Generation Connect Podcast

Episode 6: The SDGs and the Metaverse

With Marcus Shingles, Samantha Aguilar, Seif Youssef, and Noha Ashraf Abdel Baky.

Hosted by Lujie Gu.

Transcript

Disclaimer: *The following transcript is machine-generated and has been slightly edited for clarity and readability.*

Intro: Hi Everyone! Welcome to the Generation Connect podcast co-designed with youth for youth. The ITU Generation Connect initiative aims to engage global youth alongside the leaders of today's digital change by empowering youth voices in the digital development dialogue. Tune in every month to listen to inspiring stories of youth all across the world on the power of technology for sustainable development. Get involved by joining our global community of future leaders shaping the world of tomorrow.

Lujie Gu: Hi, everyone and welcome to the 7th episode[1] of the Generation Connect Podcast, co-designed with youth and for youth.

I'm Lujie Gu - I'm part of the Generation Connect Team from ITU, and I will be your host for today.

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. All of the goals are interconnected and calling on people to employ various technologies so as to increase awareness and address global issues. Metaverse, one of the most prominent concepts and most popular technologies of recent times, is one of the tools that would be beneficial to realize these goals.

Today, we invite four guests with us to discuss about the metaverse and its relationship with the sustainable development goals. Through their personal experiences and professional knowledge, our guests will share with us how they view the relationship between metaverse and sustainable development goals, how to utilize the opportunities of metaverse for achieving SDGs, and how to seize the opportunities of metaverse for improving our own lives.

Welcome everyone and thank you for joining me today to discuss this important topic. In today's episode, we would love to hear about your personal experiences and interesting ideas. Your advice could be of great help and support to all the young people tuning in today to listen to our stories.

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1 This is the 6th episode of the Generation Connect Podcast, but 7th installment altogether if one counts the Generation Connect Global Youth Summit Special Video Episode.

So, to start off, it would be nice if you could introduce yourselves in a few words for all our listeners.

Marcus Shingles: Hi, thanks for having us. My name is Marcus Shingles. I'm the co-founder and CEO of an educational nonprofit called Exponential Destiny. We're based in Los Angeles, but we're doing a lot of work globally. And specifically, we work really for a few years now before it became popular. We've been working with the metaverse or what used to be called spatial web in helping young people upskill themselves into this as a profession, because there's a new emerging job economy associated with it, as well as looking at how it can be used against some of the sustainable development goals. And specifically our focus is around quality education, where we go to low-income schools and help the schools realize the real potential of using an immersive and experiential learning as an edutainment model for leapfrogging how they do their curriculum for education, using virtual alley and metaverse. So happy to be here. Thank you.

Lujie Gu: Thank you! Nice to meet you. And Samantha?

Samantha Aguilar: Hello, my name is Samantha Aguilar. So, I am the Chief Design Officer at Exponential Destiny, the educational nonprofit, and also an executive mentor. So that means I work firsthand with all the students that we work with and teach them all these technologies. And one of the concepts or areas that I'm most strong is the creative aspect of virtual reality and metaverse. I am an art major. I graduated with an art degree, and so I like to connect those ideas altogether and try to merge creativity with technology.

Lujie Gu: Great! Welcome, Samantha.

Seif Youssef: Hi, everyone! I'm so happy to be here. My name is Seif Youssef. I'm a co-founder and president of a nonprofit organization, teaching young people about blockchain and web3 in general. My day job is a data analyst. I have a background in data science. I work for a web3 company. I am also a Generation Connect Youth Envoy from the Arab region.

Lujie Gu: Thank you! And finally, we have Noha.

Noha Abdel Baky: Hi, everyone! My name is Noha Abdel Baky. I'm a Generation Connect Africa Youth Envoy from Cairo, Egypt. I work as a technical support engineer at Dell Technologies. I'm interested in user engagement and internet governance and emerging technologies.

Lujie Gu: Thank you so much. And it's a great pleasure to meet you. Metaverse is one of the most outstanding and also controversial concepts of recent times. Some people still have a quite negative attitude towards it, while others pay more attention on the benefits and opportunities of metaverse. So, I would be very curious to hear about your understanding of the metaverse. What is the technology of metaverse from your perspective?

Marcus Shingles: Yeah, I think it's good to demystify what the metaverse is. I think the way that we should perceive it and understand it is we're used to this web 2.0 which we've experienced over the last 10 years, which was looking at the internet with social media on mobile phones and multiple devices. But it's always been in two-dimension screens, on a flat screen. So I think the way we should think about the metaverse is a group of connected websites, essentially the next evolution of the internet. But these websites are websites that you can essentially feel like you're walking into. And we use the term, immersive and experiential. And If you've tried on an augmented reality or virtual reality headset. Augmented reality means you can see through the headset. Virtual reality means you can't see through the headset. You are completely immersed in a fictional imaginary environment. If you tried on one of these headsets, which surprisingly in the last couple years have become extremely inexpensive, you know, for a few hundred dollars.

That's been an inflection point really. If you try on one of the headsets recently, I think you'll really have an appreciation for the potential of the metaverse, which is this virtual reality or augment reality environment. That's immersive and experiential that you can use portals to visit one domain to another domain, very similar to hitting a hyperlink on a website.

But now you're completely immersed, and it feels extremely realistic. The latest versions of the technology and software have hit an inflection point. It's been around for decades, but it's really coming to its prime right now, where the cost has come down and the experience is extremely realistic. And it's just gonna continue to get more realistic in the next several years. So brands and products and companies and organizations are all realizing that this is a really effective way to tell stories, to educate people, and to build empathy and emotion with people that you can't do on a 2D screen. So of course, there's positive and negatives with that. It can become very addictive of course so we have to be careful of that. But, at the same time, with our focus at Exponential Destiny, the educational aspect of it, is extremely enhanced. And there's efficacy data and studies that maybe we'll talk about that really show not linear improvements, but exponential improvements on the way that people learn and the ability to educate.

Lujie Gu: Sounds very interesting. Samantha, do you wanna add something to Marcus'?

Samantha Aguilar: Yeah, I will just add on the metaverse or web3, as Marcus mentioned, has kind of become a creative tool just to enhance other topics, ideas. And one of the areas where we experiment Exponential Destiny with this education, and we've seen firsthand how the metaverse can be used as such a creative tool to teach students, help them learn topics themselves, create themselves, which is a completely different experience compared to them just writing words on paper or just speaking about it. It's a more immersive experience, as we say.

Marcus Shingles: Yeah, going back to what Samantha just alluded to, she's an art major. Right? One of the things that we think is very powerful right now about the metaverse, which is why we're encouraging people to learn how to create these environments. It's very much akin to creating a website back in 1990, 1991, when the World Wide Web was appearing. The thing that we're noticing, though, is that the software that you used to create metaverse spaces went from very technical where you had to learn understand a programming code or a computer programming language, to where now the software has evolved, to where it has become very user friendly to be a creator in the metaverse. It is really akin to understanding a skill set like PowerPoint, or even posting a TikTok video. And most people don't realize that. They think it's very technical to create these environments, because just a couple years ago, it was very technical and also very expensive to find these resources. But now the software has evolved to where it allows you to use features and functions, not writing code, to actually create complete imaginary spaces using the resources within the environment.

So, I think people can think about it from a creation standpoint or development standpoint, is similar to like PowerPoint in 3D. And some of the platforms today that are emerging are finally offering that functionality, which is why we are out there emphasizing that this is a skill set. Whether you're technical or not technical, you can be very effective at this. And it's a good skill set because in the job market, the demand for jobs in this space is emerging. You know, I often say that if you're an executive at a company, you have a fiduciary responsibility to at least experiment with creating a metaverse site. Very similar to 1992, and someone tells you about the World Wide Web as a business executive or a nonprofit executive or government executive. You have a responsibility to test, well what is the World Wide Web. Maybe I should try to build some of these websites and experiment to understand how to adopt it and use it. Same thing is happening right now with the metaverse, which means somebody has to create those sites for that demand. And what we're emphasizing is that why couldn't it be you, especially if the skill set is relying on creativity, not just technical aptitude. And that's where we're really emphasizing the work that

we're doing.

Lujie Gu: Oh, that's very interesting. I feel like the metaverse is not so far away and may become a basic skill that most people can use in the near future. And, I remember Seif has mentioned that you're interested in blockchain and metaverse. Could you please share with us your views on the metaverse?

Seif Youssef: So actually, metaverse is a, is a virtual universe that brings people together in a virtual space from wherever there is internet and technological infrastructure. These are actually conversions of physical, augmented, and virtual reality in a shared and decentralized space, powered by blockchain technology. It allows people to interact in a, what we said a lot of time, in a more immersive way.

Lujie Gu: Sounds very cool! And I believe immersive is definitely an important term for the metaverse. Noha, I remember you have participated in the hackathon under the theme of metaverse. So what's your understanding of this technology?

Noha Abdel Baky: So from my perspective, the metaverse allowed us to use the VR and AR, which provide endless opportunities for education, for traveling, for ending poverty, for gender equality, like endless opportunities. And you can just have an open door to go to many places while you're being home. But the question is, for me, is, will the metaverse be just a reflection for our reality and the problems in it? Or would it be like a La La land for us?

Lujie Gu: Yeah, thank you for your answer. I agree that we have to consider both the benefits and opportunities of it. And also we have to pay some attention on the potential negative impact of it.

So the next thing I want to know is how we may use metaverse to contribute to the sustainable development goals. Marcus, I learned that your team is now training young people to code the next generation of the internet with a broader aim of accelerating progress on the sustainable development goals. So could you please share something more about like the experience and your thoughts on it?

Marcus Shingles: Yeah, we launched a global competition with the support of the ITU called the Metaverse for SDGs Global Prize & Virtual Reality Competition. And the reason we did that is we wanted to ask people to form teams and create experiences in virtual reality that build education, empathy, and awareness around each of the sustainable development goals. And, we know that the metaverse and virtual reality being immersive and experiential is a highly effective way to train, educate, and teach. And so we thought what a better combination than taking the sustainable development goals and having teams create experiences that help educate, build empathy and awareness around those goals.

Now, there are some very specific use cases for how virtual reality, which is an aspect of the metaverse, one of the key components, is being used in particular for some of the SDGs. For example, SDG number three, good health and well-being. If you look up a gentleman, his name is Skip Rizzo. He is one of the leading researchers that has been using virtual reality to treat post-traumatic stress syndrome, PTSD. And they're now exploring using virtual reality to build environments that help treat depression in other forms of mental illness.

This is an emerging field, but that's one example of one SDG where virtual reality in the metaverse has some real potential for the way that people experience things that could bring them good health and well-being, in this case, post-traumatic stress syndrome. And many of the SDGs. There are use cases that are starting emerge in which this type of new innovation, this

metaverse immerse of an exponential method of learning and educating can help with particular SDGs. And we're starting to see that more and more.

Lujie Gu: Thank you, Marcus. It's very interesting to hear about like the combination of VR and sustainable development goals, including the good health and well-being. So next, Noha, I'd like to hear your opinion on the relationship between the metaverse and the sustainable development goals.

Noha Abdel Baky: So apparently, I will face the same issues in the metaverse and will have to act now, like early while it's still growing and still emerging. Marcus delivered a beautiful workshop at the Generation Connect Youth Summit about the metaverse and gave us like a beautiful explanation of its concepts. And I love the fact like he explained that anyone can contribute to the metaverse. So we need to act early, and we need to act now. Not the metaverse is here. It's not coming. So we need to get resolve the issues we have in our virtual spaces and avoid to have them in the metaverse.

Lujie Gu: Thank you for your sharing. Seif and Samantha, do you want to add something?

Seif Youssef: Ok. Each of the 17 goals set by the UN for creating a sustainable world is highly important, as we mentioned earlier. Utilizing the metaverse platform, we can touch upon every area pretty much over time, creates awareness and emphasize the importance of all SDGs. Let's just say. Let's take, for example, quality education, which is one of the other important 17 SDGs. It is crucial, because one of the main challenges we encounter in providing high-quality education is the absence of equitable chances. If we provide the technological infrastructure and meet the need for technological devices, the training modules that we will adapt to the metaverse may enable us to make this SDG possible for everyone. This is actually with my team and I have been working for the past 6 months. The idea is to give me find the learning process for young people by creating a virtual space with all kinds of educational materials.

Samantha Aguilar: Yeah, I would just like to add that the metaverse is a really strong tool that could be used for the sustainable development goals. Because for a certain individual in a certain region, there are certain goals that affect their areas and their countries. So they can share their ideas or thoughts on these sustainable development goals and others from around the world are able to come into them and see them because in the metaverse these spaces are existent forever. So even as the goal progresses, you can always go back and see where was the starting point of this goal, how we began her journey here. And you always have that reference. So it's kind of like a library being created on its own.

Lujie Gu: Thank you for your answers. We can see that metaverse probably will have a major impact on quality education. Marcus, you have mentioned earlier that your team are now helping the schools realize the real potential of metaverse in the education. Could you tell us more about your experiences?

Marcus Shingles: Yeah, so I think it's a little bit ambitious to say the metaverse is going to be important to every single SDGs. Perhaps it will. I think there are early use cases though, around particular SDGs, that it's clear, it's gonna have an impact. We've already mentioned a good health and well-being number three, to treat PTSD. I think, however, out of all of the SDGs, one that we know gonna have a major impact that we can see now and that we're continuing to look at and try to emphasize is quality education.

In our opinion, at Exponential Destiny, we've now done five different programs with five schools and very low-income communities where we went into those schools. We equipped the teachers, and administrators, and students with headsets. We then went through a multi-month process to

experiment with how can you optimize education and learning, using immersive and experiential methods, using virtual reality in the metaverse. The reason why we find it to be highly effective is this notion. And this is what teachers tell us. Teachers tell us that they went from a mindset of scarcity, scarcity in terms of how they educate their students, what resources they have, what stories they can tell, etc., to a mindset of abundance. Because now in virtual reality, they have an abundance of digital, real estate and assets to work with.

So for example, if you're a teacher and you want to teach your students about biology, perhaps you don't have the budget to take them on a bus to a lab, to go do a dissection of maybe a pig's heart in a biology lab. Perhaps other schools can do that. They have more resources, but you can't do that in your school. However, in virtual reality, you can simulate that environment. As matter of fact, you as a teacher and student can actually create that environment and then take other students through it. And the differences when you get to that lab and virtual reality, you can even make it more effective. Because in virtual reality, you can take the heart and make it the size of a house and actually go into the order into the ventricle and actually do a tour from within the heart. That's the type of thing that we're seeing in terms of the metaverse and virtual reality. These immersive and experiential environments are highly effective methods. They give teachers this mindset of abundance, of resource they have to teach versus the traditional scarcity mindset they've been in, coming from lower under-budgeted resource school environments.

Lujie Gu: Thank you. It's very interesting to hear about it. And then I begin to think, what is the experience of being a creator in the metaverse? Samantha, do you want to share your thoughts on it?

Samantha Aguilar: Yes, I will share that, the creative relationship with the metaverse, all stems to just the immersiveness of the space. So, there's so much you can do. There're a lot of platforms out there that are accessible. And even some other platforms, you can kind of create a theatre in a way. So you can like bring 3D objects in, that are already in the platform, environments that are already in the platform, and you can manipulate them any way you want. You can make like a dolphin swims across the screen in front of you. You can make, uh, rain starts falling down at the same time if you really wanted to. But the creative aspect is just knowing or learning how to put all these pieces together. Kind of like what we refer to is making theatre in a way in virtual reality. It's just trying to make an experience not too overwhelming for viewers, but also not too underwhelming. You wanna make it exciting and immersive. Have people take something away as well, learn something. And so that's the creative relationship with it.

Marcus Shingles: We call, we call it edutainment, by the way, education and entertainment. And I heard Seif mention gamification. So if you can make an environment, then if you apply game theory or gamification, entertaining aspects to the educational element, make it humorous, make it funny, make it interesting. Kind of what we call a well factor. You just have all these tools to make it engaging, you know, to for someone to learn and or to experience.

Lujie Gu: Yeah, I was also thinking about Seif's experience in teaching young people about blockchain and web3. Do you want to say something more about it?

Seif Youssef: I just wanna begin with the journey. The beginning of this year throughout like my whole journey, or should I say my struggle to fight an internship. All I wanted to do is to work in a web3 company and especially building metaverse in there for the SDGs. So the first step that I did is that I encourage everyone to develop the mandatory skills and keep yourself, updated and educated. As Marcus said, right now, you don't even have to, have that technical background. You don't need that technical skills. And just with little bit knowledge and a little bit hard work, you can get what you want. For myself, since I have my background in data science, I needed to converge to the skills that I have to the area of like 3D image analysis to explore in various

injections including cryptocurrency which I'm so passionate about. I started creating my own project, personal project, and it was a matter of time till I found the company that are working right now. So it wasn't easy to be honest, but it was worth it.

Lujie Gu: Cool! And Noha, what about you? How was it for you?

Noha Abdel Baky: Well, I think we need people who will multidisciplinary to contribute to the metaverse, not only from the technical perspective, but we also need lawyers to help regulating the metaverse. We need governments, private sector, even civil society to make it a better place for us, an easy place for everyone to feel represented as well.

Lujie Gu: Yeah, I agree with all of you. Recognizing the importance of the metaverse and its impact on the sustainable development goals, ITU is committed to the achievement of the sustainable development goals through various forms of technology, including the metaverse.

It is almost the end of today's podcast. I sincerely thank you all for joining today's episode and sharing your inspiring stories and opinions with us! To conclude, I have one last question for you. What's your vision for the future of metaverse? How do you think it will further influence our lives in the future?

Marcus Shingles: I'd like to see what the audience feels will be the future, and I would encourage them to go to the nonprofit website that we created. www.sdgmetaverseprize.org. And use that as a resource. We launched this global competition with the support of the ITU. Sam and I did it on the UN stage in Geneva back in February. We announced it with our team. And this is essentially a global competition, but our goal is to use this as a method to give people awareness about the metaverse and help train them. And we have a lot of resources available to help train people around design thinking and gamification, and the technical platforms, all of the things that we've been talking about on this podcast. But if you go to that website, you'll find all the information, but you can register and then form a team with some of your friends. And over the next several months, we will train you on how to create environments. And what you would need to do is take one of the SDGs with your team and build an environment using all the tools and the capabilities that we mentioned here, to build education and awareness and empathy around that goal. So please go to the sdgmetaverseprize.org website and register yourself and participate and show us your vision.

So to answer your question, my vision is I'm excited to see what people come up with this competition around each of the SDGs when they create something. So we're looking forward to that.

Lujie Gu: Thank you! And Seif, do you wanna go the next?

Seif Youssef: Well metaverse is going to be the next internet I would say. Many companies are right now building an entire ecosystem over it. For the corporate world, meeting can go from just virtual to even fully immersive. Metaverse will be with us side by side, building our world and take on learning and discovery to a whole new level, and taking the term practice by doing to literally the meaning of it. With the metaverse, the only limit to what we can do with is our imagination pretty much. Thank you.

Noha Abdel Baky: Yeah, I envisioned the metaverse as a new world where everyone is represented and with the near zero discrimination or boundaries, and with equal opportunities as well for everyone.

Samantha Aguilar: I will say the metaverse in the future is still a, just a little bit uncertain, just

because people are still experimenting. So they want to learn what is the best way, what are the best use cases for it. But one of the ways we have seen that it's such a strong tool is education. And using it just to make the classroom and the content a little more exciting, getting students more engaged and involved in the curriculum that they're learning. So I would just love to see what the metaverse can also be used for, because we have also seen these business use cases and a lot of businesses are using it for their new website, their new immerse website that they're creating. So, yes, I'm just excited to see where it heads and how it can help in the sustainable development goes as well.

Outro: Thank you for listening to our podcast! You can find all the podcast episodes on the ITU Generation Connect website. And if you don't want to miss an episode, subscribe to us on Soundcloud, Spotify, and Apple Podcasts. Thanks again and see you next month for a brand-new episode of the Generation Connect Podcast.