



**The Brookings Institution
Center for Sustainable Development**

and

The Rockefeller Foundation

**17 Rooms Podcast
“Digital public goods for SDG attainment”
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Co-Hosts:

John McArthur
Senior Fellow and Director, Center for Sustainable Development
The Brookings Institution

Zia Khan
Senior Vice President for Innovation
The Rockefeller Foundation

Guests:

Liv Marte Kristiansen Nordhaug
Co-Lead, Digital Public Goods Alliance, Norwegian Agency for Development Cooperation
(NORAD)

Lucy Harris
Co-Lead, Digital Public Goods Alliance, UNICEF

Sanjay Jain
Partner, Bharat Innovation Fund

Episode Summary:

In this ninth interview of the “17 Rooms” podcast, Lucy Harris, Sanjay Jain, and Liv Marte Kristiansen Nordhaug discuss how digital public goods can enable digital cooperation, sustainable development, and innovation. Harris, co-lead of the Digital Public Goods Alliance, Jain, partner at the Bharat Innovation Fund, and Nordhaug, co-lead of the Digital Public Goods Alliance, moderated Room 9 focused on Sustainable Development Goal number 9—on industry, innovation, and infrastructure—during the 2021 17 Rooms flagship process.

MCARTHUR: Hi, I'm John MacArthur, senior fellow and director of the Center for Sustainable Development at the Brookings Institution.

KHAN: And I'm Zia Khan, senior vice president for innovation at the Rockefeller Foundation. This is 17 Rooms, a podcast about actions, insights and community for the Sustainable Development Goals and the people driving them. So, John, how are things?

MCARTHUR: Pretty good, Zia. I'm still recovering a little bit from a mishap yesterday of all things with my internet. I was in the middle of this very important discussion presenting on all sorts of work that my colleagues and I are doing. And of course, the internet goes out mid-sentence, and it just reminded me how much we count on the digital infrastructure of our lives, even if we're not thinking about it most moments and the need to not just build it right, but make sure it works right.

KHAN: It's an experience we've all had, and in a way, it's shone a spotlight on the importance of infrastructure. John, what I'm so excited about this one, personally, is I've been working on digital public infrastructure and public goods and just technology writ large for social impact for a long time. And it's often these conversations get stuck with reports or principles. But this is a team that really punched through, and they're taking some great ideas and figuring out what to do next. And that's what 17 Rooms is all about.

MCARTHUR: It reminds me 10 years ago, there was this famous saying "move fast and break things." And now, after all the technology mishaps of recent years and even breakthroughs of recent years, there's an understanding that things move fast, but we need to build them right and make them robust. And that's a lot of what today is going to talk about. In today's episode, we're joined by Lucy Harris, Liv Marte Kristiansen Nordhaug, and Sanjay Jain to learn about their efforts to assist the development community globally on how better to utilize digital public goods, or DPGs, for digital cooperation, sustainable development, goal attainment, and innovation overall. They're part of Room 9, a working group for SDG 9 on industry, innovation, and infrastructure in this year's 17 Rooms process. Lucy and Liv co-lead the Digital Public Goods Alliance, or DPG-A, which is an initiative co-hosted by UNICEF and the Norwegian Agency for Development Cooperation and endorsed by the UN Secretary-General to facilitate discovery, development, use of, and investment in digital public goods.

Sanjay is a partner at the Bharat Innovation Fund in India, which invests in early stage IP driven companies. And he's also the chief innovation officer at the Center for Innovation, Incubation, and Entrepreneurship at the India Institute of Management in Ahmedabad. He leads efforts to create, promote, and encourage entrepreneurship in digital technology. Quick disclosure to our listeners, the government of Norway is also a financial supporter of Brookings. Everyone's opinions expressed today is their own. And for new listeners, 17 Rooms is an approach to spurring action for the Sustainable Development Goals. It convenes 17 working groups, one per SDG, and asks them to focus on an area within an SDG that is ripe for action and to define some concrete next steps that can be achieved in 12 to 18 months to make progress. Today is about SDG 9. Zia?

KHAN: This will be a really fun conversation. Each of these monitors comes from such diverse experiences to bring it together. Let's jump in.

MCARTHUR: Welcome to our guests. Liv, we're delighted to have you joining from Oslo.

NORDHAUG: Thank you.

MCARTHUR: And Lucy from Toronto, Canada,

HARRIS: Great to be here.

MCARTHUR: And Sanjay from Ahmedabad in India.

JAIN: A pleasure to be here.

KHAN: Thanks again for joining us. So we'd like to start with the question of how did all of you get here? How did you get to 17 Rooms and what's been your journey? And I was wondering maybe if we could start in the same order: Liv, if we could start with you, then we'll go to Lucy, and then Sanjay.

NORDHAUG: Thank you for that question, Zia. I think the journey has had several routes to end up where it is. But I think a couple of things to highlight. This may be my first job, which was in Timor Leste, also known as East Timor. And I was working there on capacity building and human resources development in the public petroleum sector. 2004 was when I started there and. It was very interesting to dive deep into the area of how to support the building up of strong institutions in a situation with severe human resource constraints and also financial constraints. This was a post-colonial, post-conflict setting. And at the same time, there was a need to rapidly build up capacity to manage the petroleum resources of the country.

And I think this has really resulted in, for me, the importance of focusing on trying to support the building up of local ownership, institutions, and capacity as part of everything we do also when it comes to digitalization and building out digital public infrastructure, which we'll come back to later in and in the conversation.

Another route was around open source and open content, which really brought me to become extremely interested in digital public goods and seeing the promise of that. And that was through an innovation competition, or an innovative procurement, that I led from 2014 to help provide engaging learning resources for children affected by the Syrian crisis. So, in that situation, we were trying to tap into the potential for providing learning resources directly to affected families on smartphones. And what happened there was that we ended up going for an open source, an open license approach to the content and to the software that resulted from that project.

And today, one of the literacy learning games that came out of that is available, I think, in around 70 languages and that's been documented effective by the World Bank, for instance, in northern Nigeria. So to me, that really drove home the value of a digital public goods approach for scale.

KHAN: Lucy, how about yourself?

HARRIS: I love hearing these stories. So I think for myself, I had already been working in community advocacy and engagement, but I joined the Mozilla Foundation in 2014 and it was my first foray into technology and thinking about the intersection of community and tech. And the very first project I worked on was a campaign called Maker Party. And the goal

was to get hundreds of organizations around the world to participate in this week of making, and the intention was just to provide everyone who was involved—and often we were engaging with schools and children—to give them the insight that they could be makers and not just consumers of the web. And this one goal of really changing how people thought of the internet as something not just that you had to go on, but something that you could affect and that you could build on it and that you could change was incredibly powerful.

And over my next six years with Mozilla and in a variety of roles and getting closer over the course of that time to product, seeing that open source is really an extension of that idea. That you can see things that you're using, that you're dependent on, actually understand what's behind them, actually read the code yourself, and also make changes so that it fits you and your circumstances better. And that's a really powerful thing. And when you see it happening in large open source projects with hundreds of people all over the world working collaboratively on something, that's incredibly powerful.

But I also think just that seed, that original insight that you can affect and build technology—you don't have to just passively use it—is really important and very much brought me to digital public goods, and then by extension 17 Rooms. That as especially people are coming online for the first time, if they do that with the paradigm of the internet and the technology around me is something I could affect rather than just have to consume, it's a completely different world.

KHAN: Lucy, thank you. And Sanjay, how about you?

JAIN: Thank you, Zia, for the question. So my journey, I mean, I'm a technologist all my life, 30 years of experience in the tech industry. I was at Google about 15 years back and I helped with this product called Google Mapmaker, which was user generated content for maps. And what we did was we allowed people to draw on top of satellite imagery and that created a map. And that was the only way we could get the developing world onto Google Maps. So we got India, we got 170 countries onto Google Maps through that product, and it was a very fulfilling journey to see how technology came in and helped change the lives of so many people around the world.

Having done that, I was trying to figure out what next when the government of India launched this program around national I.D. And that was an instant where and I thought that I could do work that would make about a very large difference to the lives of the entire billion people in the country. So I joined them as a chief product officer, and I helped to build Aadhaar, the digital ID in India. I was there from the design till we got about 300 to 400 million IDs, and then I actually went back into the private sector to see how we could do other things. And while I was there, the idea of the IndiaStack came into being and we continued to work on many of those APIs.

But we felt there was a need for two things. One was you're seeing other countries wanting to build IDs of their own and coming to look to what we've done in India. And that led to the creation of the Modular Open Source ID Platform. And separately, I was actually looking at what was happening in India, and we felt there was a need for support for early stage entrepreneurship around the digital public goods that we were creating, even though they were not called digital public goods at that time.

And so I raised capital to support companies at the early stage, and that led to my role as a VC, which is why when you see Bharat Innovation Fund there, because that's what I do, is I support early stage ventures that are building around these goods that will help take the benefits that we in the developed half of the country take for granted out to the previously underserved. So that's my day job and I volunteer at MOSIP to do that. So as a result of all of this, I think getting into the digital public goods space as it emerged globally was the right thing for us to do, and that actually led us to 17 Rooms.

MCARTHUR: Zia, I'm already keeping track of all the geographies that have come up: East Timor, Syria, India of course, Norway, Canada, the heart of Silicon Valley in the Mozilla Foundation. I'm curious, maybe you can just tell us quickly, how did the three of you get to be together off these remarkable journeys to co-chair the 17 Room group. Liv, do you want to give us a kick off?

NORDHAUG: I can give it to start. So. So Lucy and I, we came together because we're both co-leads of the Digital Public Goods Alliance. And the reason why we are co-leads is that we are representing two different co-hosting institutions in this neutral secretariat. So I am based in Norad, the Norwegian Agency for Development Cooperation, and Lucy is based in UNICEF, working out to Toronto. So we were really brought together through the work of this Digital Public Goods Alliance and where we're now trying to build out, you can almost think of it as an open source, as a government open source initiative where we're trying to be a vehicle for coordinating and aligning the work of different stakeholders that are already doing excellent and important work related to leveraging the potential in digital public goods for attainment of the Sustainable Development Goals. So, that's how we found each other.

But we had iSpirit, which is an Indian think tank, as one of the co-founders of the Digital Public Goods Alliance. And through iSpirit and through everything that we had learned about the IndiaStack, and with this ability to MOSIP, that Sanjay mentioned, as a very important digital public good, we had heard about Sanjay, so we reached out to him to join us in the effort around Room 9 for 17 Rooms.

MCARTHUR: Well, that raises an interesting question because we've been hearing this term of digital public goods and digital public infrastructure. I'm wondering, Lucy, can you describe for our listeners, what are these two things? What's the basic definition of digital public goods and digital public infrastructure? And what's the difference between the two?

HARRIS: Great question. So, the definition of digital public goods has been around in various informal ways for a while. But in 2020 in the UN Secretary-General's Roadmap for Digital Cooperation, he defined digital public goods as open source software, open content, open AI models, open standards that adhere to privacy and other applicable laws, best practices, do no harm, and help attain the Sustainable Development Goals. So that's the official definition.

But let me just take a second to break that down, to make it a little more comprehensive because as the Digital Public Goods Alliance, we've been doing a lot of work to take that definition and turn it into something that is very useable. So the three critical components that I hope listeners of this podcast take away are, first, relevance to the Sustainable Development Goals. So was this product or content, was it designed, and developed to help accelerate attainment of the Sustainable Development Goals? So with good in mind.

The second piece is open source. So does it have a license, does it have documentation that makes it possible for other people to adopt, adapt, and reuse the digital solution?

And the third is do no harm. In the design and development of this product was thought taken to how privacy would be taken care of, security, how users would interact, how content would be stored, and generally how the potential harms of the digital solution could be mitigated? And those three components, open source, SDG-relevance, and do no harm, are what makes something a digital public good.

We have developed the DPG standard, which are nine indicators that anyone can use to actually go and check is their product a digital public good. We vet products against that standard and maintain a registry of solutions that actually adhere to that definition of digital public goods.

MCARTHUR: Okay, yeah. And infrastructure?

HARRIS: Digital public sector has much less of a formal definition in contrast to digital public goods. It is generally talked about technology as the rails on which other solutions are built, where the technology impacts at a societal level, as well as market and consumers that goes across multiple sectors. So you're thinking about technologies that are very broad, other things are built on top of them—digital ID systems, payment systems, civil registration systems are all examples of digital public infrastructure. And digital public infrastructure may or may not be open source. It may consist of a mix of open and proprietary systems. It's more about it's how it's being used in the societal context.

MCARTHUR: It's so helpful. I've never heard before all of these nine points and everything, I'm sure I should have. But it's so helpful to know that there are these official criteria. But Sanjay, I'm curious, and Zia I'd love to know your thoughts, having had a bird's eye view on so many of these issues. But Sanjay, you've been part of building with Aadhaar, you mentioned—for our listeners who don't know, it's the massive India-wide digital ID system, arguably the most pioneering of rapid roll out digital infrastructures in the world. How does this set of concepts and standards Lucy just described match with the reality on the ground in India. How is it relevant? How is it helpful?

JAIN: John, thanks for that question. And so when we started developing these systems, so first, the I.D. system Aadhaar, the concept of digital public goods was not there, I mean there was a definition. But we did look at systems around the world and how they were being designed and built so that they could meet many of those criteria. So many of the points that Lucy mentioned were things that we did look at. Privacy by design was a concept that was available at that time, and we looked at that and saw what we were doing and how it would adhere to those principles.

Similarly, we looked at elements of security, how the data would be stored, how we would take user consent, and so on. So all of those were actually considered in the design of Aadhaar. And then later, as we started to build the other APIs of the IndiaStack including payments, et cetera, many of those principles carried over.

So as a result of that, I mean actually if we do back and look at many of the principles that are documented today, I think other than the open source aspect, many of the other software features in terms of societal impact, et cetera, are built into the process that we followed. And

that then allows us to do this. But, if I were to look at definitions today, I would put these in the category of digital public infrastructure because primarily we didn't publish the source code of those standard.

KHAN: I'm here in New York City, and over 100 years ago, each subway line was its own private company. And at some point there was a transition to think about, okay, subways actually are important public infrastructure, and we need to think about this. Maybe you could look at the, I don't know if this is a good analogy, the rails as being the infrastructure and the cars are the goods. But it was it was quite a process, it was quite a political process, it was quite an economic process. There's a lot of private interest and I imagine you're in the midst of that flux right now, too, when you think of how many of the digital goods and how much of the digital infrastructure is in private hands as the innovation started there.

So I'm curious about the timing of the moment right now, as you all came together for 17 Rooms, like you all are so busy just listening to your backgrounds and you I know you're all getting a million requests for your time and you're involved in so many activities. What did you see as the potential for 17 Rooms to come together as a group and maybe just describe what it was that you focused on and what you hope are the next steps that you'll take next year? Maybe, Sanjay, we could start with you and then and then we can see Lucy and Liv what you went to add.

JAIN: So when we came across the concept of digital public goods we found like-minded folks. I was a part of iSpirit as well as a volunteer when most of the IndiaStack activities were going on. And so it was really a natural extension of the work that I was doing to sort of say, okay, we've built this in India, how do we now take it to the rest of the world? And that's actually what led me to think through MOSIP as well as the DPGA.

And when the question of 17 Rooms came up, that was another extension to the work that we were doing, and we thought that it would be take the work that you're doing already and place it on an even faster path towards adoption, to getting the kind of impact that you would see around the world. And so I was quite eager to come in and be a part of the process to see how we could co-opt other folks around us to bring more attention to what we were doing so that we could be more successful in taking this to other countries and building this out. So overall, I do think that 17 Rooms and the UN SDGs were all very well aligned to the mission and activities that we were doing, that it made sense to be here.

KHAN: One of our themes for 17 Rooms is to narrow down on something. These are enormous issues, the SDGs and digital public goods and digital public infrastructure cover a wide territory. I'm curious, Liv, if you can share with us, where did you focus this year's 17 Rooms?

NORDHAUG: We did narrow in on the intersection between digital public goods and good digital public infrastructure, meaning that we looked into what is the potential then for these open digital solutions to help accelerate the deployment of what we have termed "good digital public infrastructure" across the countries that need them. And I really think it was a wonderful composition we had in the Room where we brought together both some of the sector experts that could speak to the use cases, like in health or in social protection or in agriculture subsidies or whatnot, but that could speak to what does the end user need.

But then, on the other hand we also had, for instance, the World Bank's ID4D program represented, we had UNICEF, and we had multiple stakeholders that could speak to also the country perspectives that have been involved in building out identity systems, building up payment systems, but also, of course, responding to COVID-19. And I do think that COVID-19, I would really emphasize how that accentuated the need and the timeliness of this year's Room 9, because there is such an urgency now in building out better social protection systems in particular. And there is a unique opportunity now to build stronger and more resilient systems that not only respond to this crisis, but that can enable countries to also respond to future crises, future pandemics, and the and to be better prepared.

So I think that was what led us to focus on good digital public infrastructure. But I would say that there was definitely a COVID-19 sense of urgency, so to speak, to why it's even more important now, and a great energy in the Room and the follow ups, I would say that we can maybe touch upon afterwards.

MCARTHUR: Lucy looked like you had some thoughts to add here.

HARRIS: Mostly, I was just nodding along, despite being on a podcast, to everything Liv was saying. I do think that when we look at SDG 9 and the focus on industry, innovation, and infrastructure, I was very excited that people who were coming from so many different perspectives, there was a lot of alignment around the need for good digital public infrastructure, but also for the role of digital public goods in enabling innovation. And as Liv mentioned, as we got into some of the next steps, I don't want to preempt your next question, but I think one of the things we took away is trying to help other people see what the role of digital public goods are in facilitating innovation, especially where there's also a collaborative component.

So I agree with everything that Liv said. It was a very exciting meeting and there was a lot of energy and alignment around this work also triggered by, I think, the pandemic and the moment of time that we're in where the importance of this is clear to everyone.

KHAN: There are two things that strike me, it must have been hard in general, but also I imagine in this Room. One is infrastructure is never at the top of the list of someone's political agenda when they're coming out of a recession, coming out of a pandemic, et cetera. And it's the second or third priority across 20 issues, but it's never the top priority often. I'm generalizing here, but it's kind of the challenge around moving forward with infrastructure. And then secondly, in a new space there's so many organizations that would have these our six principles of good infrastructure, these are our four principles of good infrastructure, these are eight principles of good infrastructure, and people have different perspectives. And so I'm curious, how did you manage with those hard topics as you wanted to land action and real next steps for next year?

HARRIS: Maybe I could speak briefly to the second challenge that you touched upon with the existing standards and principles that are already here. So from the Digital Public Goods Alliance, the DPGA standard that I mentioned before, it's quite a high level standard. So it aims to describe in broad swaths what kind of hallmarks digital solutions should have to be considered digital public goods and includes a line about following best practices and standards. So it's almost got standards within standards, harkening back to the governed open source project model. And one of the things we tried to do there and then also in Room 9 was identify what is already there and how can we kind of connect it all together.

I think with all of this work, not remaking the wheel is extremely important, and there's enough space for us to attach multiple things together. So leverage all of the existing standards and best practices, package them so that anyone who's looking to then build digital public infrastructure, whether or not in the digital public goods framework, can see what's there and leverage what other people are thinking. A lot of it is so complementary. Very little of it actually puts it in conflict with other standards and principles. And you can take them as a whole to get something that's that so much better, which is, I think, the heart of digital public goods anyways. Also that same approach was in this Room. What can we all offer that already exists? And then how do we tie it together in a way that makes it more powerful?

MCARTHUR: Can tell us a bit more about who was actually in the Room, just for our listeners to understand this range of perspectives? And also, would love to know, when you're gathering people on this topic, so many people around the world they'll hear about this topic and they'll think about something like Facebook and the debates around Facebook and who owns what and who's got which powers. Can you tell us a little bit about again who is there, but did stuff like that come up in the conversation?

JAIN: Yeah, so what we did was when we were starting out the process, we started to invite the people to come to the Room. And as Liv mentioned, these were people who were working in these spaces who came from different perspectives. So we had some folks from the creator community, people who are creating digital public goods. So we had somebody from MOSIP other than me, I was as a Room coordinator, but we did have somebody from MOSIP in the room. We had folks from Omidyar Network who is funding some of these spaces. We had somebody from Red Hat. We had people from various governments around the world. We had people who were using, for example, DHIS2, which is one of the DPGs in Sri Lanka. And we had people who had used it there and who had contributed back to the system.

And so we started to identify folks who were building digital public goods, were using it, people who were in multilateral agencies who were working with governments to be able to see the value of these. And this actually brings me back to a point that Zia asked earlier, was how do you get people to prioritize infrastructure? And the real answer is you actually prioritize a use case. And so, for example, social protection is an important use case that includes identity, includes payment. And so if you're going to be able to do it well, then you have to take a solution that works and bring it in quickly as infrastructure and then build that use case on top of it. But build it in a way that those underlying rails can be used for other goods in the future.

So it's really not about building infrastructure for the sake of infrastructure but building it for a use case and enabling it for other use cases. And so I do think that many of the folks in the room who came from these various use cases or multilateral agencies saw that and felt that this is probably as good a time as any to be looking at doing it in a way that you could re-use the implementations that were coming in. So I think the selection of people was dictated by that.

MCARTHUR: It's interesting, you know Zia, different Rooms this year, we're talking about different use cases in 17 Rooms. So in Room 1, talking about digital cash transfer, emergency infrastructure and low income settings. And Room 3 focused on epidemic avoidance digital tools, which have all sorts of privacy and public health issues embedded. It is interesting how this seems to be, Zia, a growing frontier of effort, but also just so complicated. I'm curious, as

someone leading innovation at the Foundation, where do you see the inside-outside benefits of these massive networks, but also this opportunity for implementation success, too?

KHAN: It's interesting, John, I might have a counterintuitive perspective, which is I think the key is just to move forward and get something done. And I think that's something that we try and protect each Room from in 17 Rooms, which is how do we create this space so people can focus? Because you're absolutely right, a third challenge of infrastructure is you can connect it to everything just by definition of what infrastructure is. And as you mentioned, we see a lot of potential when we think about pandemic response, such as the failure was just of basic data systems, have you here in this country, in the United States, and globally as well.

So I feel like the key to success is to track those connections, really spot when is a productive connection, but to kind of shield people and have them move forward. And that's why I'm so excited about this Room. It's a little known fact that I actually co-chaired Room 9 many years ago, and I can't say we landed on the most concrete action, at which point John politely asked me to co-host the entire 17 Rooms versus return as a moderator. But you all have just, we've been looking at this and you took a really strong swing at it, and now you've landed on some really concrete actions. I'm wondering if you could share for us so what's going to happen next year coming out of this Room and I also know you have other streams of activity.

NORDHAUG: I think one key area moving forward here is to resource mobilization, so basically getting the job done through getting more funding and better funding. And that is happening, I would say, directly as a result of some of the 17 Rooms, discussions and leveraging the momentum that we now have. So there is discussions both involving the philanthropic community in setting up and leveraging more philanthropic funding for supporting countries in the deployment of good digital public infrastructure.

There are also coordinated and ongoing discussions within the more bilateral donor community and to give specific examples of what funds are being mobilized towards. Because sometimes we don't get tangible, everything sounds very up in the air, but we're talking about more funding for specific digital public goods, and examples could include MOSIP, OpenCRVS, if we talk particularly about the digital public infrastructure space.

We're also talking about more funding to support technical assistance for countries deploying digital public goods as part of their digital public infrastructure. And I, for instance, think that the World Bank has a very powerful trust fund there called ID4D where I do know that there is more funding being leveraged towards that. And I think another dimension that there are multiple funding streams and attempts at leveraging more funding for is also this idea of more, both supporting more local vendor capacity building and involving the local vendor ecosystems so that there are huge commercial opportunities—Sanjay can speak much more to this—but you know the systems integration services involved in deploying a digital public good like MOSIP, for instance. There's a lot of value there, and we would love a world where more of that value ends up locally, with local vendors, not only with large international companies.

So I would say that there is really, really a strong momentum now that will result in more funding over the next year and the years to come for this. I think there are some specifics there that are premature to announce in terms of exactly what things are called, but you may also know some of these things yourself, Zia, about what is going on. But I would say there is great progress.

Maybe also Lucy would like to add something about the work we're seeing on the evolution of the Digital Public Goods Alliance as a coordination instrument because I think one thing is more funding. The other thing is better coordinated funding and alignment of activities, because I think the curse of what has been happening in the digital space, particularly when we look at international development funding and digital efforts in health and education and what not, is duplication, fragmentation, and what we call "pilotitis," basically plenty of pilots that don't scale for multiple reasons. And we are seeing a lot of alignment and enthusiasm around coordination, and Lucy is very instrumental in that.

MCARTHUR: And can I just add quickly, you mentioned CRVS in there, Liv. For our listeners who don't know civil registration ...

NORDHAUG: ... civil registration and Brussels ...

MCARTHUR: ... is a super important use case that probably if you've got it, you don't think about it—who lives, who dies, who's in which household. But so many places around the world don't even have that data. So it's just a very powerful thing that people can miss, but also that makes such a huge difference once it's there.

NORDHAUG: And it's hugely complementary to a digital identity system that's aimed at enabling you to verify who you are. And the CRVS would be a much more complementary registry, with information also about vulnerabilities like disabilities and the things that are really needed for targeting benefits, for instance, and services. So it's a very good point, John.

MCARTHUR: We're going to have to wrap this up in just a couple of minutes. But Lucy and Sanjay, I would love your thoughts on this and also Zia, please, of course, any final questions you have. I would love to know anything you think that people should be looking for as a sign of progress in 2022—dollars and funding for specific uses is clearly one. But also is there anything else that's kind of a tell of progress for 2022 and even in the bigger picture for 2030? How do we know this is going well, given that so much of it is behind the scenes?

HARRIS: So one thing I would say about that is I predict, and I'll look into my crystal ball for a second here, that you will start seeing the term digital public goods everywhere. Already in the past, I would say six months, I have seen it ramp up enormously. People starting to have in their job titles, digital public goods, conferences, organizations around digital public goods.

And then going hand-in-hand with that, I think, the idea of open source as a kind of critical component of building digital systems will be gaining popularity. And open source is an old, old concept. But I think it is very important right now, and I think there's a lot of attention on it right now, and I think that's going hand in hand with digital public goods. I think you'll see the creation of more OSPOs, open source program offices in large, traditional institutions where five years ago you could never have imagined they would be having a whole team designated to open source.

And I think the combination of open source gaining prominence, understanding, as well as digital public goods that takes open source and looks at it in the context of the Sustainable Development Goals and doing no harm. I think you'll see that. If you're listening to this

podcast, I suspect you are enough in this space that you will definitely start to see it. But I think as those ripple effects go out, I think even people who are far from this space will start understanding that term and seeing it as something that people are talking about and excited about.

KHAN: And, Sanjay, India has been such a leader in implementation of so much of this work from Aadhaar to the IndiaStack, I'm curious how the 17 Rooms conversation might have influenced your thinking and what do you expect to take back to what already is a machine in motion in India?

JAIN: From my vantage point, what I would expect to see is actually more implementations around the world for systems like I.T. systems, for digital payments, social protection schemes, et cetera, which rely on these underlying infrastructure. So, and I would like to maybe see by 2030 to meet the SDG target would actually expect almost everyone in the world to have a legal I.D. We would like to see people having access to payment systems, access to social protection, and so on. And I would expect to see in 2022 a large number of people coming to this formal part of society and start to participate. And so that's really, I think, the implementation from a global perspective.

From an Indian perspective, I think we're already in a fairly good track. Beyond the first few APIs of the IndiaStack, we're actually seeing a fairly good movement around health, around many other spaces, which I think we're continuing to see, and I think the realization that what we are doing is applicable globally as well as perhaps the things happening in the rest of the world that we should be paying attention to. I think we'll see more of that happen in India. So I would put that as concrete actions in this year, is more implementations, more awareness, collaboration between what's happening in India and the rest of the world

KHAN: It's exciting to think about the global momentum here. And John, I'm curious from your perspective as someone who's been tracking and watching progress against SDGs overall, and I remember you mentioning once that we're going to need a few sort of breakthroughs overall, how does this fit into your perspective of how are we going to close the gap?

MCARTHUR: I'm so grateful for our team here for leading this and informing us on it because I do think it's just moving so fast. And one of the things we're seeing is it's not just the infrastructure, not just the goods, but it's the systems for the infrastructure and the goods that seem to be taking off. And the example from India is so powerful, other examples that we've heard about, even northern Nigeria, one of the toughest operating environments in the world. This is incredible.

And when we see examples like come up in the other rooms where even during COVID and sometimes empowered by the crisis of COVID, the technology is now so ripe that it's bringing people together to do things at an even faster leapfrogging pace than they might have done otherwise. And I'm really taking away from this conversation just how new some of these concepts are. And in our spirit of 17 Rooms of action, insight, and community, there's an incredible amount of action, a fast moving frontier of insight in an extraordinary community coming together, or community of communities, that are pushing it all forward. So, I have to say the digital space is arguably along with the life sciences giving me the most hope for the SDGs right now in terms of how people get included and how they get to do new things.

KHAN: In some ways I can almost imagine a new field really starting to take hold of people and professionals and ideas and practices and implementations all coming together. This has been a fascinating conversation. I'm so grateful. I was hoping I could turn to each of you and just share one brief thing that you hope the listeners could take away from this podcast. And maybe Lucy, we could start with you and then Liv and then Sanjay.

HARRIS: Yeah, and I was inspired by what John said. I think things are moving really quickly and digital technology has such power to make things a lot better and make things happen quickly and help us attain the Sustainable Development Goals. But that also comes with a bunch of risk. And when you're moving really quickly, I think there is kind of a do we get it done or do we get it done right? And I think the conversation that we had in Room 9 was about, let's get this done, but how do we get it done right? How do we choose technologies that don't just work and aren't just powerful, but they empower the people who use them? And I think that's what digital public goods are, and I think that's also what the goal of good digital public infrastructure is.

JAIN: So what I would take away from what we're doing is all of what Lucy said, but more to the point that there are people who are available to help, there are systems in place, and there's a lot of work being done, and there's really no need to reinvent the wheel. And I think there's a community out there which you can reach out to and get the right help so that you can build the right systems for your local needs and do it quickly and do it well so that it empowers everyone around you.

NORDHAUG: And I could maybe just add a sentence on top of what both Lucy and Sanjay said, which I fully endorse and align with and maybe say that the result of what they just said could be that countries could be put in the driver's seat of their own digital transformation journeys. So that is something that supporting the deployment of good digital public infrastructure can do, and it can give countries also more agency, an opportunity to manage these infrastructures to also address future needs.

MCARTHUR: What a great conversation, thank you all so much. We're excited to see what 2022 brings on this front. Thank you so much.

Zia, you've been at the frontier of these issues for quite a long time. What do you make of what we just heard?

KHAN: John, as I mentioned earlier, it's just so exciting to see this breakthrough. In many ways, 17 Rooms provides almost like a relay race environment where the baton can get carried from one year to another year as it gets sharpened. But this team has really broken through with some very practical actions and practical next steps. And also, this Room, I know, was influencing a lot of different parallel processes to shape opportunities, to shape funding, to mobilize other actors. So it's been really catalytic in a lot of ways. Very exciting.

MCARTHUR: And it's interesting for me as someone who doesn't know nearly a small percentage of what you know about these issues. We spend so much time talking about the shiny things in technology, the apps, the breakthrough things that might or might not work. But this is about the backbone. And it's really about a lot of backbone for the Sustainable Development Goals writ large in terms of breakthroughs that could come. And to hear people talk about not just do we get it done, but do we get it done right, that backbone is kind of an

exciting conversation, especially because it sounds like there's a lot of specificity under the hood in terms of what counts as getting it right.

To learn more, find this episode at Brookings Dot Edu Slash 17 Rooms podcast. Coming up next, Room 6 with Letitia Obeng and Jennifer Sara on how sanitation can be a resource at scale.

I'm John McArthur.

KHAN: And I'm Zia Khan, and this has been 17 Rooms.

MCARTHUR: Our thanks go out to the guests you heard today, and also to the production team, including Fred Dews and Alexandra Bracken, producers; Jacob Taylor, associate producer; Gaston Reboredo, audio engineer, and Nicolette Kelly, audio intern. The show art was designed by Katie Merris. Additional support comes from Shrijana Khanal, Ian McAllister, Soren Messner-Zidell, Andrea Risotto, Marie Wilkin, Chris McKenna, Esther Rosen, David Batcheck, and Caio Pereira at the Brookings Institution, and Nathalia dos Santos, Sara Geisenheimer, Hunter Goldman, and Miranda Waters at The Rockefeller Foundation.

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