

Dr. Beatrice Murage

Hello everyone, my name is Dr. Beatrice Murage, I am from the Philips Research Africa team. And it's an absolute pleasure to be part of this year's symposium.

So what we'll be looking at from my point of view is just what the role of data science is, especially for the African continent. What are the opportunities that exist in this particular space, as well as some challenges. And how we can work together as an industry to promote the capabilities and the potential of data science, especially for healthcare in Africa

I think we just look at it as specific points from just a few thoughts that we have, as a practitioner in this field for well over 12 years now and as part of the bigger Philips team.

In terms of what makes us very excited regarding what data science can do for us in the continent, we look at it at mostly two points of view. First is a potential to leapfrog. So we have a very tech curious population in Africa, a young population in Africa, very entrepreneurial population in Africa. So when you look at this particular characteristics, then there is potential to be able to leapfrog whatever already exists in the AI space.

So in terms of the kinds of challenges we'd like to address as a society, and especially as an industry, looking at the kind of, just the potential to leapfrog is very high.

The second bit of it that's very interesting for us in terms of the potential of data science is what we can do from the angle of impacting human lives. We have one of the highest burden of disease for both the infective diseases and noncommunicable diseases. And if we can be able to leverage the potential of data science in our continent, and we have the capacity to really impact lives for the better. The second reason why we're very excited about this particular fund and just what it can do for us, is what it can help us with in mitigating the challenges, especially from a leadership and a talent point of view.

When we look at leadership, we've been having a big dream, whether it's leadership at the national level, at the regional level, or even at organizational level. But there's been a talent shortage, there's been a resource shortage, and we're hoping to be able to just use data science to gap these two challenges, of course steered by the correct kind of leadership in industry.

We'll also look at the potential for partnerships, especially between industry and

academia. So far we've had a lot of parallel initiatives where they do not meet. You're able to train a talent pool that's not aware of what's happening in industry. By the time they do get to industry then the industry feels like they're not ready or not well suited. So we need to be able to see how data science tools and just how we train for data science and be able to close that gap in terms of industry and academia collaboration in future. Also looking to build our own talent within the continent, so not outsource as much as we do today.

So because of the numbers, because of even just the capability level and even just the skills level, we are required most of the time probably to outsource or just collaborate with talent outside of the continent. We hope that as we build the talent within Africa, we can get to a place where people outsource to us in terms of data science. And we can be able to add more value into the data pool of data science from a tallying point of view. The other piece we've been able to look at in terms of what can we do with data science in our continent, is just getting to understand where is the point that researchers can plug into organizations like ours.

Philips has been in industry for over a century in Africa for actually quite a very long time. And we've moved from just being a device seller or just the one solution or just one service seller to being an integrated digital health provider.

One example of what we do particularly in my team is just explore what we can do with digital health to improve access to care for maternal and child health. And one of the solutions we're working on, we call it the MOM solution, looks at how you can support a mother within hospital and even outside the hospital. We just have a better cared for pregnancy experience, a better cared for delivery experience and just a better cared for process for the first 1000 days of their child's life. And that requires us to be able to follow this patient and their baby throughout their entire journey from home to the hospital and even outside the hospital.

We also look at it as a place for potential in terms of creating shared value with our customers. So when we work with researchers, we'd like them to adopt different kinds of skillsets. So just a mindset, that's a bit different from the very traditionally academic view and mostly three mindsets or other three approaches to it.

The first one is a customer focused. So just being able to build solutions that are very well tailored to the pain points in the market, what customers need, and what customers are asking for. This is very important for researchers to have at the back of their minds, right from the process of just asking the questions for study and looking at the hypothesis and

just being able to study and see whether they fit or not.

Another aspect that's very important for us when we're working with researchers, whether within Philips or external to Philips is how they look at business models and what the potential for impact of the solutions they were working on is. And that is the one of the main inputs to help us assess, are these solutions sustainable? Are they scalable? And that is something that's very important to us because we want to be able to build solutions that last beyond, let's say one pilot or one study or one thesis or solutions that we can scale over time and over market and have actual business value. We look at sustainability from different aspects and financial sustainability is one of them. So being able to look at business models that are viable in our setting is very important.

So how we see data science plugging into this particular need, we need to move more from a silo kind of thinking in terms of what we build to more of a connected care system. And also move towards a digital platform system a digital place so to speak. And share those knowledge pieces, share the best practices that work for us, sort of build centers of excellence across the continent that can then share what they do best amongst themselves, and also outsource that or even maybe say export that to the rest of the world.

How we look at it from the wider ecosystem. We're really passionate about ecosystem strengthening because it has different aspects to it. We look at the leadership piece to it. We look at the economics aspects of it and the information, those three pieces are very important to us as a company. And we're always aware that there is no silver bullet when you're trying to address the challenges in the continent.

We need to be able to just partner together with other organizations, be they in academia, be they fellow corporate, be they the government entities and also be they also the nonprofit organizations. We have several examples of what we do with that. And I invite you to just go on our website, just look for Philips access to care and you'll be able to see quite a lot of what we do in this particular space. And just by way of winding up is just calling us to just be more aware of the potentials in Africa for data science.

And of course the dire need to be able to build the resource, to tap into that potential. But for us the resource from a talent point of view, the resource again from a leadership point of view and the resource from a tooling point of view. So bringing these three aspects together and the different players in the ecosystem, so we can have a strong response to what is a need in the market in terms of data science. So I'm really looking forward to discussing more about this particular topic when we do have the symposium app, and we do invite all of you to register and join us for that symposium.

Thank you very much for your time and see you then.

Do you have any advice for researchers interested in data and health in Africa?

So my advice to a researcher that is looking to engage in the African ecosystem, especially in healthcare and to engage with entities like Philips, I'd probably pick three pieces of advice.

One is understand the customer. So first figure out what is the problem in the market or what is a problem in the target population that you're planning to impact, go out and talk to them, understand what the pain points are, be able to prioritize those pain points. So whatever you're working on, then responds to an actual need in the market. So I realized a lot of researchers probably skip that step and just get to the solution, or just do this from a lab or a desk point of view. You need to go out there and just have a feel of the problem.

The second piece is have a business mind. And before that is taken out of context, I mean you need to be able to look at the sustainability from a point of what value do you add from a business point of view or a sustainability point of view. When you build a solution that responds to the problem, is it something that your client would probably pay for or invest in? It doesn't have to be financially as so or well probably a partner that you want to work with to implement this solution, would they find value that they can be able to attach to it? So have a business mindset where you can look at business models because the most sustainable solutions are solutions that someone would be willing to pay for. And we're usually willing to pay for something that we feel is valuable to us. So that is a hint at the value that you add to let's say your end user or the user of your solution.

The third piece is that be willing to share what you learn with the ecosystem. We work in research, the main goal of research is to be able to add to the wider body of knowledge that share best practices share what did not work. Failure stories are also learning stories and share what works as well. And be able to do that, not just in scientific journals, but even in business settings. So find a way to communicate your results to different types of audiences and see how their feedback, then actually helps us build better.

I hope that helps.