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KAREN FOLEY: Welcome back to the Student Hub Live session for the Open University Business School. Our last session is dealing with future trends in technology and their impact on global economy. A big question. We've had lots and lots of chat throughout this afternoon's session. But now we take a look at the future.

I'd like to just start by acknowledging some of the comments that have been coming through. There has been an awful lot, and none that we can possibly comprehensively cover. But Zach, can you just give us a few highlights in terms of things that people have been saying before? We've been talking a little bit about big data and about how organisations are using some of those to market more effectively to people, and what are some of the implications about security. How's everything going?

ZACH EATON: Yeah, it's going good. We've had some amazing discussions throughout the whole of the session today, some really good opinions. Just recently Abassi was-- just at the end of the last session-- saying the political interest of powerful nations to serve the regional integration, especially for the undeveloped nations, survival of the fittest.

We've also had some questions about the impact of Western outsourcing that was answered. And we're looking at stuff like the European Union and centralised banks and how that affects the global economy. So really good discussions. And everyone's engaging with the chat really, really well. It's great to see.

KAREN FOLEY: Excellent. Well, please do continue to do so. Now, we've got a lot of questions that we'd like to know your feelings on.

These are a little bit different. So we've got a scale. On one hand is fear. On one hand is excitement.

And we're looking at futures in this session. So what we'd like to know is, in terms of the future, how does this question make you feel, in terms of, are you more fearful or more excited?

So some of these are about the increasing economic power of China and other Asian economies; increase in firms' ability to engage and influence using social media-- a point that's

come up before; increase in dual identities, so the extent to which we can have these multiple identities that can be very different, both in physical and digital worlds-- we're not going to get through all of this, certainly not in the studio conversation today. But it might facilitate some interesting dialogue in the chat-- the increase and potential of artificial intelligence as well. And that may impact on the extent to which we were talking about how work forces could be used, and the extent to which way dehumanise certain tasks and the economic impact that that would have, I guess, in particular in African countries as well.

So, guys, what do we want to talk about in terms of future trends and technologies? Any aspect that anyone would like to pick up?

IAN WAIRUA: If I may start?

WILFRED OK.

MANUELA JR.:

IAN WAIRUA: Well, it, of course, appears weird that Africa would start on AI. But actually, the truth is that Africa is going to benefit a lot in AI, and in new technologies. For instance, we talked previously about the blockchain. And one of the things about the blockchain is that it will democratise the ownership or the trading of personal data.

And of course, Africans are giving out their data to Google and the big corporations, like anywhere else. And Google is the premier mail platform in Africa. So there are millions of Africans on Google. And therefore, blockchain technology will benefit Africans also.

That is one thing. Of course, we have major security problems in Africa, in stability, political stability. And the trend in the past has been for the Western nations to bring in what is sometimes called boots on the ground. Now, AI will dispense with that. And it will be possible for interventions in Somalia, and with Boko Haram, and so on, using AI.

Well, the positive things are mainly about AI in Africa. But there are also negative things. For instance, the fact that platforms collect data and then profile individuals according to their geographical location, according to, maybe, their initial--

WILFRED Income levels.

MANUELA JR.:

IAN WAIRUA: --group of friends, their income levels, and so on, boxes people into, perhaps, it's called the

filter bubble. And what Africa really needs right now is social diversity.

So there are issues of tribalism and ethnic groupings that cause a lot of problems. What is needed right now is that people should have access to diverse opinions and should look out beyond their immediate little group, little community, and little tribe. But then they are digitally being Balkanised by this new technology.

However, just this week-- I think it was on Monday-- the CEO of Facebook, Mark Zuckerberg, announced that the new AI tools are coming online on Facebook for suicide watch. And we are seeing a lot of suicides among the middle class, city-dwelling youth in Nairobi, Johannesburg, and Lagos, and so on. And this is going to be really useful.

PETER BLOOM: Mm-hmm. I think that also, if you're looking globally, but also in terms of futures, it is a question-- and I think this is something that Ian brought up about not so much just the technologies, but the social values and the stakeholders in that technology development.

So on the one hand, there was a recent report that came out by, I think it was McKinsey, that said something of the nature of 800 million jobs or something are going to be replaced by automation by 2030. And you think, that's obviously very scary for people. However, what's not said about that is the fact that that's a very particular marketised model of what technological development could be.

So it's not as if automation inherently will do this. It's who's benefiting, and why. And I think what's at stake, then, is actually being able to see how you can use technologies such as artificial intelligence, such as robotics, such as big data, to create, if you will, more empowering societies and economic models.

Just to give, I think, two examples that are very important, and one I think that's more broadly relevant, and one is more specifically associated for developing countries, perhaps, like in Africa-- more broadly relevant is the fact of, it used to be, even 30 years ago, that productivity gains were seen not as something that was a threat, but was seen as something that was really exciting. Because if you needed less people working, that created a stronger leisure economy.

WILFRED That's very true. Yeah.

MANUELA JR.:

PETER BLOOM: So this actually should be an initiative for us to say, this is quite exciting. This allows people, in

terms of, quote unquote, "work," to focus on things that are more creative and less, if you will, administrative.

And it also creates an exciting opportunity to create a social safety net that might move us towards a post-work society, a society where we don't need to work 40 hours a week, 60 hours a week, 70 hours a week. Where you don't have to have precarity. Where we can use smart solutions to actually provide for people and create a new safety net and a new welfare system that meets 21st century needs and actually moves us away from having to desperately and precariously sell your labour on the market.

So there's that. I think there's also ways in which, when we think about development, that the 20th century technological development was all about upscaling as large as possible. Right? So it was very hard.

Because there was often times quite strong technological divides between countries. And it was quite hard to create this huge infrastructure. And you see this in terms of building mobile networks, for instance.

However, what you see with things like distributive manufacturing, for instance, it doesn't cost a lot of money to buy a 3D printer.

WILFRED

Mm-hmm.

MANUELA JR.:

PETER BLOOM:

It doesn't cost a lot of money to have a shared, if you will, mobile network that a village or community can do to be part of an open-source collaboration. It doesn't cost a lot of money to build the types of infrastructures, then, that are involved in terms of kind of maker spaces that would use this to actually bring in different craftsmanship and things like this. And it doesn't cost a lot of money to then hook up with people around the world in order to sell your things that you're digitally fabricating, in terms of batch production.

This is one example of the ways in which, if you're using technological development in a way that is targeted and actually about empowerment as opposed to just marketising or profit maximisation for your typical players, that this can be quite exciting. So I think it's about the values that you're putting into it and your willingness to match technological development with social imagination.

KAREN FOLEY: OK. So we can agree, then, that there are a lot of benefits with AI, big data, various technologies that can really support and enable many, many, many countries. But in this session, while we're talking about futures, we're also talking about excitement and fears. And we asked our audience a range of questions.

And I'd like to pick up on one which is about economic power from China and other Asian economies. And we asked people about fear and excitement on this level. And this is quite interesting. Here's what you said.

So there are a lot of people saying that they are more veering towards the fear end of the spectrum. But then the excitement is multiplied on the sort of, I guess, 75th percentile, then, in terms of numbers of people. So a lot of people are saying that they do feel fearful. But then quite a lot of people are agreeing that they say that they feel very excited.

China and other Asian economies do have a big economic weight, in particular with the ASEAN network and the potential that that might have in terms of global trade. So do you want to feed on anything about maybe how people are feeling about that sort of aspect of fear and excitement, in terms of these global powers?

WILFRED
MANUELA JR.: Well, just to add to what Peter was discussing earlier, well, AI can present a lot of benefits, especially for people who are not physically mobile. Perhaps when self-driving cars are around, then people can now just go anywhere without learning how to drive, or even they're physically impaired, they can actually ride that self-driving car. So there are a lot of opportunities there.

And then Peter also mentioned about disappearing jobs because of AI and other technological advances. But technology advances also created new forms of industries, new types of industries, new types of workers as well. And just like in our business school, we are introducing our degree programme in data science next year.

And we are excited. Because we are helping companies to harness whatever data they have and then look for trends and other things in their data so that they can service their customers in a better manner. Meaning knowing what customers want, mining their data, and then probably profiting also from consumer data that they have.

KAREN FOLEY: Absolutely. We asked our audience about increasing potential of artificial intelligence. Here's what they said.

So a lot of people were saying that they were very excited about the increasing potential of AI. So very much agreeing with that. Zach, you had some questions.

ZACH EATON: Yeah. We've got a couple of questions from Devon, our computer student. He wanted to know, what extent will AI technologies play in raising less technologically developed countries' technology levels and getting them out of poverty?

KAREN FOLEY: Hmm.

IAN WAIRUA: Wow.

KAREN FOLEY: Yeah. Yeah.

WILFRED Great.

MANUELA JR.:

[LAUGHTER]

KAREN FOLEY: This is the one for you.

IAN WAIRUA: Great question. New technologies are already being used in the critical sectors of agriculture. For instance, there are apps on mobile phones now that tell farmers what is the right seed to use, what's the weather going to be like, when to harvest, when not to harvest. Also, where the markets are. The farmers are able to contact their customers and so on. And this is making a huge change.

In my field, which is education, because the interest in education has gone by leaps and bounds, and now everybody's going to school in Africa-- but there is a huge problem of teacher-to-pupil ratio. So Africa has to look to technology to help this. It's possible to use technology to reach out to more people.

So earlier we were discussing about the use of apps. And what we've discovered is that while the traditional classroom has the timetable, and sometimes we even have bells that we ring, and so on-- but using the mobile phone and using appropriate apps, classrooms can continue beyond the physical walls of the classroom and beyond the schedules and timetables. And these are the sectors-- agriculture and education-- that will help to lift poor countries out of poverty.

The other one is health. And there are interesting apps that have come up that give health

information to people in the villages.

There was an interesting programme for educating midwives. Because a lot of mothers still get their children in the village at home, not in hospital. And these midwives are able to contact doctors, and sometimes very highly qualified doctors, and perform a very good, necessary process for giving birth to a healthy baby. And this has impact on the mortality rates in Africa.

PETER BLOOM: I think as well, though, it's also a matter of how you allow for this technology to work in a way that does do this development. Because I think Ian's exactly right. There's so many opportunities, right?

But if you look at one of the things-- one of the biggest opportunities we have, for instance, is with drone technology that uses artificial intelligence and picking up data. Now, you say, OK. Well, why?

Well, for agriculture, for instance. If drones can fly over, they can better predict when droughts are. They can better help organise agriculture.

Now, you say, well, why haven't they used it? Well, they haven't used it because every time they use drone technology, there is then a bombing. Right?

WILFRED Yeah, OK. Yeah.

MANUELA JR.:

PETER BLOOM: So a lot of countries in Africa, and a lot of countries in Northern Africa, in particular, and the Middle East, and you see this as well with Pakistan, and parts of India-- say, well, we don't necessarily trust drone technology. Similar, in terms of, there's identifiable technology, such as iris scanning, for instance, which can be really good for humanitarian purposes. Because it helps create stronger audit trails for displaced populations. It also creates, as we said, movements for people to have better data about each other and sharing data about each other so that they know their backgrounds and they know there are ways in which they can actually contribute to a variety of economies, right?

But why don't they necessarily want to use this? Because of the fact that it's been militarised. Right? So, you know, iris scanning has been essentially used to track people and use them for renditions.

So I think for developing countries, it's very important that they're able to use this. But they

always have to negotiate the risks of that. And I think it's up to the international community to take seriously how we make this less risky for them and more empowering.

And I do think that-- we talked about the excitement and fear of things. But I think one of the biggest challenges we have right now in the world is that on the one hand, you have established democracies that are actually more aggressive and violent and worse for a developing world. And on the other hand, you have authoritarian governments, which China is, that is actually more empowering and progressive for outside states.

And I mean, you see this in terms of some of the disagreements going on between Russia and the United States. I mean, there's no question that Russia has huge autocratic problems. Yet if you compare how they're acting in the Middle East and how the US is acting in the Middle East, it's quite clear who's the more progressive actor there.

So again, I think when you're looking at this, there's a huge amount of ways in which we have as an international community make it so that developing economies not only have the resources to do this, but also are made safe to do this. Because previously and in our present, that's not always the case. And it's a very difficult problem we have to overcome.

WILFRED

MANUELA JR.:

In the Philippines, the government is investing in weather balloons. So these are like weather stations, distributed all over the country to collect weather data to support the agricultural sector, as well as, of course, warn people of impending weather disturbances in the region. So I think it's, like, a 1-billion-peso research project with University of the Philippines.

And that's like \$20 million to develop this weather balloons all over the country, so that farmers, those who depend on agriculture and related industries like extractive industries like forestry, fishing, could be warned ahead of time of impending typhoons. Because in the Philippines, we are visited by more than 20 typhoons a year that devastates the country. Some areas of it, though-- not the entire country, but a lot of areas in the country. And this will actually give benefit to a lot of people who depend on agriculture for their livelihood. So this is a good application of AI.

KAREN FOLEY:

Yeah. In the last few minutes, I'd like to take a look at this whole idea about social media and firms' ability to engage with us, market to us, et cetera. It's a point that was raised earlier. We asked everyone at home to what extent they felt or excitement about firms' ability to engage and influence using social media.

There's a very, very mixed spread of responses here, in terms of levels of fear and excitement. But it was something that we were talking about, particularly in the context of security, and little bit earlier, and some of the implications of having big data using feeds, and what that might say about your identity and you as a person. So I wonder if anyone would like to pick up on this idea about either big data and marketing to consumers and how firms are getting increasingly more specific and clever at doing that.

PETER BLOOM: Well, I think that big data across the board-- and this is something that's increasingly global, and I've picked this up before-- is that you're not just getting a matter of marketing. You're getting an integrated notion of marketing and citizenship.

So for instance, China's one of the first that's implementing this. But it seems that just like now, in the 20th century, we had credit scores, you're soon going to have a kind of citizenship score. Right? And they're actually putting this in, in which they take all of your social activities and they say, how good of a citizen are you? And they can base it on a range of ways in which you use social media.

I think similarly, what you are seeing is the fact that you are seeing companies such as Uber, for instance, who are kind of the epitome of platform capitalism, that actually doesn't make a lot of money doing the initial services in which they're paid to be doing. So, I mean, people sometimes get confused about this. Uber is not necessarily a transportation company. It's a company that, because when you use Uber as an app, it turns on your location, and they can use your locations to sell to a variety of different actors, including governments.

So I think there is a danger and fear with that. I think the other side of that, though, is that, one, there's increasing knowledge of this. And I think that more and more people are understanding that this is something that they can negotiate with.

And I think, secondly-- and this is very important-- is it's a movement of mobile organising. I mean, you see with things like the movement-- I mean, putting the politics part aside-- like Momentum, which has been incredible, in the sense that they've used mobile organising, they use data collection, in order to actually advance a political movement. I think you're also seeing this, though, in terms of more civic action, so kind of things like Nesta's doing, in terms of open-source, local collaborations.

We're saying, this worked in this city. And this is our experience of it. Let me show you how it can work in your city. And people are working together to solve problems.

So I think it's both. But I think it really does come down to the knowledge people have about how invasive firms can be, and also the empowerment people can know, that this isn't inevitable. Like, if we're moving towards a more platform economy, which I think we are, that actually you have quite a lot of civil rights in terms of negotiating how much information you give and why.

[INTERPOSING VOICES]

KAREN FOLEY: But it's also this distinction, isn't it, between a digital identity and a physical identity?

WILFRED Mm-hmm.

MANUELA JR.:

PETER BLOOM: Yes.

KAREN FOLEY: We asked people earlier about the duality, really, so, the extent to which they're excited or fearful about increase in dual identities. And we're very much talking about this digital identity almost as synonymous with an individual identity. And yet, increasingly, people are separating the two, having maybe a work-based social media identity that they don't see as synonymous with their motherhood and their various other roles that they play in society. And so it's incredibly complicated, which is very interesting that people are more excited about this dual identity than they are about firms' ability to market to them. What do you make of that?

WILFRED Well, in the Philippines, the firms are actually just starting to look into their massive amounts of data. They use it for their own advantage, to push some marketing deals to consumers based on their preferences. But you see, the result of this would be you are profiled into a certain category which may not represent you.

So it doesn't mean that if you've been visiting these websites or purchasing these products, then that would define you. So it's probably unfair for individuals to be profiled based on their online activities. Because this is just a very small part of their identity as a person, as an individual.

KAREN FOLEY: So you're almost saying that behaviour is a very broad thing. And web-based behaviour can be a very small part of--

WILFRED Yeah. Online behaviour is a very small part. Yes.

MANUELA JR.:

KAREN FOLEY: Yeah. Yeah.

PETER BLOOM: But I also think that it has to do with-- I mean, as people oftentimes feel that there's less and less ability to change the economy, change society, there's an escapism to oftentimes being virtual identities. But what you're actually seeing is now people saying, well, the relationship between the digital and physical is much more integrated than previous to this. So we can actually use our digital identity to actually shape our physical environments, to shape our aspirations. And things like having two separate Facebook accounts-- this might sound strange, but it's saying, I'm going to present a certain thing to the world for a very particular reason.

WILFRED Mm-hmm. All

MANUELA JR.:

PETER BLOOM: Right? So I think it is a matter of that.

IAN WAIRUA: I think individuals and firms at the same time have this problem. I mean, in Africa-- in Lusaka, in Abuja, in Lagos-- you will find firms-- SMEs-- whose entire operation is online. I mean, they're on Facebook and nowhere else.

But I think the problem of the identity that a firm or an individual presents is partly solved by peer-to-peer validation. Because as the space widens and more people interact with a particular firm or with a particular individual, there is a certain sense of validation. And the fakeness is reduced, is diluted.

KAREN FOLEY: Mm-hmm. Excellent. Well, I'm afraid that's all we've got time for in our discussion today. It's been an absolutely fascinating two hours. Thank you, Ian and Wilfred and Peter, and also Dev and Mark, who aren't here in this final session.

And thank you very much at home for all of your participation and all of your comments in the chat. We asked you what you felt as a result of attending this session. And there were some very interesting things, which are still being populated-- things like, happy, see threats, got globalised, eye-opening, knowledge exchange, heed differences, gained perspectives, enjoyed the learning, will come again.

So thank you very much for your thoughts. I'm glad that you enjoyed it. And it's certainly been

a very interesting discussion on the chat.

We're going to keep the chat room open for another half an hour or so, so that you can continue those discussions. If you've missed any of the session today or, indeed, the whole thing, you can catch up, which will be shortly available on the Student Hub Live website, which is studenthublive.open.ac.uk. And you can watch the catch-up there as well.

But thank you very much, Zach, for feeding in all of the comments. I know you've been very busy and you've really enjoyed the discussion.

ZACH EATON: Yeah. I've been loving it. Been really, really good talk on the chat. And a lot of people enjoyed getting feedback and getting your answers to the questions.

So, yeah. No. Thank you to everyone, and the guests, and the audience. It's been brilliant.

KAREN FOLEY: Thank you very much. And so thank you for attending on behalf of the Open University Business School. I hope you've enjoyed the event.

Do stay connected with the Student Hub Live for more events that anybody is welcome to attend from the Open University to anywhere in the world. So we look forward to seeing you at an event very soon in the future. Thank you. And that's all from us for now.

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