Learning Uncut Episode 73
Upskilling African Engineers for Industry 4.0 – Roti Balogun
Hosted by Michelle Ockers

Michelle Ockers:
One of my goals for Learning Uncut in 2021 is to bring you a story from every continent. Today is our first story from Africa. My guest is Roti Balogun who is a Nigerian currently based in upstate New York working for General Electric. He speaks with me about an initiative kicked off in 2016 when he was the Chief Learning Officer for GE in Africa. Inspired by a conversation he had at a World Economic Forum conference about what a partnership between industry and academia could look like, he looked for a way to create a partnership to help both GE and Africa to build the digital skills of engineers to prepare for the fourth industrial revolution. This was both well-aligned with GEs strategy and both their social responsibility and government policy.

We are seeing more partnerships between organisations and academia to help address market skills shortages and strengthen talent pipelines. The collaboration between GE and the African Leadership University that Roti describes provides insight for anyone interested in building such partnerships. It's also refreshing to hear an example of a progressive university who are adapting their offerings and approaches to stay abreast of change.

Michelle Ockers:
Welcome to Learning Uncut, Roti.

Roti Balogun:
It's great to be here. Thanks for having me, Michelle.

Michelle Ockers:
Absolute pleasure. Can you start by telling us a little bit about yourself?

Roti Balogun:
Absolutely. So my name is Roti Balogun. I'm a Nigerian based out of Upstate New York working for General Electric as the Global Leader for a Community Diversity Strategy. And what that really means is supporting our Chief Diversity Officer and the company's leadership to really evolve some of that thinking about diverse talent planning. How they come in towards businesses? Also making sure that under-represented groups are truly part of our diverse talent pools. And moving the needle in terms of the future capabilities that we need. And then the other parts of this really exciting role is, I'm supporting with Minority Supplier Development as well. So when we think about who we do business with in terms of the different facets of diversity, I'm really looking to make sure that we're empowering them and really truly moving the needle around economic inclusion. So that's my day job today. That's a history of... a couple of roles prior to that on the continent of Africa where I'm from. And this journey in a global role in multiple facets is a truly exciting one for me. And I hope to have any impact on it as well.

Michelle Ockers:
It's a fairly new role for you. Is it new for the organization as well Roti?

Roti Balogun:
Absolutely. Created spanking new for me, but we'll have to take that. No, it's a role that has evolved for the need in the time that we are in, which is really to have a focus... laser focus

on improving and continuing on that journey of inclusion and diversity. So it's a new role. Didn't exist before. That function in itself has been naturally handled in the different businesses. But as a corporate function, it was important to have that focus. And that's why I'm in it now.

Michelle Ockers:

If listeners want to stay tuned, I think maybe towards the end of the year, early next year, when you've had more time in-role to try different things out and see what works, it would be wonderful to have you come back and talk about the work you're doing around community diversity-

Roti Balogun:

Absolutely. Would love too.

Michelle Ockers:

... But for today, we're actually going to be talking about a different part of your work history, still with General Electric. The story is about the Africa Industrial Internet Programme, which GE collaborated on with the African Leadership University and was introduced in 2018. So perhaps if we can time travel back to that period, when you started working on that particular program. What was your role GE at the time that the program was developed? And a little more about the collaboration project as well, and your role on the collaboration project.

Roti Balogun:

Sure. So, I joined GE in the African region in 2016 as the Region Learning Leader... Chief Learning Officer across a portfolio of businesses in GE at the time. And within a year of being there and just understanding the businesses... I had an opportunity to represent the organization at the World Economic Forum, where I had conversations with a couple of other education innovators around what an intentional role should look like from an industrial partner with academia. And so following that conversation, there was a lot of discussions on the future of work skills at the time. And I went back into the organization and said, "Hey, there is a strategy around being a digital industrial leader. And how can we, in Africa really make a mark in this, and prepare ourselves for the Fourth Industrial Revolution."

Roti Balogun:

So my role as a learning leader was focused internally on building the learning organization. But this was a really unique opportunity to have socioeconomic impact in the region as well. And that evolved really into a business case internally with organizations to say, "how do we do that in a very specific skill area that was linked to a strategy." And the industrial internet was something that we thought was important. So, we'll have to talk a little bit about what the program really looked like in the origins. And how we got to where we are today.

Michelle Ockers:

It sounded like right set of connections and conversations at the right time, from a company perspective and also a regional perspective. And maybe if we look from a context perspective at the GE strategy. First, you talked about it... There, you mentioned being an industrial digital leader, which I know is still an important part of GE strategy. What does that mean for GE to be the industrial digital leader?

Roti Balogun:

Interestingly our strategy three years back was really that. To be the digital industrial leader, when I was conceptualizing and thinking about this program. But at the time we had acknowledged that there was a need to understand what digital truly meant. Just put into

motion, some transformative work that defines actually what digital industrial should become. And so we really define this in a couple of ways. First, we realized that there was really a need to build a new set of digital skills and transform our internal culture and mindset to drive internal productivity in the organization, cost improvements. And so we call that part of that strategy being GE for GE, where we again, took the step to assess our internal abilities to listen and learn more effectively our appetite to agree digital tools in the organization. What intentional actions we were taking to amplify personal productivity.

Roti Balogun:

And so, as a company-wide effort from that perspective, we started to deliver numerous, self-paced, learning offerings from MOOCs to smart bits to digital brand ambassador programs. That really helped to move the needle around that internal, digital credibility. And then the second phase of that strategy of being digital industrial was then with those new internal muscles that we've hopefully built and those new capabilities, we set out to develop a set of industrial applications, advanced digital skills that we hoped would help our customers transform too. And so we call this piece of it, GE for customers. And the idea was, to prepare for that where we wanted the employees to take that leap from yesterday's conversations on skills such as Six Sigma, software servers and administration, data warehouse. And move to today's conversations that we all know around data analytics, lean and design thinking, industrial internet, advanced manufacturing.

Roti Balogun:

Those were the skills we wanted to build internally. And that really gave credence to invest in programs like the AIIP externally to build that pipeline, but also internal digital capability programs internally within the organization. So that was a piece that... I'll talk a little bit about the AIIP in detail. But the thought piece of that was then, "let's think about how do we build a GE operating system for world". So we think about your iOS and your Android mobile operating systems. For us, the idea was to democratize digital skills by making what we call the Predix Industrial Internet Cloud Platform, to be available to everyone and the ecosystem of innovators, to create solutions across different industrial categories.

Roti Balogun:

So that was the GE digital industrial leader strategy three years ago. Fast forward to today, this strategy has evolved because of the unprecedented times that we're in. And contextually, our customers are squarely at the frontline of the world's toughest industrial challenges today. And so we aren't really simply aspiring to be digital industrial leaders, but instead we continue to play a key role amongst what we now refer to as being industrial superheroes. And I borrowed that from the analogy of the current CEO of GE Digital, where he was given a particular perspective around our response during COVID, where we use some of our digital solutions like asset performance management solution and remote operational solutions to really help the customer be able to continue to deliver during lockdowns and remote work from home. And the customer's response was, "you really helped us feel like Tony Starks in our monitoring sensors." And so I thought it was a great analogy. And it's informed our strategy of being more focused on the customer and building the skills that are relevant to take that forward in this time.

Roti Balogun:

So, in a nutshell, I think our purpose at GE is really to rise to the challenge that builds a world that works. And this really means, putting industrial data to work by helping creative thinkers, innovators, builders, deciders of tough decisions, our customers and it builds a few things. One, enable renewable energy on the grid through smarter digital solutions. The conversation today is about reducing emissions and the global carbon footprint, but this has to be data driven through power generation technologies of the future. And so what does

data play in that? We're looking to increase manufacturing, plant productivity and reliability. Keep our people safe in the field through better data insights. And ultimately we want to drive the bottom line with more resilience and flexibility. And so today's strategy from three years ago is on the same journey, but more focused. And so, the programs, the capability development from a learning perspective has to keep pace. And that's what programs like the AIIP try to achieve that.

Michelle Ockers:

Okay. Thank you. So let's talk then about where this initiative with the African Leadership University fits into a fairly holistic strategy around what it means to be in digital industrial, and the different layers of that around the organization, internally, the customer society. What was the challenge or opportunity that led to the Africa Industrial Internet Programme?

Roti Balogun:

Yeah. Again, good question. When we think globally... Industries today are in the middle of a shift to do cell technologies. And predominantly all the analogue modes of operation is moving to digital solutions that really truly would drive the next industrial revolution. When you want to double click into statistics, you'll find that, estimated by 2025, there will be 75 billion devices, which will be connected by the Internet of Things. And so industries are in the middle of this revolution, and are really faced with that challenge of, how do you collect and integrate incredible volumes of data generated by various components of this big manufacturing heavy-duty equipment and have efficient operation optimization of this as well? How do you create potentially smart duplicates or what we refer to as digital twins that these things can operate when we have situations like a COVID lockdown, where you're not able to access sites generally?

Roti Balogun:

And so, the real opportunity we saw at the time was, unlocking the value of big data, which is really dramatically trying to improve this equipment optimization, as I said, business productivity and capitalizing on this wave of the industrial internet where we knew and it was pretty clear that it required a new suite of skills. I think in emerging economies like Africa, we've been building greenfield infrastructure. It almost feels like we skipped a little bit of the industrial eras, where it gives the economy an opportunity to leapfrog capital intensive industries. And really the theory of the case for us was, this signs of the opportunity to leapfrog could really increase the opportunity to have digital transformation in very specific pockets in the continent. And then eventually position the continent to actually compete globally. So, ultimately, whether it meant having competent centres that could potentially be run out of the region, it was a step to make sure that we at least were prepared and ready to do that. Whether it was building capability close to the customer where we have engineers that have the capability and didn't have to be flown in from different countries over the world to solve those problems. I could create digital solutions to unique African challenges. It was important to have this capability. So, the Africa Industrial Internet Programme was developed to really solve this, in partnership with the ALU. We wanted to build a digital savvy workforce. And ultimately build the technical leaders of the future. So, yeah. I think that's how I see that. The other thing I'll add though is, engineers generally typically curtail their careers in engineering to take on more lucrative leadership roles at some point. Part of the inner motivations of this, was to also try to change the narrative around being an engineer. So you could build technical skills of the future that didn't require you to have to

pivot, to have to be a leader or a manager of people as well. So that was one of the initial and important drivers of creating the program.

Michelle Ockers:

So one of the goals then was around offering a view of an alternate pathway for engineers to move more into digital skills rather than leadership as the next pathway for their career development?

Roti Balogun:

Absolutely. Absolutely.

Michelle Ockers:

Roti, I am not very familiar with the state of the economy in the continent of Africa. And I only learned recently... This fact just expanded my mind a little bit. Within Africa... when often... those of us who haven't had a lot to do with Africa, think about Africa, we've got this vision of, this is one thing, it's the African continent. Because something like 50, 52 separate nations in Africa?

Roti Balogun:

54.

Michelle Ockers:

54, yeah. So in terms of when we start getting our head around when we talk about the African economy, you're actually talking about... Perhaps there's some aspects of it that are common across all of those nations, but it's actually potentially more nuanced. And we don't have a very good feel, many of us for what business looks like in Africa. What the state of the economy is. What the talent market is like. Was there anything about the context in Africa that particularly shaped this program that might've been different to considerations you would have if you were standing up a program like this in the US for instance?

Roti Balogun:

Yeah. No, I think it's a great question. It's a... as you said, a beautifully, diverse continent of 54 countries with multiple languages. Anglophone, Lusophone, Francophone. There's a multitude of tribes and dialects, and it's beautiful in that. So I just wanted to express that. But when we think about the considerations as we built this program, it was important to also think about the nature of who we were targeting the programs for. So when you think about... If I took a step back to... We wanted traditional mechanical, electrical, chemical engineers to become digital engineers. We wanted them from those that were manufacturing engineers, maybe early in their careers to mid-level in their careers, project engineers, factory engineers, potential entrepreneurs as well. And we wanted them to have engineering qualifications, but some experience in the industry and an aptitude for statistics. Now, we have to make sure that all the folks that met this prerequisites as they came onto the program, have the right grounding to be able to go through the rigor of a program that could really truly be globalized.

Roti Balogun:

So thinking about, what skills may have been potentially missing by doing things like pre-assessments, that may or may not necessarily have been done or taken for granted around the skills. We included that in the program and put support structures as well, to make sure, if you're not great at Python, or maybe you'd never did Python in your engineering degree, or you hadn't been exposed to it. What does those additional, supplementary learning that you needed to have in addition to be able to actually be successful in this program? So thinking

about the readiness of the pool of talents and candidates as well was an important consideration. I think when you think about the diversity of cultures, and for a program that was supposed to be a blended, learning solution, where you think about access to infrastructure and some of the bigger countries where it's fine. Internet access is probably better than in some places in the West. But there are some places that the internet access... You can't get through a full course without having breaks in broadband access in there.

Roti Balogun:

I think that being able to make the program truly inclusive meant that we had to have thoughtful faculty. Thoughtful, more empathetic leaders, and SMEs prepare to be able to deliver elements of this program virtually and in-person. And what that meant was, even the logistical concerns of bringing people from so many diverse countries. The travel between... just contextually... The travel between Africa is extremely difficult. And so just getting people to a central location in South Africa, to do a really immersive, in-person, had a couple of barriers that most of the individuals would have to jump through. And so unique things that typically wouldn't have been given much thought if it was built elsewhere. We had to thoughtfully and empathetically think about those for the learner and the student experience and build that intentionally into the program as well.

Michelle Ockers:

I think we're about to unpack the program, which I'm really excited about. But before we move into more detail about the program itself, there's one final question from a strategic perspective, just to tie a bow in it. And that is, you talked about coming back from the World Economic Forum event with this idea that there was something that you could do that was going to have a socioeconomic impact. And then you had to put together some business case to shape a proposal, get internal support. Obviously there will be funding involved, allocation of resources. What was at the heart of the business case? What was the proposition... the business value proposition for GE to get involved in this collaboration?

Roti Balogun:

Yeah. So again, the CEO of GE at the time, Jay Ireland, the CEO of the African Leadership University, Fred Swaniker and a couple of wall-to-wall leaders... First of all, there was a handshake that we needed to do something together. So that, that helped initially, at least in terms of the positioning of the business case. When you think about the work to decide what to focus on. Again, this was a prevalent topic, the future of skills, particularly digital skills. So again, that putting together the elements of convincing the organization, that this was the area to focus on in Africa specifically related to our global strategy of, "where should we house additional capabilities?" Had its own unique engagements... requirements. It had its own unique... pushing to say, "Hey, I think there is a case to potentially start in Africa because these are the customers potentially that are saying they need this type of skills."

Roti Balogun:

But the regulatory environments quite frankly, helped a lot as well. Particularly in South Africa where the investment and skills development for underrepresented minorities is extremely important. It's actually your license to do business in the country. And so the organization in partnership with regulators generally also work through opportunities to rebate programs like this that truly builds the local workforce. So, it was also thinking about how have we traditionally invested in programs like this or similar with some of the funds that typically we needed to do from a skills development and sustainability perspective. How do

we redirect that to focus on a very specific strategy that we could see longer term value? It's answering the question around doing the right thing versus doing it at the right time as well.

Roti Balogun:

And so what does it mean to have the balance of both, when it comes to prioritizing those investments. Those were really important elements of that business case to be able to say, "Hey, it's possible to do this. We have the right investment levels to do this. We have the regulatory support..." Even though it eventually became an ongoing challenge in terms of accrediting it. But accrediting in it as a locally developed program was also important to get that buy-in. And I had to show success that we had accredited other courses outside of this locally, and we're getting the value for that accreditation. So very different elements into the business case. It was a great experience as a learning professional, to be able to corral the leadership team around something that was longer term versus something that they needed to see the immediate rewards today in the bottom line.

Michelle Ockers:

Yeah. And it sounds like the government policy environment, and even the legislative regulatory requirements around operating as a business in Africa supported the, "why?" And then it was just a matter of the, "what?" So tell us a bit more about the, "what?" The program is obviously for engineers. Tell us a little bit more about who it's for, and the skills that are built?

Roti Balogun:

Right. So, I think again, it's engineers, like you said. It's those that are either early on in their careers that were working for GE. So we had a great GE contingent on the continent that would see the additional skill as an opportunity to do a different job or add value to the current role. We marketed it very intentionally with our customers as well. And usually the program to that, GE generally did the customer education was leadership, c-suite executive type development intervention. And nothing really focused on the mid-level or the experienced engineers in the customer organization. So again, it was just an opportunity as well, to target that audience. And ultimately just the ecosystem of digital enthusiast that wanted to build a new type of skills. And some of these capabilities were really, coding, data virtualization, machine learning skills, big data.

Roti Balogun:

And we spent a bit of time as we thought through the program as well, around just the softer skills as well. What were the consultant skills, the entrepreneurship skills, as we call them, to be able to say, "Hey, what is the data strategy for the organization? How can I influence it in my role as an engineer? How can I potentially influence it in my role as a project manager?" And so, those were the broader capabilities that we were looking to build. But just to give you a little bit of an overlay in terms of how it was. So, it was seven key modules designed over a year. We positioned it as a postgraduate certificate program. The idea was, a pre-program test in the first module, like I mentioned earlier, around just... If you had never written a code in your life, it was okay, as long as you had some engineering experience. We enabled you to do some Python coding, and it was important to at least have a grasp of

statistics, where you had an ability to manipulate data structures and just learn Python programming.

Michelle Ockers:

So Roti, did that mean after the pre-assessment, if there were some skill gaps for the prerequisite skills, that there were some bridging skill development provided first to people?

Roti Balogun:

Absolutely. And we found that out quickly and based on the initial assessment of the 1000 plus applicants that we had. So initially, we didn't have that seventh module. As our core, we set out to build six modules and then, well that seven module became an important prerequisite into being able to continue, or at least be successful for the rest of the program as well. And then we laid it out really, each of the different modules on the journey of how data evolves in the organization. So the first one was on data analytics and visualization. And here we expected the participants really just learn various methods of effectively analysing data. Visualizing it using Python, the programming language, they just learned. Learning how to just communicate those results to different user groups. And just getting better at data analytics and visualization.

Roti Balogun:

And if they successfully went through that and they went through the next module, which was really around machine learning. And really here, the angle was really learning how to build and score, scalable models critical to managing immense volumes of data. So imagine that this is targeted at industrial machines like wind turbines and gas turbines. And so it's an inordinate amount of data. And so machine learning that really helps to learn to extract business value and see patterns in this type of data. So again, if they got through the data analytics, they went through the machine learning. Learned how to deal with that. And then they evolved into the big data space, where the really now learn how to interpret and apply this machine learning algorithms to analyse the data, document them, store them in this big data clouds. And really apply business value to that.

Roti Balogun:

So, those were the first three modules. And when they got through that, we wanted to then bring them into the journey of, "okay. So how does this make sense to senior executives in the organization? How do you build this to have an easier interface?" So we had an application development module. And I think, early on I mentioned Predix. So Predix was the software environment where they built applications within the module. And so it helped them to also understand how GE created basic industrial applications that translated to user-friendly interfaces for our customers, to help them enable better decision making.

Roti Balogun:

Now the capstone piece of it, which this was the fifth model, that was unique. That's where the GE experts... So this first four modules, we had externals that ALU engaged... ALU faculty... The skills was... Pulling that faculty together was a mix of internal and external. But the digital industry was where it was a GE-driven module. That's where we had GE experts run almost a capstone-type project. Where they learnt about how to apply the data through the industrial value chain from design to installation, using hands-on simulation and programming projects. And so each of the cohorts in the different groups have to come up

with a replica or the digital twin. So that could be a physical factory, but a digital replica of that in a virtual environment. And that was led through a couple of GE SMEs.

Roti Balogun:

And then we wrapped it all up with, what I meant by the soft skills and the sixth module, which was really around innovation and entrepreneurship. And that's when they learn to break down abstract problems, create innovative solutions around it, talk about business cases and needs. And really just being able to clarify that to diverse audiences. So that was the length of the program, 12 months. Mix of deep, intense learning. A lot of self-paced learning as well. We'd open our support with the ALU team. And I would try to also mix it with when they could actually have... So the initial cohorts had the privilege... Because there wasn't any COVID then... to get together and actually experience the culture of the environment that we're in. So, go out for field trips as part of the intensive. Learn about each other's culture. So it was a really lovely, massive experience. And that's why the choice of ALU you as well. Great learning model, and great way of transferring knowledge and just really building a learning community. And that's why they were key to building this.

Michelle Ockers:

Yeah. Transport could be a challenge, particularly if you're working with a more traditional university that maybe hasn't modernized their approaches. Hasn't included a lot of the practical projects and going out to industry. You mentioned field visits, what's an example of the field visits that someone may have done on the program?

Roti Balogun:

Yeah. There were sometimes just as simple as a social learning about a particular city, and the history of that city in South Africa or a particular precinct, is an example. And really rather than have that learning happen about a specific module in the classroom, go out there, learn about that environment, potentially even have interactive discussions and reflection moments about, for instance, the market dynamics of data in an environment where they're learning about the culture of others. And so I think, just being able to do that and try different things was an important experience. Of course, when we were designing it, we were hoping we could get opportunities to go to customer sites. We weren't necessarily able to pull that off in the first couple of rounds. But for them to be able to see truly what this looked like in... or at least be in the customers' shoes would have also improved the program outcome significantly.

Michelle Ockers:

Roti spoke about the learning community that was part of the AIIP program. There has been a resurgence in interest in connection and community in the L&D profession in recent months, sparked by social distancing and the shift to virtual learning environments. These changes have highlighted the critical importance of bringing a community lens to your work in L&D. It's one of four lenses identified in the Learning Uncut Emergent series that can help you create business value. If you are an L&D leader seeking to build your credibility and

impact please take a look at the Emerging Stronger masterclasses and community which start in early April 2021. Head over to the website www.emergentmasterclass.com.

Michelle Ockers:

Who was eligible to apply? Was it just an open thing? "Here is this university course. Anyone who's interested can apply as an individual." Do people have to be company sponsored? Did they have to be working for a GE customer? Was there any filter on who could apply?

Roti Balogun:

Yes, I think we opened it up, obviously with a couple of prerequisites in terms of the logistical requirements. So again, you had to have an engineering degree and background. We said, if they had competencies in statistics, mathematics, computing, would have been beneficial for them. Strong analytical consideration was there. But when you think about the more field train in terms of getting the right cohort, we had... Part of the partnership with ALU was providing scholarships. And so the scholarships were a mix of GE scholarships for internal GE people that were part of the program. There were also competitive scholarships that were made available by ALU as well.

Roti Balogun:

And so that opened up the net of people that could apply. At some point we also had very focused, diverse scholarships that was also positioned to increase the number of females that could get onto the program. So, there were different elements of it. But ultimately we just wanted it to be a traditional engineer that had the desire to move from being just an electrical or mechanical or chemical engineer, to being a digital engineer or technologist. And that's how we did pre-assessments and got them on board at the right set. It was also important to be able to determine those that can work full-time, and be able to go through an intense, learning program in one year and be able to succeed. So we also checked a little bit their desire for that.

Michelle Ockers:

How do you screen for that? What indicators are you looking for that someone's going to be able to sustain their full-time work, and then go through this intensive program. Because I know you had 1,000 applicants, but that first year it was less than 50 participants, wasn't it?

Roti Balogun:

Correct.

Michelle Ockers:

Was a relatively small cohort. So you want to make sure that the ones that you pick are going to be in a good place to succeed, to see it through. How do you figure that out?

Roti Balogun:

Yeah, look. I don't think that there was a silver spoon to doing that or golden spoon. We have individual interviews with all the final selected participants. And really again, it was... I wouldn't say it was a job interview, but we were asking important questions about their personal commitments. What they wanted to do, particularly. If you think about the program itself... So ALU's mission... Today it's dubbed the Harvard of Africa in some shape or form. But their mission really was to build three million entrepreneurial and transformational leaders by 2035. And so the socioeconomic aspect of developing technical African leaders was important to probe. "Did you have a desire to do something also bigger than yourself? Were you making a contribution beyond your current skill or your current job? Did you want to set yourself apart?" And so whether it was their motivation statements, and whether it was

extracting that from the qualitative discussions with them. That was the key elements of defining who the right cohorts to get on the program were.

Michelle Ockers:

I'd like to come back to your partnership with ALU and explore that a little bit more. Because that's becoming increasingly common, that corporate-academic institute partnership. But before we do that... So obviously 2018 was the first cohort. So there'd been, I assume another two cohorts since then. What did you learn out of that first year? What went well? And it's like, "yes, we need to repeat that or we need to amplify that." Let's start with what went well.

Roti Balogun:

Right. Yeah. No, look. I think firstly, I thought the immersive learning experiences I've tried to describe. So, I thought that really went well with the first cohort itself, them getting together. So beyond technology, just building that compelling case as a team, to be able to say, "we went through the program. We could build a digital twin from an existing problem in my organization, was phenomenal." Just sitting through and hearing that transformation when they presented their capstone project to the executives of the company was an indescribable experience. And so I thought the shaping of the program, the way the modules panned out was really good from an instructional design perspective.

Roti Balogun:

I think also because we were very sensitive around the funding as well. So scholarships and financial assistance... ALU was great with looking at, what was the potential of an income share-type agreement, where for those that couldn't afford to complete the program, what innovative models... Could they get a potential loan for completing a certain part of it? And then at some point in the future when they've seen value, be able to incorporate that. So again, there was some interesting models that ALU played around with, that I thought was really good for programs like this. Where if you think about the actual average earning power of the cohorts was probably between $20,000 and $30,000. And so, for a program that was just about $9,000 was in principle expensive-

Michelle Ockers:

Big investment, right?

Roti Balogun:

... Yeah. It's a big investment for them to start and stop. So I thought just being able to meet them at their point of need. And make sure that they get through the program was really powerful. I also think that, when you think about diversity as well... So initially, we had mostly male participants in the first round of it. Then to link to that previous point around, we didn't have a female-oriented scholarship in the first round, but we also didn't have the diverse numbers that we wanted. And so introducing scholarships for female engineers also increased... pretty much doubled our enrolment rates, from a diversity perspective as well.

Roti Balogun:

And we ended up with a two to one ratio quite frankly, in terms of the spread. And so, I think that for us... I thought that it was a good learning. To be able to really attract the type that we needed as well. I think finally on what went well, I would say, just the continuous support from alumni. So that transition from going onto the program. Going off back into the real world. Engaging this new pioneers back into the cohorts... the next cohort, that all isn't always done as well. I think here, there was a great reconnection with those that had gone

that path. And that helped both academically. The emotional support that provided. I felt that was really good as well.

Michelle Ockers:

What did that look like, Roti, the alumni and the ongoing connection? How was that set up?

Roti Balogun:

Yeah. So look, I'm sure someone in ALU is probably in a better positioned to describe it to me. But in a lot of our engagements and sponsorship reviews... For instance, if I went to do an open engagement with them, there'll be alumni as well, potentially attending. So for me, that was an immediate pulse that they were really still engaged. But also just pulsing with current participants. Again, it wasn't a significantly large cohort, so just that random check-in and say, "Hey, where are you getting some of your support from?" An indication, "Oh, by the way, this person went into the program." Remember a number of them were GE employees as well. So, in my head of learning talent role, it was also easy for me to get a sense around, who was talking to each other? How are they engage in to help each other on that program?

Roti Balogun:

And so I thought the alumni support, at least in terms of, how it naturally progressed was great. But of course from an ALU's perspective, they had a support system or at least something to make sure that both the alumni and the existing students were able to build on what's an in for them. In fact, on that point, I just remember that the way they've also... Even more recently now is, the ALU innovated around what they call the Room. And really the Room is... the way they describe it. It's basically not about jobs, it's about remodelling your careers.

Roti Balogun:

And it's basically a platform where they engage the alumni. They engage the current students to be a part of this talent support... talent assisted opportunity. "Hey, how can I find opportunities to learn more and connect with others like me within this room concept? How do I potentially provide additional project consulting in a different area if I don't have the opportunity to actually do it in the organization that I'm in for whatever reason?" So I think building that... So they started early on, on the concept a little bit on that room through the program. But now they are expanding on it significantly, as they funnel to also help to build that continued collaborative relationship.

Michelle Ockers:

Yeah. I like that. I really like that a lot. So in terms of the partnership between GE and ALU... What was the saying, "the Harvard of Africa?" Obviously you partnered with a university that was at a very elite standard... a premium quality university. What do you think were the key things that both parties brought to the relationship? And how did you work together to really utilize the key assets, characteristics, contributions of both parties?

Roti Balogun:

Yeah. There were a couple, but I think the main ones worthy of mention there, really are, I think the learning model was a marriage of true value. I think, the concept of just-in-time design was something that ALU you truly embraced. Traditionally, universities will build out the curriculum a year in advance. We couldn't afford that. The colleges were changing. We evolved the strategy or the platforms that we were using then, "so hey, a better platform is out there, how do we incorporate that into the learning?" So the pace of change and being able to create just-in-time curricula was important and ALU offered that. I think relative to GE's approach when we build internal courses as well, we apply a lot of the lean philosophy

into again, creating the right type of learning for our organization and our constituents to make sure that they are really, truly staying at the top of the game in the industry as well.

Roti Balogun:

So the marriage of the learning model itself was I think something that we brought because it was important that for the GE-led piece of the courses, and the ALU-led pieces of the courses as well, that you have a seamless learning experience for the student. And I think the other piece as well is, we have a massive focus as GE on continuous learning, and that was some of the elements as well. I mentioned the whole concept of the Room that they are evolving. But a lot of that as well, is their students... they encourage them to continuously learn anyway. And so I think that culture is ingrained in the faculty. It's ingrained in how they deliver their modules. It's ingrained in terms of how they support the learners, to not just complete a module, but stretch themselves to go figure out a different view of how they could have solved that problem.

Roti Balogun:

And so I think that intentional immersion of that continuous learning philosophy was just something that, again, we found very quickly in common with the way that they ran it. And that builds on peer-to-peer learning. Builds on the subject matter expertise that... The type of faculty they onboarded as well, was important to us. So just being able to have that level of flexibility to determine that we don't want just the academic perspective of some of this important topics, but we want industry-led perspectives. We want opportunities for GE technical leaders to be able to really just have a conversation about what changed from what they said yesterday about some of this growth opportunity.

Roti Balogun:

So, we brought really in summary, the financial support... The funding to build a program from scratch. The scholarships that are enabled a lot of the cohorts. The pastoral program. The subject matter expertise for specific aspects of the program. And really just the sponsorship support and hopefully, opportunity to embrace the graduates and facilitate vicarious, quite frankly, for those that were in the organizations that we have control over. And I think for them, beyond the learning module, they are a truly innovative university. There wasn't really a lot of bureaucracy when we talked about changing the program priorities. There was a lot of flexibility. And so, we really felt that the... Like I said at the start, it was a marriage of value.

Michelle Ockers:

Nice. So you found a university as a partner who was already really well aligned with the way you thought about learning... you thought about learning should happen. It's really nice. What you've just described, the challenges. The stereotype that we sometimes have about universities, and are universities too slow. Is what they're doing out of date too quickly. But some of the approaches you talked about there with the just-in-time design, continuous learning. With looking at alumni, and how can we enable alumni to actually support people to keep learning. To keep applying their skills. The really contemporary approaches that can shift what university education looks like and the utility of it and the value of it, in a quickly changing world. So, it sounds like you did find the right partner. Were there any... Any great

marriage sometimes there's some slight differences of opinion that you have to work through-

Roti Balogun:

Absolutely. Yeah.

Michelle Ockers:

... To sort out before you go to bed for the night. Were there any pinch points in the partnership that you had to work through that might yield some insights or lessons for listeners on how to engage and build strong partnerships?

Roti Balogun:

Yeah, look. It's a hard one because I think that there wasn't any one worthy of shine or to touch light on. I think with any relationship with new partners, you get through the weeds. For one, my philosophy was, they were developing the program, we were powering and enabling it. So then it needed to be a clear definition of what the outcomes were. But also, because we were in start-up phase, quite frankly, that we allowed them to also lead how they wanted it to be. For us the thinking was, establish an initial three-year agreement. Bring on other partners. We didn't want it to be only GE-led. We wanted it to be able to stand on its own. In fact, we're currently talking about what does the next three years look like for the program from an ALU-driven perspective. And what role would they like GE to play in that. And it will potentially be ready. If they said to us, "oh, we don't think that we need GE today," is that okay. Compromise, right? And if they say that, "look, you are the right partners. We enjoy this journey with you. Can you continue to bring value into the program?" Absolutely.

Roti Balogun:

So, I'll now give one example, I think the elements of... When we thought about Predix, is an example. I think you raised that. And we evolve the strategy around Predix, I was insisting Predix has to be there. We wanted to position Predix as a democratized solution. So it has to be an outcome of the learning for app development. But there are other platforms that some of the students found easier. There was platforms that, going back and forth with the technical faculty that they felt they needed to introduce the students to. Because it allowed them more flexibility to learn and all that. That maybe they couldn't jump through here. And so we have to be open to say, "hey, okay. We're evolving and that's okay, for you to only bring the absolute best in time to help the learning experience for the students." So the students always were the centre of any agreements and any disagreements. And we always worked through it.

Michelle Ockers:

That's the way a good marriage should be when you have children. Their welfare is the centre of it. So putting the students first, and the student experience first is a great way to think about that. So in terms of impact then, Roti, can you perhaps give us some examples or indicators of the impact the programs had at any level? You've got the student level... the individual. You've got GE. And then you've got the socioeconomic impact beyond GE. Can you give us some examples of the impact three years in the program has had?

Roti Balogun:

Yeah, look. We always try... And if you went to the website, we always try to gather testimonials at an individual level. I think if we tie it to the vision of building African leaders of the future, I thought for us, it was important that every single person that went through the program was transformed. And so just the anecdotal feedback, working through graduation. Doing post-program evaluation a year after with the first cohort. Thinking a little bit about

where they were in their careers, we've got great stories about some that had promotions or were leading big data projects. Or some that got poached by other companies. I think that there are a lot of great stories at an individual level that we were really proud of as well. I think when you think about the organizational and socioeconomic level as well, I think that the impact of that... I thought we could really truly measure that in three years.

Roti Balogun:

My sense is the pace in which the world has transformed in the last year, I now pay a lot of attention to those three cohorts that have gone through the program, and to see what their market value truly evolves into today. And I think because of those individual stories. Because of the refocus that has started on earlier about our strategy to be industrial superheroes. And this is not about GE, it's about a combination of our customers, our suppliers, the entrepreneurs. And how everyone is going to respond to this post-pandemic world in laser focus on data skills and artificial intelligence, and a lot of things that we come with here. I think we're going to really truly be able to innovate at a level... What taking this bold step three years ago truly had in terms of impact.

Roti Balogun:

It wasn't a large, huge cohort of... We were targeting 200 graduates in the first three years. Ultimately, if you're trying to build three million leaders, you haven't pinched the surface from a broader ALU perspective. But my senses and what I used to say to the grads is, "once you impact one person in Africa, particularly, that impacts a whole village." And so I find that the ones that I would pay attention to as well are those that become really great entrepreneurs. Those that are able to tip the board more around potential start-ups that employees more Africans, and takes them through whatever different versions of this type of future of work competence is. I think when we start to see data points that come from that as well, the true value of the program and its impact will really materialize.

Michelle Ockers:

If there was one thing you could do with the program into the future, One thing you could change, one thing you could build upon to increase the impact even further, what would that be?

Roti Balogun:

Wow. It's an interesting one because we're currently at that juncture where we're thinking about the global reach of the program. Like I said to you at the start, there just wasn't anything of its kind, the way we designed it, when we designed it. Today, maybe there are seven variations, but not in the flow in which we designed it. And there's always a question about global scalability of programs depending on where they originate from. And so, would I... When I think about rebranding the program itself... Today it's called the Africa Industrial Internet Programme. For me, it's just the Industrial Internet Programme, it just happened to happen in Africa. I think there's an opportunity for it to be even more flexible. So, we try to do it in a year for different reasons, cost, model, engagement.

Roti Balogun:

I may have just given... thinking about learning and the pace of learning for really busy professionals versus those that were engaged... I may have stretched it a little bit to maybe two years just so that the living experience is significantly better for the individual. But, yeah. I think it's really just around some of those things. And I think we're talking about them already. "What does the next generation of this program look like?" And we've had to pause in terms of... This is the time where we would have onboarded a new set. But we actually

are pausing to re-evolve and reimagine what this looks like. So there's definitely more to come on that.

Michelle Ockers:

Fantastic. So, a final question. We always like to finish with some takeaway tips. So if we have some listeners who are looking at either getting started or doing more with social impact, and in particular, social impact working with universities, what key takeaway tips would you have for them?

Roti Balogun:

Yeah, well. I'll try to reiterate the whole conversation with a couple of them, but-

Michelle Ockers:

Maybe this is more of a wrap-up thing.

Roti Balogun:

... It is a wrap up, yeah. So look, I think that the absolute... There are lots of universities that are great, that we could have collaborated with, just given some of their history. And given the quality of graduates that they turn out on the continent. I think there are not a lot of universities that can truly innovate and partner and build with you. So, if you're thinking of really, truly impactful programs that you can truly influence, then maybe take some time to really assess the leadership of the institution. The level of engagement. The amount of flexibility you're given. And maybe take away any stereotypes that, they don't exist even in the traditional institutions that you engage with. I think we just went looking for something different. ALU was the right partner then, but I think a lot of other universities may have evolved as well and just be open to that.

Roti Balogun:

I would say that... Back to the question on the business case, I got some support from the regulatory framework, and the opportunity to push that agenda. Maybe it was a meeting of minds at the right time. But I think that, as a learning professional... and this is an audience of learning professionals, there has to be something beyond building a great learning organization for the current focus of the business. We operate in communities. We operate in places where we have to truly add value. And maybe that's in some businesses, a sustainability team. Maybe in some businesses, it's the marketing team or it's the customers. But I think we have an opportunity as learning professionals to really take all the great philosophies and tools that we use day-to-day and take for granted and truly go out into the community and test out a variety of things. Try a new business case with a leader internally. Get a couple of supporters and influencers and just try out.

Roti Balogun:

I think it's important that we can focus on that as learning professionals, in addition to create a great learning organizations as well. So try it out. And try out a business case that is good for the community. And yeah, I think ultimately, my real big takeaway is that anything can start from anywhere. And I'm really proud of this program itself. When I think about my current role right now. I'm currently working with the National Supplier Minority Development Council in the US to build out a cybersecurity readiness program for small businesses. It doesn't exist. It's new. And we're, co-creating... back again innovating at a global stage. And I've learned a lot from my initial... the AIIP days. I'm going to apply those learnings into this partnership that... We're partnering now with Purdue University. It's a global university. But

I'm going to be open again in terms of what do partnerships like that look like, to truly solve some of the systemic education challenges and barriers that we have.

Michelle Ockers:

Wonderful. It's been such a pleasure speaking with you, Roti and learning more about the AIIP program. We will put a link to your LinkedIn profile in the show notes. So if anyone is curious to know more. Would like to have a conversation with Roti, ask him some questions, please reach out to him. This is a milestone for Learning Uncut, Roti. This is the first story we've brought to the listeners from Africa. I would love to share more stories from Africa. So, if you are listening in Africa, thank you so much for being part of the Learning Uncut community. And please share the podcast with colleagues. And if you have a piece of work that might make an interesting case study, a story for Learning Uncut, please reach out to me or suggest a colleague whose work you admire that might be a good place for them to show their work to the world. Thank you so much, Roti.

Roti Balogun:

Thanks for having me, Michelle. It was great. Enjoyed every moment of it.

Michelle Ockers:

Lovely. Thank you.

Michelle Ockers:

If, like me, you have had little exposure to life and work in Africa, you may like to use this as an opportunity to learn something about this region. Did you know there are 54 nations on the African continent? You may like to take a look at some of the show note resources to learn more – be sure to check out the funny, yet very pointed, TED talk from Adeola Fayehun called Africa is a Giant – I'm Trying to Wake her Up. It may challenge some of the stereotypes you have about Africa.

Please let other L&D professionals know about the Learning Uncut podcast stories, and leave a rating and review of the podcast. Let's keep telling and sharing the stories of our work so we all get to learn from each other, and build our impact collectively on the organisations and people we serve.

Emerging Stronger Masterclass

Imagine working through your business challenges as an L&D leader drawing on the collective wisdom of peers and industry experts Laura Overton, Shannon Tipton and Michelle Ockers – plus the practical insight and expertise of our Learning Uncut Emergent podcast guests.

If you are an L&D leader in organisations large and small who are in a position to make or influence change in your organisation, then this is for you.

- ✓ *Be a better L&D leader*
- ✓ *Be an L&D leader who creates business value*
- ✓ *Be an L&D leader with a strong reputation who attracts great talent to your team*

6 masterclass sessions and a showcase with hands-on practice applying 4 lenses identified through the Emergent podcast series – data, community, experimentation and technology. Support through a community to the end of 2021 to take action and make change at this critical point in time.

For more information go to emergentmasterclass.com.

About Michelle Ockers

Michelle Ockers works with business and learning leaders to realise the untapped potential of learning in organisations. She is an organisational learning strategist and modern workplace learning practitioner. Michelle works with organisations to develop and implement transformative organisational learning strategy, and to build the capability of their learning team. She delivers keynotes, workshops and webinars for learning and broader professional or workforce groups at both public and in-house events. Michelle also mentors learning professionals at all career stages on career planning and professional development.

Michelle received the following prestigious industry awards in 2019:
- *Australian Institute of Training and Development Dr Alastair Rylatt Award for L&D Professional of the Year – for outstanding contribution to the practice of learning and development*
- *Internet Time Alliance Jay Cross Memorial Award – for outstanding contribution to the field of informal learning*

Michelle can be contacted at michelle@michelleockers.com.