality that comes out of the output that that's AI generated. So I think from an accreditor perspective, we have the advantage because we can criticize it and we can evaluate the effectiveness of these models and then drive policy, drive governance, advise institutions on how they should be adopting it and so on.

Nadia Badrawi

Okay, that's very good answer actually. And I have another question here. What is your expectation to progress of AI in the future? Where are we going?

Cato Rolea

So as I said, I think we're all on the Titanic, unfortunately, and I think we are all on the Titanic and we're struggling to take control of the ship. And as I said, we need to put more effort into guiding the ship in the right direction because we'll always be at odds with the big technology providers and this technology will be there to use for everyone whether we like it or not. So I think what we can do is, yes, I like to be optimistic and say, we'll steer the ship and we will make use of it in education as we need to.

Nadia Badrawi

I have another question here, actually, maybe it would be difficult to answer it now, but you can send us the document that is sent that he said, could you please provide an overview of the policies at your respective universities focusing on this policy to implement AI actually that you have mentioned. You can just say something and maybe you can send a document if you want.

Cato Rolea

Yeah, so I think so actually Dr. Miao had a very interesting slide with a number

Nadia Badrawi

Policy.

Cato Rolea

That's a useful document, but I will say there's not a clear defined, universally accepted policy. Every university will have different ones. The current AI national bodies that are formed will have the guidelines. So for eventually most western countries will have this, but I think even if we look outside of the west of China has a very good policy, for example. But yeah, it would be a case EU AI act, I think in the American Association of AI guidance will have some policies that encourage institutions to take them, but I think that's the institution responsibility as it's framed currently.

Nadia Badrawi

I have another question here actually. You said the student are far better or far advanced from the teachers or the trainer and so on. How, maybe explain to us how can we encourage or build a capacity for the learner to use the AI?

Cato Rolea

Well, it's simple, train the trainer. So I think they need guidance. Students, I think students, I don't think they're necessarily better at using it. I think they're the first ones and they're en masse users, so they will be very experimentative. They would like to try new toys. Obviously when you're wrong, you want to experiment as much as you can, but they will need that guidance to frame their experimentation with this technology. The problem is if we don't have educators that can frame it in class, who else will they be looking up to? YouTube influencers? Social media influencers? So we really need to take control of how we influence this to avoid students looking up to bad role models outside of the education sector.

Nadia Badrawi

Have another question from Dr. (unintelligible). She asked how can we ethically engage with AI, but I think this may be Dr. Miao who can respond on it, he cannot talk, right? But we are expecting that he might answer all the question and we can send it to all the..., I think.

Cato Rolea

Dr. Badrawi, I think there's a question from for Dr. Miao in the chat.

Nadia Badrawi

Yeah, yeah, yeah. Okay. He answered?

Cato Rolea

So I think if we sent him a message, he could potentially answer. Actually...

Nadia Badrawi

I sent him a message, but I think he can't sent him actually a message

Cato Rolea

We can carry on if you'd like.

Nadia Badrawi

One is asking, we need to consider the iceberg? I don't understand quite well what is the iceberg?

Cato Rolea

Oh, so the iceberg is obviously the tip is what we see on the surface and beneath the iceberg is the more kind of everything else that comes with it that might not be as obvious at the beginning. And I think those are the deep ramifications of the technology.

Nadia Badrawi

Okay. Joel, do we have still some time?

Joel Espinoza

Yes. You can take a couple more questions.

Nadia Badrawi

Couple more question. So okay, there is a nice question actually for you. What specific steps can university take to engage with AI ethically and responsibly while maintaining academic integrity?

Cato Rolea

So I think, well at the first level, the most important one will be obviously a strategic direction that will make sure that all the departments at the university are in this and are this for real. So as long as a clear message can be sent from the senior leaders that this needs to be engaged with, then that's the first step. The second step would obviously be having a policy that sets out clearly how staff and students should be engaging with it. And then again, from here we're talking about engagements, we're talking about experimentation. So that would be platforms that staff and students can use securely because for example, if there's a policy in place, but the tools given to students or staff are tools that don't protect data, then obviously that data is at risk of being misused or being used for training. Everyone needs a safe playground if you put it in very simple terms. And obviously a lot of training that comes with it. I think training is actually a lot easier than how people perceive it, simply because these models are based on natural language processing. So that means the better you are at engaging with it from a communication perspective and then criticizing the output, the better you'll be at actually implementing it efficiently within the institution.

Nadia Badrawi

Okay. The last question I think is very important. Are there risks in focusing too heavily on controlling AI within higher education? Could this limit innovation or the creativity way student and teacher use AI tools?

Cato Rolea

Very, so I think AI probably technology has become too powerful to control anyway, so it's clear that we can't ban it. It's something like, for example, think about social media. We know there's an algorithm behind that feeds us depending on our preferences. But what we can do, obviously we have two choices. We have a choice to completely not use it or secondly use it within defined parameters. So I think again, it's a matter of perspective. As long as we look at AI as a tool and that we have clear use cases for it, then we will know exactly what the right path is. However, if on the other side we look at AI as it will do everything for us, we risk of going down a rabbit hole because there's a lot of hype out there. There's a lot of promise. But when you actually look into the practice and in the quality that it can provide, there are limited use cases.

So I would say I'm a big fan of AI, but I know when I should not be using it. And I know exactly, I've identified what are the best use cases for my institution, for my personal section. And I think that the good things about it is that it's so personalizable now that every single institution can have their own best use cases. But again, it goes back to my first point. We have to engage with it to understand what it can do and where we can use it and be patient. Maybe even if we want for it to do things that it can't do now, we can always be on the lookout for the next future advancement of it when we can implement it safely and effectively.

Nadia Badrawi

Okay. I think this is the last questions that we have, and thank you very much, Cato, and thank you very much Dr. Miao, also for your participation in the webinar of the CHEA International Quality Group. And thanks for the attendees that we have almost 210 attendees from 37 countries, which is something actually impressive and it means that everybody is interested in this topic. And I'll leave Dr. Jahan Are you going to end or Dr. Jahan? Yes.

Jahan Culbreath

Yes. Hey, we at CHEA and CIQG really appreciate you, Dr. Badrawi, and our guest, Cato Rolea, and Fengchun Miao. The presentation was wonderful and discussion was as well. And attendees, thank you for tuning in. I want to note that we're going to be sending a recording out to everyone via email of the webinar, so please review it, send it out to other people so they can be engaged and learn a lot more. But in the meantime, I want to take this moment and invite everyone to plan to attend the 2025 annual CHEA/CIQG conference, which is January 27th through 30th in Washington DC. You'll find some very engaging discussions such as what we had today, so please make plans to attend that and you could find the information on the CHEA website at chea.org. But thank you so much. That was wonderful and everyone have a great day.