Greater Good Gathering - Panel VIII

Cooperation:
Social Ventures

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The Greater Good Gathering held on February 6–7, 2019 explored the future of public policy and how best to advance the greater good in the 21st century in light of technological innovation, economic disruption, ideological polarization, and governance challenges. Event co-sponsors included Columbia University School of International and Public Affairs, Columbia Law School, Union Theological Seminary, The Academy of Political Science, and Public Works LLC/Brain Storm Consulting.

ERIC SCHNURER: For the final panel we are going to be talking to a bunch of student entrepreneurs, almost all of whom are from Columbia. They are going to tell you how technology is being used to make the world a better place. They are really doing a great job. To join me in having this discussion, we have got one of the leading philanthropists and social venturers in New York with us, Emma Bloomberg. That is all the introduction I am going to give because we are going to talk about Emma and what she does as a little prelude to bringing the students up here.

Emma, thank you for being with us. You have got a new enterprise called Murmuration, which means something like a covey of ravens or something like that. Tell us where you got the name from and what it is.

EMMA BLOOMBERG: It is not a covey of ravens. A murmuration is most commonly associated with starlings—when you see in the sky those big clouds of birds that somehow managed to move as one. It is basically swarm intelligence. One bird affects the seven birds closest to it, which affect the seven birds closest to it. Somehow it understands as an entity that what is in the good of the collective is also in the good of the individual.

The 501(c)(4) political nonprofit that I started really came out of the idea that there were all of these local groups across the country who believed that our public education system was not actually serving all kids, which is what it is supposed to do. They are in their own communities trying as hard as they can to bring to the attention of their elected officials the fact that

this system is not functioning and that kids are not being served. Therefore, really, when we think about it, the future of our country is at stake.

My thought here was that there are all these great tools out there that are used by national parties, by big campaigns. Could we find a way to centralize data tools, analytics, and strategic supports, and then share them with all of these smaller local groups who would never otherwise be able to access that level of sophistication from a data and tool standpoint, and create a collective? Our mission is to change fundamentally the way these local political campaigns' advocates and organizers think about identifying, engaging, and mobilizing people in communities. We do that with a mix of proprietary data and analytics.

We have a technology platform. We provide strategic guidance and support, basically giving them all of the tools and skills they need to put pressure on government and on the public at large—to think about public education in a different way and to prioritize it as they are making their decisions. We keep in mind that sort of collective idea. We foster collaboration across our groups, both in specific cities and communities, but also across the country. We conduct sector-wide analytics and facilitate the ability to share decision-making and to have collective learning about what is and is not working—not in the public education system specifically, but in how to engage people around that public education system.

SCHNURER: We have spent the last 24 hours essentially hearing about how politics is terrible, government is incompetent, and the nation-state is going to cease to exist. Of all the things you could choose to focus on to help nonprofits and social ventures make a difference, you have chosen politics and government. How come?

BLOOMBERG: While I believe that government cannot do everything, one of the things that I am really excited about for this panel in particular is this idea that where government fails, social entrepreneurship can step in and can solve problems. I think that that is critical for our country and for the world.

When you are talking about things at scale like the public education system, and you actually want that collective good, something for everyone, I do not see a path that does not in some way involve public dollars. I do not see a path that does not in some way involve both demands for communities more broadly, but also government and elected officials who are making decisions on a day-to-day basis about how to spend that money—prioritizing it as an issue. That is why.

SCHNURER: Murmuration how long has it been going?

BLOOMBERG: Four years.

SCHNURER: Before that you had been involved in a number of different, but similar activities. Tell us your path to where we are at now.

BLOOMBERG: My career straddled or bounced back and forth between politics and philanthropy. Immediately prior to Murmuration, I spent seven years at the Robin Hood Foundation, which is a non-profit here in New York that focuses on fighting poverty in the five boroughs.

I had a number of different strategic jobs there around capacity building for the organizations we worked with. Helping them to think about scale. Helping them to think about growing their impact. That was what really got me into the field of education and got me to realize some of the deficiencies that were existing there.

SCHNURER: One more question or mega question. You and I talked a little bit about this, about where you see things going. Your life has touched on politics in government, on philanthropy in a more traditional sense, and in the emerging world of social ventures. What do you see as the major trends out there? What do you think that landscape is going to look like over the course of the next decade?

BLOOMBERG: I think of the word "trend" differently now after this event. I guess I am seeing two things that I find interesting. Maybe they are not particularly noble to anyone here, but at a local level here in the United States, and in cities specifically, I am increasingly seeing this idea of collaboration.

One mayor has figured out how to solve a problem in their city, not necessarily through city agencies, but using government dollars and bringing in social entrepreneurs, and they are sharing that information. You are starting to see mayors collaborating in that way and cities collaborating in that way. Similarly, philanthropists are thinking about the world in that way—spending time in communities talking to mayors, to community leaders, to churches, to agency heads. All that is to identify where the gaps are that government is failing and then finding the social entrepreneurs across the country who have solved those problems.

I think that network effect is fascinating. At more of a global scale, I have had the pleasure over the last year or two of getting to know a bunch of people who do work in ocean conservation. The thing that I am finding interesting about how they are addressing the problems is that on some level they have given up on government. They are going after corporations instead. They are saying they are not going to wait for countries to change their laws so that we can see the good that we want to see—so that we can get rid of, in this specific case, single-use plastics. They are going to go after all the big cruise lines. They are going to go after Amazon. They are going to make it seem like it is in their best interest—by working with the public to create the demand and working with those corporations. Our social venture can have the same kind of impact that we would otherwise expect to see from government.

SCHNURER: In general, I think that is the direction public policy is heading. Now we are going to take a look at where social ventures and the world we are living in are headed with some of the people who are shaping that future. We have got a half dozen young entrepreneurs here—some students, some not at this point.

AARON MAYER: My name is Aaron Mayer. I just recently graduated from Brown, so I am the non-Columbia student. I studied philosophy, mostly ethics of emerging technologies and political theory. I was very frustrated by the fact that my best friend in the computer science department two years ago graduated and worked for Snapchat.

We have so many big problems in the 21st century. We have healthcare inaccessibility. We have climate change and ocean acidification. So many terrible problems and injustices, and yet the smartest people are being seduced by six-figure starting salaries and swanky offices in Silicon Valley and Wall Street. They are not spending their precious, precious technological resources and talent to address the biggest challenges that we face. I was very irritated by that, as you might be able to tell. We created Impact Labs, which seeks to inspire and empower young computer science students to use their skills for social good. That is what we do.

BLOOMBERG: Can you tell us all a little bit more about how this is working in practice? How long people are staying? How they are actually thinking about trade-offs? What the big hurdles are you are running into?

MAYER: For sure. We have a number of different initiatives. The first that we started was The Impact Fellowship. It was amazing. It was a two-week program of technical education for computer science students. The first one happened last January, so about a year ago. It was amazing because we had speakers from NGOs, think tanks, research institutions, philanthropic organizations, social startups, and people who were leveraging technology for social good. They came in and then students were able to recognize that these companies are actually doing well by doing good.

It is amazing because tech students now hear of Facebook, Google, Microsoft, Amazon, Twitter, Palantir, but they do not hear about the companies that are using these platforms for good ends. The fellowship was and still is, I think, our core program. We also put on the Impact Summit this past June, with Eric as one of our illustrious speakers and over 250 computer science students.

We also have a mentorship network, which I urge you all to sign up for because you have valuable expertise in this room that could greatly help students succeed. We organize hack-a-thons for social impact. We have a recruitment arm where we match tech students directly with these social startups. We also do advocacy and have a publication. We do anything and everything. We try to throw everything to the wall and see what sticks, and it really does affect people. We had one of our fellows last year who had accepted a job offer from Microsoft. That was a very prestigious job. PM at Microsoft and he chose to not do it. Instead he is now working at Zenysis, which is an amazing company that does public health work.

SCHNURER: When we were putting this conference together last year, the original one at Brown, I had the chance to meet a lot of Brown students involved in computer science, which eventually led me to you. Two things about those conversations I thought were interesting. One was that 50 percent of students at Brown are majoring or double majoring in computer science. At first that struck me as rather astounding. Then it occurred to me that probably in another 10 years it will be 100 percent of students majoring in computer science, and it will not be a major anymore because it will be like majoring in electricity. You have to do computer science. It is part of the world.

The other thing was that I learned about the social good movement in computer science. A lot of the youngest 20-somethings have realized that their projects in Silicon Valley are split up in ways so they do not really know what they are working on. Then it turns out that they designed a bomb or something. The young people in this country and in the industry are taking it upon themselves to inject ethics into what they do and demand the response from their employers to pay attention to the ethics of what is going on in the computer science world. That was the first I had heard of that. Now it is in the news within the last couple of weeks that the young Silicon Valley employees are starting to protest and demand a voice in what their companies are working on, which I think is interesting. Do you see any more of that?

BLOOMBERG: It is great for me personally because half my team is data scientists, data engineers. It is because they have a social fluid side to their personalities.

SCHNURER: Okay, let us bring out the next person.

NITASHA NAIR: I am Nitasha, and I represent a group of five students from SIPA who are working on a project called DASH—Data Analytics for Sustainable Herding. DASH is a methodology to decipher complex interactions between climate change, human mobility, and violent conflicts using machine learning and artificial intelligence. The problem that we are looking at is the farmer-herder conflict in West Africa, which has more casualties than the extremist group

Boko Haram. The conflicts are driven by increasing competition for land and water resources, which are becoming scarcer because of climate variability, changing land-use patterns, agriculture expansion, or water resources.

Given the complexities of the problem, there is lack of analysis and there is lack of understanding of how different factors interrelate. Our solution, DASH, aims to unpack this complexity by using machine learning and artificial intelligence. It does it in three ways. First, by mapping and visualizing the changes over time in climate migration patterns, land, and water use. Secondly, by mapping conflicts and analyzing their drivers. Thirdly, by building a predictive model of potential conflicts and resource shortages.

DASH was a winner of the 2018 Geneva Challenge competition held under the patronage of the late Kofi Annan and has received a Global Public Policy Fellowship at Columbia. We have had a great response from experts across the field—from the United Nations, the World Bank, the World Economic Forum, and the Ministry of Livestock in Senegal, among others. The potential applications for DASH are enormous. It could be applied to improve the pastoralist extension services in relation to access to land, food market information, or services like education or insurance. Thank you.

BLOOMBERG: Of course when I was first reading about what you are doing, my head immediately went to all the other applications. I am wondering if you could talk a little bit more about plans, or where you are thinking about going from here.

NAIR: Absolutely. We are right now at the data collection phase. We are looking to develop a model. We are building a prototype in collaboration with certain partners. Within Columbia, we are partnering with the Data Science Institute and Columbia Water Center. We have an external partner called ThinkIT, which is a venture launched by a Columbia alum. We are also looking to partner with certain institutions like UNDP as well as OPAL or Open Algorithms, which provides the information on mobile call detail records.

Right now we are trying to figure out a way forward—develop a proof of concept and make the business more sustainable. In addition, we are trying to figure out how we can build these partnerships on the ground, as well as how we could scale it up to different countries through a pilot country, which is Senegal.

SCHNURER: I want to pick up on that. This is something I am going to ask basically all the students. 10 or 20 years ago, you would not have asked this question at all because if you are out there doing good, you are out there doing good and you never think about money. All of you have business models in one way or another. What is your business model? How is it that you are going to keep from going out of business and keep this thing going?

NAIR: Again, the methodology has a lot of applications from geographic expansion to protect applications in different areas. We in fact had a very conscious effort to build in a business model into this particular solution that we are developing. We see potential. Right now, our pilot country is Senegal, but we see it expanding to almost 11 to 15 countries in Africa—just Africa.

In terms of application, you could apply the information or apply the knowledge which is generated out of this methodology in various sectors. You would have people who would definitely pay for that. Right now, we are looking at a model where we develop our customized tool, and then customize it according to who the user is as well.

SCHNURER: What are the sorts of industries you see buying this data or this product?

NAIR: First and foremost, the government and international agencies are our primary audience for this kind of tool, but we see applications of this knowledge across industries. Like I mentioned, the pastoralist extension services, they would to strengthen those services. The information could be crucial and in fact game changing in certain matters.

SCHNURER: There is a conflict avoidance issue in this and predictive analytics, and so forth. Talk a little bit about that.

NAIR: We are looking at conflict from the lens of national resource shortage. We are looking at increasing competition of land and water resources. We are looking at conflict through that lens. Our whole premise is that we are looking at open sources of data like satellite information, mobile information, and other demographic and market information.

We are able to understand how the patterns of natural resource use has taken place in the past in light of, say, climate change, or in light of certain weather or extreme events. With this particular information, you can apply machine-learning algorithms and other techniques to understand and predict in the future where the next natural resource shortage could perhaps be and which could potentially lead to a conflict.

SCHNURER: Alright. Let us bring up the next one.

THEOTIS SHARPE: Thank you. Good afternoon everyone. My name is Theo Sharpe. I am one of the cofounders of Morayo. Morayo is the technology platform that equips refugee business owners with the tools and resources to manage their business. What is the problem here? Globally, refugee business owners struggle to mobilize resources and optimize their business operations. While not just refugees face this problem, other small businesses face this problem, it is often compounded with refugees.

We spent three weeks in Kampala and Nairobi meeting with refugee business owners to understand their needs and the barriers they face on a day-to-day basis. We learned three key things. Many entrepreneurs lack an established and trusted network. Second, they struggle to obtain information on business registration process, the business regulations, and overall information needed to run their business. Lastly, they struggle to access the financial capital needed to run and scale their business enterprises. This is where Morayo comes in. Morayo is aimed at micro- to small business enterprises. We provide our users the information needed and it is tailored to their business needs.

With Morayo, all of our users are able to send us questions through the Morayo app or via SMS on the business registration process, business regulations, or information needed to run their business. We are able to provide a more tailored response. Refugee business owners can also tap into an established network of like-minded business owners to be able to transact and share best practices. We do believe that Morayo has the potential to help refugee business owners improve their businesses and sustain livelihoods for themselves and their families. Thank you.

SCHNURER: Theo, you said to me when we talked yesterday that this is personal to you. Tell everybody why.

SHARPE: For me it is personal because I was once a refugee. I was a refugee in Ghana seeing firsthand some of the needs. For most refugee camps, many people think about food, aid, and healthcare. I also think that in order to empower refugees, we need to be able to build that local

capacity. How do you build that? You give people the tools they need to be able to be independent and create lives for themselves.

For me, I saw my family and I saw other families wanting to start a business, but they did not have the resources. They did not have the network. They did not have the information needed to start that. We are looking to alleviate that problem. Being a refugee does not mean that you do not have the capacity to create something and to develop something for yourself.

BLOOMBERG: Do users pay in? What is the business model? How do you actually support your ability to provide all of these great services?

SHARPE: That is a great question. The best business model is such that we are offering this to the refugee business owners—the ability to get information, the ability to establish networks—free of charge. Initially free because we want to be able to build that relationship. We want to be able to empower them.

As we build relationships, as refugees form networks, there is an opportunity to be able to track data based on how they are transacting with each other. What services are they buying? How they are running their business and their sales model. That is where the opportunity comes in. We are able to then onboard onto the platform with suppliers who are looking to sell to these business enterprises. We believe in people before data, using the relationship and empowering them before utilizing the data to make money. That is our plan.

We are also going to offer some of these businesses, as they scale and as they grow, specific tools—to manage their inventory or to track their sales—at a premium. They pay a very, very small fee to be able to utilize those two. That is how we plan to make money.

SCHNURER: Okay. We will bring the next student down.

RILEY JONES: Thank you. Good afternoon, my name is Riley Jones. I am a Columbia alum. I completed my undergraduate degree in 2017. I am currently in my second year at NYU Law School, where I do a lot of work related to social entrepreneurship.

About three and a half years ago I started a company called Bloc, which at the time was mainly focused on helping students of color figure out that nexus of career and identity, and connecting them to professionals that shared their experiences so they could learn how to navigate that world. What Bloc has turned into in the past year and a half is a software platform where we are trying to automate parts of that process, mainly by working with organizations that do career services and career development. That could be anything from Columbia students looking for a job to traditional workforce development.

This is work I am passionate about. I grew up in Chicago on the south side at a time when most people in my age demographic—black male between the age of 18 and 35—40 percent of them were unemployed. The experiences with violence in public education and such are things that I experienced. While my path was high school, Columbia, and NYU Law, most of my peers and even some of my family members were detracted by larger societal factors—mass incarceration, violence, education, etc. The idea was trying to figure out what were the things that kept me from being able to stay off that path. A big part of that was the organizations that I worked with and the organizations you see at every level. That is how we started.

BLOOMBERG: Can you say a little bit more about the two sets of customers, if you will, that you think about and how you are providing value to both?

JONES: I would say our end users, the people who are using the product, could be students or traditional workforce people who have been out of work for a while or have never gotten to go college. Those would be our end users, the people who are receiving the benefits of the product.

The other people receiving the benefit of the product are the people who are actually responsible for helping these people. These are people who work at organizations like Workforce in Brooklyn or even people at the Robin Hood Foundation who are doing traditional career counseling, like showing how to build a résumé or write a cover letter. What we have is a portal where that career services person can go in and edit the résumé that their client is putting into what we are calling the resume builder, as well as the cover letter. Our long-term goal is to automate such that it takes out time so the career services person can help more people more effectively, and that the person applying for the job is getting more flags in terms of what to look for in their résumé and cover letter on the front end.

BLOOMBERG: Then can I assume that the business model on some level is that those nonprofits that you work with will pay some service fee, because this then allows them to be more effective in what they are trying to do?

JONES: Exactly. Nonprofits, schools, and even governments.

SCHNURER: The remaining two students, their groups have a similar model to you. We talked about this a little bit. This is kind of a variant of the question that I asked Emma. You are not looking at a direct-to-consumer model. You are looking for your customers to be the people who are in fact servicing those consumers, in this case some NGOs that are working with governments. Essentially, you are trying to ply your trade through the government as really the market that you are serving. What led you to that instead of deciding to cut them out—thinking that governments do not work? Why not just create a whole workforce service system of your own?

JONES: I think experiencing these challenges myself—I have family who have been incarcerated. I have family who went to schools that were not Columbia. I have a twin brother who went to school in Alabama in a historically black college, who had a completely different experience.

I know that those people cannot afford to pay for my service and that in many ways it would be a detriment, almost setting them back in order to push them forward. For me, that paradox was a bit too much. Then I also think that there is incentive for those organizations. It is in many cases their job to do that kind of stuff.

SCHNURER: As a lawyer who has given up practicing law, you and I talked about this a little bit. Young people come to me and say they are thinking of going to law school and I ask them why. You feel like your law studies are actually helping you in what you are trying to do now. Why is that? For those out there that might think of going to law school, and I would tell them no, why is it useful?

JONES: Even in the conversations that have gone on today and yesterday, the legal field is one of the few, I think, where you find people who are doing all sorts of things. Everything from real estate development to tech, and just amazing things. For me it has been useful because, for example, we were selected as WeWork Creator Awards semifinalists. It happens that the CEO of WeWork is an NYU alum. Those kinds of relationships that I have been able to build have been useful. Especially in a world where, being frank right, being a person of color trying to raise venture capital, getting in front of people who may not understand intimately the problem that

we are trying to solve, it does help to, one, have that credential and, two, to have a relationship with those people.

SCHNURER: Let us bring the next one down.

NATASHA GOEL: My name is Natasha, and I am representing a team of three from SIPA at Columbia University. Before I start with the idea, just a few quick questions. How many of you think here that urban youth unemployment is a big challenge in today's world? Okay, almost everyone. Now the second question. How many of you think the skills you learned in school (K–12) were useful for your jobs? Very few. This problem is supremely exacerbated in the Philippines in Metro Manila, a city of 12 million people with 19 percent underemployment and 28 percent unemployment rates.

One reason for this, which we realized when we did a lot more research about these high unemployment rates, is that there is a huge skill mismatch between what the Filipinos attained and what the labor market needs. To actually validate our hypothesis, we went to Manila over the winter break. We spent about three weeks there talking to multiple stakeholders, such as governments, businesses, and employers, to find out exactly what is happening.

Contrary to what we might think, that technical skills are important, the biggest gap was with social, emotional, and non-cognitive skills. They said skills like problem solving, communication, creativity, and innovation are some of the biggest challenges these students who come out of high school are facing.

What our product, ILAW, does is provide a platform to address this skill mismatch. It provides courses, career guidance, and many different resources to these students so that they can develop their social-emotional skills and improve their prospects of getting a job. A major vulnerability here in the Philippines is that 90 percent of students end up dropping out of college after the first and second year just because they are not able to afford it. This is why we will be targeting students currently in high school—so they have the opportunity to learn these skills and get a better job. Through this, we plan to reduce the unemployment and underemployment rates in Manila. Fun fact before I end. ILAW in the local language of Philippines, Tagalog, means light. We hope that the youth get to light their own path. Thank you.

SCHNURER: I will ask my standard question. Where does the money come from?

GOEL: Right now, our model is through grants. The first year and a half we are looking to prototype the model. So far, we are focusing on needs assessment. The next step for us is to collaborate with the University of the Philippines and Teachers College to develop this curriculum and the prototype. In the long term, by long term I mean like one and a half to two years, we look at three revenue streams. First, employers would be given an opportunity to post their jobs. Second, we might consider a premium account for more personalized services for some students. Third, we will be using this as a platform to sell to schools once it is fully developed. That is where the money would eventually come from, but right now, it is from grants.

BLOOMBERG: Have you thought at all about deeper partnerships with some of these employers?

GOEL: Yes. Actually, when we went to the Philippines, one of our primary research purposes was to find employers who would be interested in this. Industries like BPO Hotel tourism. We had many NGOs as well who are willing to collaborate with us. I think that was a big start.

SCHNURER: There was a book about the Internet economy a couple years ago, *Free*. It said that technology is going to compete everything down to a marginal price of zero and everything is going to be free. How can you have a business in a world where everything is free and there is no money? How is that going to work? In the back of the book, there was a several-page appendix: 120 ways in which businesses could be free and still make money. What we are hearing here are a variety of different models of how to make money. The most common one, I think, in the current internet economy is the one that you opted for.

It is a fairly popular model you alluded to yesterday when we spoke. This is the model that LinkedIn uses, among a number of other Internet companies. It is called the "freemium model." It is made to be free for everybody, and then there is an extra add-on service that we lure a small number of people into paying more for.

GOEL: For us, I think the problem is that many times, you do not reach out to the people who need the most amount of help. However, it is not as if someone who is in a private school has all the skills they need to get a good job, right? When you talk about things like communication and innovation, it is something that everybody is facing. It's a model where people who can afford it give that money to people who cannot. That was pretty much the idea behind it.

BLOOMBERG: Once upon a time, I worked with an organization called City Year here in the United States. One of the things that they focus on is that social-emotional component. Are there other partner organizations that you have learned from or are modeling yourselves after? Have you thought about going to other countries?

GOEL: The United States has a couple of organizations that have been doing many online courses. We are thinking of reaching out to them to help give us some ideas. Teachers College has recently started doing a lot of research in social-emotional skills in developing countries. There are a couple of professors who have been willing to partner with us on that. That is the route.

SCHNURER: Alright, our last group.

RYAN BALLARD: My name is Ryan and I am a student here at Columbia SIPA. We are a group of students that study public policy with an emphasis on finance, international finance, and energy. We have created a model to solve the energy issue in sub-Saharan Africa. Today, as many of you know, sub-Saharan Africa has very low rates of electrification. It has remained an issue for decades. Despite rapid grid expansion throughout the region, there remains a significant issue with off-grid solutions and how they access the people who need it the most.

We did a lot of research. We decided against just developing another technological solution, such as a solar panel that is cheap, since most of the market is already saturated. Instead we tried to create a B2B model that would help finance companies that are already doing so, and fill any gaps in the value chain. We will be a company called SunGo that is a finance and analytical company looking to target companies that are already offering technological solutions to electrify more users in sub-Saharan Africa.

Essentially, what we do is funnel investments from international investors such as multilateral banks, institutional funders, HNIs, foundations, and family offices, who have some mission to give sustainable energy to developing countries in the world. We funnel those investments to companies in East Africa, primarily targeting Tanzania in the initial phase of our launch. Those loans to the companies are then distributed as restricted capital essentially, as loans to end-users who then can use the money to buy their products, which are solar panels. In

the meantime, we are also collecting information. Our dream is to one day, hopefully in the next couple of years, create a map of the off-grid market throughout the region of sub-Saharan Africa, starting specifically in Tanzania.

Aggregating data would help us understand habits and payments made through end-users—how much they are. We can help the public utility in these countries expand access and make a payment that is adequate for the end-users themselves, for the people who are actually using the grid. Then, also aggregating other forms of data to make better products, help the government access these people, give them the things they need, and identify which areas need more energy first.

The big issue that we are trying to solve here is the bridge that is currently broken in the market between the end-users who cannot afford the energy products that are solar-specific products and the companies that are already doing it. We are SunGo.

BLOOMBERG: As you have been building out your business model, have you run into any initial regulatory hurdles or issues with creating new financing that is for different products than you have typically seen in sub-Saharan Africa? Can you talk about how you have dealt with that?

BALLARD: Finance is a very tricky thing especially when you are leveraging international capital markets. We initially wanted to create an asset-backed security model, which is the securitization of end-user payments, but then we found out that Tanzania does not allow it. Then we had to go back to the drawing board and figure out how to do this.

The benefits of this model is that we are keeping our fund outside of Tanzania, which is unfortunate because it does not allow us to create the local capital markets that we initially wanted to. However, we still can get the right investors that we want on board, get their money outside of Tanzania, and then funnel it in. What we are trying to figure out right now is how to guarantee the payments. On the side of the users, we plan to use the solar systems as collateral themselves. The companies have to collect them if the end-users are not making their payments.

There is a lot of information that probably does not make sense to many people here, but essentially the solar systems have a SIM card in them that can be shut off if an end-user does not make a payment. Companies are already doing this. They go and collect them. There is a way that we can make sure that the money is secure and guaranteed. We are building out more of a risk model to make sure that we can do that as well.

SCHNURER: This is going to be in the nature of the question I asked Natasha for a comment. I would like you all to respond. This is something I commented on yesterday in the conversation that I had with Tim Wu. Many of you are working on models that seem to me to be the reverse of the way things are today—which is that all of these industries are now built to suck data out of people, take advantage of them, and use the data to make money, very often by selling you things you do not want or roping you off in some other fashion.

The majority of you have constructed business models where you are doing the same thing and then turning the tables. You are collecting data on these users and then instead of feeding it to the companies in order to let companies extract as much from you as possible, you are feeding the data to the companies in ways that are designed to suck something out of those companies for the advantage of the people you are trying to serve. In every way, it is really a reverse of how the world works today. I would like you to comment on, A, how you arrived at that model? B, why you think you are going to make this work? And, C, I hope that is the future—is it or is it not? Because we have pretty much spent the last 24 hours hearing how it is not going to be.

BALLARD: Sure. I think it will work because I have incredible teammates that are also in the audience if they want to wave. We are pretty capable. I would say that everything that is true—I hate to use the terms "developed" versus "developing" world—in the developed world, is the opposite in the developing world. As you said, we are fighting for more data protection here, whereas I think many people are trying to get more data that is not available in emerging markets because people are just off the grid and we do not know what their transaction habits are. They pay in cash.

If we can actually leverage some of that data—which they might not necessarily want at first either, but once they understand the value of it they typically want it—then maybe we can make better products for them. One of the things we want to do with the data is create a credit profile of users. Right now, with people who want to purchase solar products—but have to go through this pay-as-you-go model with solar companies in Tanzania—there is no way for the company to tell if they are creditworthy customers. Maybe they have never had a loan or there is no central agency that has everybody's information in the market, as we have here in the United States. My name is everywhere.

The problem arose when we ourselves had to have an ethical discussion of whether or not we want to assign people credit scores, like we have in the United States. My mother, myself, my brothers, we all have terrible credit scores and it weighs us down. Why would I want to go to an emerging market and do this to people who have way less than us? Well, we have developed an idea to reduce the risk of doing that. That is creating a village-wide or a municipality-wide credit rating. Although it sounds like red taping, which is a terrible thing that happens in the United States, we would use it in a way that would allow companies to identify risks. Initially, when they are looking at villages or municipalities with high rates of defaults, not to cut them off immediately, but at least phase them out to a later phase.

Initially maybe they cannot afford it as a company because they do not have the capital to invest in these riskier customers. However, over time, because we are a mission-driven company and we want to promote our companies to try to lend to these consumers, we can give them what they need at maybe reduced rates or with discounts. As much as we want to use data and we want to use it for the right things, there are many risks. We want to make sure that we do it responsibly. We tried to adapt the model for people who need the services the most.

SCHNURER: Theo and Natasha, you have similar business models to this. I would like you to comment on this in the same issue.

SHARPE: I think that with this whole issue of using a reverse model with data, for most countries on the continent I think there is a huge misconception that countries and municipalities do not have a framework in place to capture this data to determine creditworthiness.

The issue here is access, right? You could have financing. You could have some sort of credit model, which does exist, but is it taking away people's ability? Do they have access? Are they able to do that? What we were seeing in the case of refugees in Uganda is that many of them within that community do not have the paperwork. But even if they do, they are priced out of the financing or whatever that data process is. They have a credit score, but sometimes you have an entrepreneur going to a bank where he is paying 40, 50, or as high as 60 percent just to get financing. What my team and I are trying to do with Morayo is that a lot of these groups are relying on the benefits of a communal network.

Today they have savings groups where they are holding each other accountable. They are recording their transactions. They are recording who is getting loans, who is defaulting, and who is being fined. What we are trying to do is formalize those networks. Why not help them to better transact and record some of the data that they are already recording? Those data exist, but then

again in the future, if an individual wants to get loans, his own personal data, or his own personal credit score, he has the support of that group. He is able to rely and get the groups' backing.

There is that incentive that as an individual I have the ability to act in good faith because what I do affects the group as a whole. It is trying to emphasize the importance of networks and that communal living with the data. Using the data in the way that it is already being used today. It is trying to use cultural or social structures that exist in those communities. Credit scoring or some sort of financing model as it exists in the United States, it is not going to work on the African continent.

We need to go there and utilize what people are already using. It makes it easier, and that is exactly what they want. They are already doing it. Coming with a new model of bringing in data, looking at online avenues, and trying to sell those data, it is not working. That is why at Morayo, we believe in people before data. We want to utilize that community network and the network that is already established.

NAIR: I think I can speak of data access. For example, right now data is being generated at a pace that has never been seen before. It is just our ingenuity and how we utilize the different forms of data that are being generated. Our model essentially looks at combining these different data sets, which exist in isolation, and making sense of all of it together. Be it openly available information through satellites, or offline surveys that exist in certain organizations' databases. It could be privately held information like mobile phone call detail records, which private agencies like Sonatel or Orange hold. Our attempt is to utilize this information in a manner which would benefit the society, and which would help decision makers and policy makers understand these interactions of different factors before they make decisions around programs—say climate adaptation resiliency or even resource management.

BLOOMBERG: The two things that I always think about when I meet a social entrepreneur are, one, what is the thing that is keeping you up at night? What is the thing that you are most excited about in terms of where you are going?

MAYER: Normative ethics and political philosophy are what keeps me up at night, but that is not necessarily a good thing. The truth is that there are so many. What keeps me up at night is the fact that I know that these issues are solvable, that they are tractable, and that they have solutions.

The fact that these are problems that have solutions—that there is enough food in the world to feed 15 billion people. It is just a distribution problem. Okay. That is a problem. Currently 2.2 billion people are malnourished or starving, but that does not have to be that way. More solar energy hits the square mileage of Texas than all of the world's power plants combined. Reliance on fossil fuels is not set in stone. We can fix these issues. It is going to happen and we are going to try to make it happen. That is what keeps me up at night, the fact that I know that these really do have answers.

Then in terms of the second question you asked, which was how we can get there. That, I would actually really be curious to hear all of your thoughts because I think it really behooves us to say what we need. I would really be curious to hear what you all need. Personally, we always, always, always need space. We have lots of students. We have thousands of students in the network. We have no shortage of man-hours. We have many volunteers from colleges across the country, but what we do not have is a space to run our events. That is huge. If someone raised their hand, came up to me afterwards, and said they could give me a space. Please come help me because that is what we need. I would be curious to hear what you all need as well.

GOEL: What keeps me up at night, I think, is the frustration that education is always thought of as a school where you have to go learn math and English, which actually influences a child so much. Nobody really focuses on what you want. What is your passion? What you should be learning? How do you treat people? How do you become a good citizen? These things are so essential. Every time I read about a school that has a 100 percent enrollment rate—there are so many students who are going to school right now and they are doing this not realizing that 90 percent will drop out.

That frustrates me and motivates me to talk more about the skills that we actually need to talk about—to treat children as children and not as objects or factory workers and to move from the whole mentality of catering to the Industrial Revolution. What excites me the most is just working with super passionate people. I have an amazing team. Fernando is in the audience. The fact that you meet all of these amazing people who are willing to actually solve the world's problems and just getting together.

NAIR: I think what keeps me up at night is perhaps how we treat the environment as our last priority, how we do not understand the implications of certain actions, and how we do not really like how climate change is exasperating. It is acting as a threat multiplier for many issues that are underlying. It is shocking how people just discard nature and environmental issues.

I think what is exciting for us, shout out to my group: Nagura and Gigi are in the audience. We are an amazing group of five people who are from different countries and who have completely different backgrounds. We have come together to look at this issue in a very multisectoral lens, which is what any developmental issue or any problem requires. We need to understand the issue holistically and from different lenses. That is what is exciting. Being at Columbia, we have an extremely great platform to display our work and have gotten great guidance. We are actually hoping to make something tangible out of this whole endeavor.

SHARPE: What keeps me up at night is the perception we have towards refugees, immigrants, or small businesses. We often think these are groups of people who are either not technical enough or do not have the skills to be able to develop their own livelihoods. Many times, when companies are creating products or services, they forget about that entire population because for some reason we do not see them as having the financial capital enough to be able to turn a profit.

What I am very excited for is that my team and I refuse to accept this narrative. Aisha and Ashimira are out there in the back. We are also a team of five. We know that refugees, immigrants, and small businesses, they are very gifted. They have the technical skills. They have the knowledge and the know-how to be able to use some of these services and some of these tools to be able to either dig themselves out of poverty or create a sustainable livelihood. We need to provide access. If you are a company or a municipality, whatever you are creating, we need to create it with access in mind. Access is not how people are going to reach your service, but it is also about whether people have the capacity to afford what you are creating?

There is so much prospect. When I talk to small businesses in Kenya and across Africa, you see the pride. You see the hope, the dreams. It makes me very excited being an African myself to move back to the continent and know that we have the ability to move our continent forward. We have the ability to solve our problems. We do not need to be seen as people who constantly want to have handouts. If you are a non-profit or a multilateral organization, I challenge you to go to the continent, meet with the local people, ask them what they want, and use their ideas and their philosophy to implement anything you want to. Anything otherwise, to me, not only is it unethical but it is about to fail. That is what I am excited about.

JONES: I would say what keeps me up at night is the present. I applied to law school in the fall of 2016. The kind of antics that are going on in the world, not just in the United States, but everywhere. That stuff really concerns me. But I think what keeps me excited—my grandparents. I love my grandparents. My grandparents were super instrumental in raising me. They were born in the 1940s—my granddad in Tennessee and my grandma in Mississippi. My granddad was a sharecropper. Both of them ended up going to college and getting master's degrees and being educators. Their story, when the whole election and all that happened, they expressed that they had been through a lot worse. To have that perspective that I do not keeps me excited that, as Aaron said, there is work to be done. Not only is there work to be done, but we have the ability to solve those things. That keeps me excited.

BALLARD: When I lose sleep, I think of a few things. I think firstly, I was the first in my family to go to college. While I was in undergrad in California, I worked in Oakland at a non-profit that worked with at-risk youth who were also first-generation college students. When I see people who are like me and understand them, it is just hope that they succeed.

I think that besides that, directly related to our company, SunGo, the other thing that really keeps us worried, all of us, is just people not having the basics to do what they need to do. I lived in Ghana a few years ago in West Africa, on the other side of the continent. I repeatedly visited a small village in the Volta region. There was a woman there whose mother had passed away years before because she was trying to deliver another child and was in a hospital that did not have electricity. Because of the infrastructure and many issues, she ended up passing away while she was delivering her baby.

I did not mention this in our pitch, but initially we were targeting institutions such as hospitals and schools. But because they will not be a big profit driver, we are also trying to target small and medium businesses, as well as micro businesses. We want to create something that will help people inevitably. It has to finance itself. It has to make profit, but we definitely want to help people. That is what we want to do. We do not want to be people from the outside helping people in East Africa, of course. We want to involve as many local people as possible, but that is what we are doing.

What excites me, I would say, is the people that I go to school with. I am in a program called Development Practice. I see many of my colleagues in the audience. They are from Ecuador, Uzbekistan, India. They are from all over. I think that those people, every single day when I see them, make me super excited because they are intelligent and capable. They remind me to stop stressing out, to stop being so uptight, and to also have some fun and learn something about their perspective and their culture that I really appreciate, so thank you guys.

SCHNURER: I have one question for everybody. I want you to talk a little bit about yourselves, not your business per se. I know that all of you intend to pursue the ventures that you are working on right now, but you also have other plans for your lives. I would like you to say a little bit to the audience about where you go from here. After all, what we are here to talk about and what we have been talking about for the last 24 hours or so is the future. You all are the future. I want to hear a little bit about your futures. What is it you are going to be doing from here for the next couple of years or the rest of your life or whatever it is?

BALLARD: The short answer is I do not know. I am really hoping that I will have a job in May. That is about it. I am looking at a few different places. I hope that SunGo will take off and we will all be in East Africa this summer trying to make it work. Otherwise, I would love to work in the energy space after graduation, maybe for a multilateral. I am also looking into consulting, those kinds of jobs.

I just hope that I can have a life that will allow me to travel and be a person that works hard, but can also find a balance. I think for me finding that balance is tough—just having more time to enjoy life.

JONES: I think for me, I am definitely going back to Chicago at some point. There are many things going on there with people that I care about that I want to devote time to. My family is from Mississippi. We have land down there since roughly the 1890s that we have never done anything with. For me, having now this social-entrepreneurial lens, I just see a blank slate where I can do a lot. That is something that I think would be really fulfilling for me, and my family as well.

That is the next 10 to 15 years in terms of a project. Other than that, I really just care about helping people who were in my situation 8, 10 years ago. There was nothing in my life, I would say, up to this point that suggested I would be sitting here in front of you. That is both gratifying and scary because I personally have known so many brilliant young people over the course of my life that should be sitting here. That stuff matters a lot to me.

SHARPE: For me, where I see myself in the next few years, actually in exactly two years, I have made up my mind that I am moving back to the continent. I have been in the States for the last four years, and I am sick and tired of the snow and walking in the cold. I have made up my mind that whatever job I get, whether it is Morayo or with any company, I am going back. I think there is a lot of opportunity as I travel around the continent. I see so much prospect. I think my colleagues, and myself, are very primed to be able to solve those challenges.

I think there is no denying that a piece of my heart will always be here, but I think my calling is to move back to the continent—whether it is building infrastructure or empowering people to create their own livelihoods. To be able to take things by the horn and just live an awesome life, that is my goal.

NAIR: This is a tough question. I also graduate in May. I think for DASH, we are looking to raise funds. We have applied for a few grants and I hope that works out. I personally would like to continue working in the intersection between environment and technology, so either DASH or any other sort of job which comes along.

In terms of life, I would like to explore more. I am from India. Right now, I do not plan to go back to India, but you never know. I want to explore outside, working with different sets of people and understanding different cultures. That is where I am coming from.

MAYER: Can I share a personal story with you all? It is very brief, but I have a lady-friend in my life who is a self-made millionaire. She is from California and she came and stayed at the Plaza Hotel in the lap of luxury while visiting me in New York. I was thinking to myself, how could this get any better? I had this breakthrough. I thought it would be so much more amazing if I knew that people were not dying of malaria right now. That is what went through my head. You might think I am weird to think about that, but no. That was so reinforcing of my ideals. I realized I am not going to be contented just trying to achieve material wealth, success, fame, power, or fortune. I really do care about this and it is so in my core. That is what I really need to spend my life doing. I would like to cure malaria.

GOEL: Just a quick background, I was working in the private sector when I left that job to teach for two years. I think that was life-changing for me. One of the moments that always sticks with me was this one project which we did with my students. I taught eighth graders, 64 of them. For

this project, they had to use waste material to create monuments like the big, fancy Indian monuments. The ones who did really well were termed the general students who are always termed losers—not good in math, not good in English. That was life changing. You think that you expect the top performing students to always do well. I think that moment is what drives me even now. When I see myself working in the future anywhere in life, I would always think about working in the Indian education system because I am a product of that and I have also seen the major issues.

In the short-term, I hope ILAW works out because I think it is a model that is quite scalable to other developing countries as well. We would love to take it to India, but I am open to opportunities right now. I am more than very happy to go back to India because that is where the heart belongs.

BLOOMBERG: I have never given a benediction, so I think I am not going to start now. I did not know I was going to have the last word. I guess the way to end these things is always with thanks and optimism for the future.

Thank you Eric for putting together such an incredible two days. Esther for giving me the opportunity to be here, for introducing us. To all of you up here for participating in this and letting us learn more about what you are doing, but also for giving us this really uplifting moment of the day to leave on. I think we heard lots today that gives us pause. Certainly, food for thought is an understatement. There is lots of good that can come from the world we live in today—from our ability to use data and technology. I am just excited to see where we go from here. Thank you.

SCHNURER: This is not the end of a conference—this is the start of a conversation. Let us keep it going. I thank all the students for being here. There is a good future to look forward to. Thank you all for coming, and we will see you at another Greater Good Gathering sometime in the future. I look forward to it. Thank you.

ABOUT THE PANELISTS

EMMA BLOOMBERG, founder and CEO of Murmuration, is fixated on filling gaps to ensure that organizations seeking to reduce inequality and improve outcomes for all kids through politics, advocacy and organizing have what they need to effect real, sustainable change. Murmuration, which she launched in 2014, provides sophisticated data and analytics, proprietary technology, strategic guidance, and programmatic support to help partners build political power and marshal support so necessary changes are made to improve our public schools. She previously served as Chief of Staff at the Robin Hood Foundation, a nonprofit dedicated to fighting poverty in New York City. Emma sits on the boards of the Bloomberg Family Foundation, the Robin Hood Foundation, the KIPP Foundation, New Classrooms, and Leadership for Educational Equity. She is a graduate of Princeton, Harvard Kennedy School of Government and Harvard Business School, and lives in New York City.

ERIC B. SCHNURER, founder of the Greater Good Gathering, has been involved with public policymaking at the highest levels for nearly forty years, since he worked in the White House during college writing speeches for President Jimmy Carter. He has served in all three branches of the federal government and for numerous state governments, as a speechwriter, prosecutor, policy advisor, general counsel, and chief-of-staff—and has worked in the private sector as a journalist, professor, business executive, and social entrepreneur. Today, he is president and CEO of a policy consulting firm advising Members of Congress, governors, mayors and other

officials across the country; a regular contributor on the future of government and public policy for several major national and international publications; an adjunct professor of policy at various universities; and a sought-after speaker internationally. His latest venture is Virtu.us, a start-up designed to boost investment in human capital and public goods—and build community—in an era of declining public-sector responsiveness.

RYAN BALLARD, an MPA student at SIPA, most recently worked in Mexico City as an executive team member of a financial inclusion startup where he co-developed and launched Mexico's first mobile wallet targeted at the unbanked. Ryan also has managed programs for first-generation at-risk youth, evaluated the impact of public health projects of indigenous tribal communities in India, organized at the grassroots level in rural Ghana, and served as an AIF Clinton Fellow for Service in India. Ryan is one of the founders of SunGo, which aims to build, promote and distribute small-scale Solar-Home-System in off-grid, rural Tanzania. Portable, solar-powered batteries transform sunlight into energy to power cell phones, household lights, televisions, and other small household appliances. Through overlaying geographic data of energy demand, smartphone and mobile finance access, SunGo will locate customers with both the highest need and highest potential for conversion, and solve three critical pain points of the industry: customer acquisition, smartphone access, and transaction costs.

NATASHA GOEL, an MPA student at SIPA, was born and brought up in Delhi, India. Natasha worked at Google India for two years, where her work with the CSR team motivated her to enter the social sector full time. She taught middle school students from an underprivileged community for two years as a Teach For India Fellow. At SIPA, she has interned with the Earth Institute where she evaluated a school-based intervention for teenagers in rural India and worked with the Sustainable Development Goals Center for Africa in Kigali, Rwanda, on higher education. Natasha is one of the founders of ILAW, a one-stop solution for youth living in urban slums in Manila to find the best pathway to better livelihoods. ILAW will target youth in senior high school who cannot always afford to go to college. Through web and mobile-based applications, these youths can access curated internship and job opportunities, develop skills that are in demand, or explore a new venture. By addressing the skill mismatch in the labor market, ILAW aims to reduce the rates of unemployment and underemployment, which currently affects the lives of many young people living in Manila.

RILEY JONES, IV hails from the South Side of Chicago, graduating from Columbia College in 2017. He's currently a student at NYU School of Law, the inaugural Grunin Scholar for Social Entrepreneurship and Law as well as a Moelis Fellow for Urban Law and Public Affairs. He was named a 2019 Forbes 30 Under 30 Social Entrepreneur because of his work as co-founder of Bloc, a career training platform that equips workforce training organizations and employers with AI-powered tools to prepare talent for the future of work. By increasing the capacity of workforce training organizations and corporate recruiting, Bloc aims to help increase soft skills, salaries and hire-ability as the workforce becomes increasingly automated. While AI stands to displace millions of workers over the coming decades, Bloc aims to use AI in partnership with forward thinking organizations to empower at-risk talent.

AARON MAYER, a 2018 Brown graduate, founded Impact Labs—which inspires and empowers young computer scientists to leverage their skills for social good—after realizing that most of his friends studying computer science were squandering their potential at Facebook and Snapchat. Through a suite of initiatives, Impact Labs connects passionate and talented technologists

with meaningful career opportunities, provides capital to foster social entrepreneurship, and creates a strong community of engineers who are harnessing technology to build a better world.

NITASHA NAIR is currently pursuing her MPA at SIPA, with a concentration in Energy and Environment. Nitasha previously worked with the International Water Management Institute (IWMI), part of CGIAR, a global consortium of 15 international agriculture research organizations, where she led research uptake for projects in South Asia. Nitasha is from India and is one of the founders of DASH. To address the problem of lack of comprehensive risk analysis and early warning systems across Africa's Sahel region, the semi-arid belt south of the Sahara Desert, Data Analytics for Sustainable Herding (DASH) seeks to establish a methodology to decipher complex interactions between climate change, human mobility, and violent conflicts, using machine learning and artificial intelligence. DASH is a tool that maps and analyzes the spatial and temporal changes in migration patterns, seasonal variability, and urban and agricultural development using data from government statistics, Earth Observation (EO) satellites, mobile phones, and GPS-enabled systems. DASH seeks to map historical zones of conflicts and develop a near real-time predictive model to identify potential areas of violent conflict and natural resource shortages (early warning system) to help relevant policy makers take early action and manage risks. DASH was the first-prize winner of the 2018 Geneva Challenge and was the recipient of the Graduate Global Policy Fellowship from Columbia University.

THEOTIS SHARPE was born in Monrovia, Liberia, and spent the majority of his childhood as a refugee in Ghana. Theo previously worked as a Treasury Analyst at Wells Fargo helping middle market companies create long-term operations and cash management strategies. Prior to that he worked as a Mortgage Consultant at Wells Fargo and JPMorgan Chase. Currently, Theo is first year MPA student at SIPA studying international development with an emphasis in infrastructure development. Theo is one of the founders and CEO of Morayo, a peer-to-peer (P2P) platform that equips refugee entrepreneurs with tools to improve their businesses and livelihoods. Through an SMS compatible platform, Morayo equips business owners with an expanded network of like-minded business owners and suppliers, while offering a centralized source for business information and management. Morayo brings together the fight for refugee rights with business development tools in an interactive, easy-to-use platform.