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THE QUADRENNIAL DIPLOMACY AND DEVELOPMENT REVIEW: USING DATA TO EXERCISE SMART POWER

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P R O C E E D I N G S

MR. INGRAM: Good morning, everybody. I'm George Ingram and I'm a senior fellow here at Brookings, and we are very pleased to host this first topic-specific session following the launch of the QDDR several weeks ago. Our format today is first to hear from Tom Perriello, the special representative for the QDDR, and then to have a conversation with a panel of experts.

The second QDDR has three segments focused on policy, operations, and workforce. And today, we're going to focus on the operations and one aspect of that. And as Secretary Kerry said when he launched the QDDR, I want a department that is open to new and better and different ways of doing things. If the department follows the vision and the QDDR on the operational priority that we will talk about today -- data, diagnostics, and design -- then Kerry's wish will be fulfilled.

The mix of data analytics transparency has come of age for purposes of accountability, informing public policy, better program design and management, and knowledge sharing and management. If you look at what's happened, just a few events over the last five years, the 2013 U.N. High Level Panel on Post 2015 Agenda sort of introduced and brought to everybody's attention the data revolution. The U.S. federal budget for this coming year has a whole chapter, 10 pages, devoted to administrative data and using data for analytics.

Transparency is part of the new Trans-Pacific Trade Agreement, the first time it's been in a trade agreement. We have a number of international transparency initiatives: the Open Government Partnership, the International Extractive Industries Initiative, and IATI, the International Aid Transparency Initiative.

It's taking over in the social space. The spatial collective is using data to map and anticipate potential conflict hotspots. And Made in a Free World is using data to untangle the web of labor exploitation. The second QDDR would bring this revolution into

AID and the State Department.

Tom, I think, needs little introduction to this audience. What I will is he brings to the task of identifying priorities for development and diplomacy the right mix of background, knowledge of the substance through his work in the fields in various countries in security development, democracy, human rights. Second, his understanding of civil society through his work with civil society in creation of several civil society organizations, and his knowledge of the bureaucratic and political scene in Washington through his service as a member of Congress.

Tom, in turning over the program to you, let me commend you for your commitment to good public policy. Your reputation is a person of strong beliefs. And I think both of those lay the foundation for your conducting what I think many of us believe is a model for how good public policy can be arrived at through an open, transparent, collaborative process. Thanks for being here today.

MR. PERRIELLO: Well, thank you, George, for your leadership in this area, for your hosting of the event today. You have been a tremendous contributor in this set of issues of data diagnostics and transparency. Since we're both from the South I will say you've had a kudzu-like ability to spread the gospel of data and diagnostics. (Laughter)

MR. INGRAM: How did you know I was from the South? You know, in the South kudzu strangles things. (Laughter)

MR. PERRIELLO: So the subtlety was not missed. (Laughter)

I also want to thank Brookings, Strobe Talbott for his leadership on the Foreign Affairs Policy Board, Bill Antholis, who is still here at the beginning and was preaching with equal vigor the issue of focusing on some national actors, particularly the role of cities and mayors around the world, which is also reflected in the report. So it's been a team effort here. And, of course, to thank Secretary Kerry for giving me the

chance to run a participatory process, one that he said that he wanted to throw open the curtains and make sure we were engaging folks around town, around the world, our allies and our partners. And certainly the co-chairs, Heather Higginbottom and Raj Shaw initially, and then Al Lenhardt, who have really been committed to this issue of knowledge management and data, which his great.

As I transition into the substance of the remarks I want to quote a very wise man from one of his first monologues, and that's Stephen Colbert, who famously said, "The truth lies right down here in the gut. Do you know you have more nerve endings in your gut that you have in your head? You can look it up. I know some of you are going to say I did look it up, and that's not true. That's because you looked it up in a book. Next time look it up in your gut." (Laughter)

This QDDR is, in part, an ongoing effort to make sure everyone in diplomacy and development understands that that was satire. (Laughter)

The good news is we're not starting from scratch at all. One of the things the Secretary emphasized with this review was to be honest about problems that we have, but spend as much time, also, trying to build on successes. These reviews can end up focusing very much on the negative, and we did that in a few places, but we have over 200 posts around the world that are laboratories of new ways of doing diplomacy and development. And what we saw out there in this review is that there are pockets of people in State, in AID, as well as MCC and other partner organizations who have been making big steps in how to do this right and bring data and diagnostics in. You've seen this with the CSO unit, the humanitarian information unit, countless other examples which we can talk about in the questions.

And I also want to be clear that this is not about replacing every ambassador with Nate Silver. This is quite the opposite of that. This is about making sure that our foreign service officers, let's just say on the diplomacy side for a second,

when they're deployed in the field, are doing what we pay a premium for them to be there to do, which is to engage directly with people outside the walls. There is simply too much information to consume today that you could stick behind your computer the entire time. This is exacerbated by taskings and some of the dynamics from Washington. It's been exacerbated by physical risk constraints, which we'll talk about at separate events or it can come up today. But it's also about this explosion in the information environment in which we live.

This is actually about putting a premium on personal engagement, but making sure it is informed to the extent possible by data and diagnostics and design, as George has emphasized. So this is an exciting time where we look at being able to scale up some of these successes.

Very quickly, some context about the QDDR itself. The review is something that's not mandated by Congress, at least not yet. It's a voluntary decision of the Secretary, created by Secretary Clinton, the first one. This is the second that Secretary Kerry decided to reinstate to provide a blueprint for the future of diplomacy and development.

This one was self-consciously modest. We wanted to take on a more limited number of reforms that we felt could be done systemically across our work. And I do think the issues of agility and physical risk, as well as the issue of data and diagnostics, are some of the clear recurring themes throughout. And that's, in part, because we came back to this question of what is the comparative advantage of State and USAID, and we came back to knowledge and engagement. And what is one of our biggest constraints? It's agility. So most of the reforms we looked at are how we take these traditional comparative advantages, like knowledge and engagement, and make sure we're applying them to reflect a very different world.

In fact, my preferred subtitle for this QDDR, which was rejected, was

"From Westphalia to the WikiWorld," which I was told was both too wonky and too cute at the same time, which is a tough thing to pull off. But it is something that is reflected in what we're looking at. The Westphalian model remains crucial, the nation state model, the international order some of the analysts who've read have noted, in ways in which that is not fully adapted to a very different world. But also this issue that we are engaging with a much broader set of actors, private sector actors, mayors, governors as I mentioned, faith leaders, citizen leaders, and not just citizen leaders the way we've known it for the last 20 years: formal NGOs, like some of the ones that I've been involved in creating where you have a board, you have a director, you know who's in charge. We're now looking at leaderless movements, social media movements, movements that are offline, but reflect that same sort of structure, and making sure we can do it in a way and engage in a way that advances America's interests.

Because we believe in practicing what we preach, we did run some data and analytics on our own report. One that I think was pleasing to most people was that it only had 40 percent of the word count of the last QDDR and a mercifully short, seven-page Executive Summary. Someone noted that there is an over 400 percent increase in references to corruption and accountability, and not just in the traditional human rights space, but as a barrier to inclusive economic growth, as an issue related to PV, et cetera. And someone ran a Google Ngram's parallel on this and noted that that actually mimics an unprecedented increase in the use of the word "corruption" across English language, across all technology, to the highest rate since the early 1900s. How they got back to that regression, I don't know.

So we are looking at a number of dynamics across this and trying to make sure that we are data-informed in how we're thinking about this. And I'm just going to make a couple of observations and we'll get into more specifics in the talk.

One is to make sure that everybody at State and AID, and I think that this

is true, understand that the information and technology revolution is not something that happened, but is something that is happening. There are those occasionally you will find who will say, ho, remember those days before the Internet and email? How funny it is that we couldn't imagine going back to that world. We need to understand that the expansion of data and information available that is going to explode over the next 10 to 20 years puts into a shadow anything that we've seen thus far. And, therefore, this can't be about a pocket of change here or there, but a fundamental change in how we do our operations. We simply cannot read every email much less every report that comes out.

And that comes back to this issue about the new three Ds, as George has called it: data, diagnostics, and design. This is not just about the importance of data. If you don't figure out how to filter and leverage that data, then it's of no use. It's just too much to consume and it's not useful. And design, this is about how we make sure we're communicating it to policymakers to be able to make the best decisions they can, but also using it, frankly, as a weapon with our counterparts in other countries. The effective presentation of well-designed and communicated information and data can be very powerful.

And we understand this is both a supply problem and a demand problem in the State and AID space. And I think AID is several steps ahead of State, quite frankly. And this is where folks like, you know, Adam Riggs, who's going to help head up this effort, and John Janik, who's enthusiasm on this is contagious, and Molly and Ambassador Macmanus and others, who are trying to push in this direction understand, one, we need more capacity. We actually have to have the ability to do more strict data science, more and better diagnostics, but also that it's a demand problem in the sense that if this is not communicated effectively, if the design component isn't there, the pickup is not going to be there.

We're not going to get there overnight, but we do see this as part of

moving in a direction where the first QDDR says every country has to sit down and do an integrated country strategy, which, in many cases, has been quite successful at bringing all the different agencies together to have a proactive strategy, we think that that chief of mission ambassador before he or she sits down to do that is handed useful and relevant data and diagnostics on what we have identified as the top strategic problems. What are the actual barriers to inclusive economic growth in the country, not what you feel in your gut? What do we actually know to be the biggest barriers if we're going to prioritize that for preventing violent extremism, making sure that we are doing the best analysis that then informs, though it does not determine, an integrated country strategy? Because we do believe in the wisdom test, the ground-truthing that comes on top of that to make sure it's true.

I'm running out of time. There's a lot more to be said, but I just want to note we are already doing this. If we look at areas on atrocity prevention, for example, we know now that conflict is the single biggest factor. And within conflict, insurgency has a seven times more likely effect on atrocities being committed than not. Does that mean that you couldn't see atrocities prevented in a situation where that doesn't exist? No. That's what probability does. You want it to inform decision-making, to be part of a tool, but not to be the final word, per se.

We see really exciting developments on a small scale. Just in the last few weeks people from State and AID actually talking to each other about HRV modeling on constraints to growth to say can we at least agree on the facts? We can disagree on opinions, but can we agree on a set of facts that are driving this? And I think this is where you see something like corruption and accountability moving up a chain of priorities in these buildings because of the extent to which it recurs in these spaces.

So we see this as part of an iterative process. I know we're going to get into the specifics of the analytics hub later, but I'm just going to end on a more serious

note.

I think I walked away from this experience of looking at dynamics around the world right now, frankly, a little more frightened than I've been in a while. We do diplomacy and we do development because we believe it saves lives. We do diplomacy and we do development because we believe it makes America safer and more prosperous. And the world is changing in incredibly dynamic ways and the constraints, both budget constraints, legal constraints, political constraints, on how we operate right now simply are not consistent with doing diplomacy and development in the way we need to make sure America is strong in the century ahead.

So when we look at these things, we'll crack jokes, we'll have some fun with it, and we'll talk about geek empowerment and other things that irate my staff, but we're doing this because we're deadly serious. We really believe right now the dynamics in the world, both on the threat side, but also the opportunity side, are absolutely unbelievable. And the ability for us to move quickly, the ability for us to leverage that information is going to have tremendous impacts on how America and, by extension, the American people live in the decades ahead.

So with that, I hand it back to you.

MR. INGRAM: Thank you, Tom. Let me invite the four panelists up to the stage. You know, Tom, we're going to have to have a separate conversation sometime because there are a few people in this room who, along with me, have worked on trying to lift some of those constraints on our development and diplomacy program. But we also have been supportive of writing into law the requirement of a global development strategy and a QDDR.

Now, you bring a lot of credibility to this issue because you've been a member of Congress and you know how Congress functions.

MR. PERRIELLO: I don't think that makes one more credible to have

been a member of Congress, but I appreciate the gesture. (Laughter)

MR. INGRAM: So we're going to have to have a separate conversation on that.

But let me ask you to start the first round of questioning with the panel because I want a conversation of what the state of play is today. And you've made the point that the QDDR is not totally new, it's built on what's happening now. And there is something called, and is referenced in the QDDR, the Enterprise Data Quality Initiative. There are probably a lot of us who are surprised to hear that there's something like that in the State Department. What is that?

MR. PERRIELLO: So it's actually a very cool project. NPRI Division has been driving this. And in some ways, it goes back to -- it's a convergence of a set of problems. We have systems that don't talk to each other. Often it takes a lot of upfront investment that we do not currently have the resources to do to try to bring those things together. So NPRI has been very creative about trying to figure out how to code, get these systems to talk to each other to answer some basic questions.

Condoleezza Rice famously called the State Department a data-free zone and once talked about how just trying to figure out tell me how many people we have in Country X and couldn't get an answer to that. And that seems like a very silly problem to have, but there are reasons that that existed. And this is an initiative that has been trying to get these systems to talk to each other in a way that that does not require getting on the phone to 27 human beings to collect their information and tally it up with a pencil, but to be able to get these things to talk to each other.

Most of that's been on a management and personnel side, which is a priority for obvious reasons. I think a lot of what we're trying to do is make sure we're bringing that, A, to scale and, B, applying that in the policy space, as well, where possible.

You know, one concern we have in the department, it's also an opportunity, is that over half of the active Foreign Service has come in since 9-11. Now, that's both a generational issue, but also a lot of folks who came in as second careers. That's opportunity in terms of people coming in with some very new ways of thinking and having been exposed to some different work environments. On the other hand, we need to be tracking whether their dynamics in that workforce that are concerning before alarms bells start to ring. And that comes back to this question, to what extent can we code and understand trends in that workforce?

So this is an initiative that I think is really promising and it's the kind of thing that, again, when people see it, it does save money over time because it means when you're asking a question, whether it's Congress asking a question or leadership, you should be able to answer that question in a matter of minutes that before would have been, you know, a 12-week working group coming together to try to answer that question.

MR. INGRAM: Well, let me introduce the panelists. Glenn Platt to my right is professor of marketing at Miami University. And you will see why he's with us today by his second position, which is president of the International Digital Media and Arts Association. And he is an expert on the use of technology and data and diagnostics for learning and for business purposes.

Brandon Pustejovsky -- how did I do?

MR. PUSTEJOVSKY: Well done.

MR. INGRAM: All right, is chief data officer at USAID. This is a new position at AID. He's responsible for implementation of AID's first-ever open data policy. And as he described it to me, and it's my characterization, he's responsible for unclogging the data channels at USAID.

Mark White is Global Consulting Technology CTO at Deloitte. And he focuses on delivering critical business solutions, including an IT service, an architecture,

data, and business intelligence.

Beth Tritter is vice president for policy and evaluation at the MCC. And she leads MCC's work in the policy area and analytics and data in areas such as economic and political risk assessment, beneficiary analysis, and compliance with the International Aid Transparency Initiative.

My first question is to Brandon and Beth, and that is continue the conversation that I started with Tom. And that is give us some of the best practices in your agency today in use of data and analytics. Brandon?

MR. PUSTEJOVSKY: Yes. I think an important thing to note for USAID is that we've long been a data-driven agency. And, you know, for decades we've used existing programmatic data, country-level analytic data, specialized assessment data on gender, on environmental practice, on conflict as appropriate, really to inform our project design and to develop a solid evidence base that informs our country-level strategies. This is embodied already at USAID at the policy level in terms of our planning policy that really embodies these assessments, these mandatory assessments, so that we can have a data-driven basis for an understanding of gender practices, of environmental practices, conflict status in certain countries, but our policy, as well, on assessing and learning and making sure that we feed that data back into the process of project design so that we can iterate midstream if we need to.

We have an evaluation policy implemented in 2011 that really focuses on warehousing our evaluation data so that we can draw from that as an agency as a whole.

In October of 2014, we released our first-ever open data policy. And that's important to us so that this data is not only shared within the agency, but so that we invite the global public into the dialogue beyond USAID so that together we can reach this goal of ending extreme poverty.

An important thing to note, as well, is that part of our USAID reform effort

itself is also extremely data-driven. And this includes developing country-level strategies, sector strategies that are informed by data that we gather from internal and third-party sources during the initial consultation phase, but also evaluating our projects and reporting on those results that we can ensure that we really understand what's working and what's not based on evidence. Nearly half of our missions overseas have actually implemented at this point a collaboration learning and adapting model that looks at data gathered during program implementation so that we can then feed that back into our programs during this process.

I'm also pleased to report that our USAID foreign data for the most recent quarter actually was just posted online as of this week, so that's immediately available. And that's part of what we're doing as a best practice to ensure that we're transparent in these results, as well.

MS. TRITTER: Sure. Well, thank you, George. I'm sure a lot of people here are already familiar with MCC's model and sort of how we use data to drive decision-making throughout our program cycle. I mean, it really starts with selection and eligibility, which is a transparent indicator-based process and then goes right through to monitoring and evaluation, and then there are multiple steps in between. So the growth diagnostic that Tom referred to before, we use constraints analysis for decision-making for our compacts once we've selected our eligible countries. And, in fact, we work with the countries themselves to complete that constraints analysis and then agree on what the binding constraints to growth are based on the research and data that we're able to collect, and then agree on a path forward in terms of how we're going to go about developing a compact.

And then we don't just sort of go and develop projects based on that. There's quite a bit of due diligence that goes into figuring out what the actual needs are in some of these sectors. So just because, you know, you see that energy is a constraint to

growth, that doesn't mean that you just go build a power plant or you just go build a bunch of transmission lines. You have to figure out where you're going to build those transmission lines, you have to figure out who's going to benefit from them and how to make sure that the poor are actually benefiting from them, and that you have sort of the right beneficiary mixture. You have to make sure that if you put up transmission lines, let's say, the poor are actually going to be able to connect those transmission lines to their homes and that the cost barriers to that aren't too great to make that project a project that isn't worthwhile doing.

You know, in terms of, let's say, a road project, you actually want to figure out what that road's going to be used for and how that road is going to contribute to achieving economic growth and broad-based economic growth in a country. So you may not want to build a paved road if a paved road isn't what you need. Maybe you need a gravel road, maybe you need a dirt road. And we use these -- it's an iterative process throughout our program cycle that really guides every bit of decision-making, from who we work with to what we do to how we design our projects.

And then, you know, frankly, we monitor and evaluate everything and we make our evaluations public, as well. They're not always easy to read, I will grant you that. So if you go on our evaluation catalogue I would say you're not going to get in five minutes what all of our results have been and all of our lessons learned, and that's a place where we're trying to do better. But we do monitor and evaluate everything. We monitor it on a quarterly basis and then we evaluate everything over the lifetime of the project and beyond, and then use that information to sort of feed back into the project development and the program development process for subsequent compacts.

So this is sort of -- that's or basic model and I know that a lot of you are very familiar with that. You know, that's nothing new and I understand that. George said to me you have to be prepared to tell people something they don't know.

MR. INGRAM: But hold that. I don't want to go to the future yet.

MS. TRITTER: So you don't want to know things you don't know? You just wanted to know things --

MR. INGRAM: I want to know that in a minute.

MS. TRITTER: Okay. (Laughter) Well, I'm just going to say --

MR. INGRAM: Unless it's already happening.

MS. TRITTER: No, no, no. I mean, there are things that are happening, but I'll save them if there's going to be a special time where we can talk about new things.

MR. INGRAM: The second round is blue sky, where we're going.

MS. TRITTER: Excellent, all right.

MR. INGRAM: So, Mark and Glenn, you all have been at the forefront of using data and analytics, design, technology for business, for learning, probably in the social sector, also. How is any of what you all do relevant to government?

You know, business has a clear bottom line. Even if it's a triple bottom line it's still pretty clear. Government has this amorphous good public policy. Business tends to be more agile. Business knows who they're accountable to. They're accountable to their stockholders whereas government tends to be cumbersome, bureaucratic, there are so many stakeholders you don't really know who they are. I'm sort of setting this up, sort of the worst case of government, so you all can tell us why any of what you all are doing is relevant to government and how government can be brought into the data revolution.

MR. PLATT: Well, you know, one of the great insights of design thinking around data is to provide a human context for the conversation. You know, sometimes I think about big data in this way, that like having a lot of data, but not having context, is kind of like looking at the dashboard of your car and seeing all of those numbers in front of you without actually looking out the front windshield or having a map or a GPS system.

That context is actually critical. And the design-thinking processes that business and industry have really been leading with I think provide a bit of a structure for us to contextualize the data conversation, for us to start thinking about the ways in which that data informs human actions and human decisions.

You know, when you walk into the doors of one of Facebook engineering buildings, there's a lot of engineers there, but one of the engineering buildings you walk in and they have graffiti on all the walls. That's kind of thing there, right? There's this -- but in one of the main buildings you walk in and there's this graffiti and it has the word "users" with the international "No" sign, and scrawled underneath that is "people." Right? The insight being that if we don't think about where the data is coming from, the people behind that, how they use that data, we lose the ability to contextualize that and then to act on that.

And one of my favorite recent examples of that is the Google Flu Project, right. We're all familiar with that as one of the early successes of big data. Google's tracking this sort of flu searches, right? But if you've been keeping up with that over time that's become less and less predictive of the CDC data. And one of, I think, the really interesting insights is the reason it's become less predictive, even though we still have all that great data and all that wonderful analytics, is that the way people are using Search has changed over time. So it's the way that the people -- what they think as they enter things into that Search box that's changed that now no longer makes that data as predictive as it would otherwise be.

The point being that we can collect all of this data, but if we don't contextualize it, if we don't put in sort of the frame of how human beings actually use it and create it, we lose the ability to then get great insight from it. And that to me, I think, is sort of the glaring example of where business can provide some insight here.

MR. WHITE: That's good. So, George, admitting an incomplete

understanding of full current state at the current analytics platform capability I would tell you that I do have a pretty complete view of what's happening with regards to data-driven decision and action-taking with commercial and public sector enterprise here in the U.S. and more broadly. And I would say that --

MR. INGRAM: Because you're working with the private sector and the public sector, right?

MR. WHITE: I do. I do. So I lead our technology advent, the innovation eminence across both commercial and public sector. And I would judge this to be actually a very forward-looking document. I would bet that the current state of Department of State, USAID is not some dreadful, you know, decades-behind situation. In fact, just based on, again, a limited understanding, you know, not bad at all.

So what can commercial experience or what can what industry are doing with data and with analytics and with driving decision and outcomes apply to government? We say, you know, business has a profit motive. Well, I'll tell you, and just meeting Brandon a little bit, these folks have a mission motive. Business has agility in the sense that, frankly, the budgeting and acquisitions process is just not as cyclical and as regulated.

State and AID have people with passion who are delivering on the frontline, and agility occurs there, adaptability occurs there. You said there are stockholders for the accountability. I think that they're taxpayers certainly, but the recipients of and then the media coverage of create the same accountability for what State and USAID are doing.

So can analytics do -- if analytics help business move forward to be more profitable, to be more agile, to be more responsive and accountable, can it do the same for government? Absolutely.

MR. INGRAM: And I'm glad you mentioned accountability to intended

recipients, beneficiary.

MR. WHITE: Sure.

MR. INGRAM: Because one issue in the development community is we know we're accountable to the Executive Branch and to the Congress and to the American people, but we're struggling with how to be accountable to the intended beneficiaries. So how can modern technology and social networking and whatnot be employed so that our assistance and even our development programs can have input, can be more responsive to the intended beneficiaries?

MR. WHITE: Again, not a question that's very unique to commercial interests now, right? One of the things we've always been able to measure is activity. How much stuff did I do? Sometimes we're better and have the capability to measure the outputs. What did I create? What did I put there, what artifact or what deliverable? What these analytics technology are allowing us to do right now is to measure outcomes, outcome-based delivery of capability, delivery of aid, delivery of rebuilding. So the technology advance has now allowed me to take a much better swath of newly available data that signal outcomes much more strongly than ever before.

I don't know, George, does that match your --

MR. INGRAM: Glenn?

MR. WHITE: I mean, Glenn rather.

MR. PLATT: You know, I think what some of the social platforms are talking about and allow for is this sort of flattening of our conversations, right. These platforms allow us all to become broadcasters and consumers at the same time, which means conversations can be had quickly and across a large set of people. Where that impacts us from an analytics standpoint is now instead of just thinking about highly structured data, we can now start thinking about highly unstructured data around these conversations, that we can tap into real-time conversations. In a more semantic sense

we can sort of get our finger on the pulse or take a temperature around issues that are of interest to State or of interest to any of the parties that are sitting here at the table. I know in kind of real time what is sort of the sense of our constituents around that. We can identify and subset those conversations and look at them in ways that we couldn't otherwise before, or at least ways that would take a longer period of back-and-forth research to do. So, for me, that's where I'd be looking.

MR. INGRAM: Good. Beth?

MS. TRITTER: You know, just sort of a point to add is that this is obviously about conversations with beneficiaries and making sure that you have that feedback loop. And that's something that we at MCC are -- we have always had as sort of a tenet of what we do and we are always trying to do better.

The other interesting thing, I think, just to bring in from the private sector is that there are certain ways that I think development agencies are used to gathering data that the private sector can sort of upend now. So just to bring in one fairly mundane decision that needs to be made is if you're working to build a road somewhere and you get data from a country government on what the road usage is. You can rely on that data and move forward with the project based on that or you can literally hire somebody to sit at the road all day long and do a road user analysis and figure out, you know, what the traffic count is. But those aren't actually the best sources of data, right? How do we actually know how many people are using which roads and whether perhaps a government is prioritizing the right roads for building? Well, the cellphone companies have better data than anybody does about road usage.

And so there are all sorts of ways now that development agencies are working with the private sector to make sure that we're getting the best data about how we're actually affecting people on the ground. That's a little bit different than the feedback loop that you get directly from beneficiaries, but it does help pinpoint where

you're actually likely to help the most people with your projects.

MR. PUSTEJOVSKY: And I was going to say, George, if you don't mind, on that, as well, I think --

MR. INGRAM: Please.

MR. PUSTEJOVSKY: -- and I'm glad to chime in about maybe the Nepal response and Ebola response, as well --

MR. INGRAM: Good.

MR. PUSTEJOVSKY: -- but from USAID's perspective, of course, you know, a 7.8 magnitude quake last month, you know, taking more 8,000 lives, again a 7.3 mag quake this week taking around 100 lives, but, you know, this underscores the importance of involving the beneficiaries up front so that it's not just what we're providing to beneficiaries, but involving them in providing data into the processes. As these disasters occur, as well, it also underscores the importance of disaster risk reduction and mitigation.

So part of our response on USAID's front is, as far back as 2013, actually involving again the (inaudible) and students from George Washington University and actually tracing infrastructure features in Katmandu to have a better understanding of the lay of the land on the ground, but then involving Nepalese, as well, Katmandu living labs students, who would then go out and actually verify the location of that infrastructure and then enhancing it with other features that they knew about on the ground. So that when something did strike, like this earthquake recently, we had been prepared for two years prior so that we could then upload those maps onto the GPS devices of our disaster assistance response team.

In the case of the Ebola outbreak, you know, now we're, fortunately, down to the dozens of cases as opposed to hundreds per country at the peak toward the end of last year. But, again, we're looking at mobile phone technologies not just to be

used by governments, but to be used by individuals in villages so that they're participants in the data generation. Even we have an application called mHero, for example, that we helped sponsor that provides real-time data on lab results on disease instances, feedback loops on training needs, facility -- the extent to which they have sufficient equipment and that sort of thing.

But what that's allowed us to do is to gather that real-time data from beneficiaries so that they're actually part of the process. And then we feed that back into our programming strategies on a nearly real-time basis to inform our programming.

MR. INGRAM: And that allowed you to better target your resources.

MR. PUSTEJOVSKY: Absolutely.

MR. INGRAM: Okay, good. All right. The second round of questioning or conversation I want to focus on the future. And Beth and Brandon and Tom, I want you to talk about -- pretend like this session's off-record. Now, there are a few media people here, but just ignore them, okay? (Laughter) Think of this as blue sky.

Where do you want to see your agency going in these areas? And you've got Mark and Glenn here, so they're ready to give you advice on your dreams.

MR. WHITE: Standing by. (Laughter)

MR. INGRAM: And I want to come to you last, Tom, because I want you to talk a little bit about the hub and how you see that, and maybe they have some advice for you on how to get there. And Brandon and Beth, talk about how you want to -- where you would like to see your agencies take data and analytics and use of technology.

I know, Beth, at the MCC, you're struggling on the data transparency area with the contract information --

MS. TRITTER: I don't think we're struggling.

MR. INGRAM: -- and having your MSA because you don't have full control over all your data.

MS. TRITTER: That is true.

MR. INGRAM: So that's one of the constraints you have. And Brandon, at AID, where do you see this going? And I have to ask a little question on what's going to happen with the IATI management plan.

MR. PUSTEJOVSKY: Sure.

MR. INGRAM: So go ahead, Beth.

MS. TRITTER: So I wouldn't say we're struggling. I wouldn't say we're struggling with transparency, we at the MCC. There are many things we struggle with. Transparency is generally not one of those things. But you're right in that we don't have control over everything and, in part, because our model is very country-led. And so the countries themselves, the Millennium Challenge Account committees that actually run the compacts, have a lot of control over the data that they generate. And while we get data, it's not always owned by us. So, you know, that's one thing. I should have known you would bring that up, George.

But, you know, I think that this about data diagnostics and design and we've been very data-heavy right now. I think that one thing that -- we use a lot of diagnostic tools that aren't necessarily big data-heavy, but are still really important diagnostic tools. So there are a few things that we're sort of considering.

One, I think, is a broader knowledge management approach in the agency. And I know that, you know, State -- I'm actually really enthusiastic about working with State and AID as they work through this themselves because I think we will probably all have a lot to learn from each other and a lot to contribute to each other. But over the last couple of years we've gone a long way to try to pull together different data sets across the agency from a technological perspective and make them talk to each other. We're still not all the way there.

You know, our selection database, which includes a very rich amount of

information, doesn't necessarily talk to our monitoring and evaluation results. And ideally, we can move toward a situation where those things are actually happening because the richness of the data that exists can drive better decision-making. And while we do make decisions based on data, we could be making better decisions based on better data that talks to each other more. So that's something we're constantly striving to do.

But beyond the technological aspects of knowledge management there's the human aspects of knowledge management. So as Tom was saying how do you incentivize a workforce to share with each other? There are different types of business practices that we have and sort of business lines that we have in our agency, even such a small agency as the MCC. And if you hire a contractor to do a report, you sort of own that report for your own decision-making. How do you get people to think, oh, this is a really interesting feasibility study that just got done and there's some rich data in here that could inform some other aspect of the agency? Who is responsible for making sure that that actually gets shared in a way that will benefit everybody? So I think that's something that we're going to be looking at, also. And that's not necessarily about the IT system, but it's about the culture more than anything else.

And then in terms of diagnostic tools, you know, we have gone through a fairly public process over the decade-plus that we've been in existence of coming up with -- of trying to determine what are the best diagnostic tools that we can use to make decisions. So the constraints analysis that others have referred to today is sort of one of those that we adopted after we were already up and running. It wasn't something that we were sort of born with and we didn't create it either. We adopted it.

But, you know, one of the things we're looking a lot more into doing, especially as our compacts increasingly have serious aspects of policy and institutional reforms to them, is are we doing the political economy analysis that's necessary to

understand what the incentives driving different problems are and what the incentives that will drive different solutions are before we actually design our programs? So that's something that we're looking at doing a lot more of going forward, as well. So there's more, but I'll keep it short because I know there are a lot of people who have interesting things to say.

MR. INGRAM: Thanks.

MR. PUSTEJOVSKY: Yes, to build on one of Tom's comments really that, you know, the Internet is not something that happened and the data revolution is not something that will happen. And I'm not saying this for the benefit of those of you who Tweet, but the future is now. It really is in the sense that this is happening. The decisions that we make now are going to definitely play into that.

And what I want to emphasize at least is that at USAID some of that is already happening in the sense that, you know, we've increased by 50 percent the number of evaluations that we're making public. You know, over 98 percent of those are being used right now to inform our programming, to make midstream course corrections. We're taking the best practices on data-driven programming and importing that over through an operations management policy on the operations side so that our operations from procurement or IT management and those sorts of things are also extremely data-driven just in terms of internal business processes, conducting mission management assessments at local missions based on high priority items that are driven by data so that we can then generate lessons learned from one mission and perhaps use those in others.

But I think the important thing is really that it's not about, at least at USAID, not about creating a culture of data-driven programming. That's something that's existed for decades. It's really in the future, I would say, and now. It's about creating a data ecosystem that is organic from the point of data origin to the point at which, if the

data is publicly released, the public is prepared to engage in that mission with us. That's managing data according to standards -- as George mentioned, the International Aid Transparency Initiative, I'll talk about that in just a second -- but really planning for the linkages of data from the point at which the data's collected. So not simply assuming that that data is going to remain in a silo, but that it connects to other parts of the agency from the outset, that it connects to other agencies within the interagency, and, finally, that it also connects to the international development actors and even to host country systems. But it's one that does reach very strongly into the public sector.

As the QDDR notes, you know, it's not about what State and AID can do for others, but really how the global public can engage with our institutions moving forward using the data we generate to improve foreign policy. So there are challenges ahead and they're really about deepening the adoption of standards, such as the International Aid Transparency Initiative.

It does require tweaking our IT systems. The development of information solution is something that's mentioned in the QDDR, which is really our effort to wrapping our arms around standard data management in all of our missions. So that when you ask what are you doing in malaria, you can aggregate that from the various missions that do have malaria programming, including anything that's centrally funded malaria out of Washington, so that we can have a coherent picture of that. It means looking at our information in a way that says, you know, if you just pulled up a data set on Project A, you might be interested in this evaluation over here related to Project A in a separate information system, so that they're integrated and linked.

It does mean committing to sharing our data by default, and that's something that we are in the midst of, that is happening right now. If you look at our development data library at usa.gov/data, you'll find over 60 data sets that are there right now that have been downloaded over 1,000 times since we first posted them in 2014.

But we have dozens that are in the loop right now ready to go out the door on everything from climate change in Uganda to livestock demographics in Senegal. And it's exciting stuff that we look forward to releasing in the future.

But, you know, to quote your blog, George, you know, we can all be prone from time to time to hug our data. And what we'd like to see is that those days are behind us because we're committed at USAID to a new model of development that's grounded on science, technology, innovation, and partnership. And for an agency that has a mission statement that begins with the phrase "We partner," it's absolutely essential for us to make that data available to others so that we can achieve our goal of ending extreme poverty.

MR. INGRAM: Thank you. I wish I knew who I got that term from of hugging data so I could give them credit. So in honesty, I didn't make up that term. I stole it from somebody else.

MR. PUSTEJOVSKY: Well stolen.

MR. INGRAM: Tom, the data hub, what's your dream, what's your vision of the data hub and what it's going to accomplish?

MR. PERRIELLO: Sure. I think good news and bad news. I think the goal here is to get to a point where State and AID, to the highest extent possible, are learning institutions where more information and more experience is translating into better results and more effectiveness over time and, frankly, producing freeing up time to get back to -- and here's where I'm a traditionalist -- I actually think we need to get back to the traditional diplomacy of people interacting with people. And the goal of all the data and diagnostics is not to avoid that, but to actually free people up again because there is so much information out there that you can feel like how the heck am I going to go into a meeting if I haven't even read the 12 new reports that came out today or followed -- you know, just open TweetDeck and just following that all day? And how can I even get -- so

the idea here is actually to create the space that is freeing up people's time and informing them to a higher quality degree and making sure we're learning from the experiences that have been had in order to increase the quality of the product, which, in this case, is returns to the American people.

And the hub is about that, but I just want to give another piece of context, which I think is part of the change that can happen here. Since we've all been very optimistic on this panel I'll now throw in a dash of realism and maybe disagree a little bit with something Mark said, which I don't actually think that the press and the Hill are doing an effective job of holding these institutions accountable. I think that there is a gotcha attitude that makes institutions manage to avoid failure instead of manage to success, and those are very different mindsets.

The Hill understands this because every elected official lives in fear of the 30-second spot. Right? So what's that one comment, one time where you actually bother to say something interesting that can then be taken out of context? Not that ever personally happened to any of us. (Laughter)

And I think that part of what we want to do is get data and diagnostics to a point where it's actually liberating State to be more experimental and innovative in a way that I think we've started to see with AID in recent years. Which is I think the fear can be, oh, my goodness, if we put a diagnostic out there and then we don't follow that policy route or some other factor comes up, then there will be the gotcha attitude of saying, hey, you had this report and it told you this. Well, there were a thousand other factors that have to play in. So the fear here is you can have a program that works 9 times out of 10, but, you know, the press is only going to cover that failure of the 10th, so you go to avoid it.

And one of the examples where I see this that crosses both State and AID is something I care about greatly, which is advancing the rights of women and girls.

If you want to, you can hold the 300th workshop at the local hotel on training women and girls about their rights and nobody will get in trouble for it. You will have metrics even: how many people were trained. But it may not actually be the most effective way to accomplish the goal. But if you go out and try something, and this happened actually, where you did an open mic night just for women in a country that had never had that, that may actually be more transformative than the 300th workshop. Then it's going to get covered back here as taxpayers supporting rap in Country X. Right?

So part of what we want in terms of my vision would be a space where this is producing the kind of data and diagnostics that actually creates more room for innovation and experimentation and learning on the path to get there. How this comes together continues to a work in progress and we're trying to get input here and elsewhere. But I think part of what we want to do is literally create a physical space where people can collocate who are already doing this sort of amazing work inside of State with a combination of skills -- traditional diplomatic skills, data science, social science skills, design skills -- to be able to produce the kind of products that are timely, user-friendly, and informed. Someone like Adam Riggs, who's here, who has Silicon Valley experience, but is also married to a Foreign Service officer, so he understands both sides of this world. Bringing together folks like Molly and others who really know already how to take this and need the space to do so.

But it's not that simple. In a resource-constrained environment, you know, these are not things where we can simply get ourselves all the way there with spit and polish, which is what we're going to try to do, is to bring together, again, the data, the diagnostics, and the design. We need to keep showing proof of concept, which is starting.

And, again, I think our objective here is or our expectation here is not that you are going to see a radically different department tomorrow than you saw two

weeks before the QDDR came out. It's about trying to empower and give more cover to those folks within the institutions who are already wanting to push in these directions and increase these abilities, whether, again, you're looking at trying to predict how likely election violence is in Burundi or Congo, or whether you're looking at whether the people leaving the Foreign Service or more or less higher or lower performers than the people staying in the Foreign Service. Right? So we need to see this as both on the management personnel side and the policy side.

But I think, you know, we can't -- this is going to be a big shift. You're talking about a 70,000-person organization across State and AID with over 200 posts around the world. That's a strength in the sense that, again, each of these can be a laboratory, each office can be a laboratory. But the scale of the change that needs to happen is not one that can be three or four people who happen to really get this being put in a room with no resources.

I think it's going to be -- you know, it's going to take partnerships. As some of you may have seen, the *Washington Post* wrote a piece calling the QDDR the most depressing document they'd ever read. And their argument, which was snarky, but actually kind of funny, was about the fact that the emphasis on partnerships, the author realized over time, was really about State admitting it didn't have the resources to do things themselves and, therefore, needed to partner. I don't think you have to put a negative spin on partnership to see the upsides of it. There's no reason not to do it, again, in a world in which we have this much more complex set of actors.

And I want to go back to a grand strategic point and then I'll shut up, which is the rise of other powers was actually part of America's grand strategy all along. Part of how we understand this moment in an optimistic sense, and it's not to say -- I started out saying I'm more concerned than I've been in a long time. The vision of the greatest generation after 1945 was not to say, hey, now we're top nation. How do we

keep everyone else down? It was how do we actually lift everyone up? And, again, we can get into all the caveats of where we may or may not have been on the right side of that in history, but the strategy was we want to grow people -- you know, bring people out of poverty into a global middle class. We want a system of collective security. It was not to actually have a monopoly on power that whole time.

So now that we exist in that world that, in many ways, was the vision the greatest generation wanted to create, it's a matter of figuring out how we adjust and use partnerships, how we exist in this area of an enormous amount of information. And, again, I think the collection of folks we're hoping to bring together in the hub have that. And if we can get them the support both inside and outside, I think over the next 5 or 10 years you're going to see some significant shifts in this direction.

MR. INGRAM: Great. Well, before I turn -- I'm going to turn to Glenn and Mark now, and afterwards I'm going to turn to the audience. So think about what you want to hear, want to talk about.

You've heard the three of them talk about what they're struggling with. And Beth has talked about the importance of incentives on sharing information and data. And Brandon has talked about culture and also about a data ecosystem. And Tom has described a hub which, as I understand it, is both to bring together internal and external data and knowledge in an organization where there's a lot of barriers even to the flow of internal information and an organization that is scattered all around the world. So advise these folks.

MR. WHITE: Over to you.

MR. PLATT: Yes, you first. Right, you first, man. You first.

MR. WHITE: Yes, you know, I think two pieces of advice, I guess. You know, one is I think we need to get beyond aggregation. I like the idea of the hub a lot. I think it's very smart, but I think the easiest thing to do is to think of the hub as just simply

being a data aggregation source. Let's just get everything together in one place and then we're magically going to be able to figure out what to do with it. I think what we really need to be thinking about is how do we answer the hard questions there?

You know, I think one of the sync points in talking about big data is that big data is inherently deductive in the way that you work with it. Right? You sort of work through solving a problem and getting to that solution. And a lot of the processes we talk about with the folks that I work with is about abdicative reasoning, that can we instead of drilling down, start to think broader and bigger? And that's a different perspective. And my advice would be that you have to hardwire that in to some extent. Right? You've got to sort of make that work in a way that's very intentional because otherwise it's just far too easy to simply see it as a linear way of organizing your thought and simply putting all of your data.

I think we're -- if you think about it maybe -- well, yes, a metaphor for all of this would be, you know, 10 years ago we talked about technology as infrastructure and how we needed to move from that, from a technology strategy. And so now technology's woven into all of our strategy. I think data is at that point now. We think about big data still as infrastructure, in a sense. It's just a piece that we build with and not part of our intentional strategy. And we need to move in that same sort of metaphoric way to using data as part of a strategic conversation and having people that are part of that conversation actively involved.

MR. WHITE: So a couple of thoughts. One, the idea of a hub is not unique or new and so neither in government nor in commercial. So we've done this with a big global real estate company who literally established data science capabilities in places around the world where those skills existed and were available, art and storytelling capabilities, right, and pulled those things together with the data management and the apps, the automation, the mobile delivery, because ultimately you've got to deliver this for

action. Right? And then brought the subject matter and domain experts, and that was a hub for them.

U.S. Postal Service under Jim Cochrane -- which is interesting because he went from ops to CIO, so he was operations, then the Postmaster, then he was CIO. Now he's chief marketing officer, which is a fabulous, I think, journey, right, of data for the use of advancing the mission. But they have built and continue to build an analytics hub. A big global insurance client actually, where they're doing something very similar where they said we've got to inculcate this, we've got to bake this into how we do business. How can we do that in this very far-flung, divisional, agent-based, you know, broker-based? And an analytics hub was an approach to that. So I think the hub particularly described not just as data, not just as diagnostic or deduction or other analytic, but also as design.

And we were talking earlier, you know, one of the most interesting skill sets or types of skill set we're trying to build now to serve this better in the marketplace is going from STEM -- science, technology, engineering, and math -- which we all think about in data and analytics, and we want STEM skills. Everybody wants it, I want it, to STEAM -- science, technology, engineering, art, and math, or anthropology and math, or architecture and math -- things about -- science of how people engage with the world around them, engage with the information, engage with the culture, engage with the economy, engage with physical use, STEM to STEAM. So the right skills, and you're describing that.

So most immediately I'm intrigued by the fact that when we talk with commercial business now about analytics, there's this heat and light, there's this excitement and sizzle around external unstructured. So the social sphere and the blogosphere and the idea that -- you referenced, Tom, Nate Silver at the beginning, so all this new signal or potential signal, right, perhaps noise out there, and we want those as

new sources of data we never had before. We want to deduce new answers to our current questions. And your point is I want to abduct new questions that I should be able to ask and answer. Right?

But what you all have described in large part is something that we find it's a very strong truth: the internal structure data still have a lot of unmined value. I just need to organize around it. Now, the temptation historically has been knowledge management, the sad little end of knowledge management, right? I'm going to get all of these data, structured and unstructured, internal and external, and I'm going to tag them to death. And then I'm going to submit them to a librarian.

MR. PERRIELLO: Archive. We were talking about archive. The archive movement.

MR. WHITE: An archive, right. I was going to create an archive, highly tagged archive --

MR. PERRIELLO: Right.

MR. WHITE: -- that rapidly grows very dusty and not very useful or the opposite, which is you do a search and the problem is not that you don't get back anything, the problem is you get back a million things and that didn't help you actually refine down. So to go from the idea of content tagging to add the context and then ultimately to add the community so that it's not librarian and archive ship, it's the ability to put it in community, in use, and curate and cultivate.

So that's the first part, but I'm intrigued by the fact you're not bedazzled by the external, unstructured blogosphere, that you're also acknowledging the internal structured and the external structured, right, because there's so much external data from other participants in your mission, from other industry. You talked about the mobile providers and location data. There's so much external structured and semi-structured data. And then the internal, unstructured knowledge management, how do we not make

that this dusty archive? How do we make it this living community of curated content that matters?

Second, you talk about diagnostic, which I really like. We think about -- so my data types are 2-by-2, right? It's internal-external, structured-unstructured, so every consultant has a 2-by-2, a pyramid and a chevron diagram. (Laughter) So here's the pyramid, right? So there's this pyramid of analytic value and almost everybody we talked to in the commercial space wants to start a predictive analytics. They want models that they can populate with assumptions and data that will predict the future to which they can then plan towards. You all are describing very much descriptive analytics and diagnostics, which are much more tenable and can be much more powerful, particularly in early stages of adoption.

So the apex, by the way, is prescriptive or cognitive analytics that actually decides ahead of time what path you're going to take and then allows you quick change. That may or may not be relevant in very large-scale socioeconomic kind of -- but in things like funds transfer pricing and some battlefield theater analytics it's important.

The bottom of this, however, is data disciplines. Right? Master data management, data quality management, you talked about the Enterprise Data Quality Initiative, and I saw some people go, yawn, not exciting, right, not sexy, no sizzle, very little early sort of usable value, but essential if I'm going to get from the study-based use of data to the systematic use of data.

So data, 2-by-2, four kinds, use them all. Pyramid, right, you guys are starting at a great place. The data disciplines are descriptive, predictive or descriptive (inaudible) next. Design, I talked about STEM to STEAM.

I want to go way forward now, like what's next and here's what we see. So we see people adoption with this analytics with this idea of data to drive my decision,

data to inform my action. Start with descriptive and go to predictive and cognitive. But it's interesting, when you talk about cognitive and artificial intelligence, everybody wants to talk about it. Less than 10 percent of the marketplace -- commercial, private sector, and public sector -- are doing anything from prototype to deeper use. Only 10 percent.

About another 30 or 40 percent are doing real advanced analytics, complex data, sophisticated math, effective visualization and delivery to the point of use. Right? Which leaves, if I've done the arithmetic right -- this is always a risk, right -- something like 50 percent that are still struggling with the idea of just analytics.

The point Brandon made I think around open data is we need to make these data available for others to capitalize on. We had a short conversation this morning about, well, what if they're capitalizing on it and turning it into a revenue source when it was an NGO or tax-funded activity? Is that bad? I don't know. In certain cases I think it could probably be counter-indicated, but generally, if you can incent people to take advantage of these, to extend the value path, it's a good thing.

API economy, how many API billionaires are there today? And by the way, the majority of those started with data API, not just services API.

AI, artificial intelligence. So I say AI, you think artificial intelligence. We talk about artificial intelligence, you think about the machine replacing the human. That's useful in about 20 to 30 percent of the tasks at hand. From the executives, policy-setter, to the middle manager, command and control, to the frontline executor, task owner, only 20 or 30 percent of their tasks can be meaningfully replaced by the machine.

What I would offer is AI as amplified intelligence. How do I use the analytics to take care of the mundane, to routinize the routine, and leave you the time and brain capacity and bandwidth to handle the exception, to do what humans do well? And so where we're going is we're going towards this API economy, where new value is created which demands then on the supply side new response, which creates this

virtuous cycle of demand-supply. The machine learning and the technology advances from the raw, you know, artificial intelligence to real amplified intelligence. You can replace the human and should for the donkey work, but you can't replace the human and should not for the insightful and intuitive and exceptional work.

And then because, you know, as a member in good standing of the Technology Consulting Union, every year we do a workers agreement, right, and there's a buzzword requirements. So a few years ago, we had to say "cloud" in every -- you know, last year we had to say "big data" in every time. This year it's "Internet of things." So, you know, if I introduce the idea -- yes, thank you. Going to check it off?

MR. PERRIELLO: You got it.

MR. PLATT: Thanks.

MS. TRITTER: Sharing economy?

MR. PLATT: Well, right, shared economy. But this whole idea of "Internet of things" it will change because you're reaching out around the world. You've already mentioned the idea that locations services, because mobile phone has become one of the dominant technology factors in all economies. And was it you and I? One of us was talking about the fact it's not all smartphone. I mean, there's SMS and 3G. There's some powerful stuff we can do. M-Pesa is a money system, right, is an alternative money system which was born out of necessity.

So when we begin to introduce the devices and the data and the communications and the people and the context, which is what you were talking about, all this contextual richness together, then these analytics become not just directing of our smart people policy and strategy. They can become responsive to not just sensing, but actuating to the situation at hand. And you can control the water purification system in ways that are meaningful and, by the way, not threatened by cyber physical issues. So don't forget that, but you can make the sensors become part of your mission and then

make the actuators become part of your mission, but not just the devices, not just the data in connectivity, but the people in the context. That's, I think, the future forward.

MR. INGRAM: Good, thank you. I'm going to turn to the audience. There's a microphone. And I have two questions right up here, Madeleine, right next to each other. And say who you are and we have limited time, so be very concise.

MS. PAXTON: Hi. I'm Sally Paxton. I'm from Publish What You Fund. We've had a lot of talk today about data, different kinds of data, how accessible data is to different kinds of people. I wanted to talk just -- my question really goes to AID data and IATI, which has had some mention here this morning.

The reason for that is that the U.S. is the single largest bilateral donor in the world, and State and USAID account for about 75 percent of what the U.S. gives. But the performance from both USAID and State on the Aid Transparency Index that we do every year has actually not been going in the right direction. USAID has gone down in the three previous years that we've done the Aid Transparency Index.

IATI data is particularly valuable because it's raw structured data that can be compared. It's got very rich information on spending, on results, on geocoding. And importantly, it can be used by a lot of different donors, so we've talked today about the users being both the U.S. Government, other donors, and recipient country donors, and all of them can use it in a multitude of ways.

I think going to Tom's initial point in the beginning about if we're going to have informed decision-making, then we have to have good, robust information. USAID has had a plan that has been -- actually the staff has put together a very good plan about how it can meet its IATI commitments, which it made in 2011. But it just appears to be languishing.

So I guess what I'd like to ask from both of you -- Beth, MCC has done quite well, so you can say something or not, but what is the commitment to getting this

plan out from USAID? What's the commitment to IATI by the U.S. Government? And how does it -- can it be strengthened through the QDDR process as we move forward?

MR. PUSTEJOVSKY: Well, I'm glad to speak to --

MR. INGRAM: Wait, wait. We're going to take three questions.

MR. PUSTEJOVSKY: We're going to take a few? Yes, sure.

MR. INGRAM: We'll take three questions and then come back.

MR. MOSETTIG: Mike Mosettig, PBS Online NewsHour. One of the words the congressman used early on was "walls." I'm just back from traveling six countries in Asia and our people overseas basically work in fortresses that look like they were designed by the Bureau of Prisons. The new ones are out in the equivalent of places like Rockville. The message we send to the citizens of these countries is don't even think of coming here.

How do we connect the aspirational quality of your report, which is to connect to people, with the reality that our people overseas are living through every day?

MR. INGRAM: And we have a third question right over here, Beth -- I mean, Madeleine.

SPEAKER: So one point. I wonder if there's an assumption that we need to address. Big data now is good data. I haven't heard, maybe it's an assumed idea, but what is the data quality issues you're looking at?

This came up years ago and it's come up every year since I've been in the aid business for 30 years. We never funded central statistical agencies. And when you look at the big data numbers on development, I'm not talking about the developed world, in the development it's always the OECD, IMF; old reports, same way of collecting it. How is it that USAID -- are they going to be willing to cut programs in some places and go back to a cost of sales routine where they need to invest in central statistical agencies? It's boring. It's not sexy. Districts will say they're doing; they won't. OECD

says they'll do it; they won't send anybody in.

If you don't have an address of data quality in this, you do run the risk of gotcha yourselves. You're going to get caught out more and more and more even though it's big. That may be worse.

MR. INGRAM: Great.

MR. PUSTEJOVSKY: A lot of AID stuff in there. I don't know if there's anything I can (inaudible).

MR. INGRAM: Oh, yes. Brandon, why don't you start and talk about IATI and about data quality? And let's be real brief so we can get another round of questions in.

MR. PUSTEJOVSKY: I was going to speak for 30 minutes on that, but sure. No, honestly --

MR. INGRAM: We can talk for two hours later.

MR. PUSTEJOVSKY: We can, thank you. And thanks for answering the question. George and I were joking before that the question the moderator asks is never the one the panelists answer, and I did not intend to skip IATI as much as I did.

But I did want to note is that we're absolutely passionate about this. You know, we recognize that the transparency is simply good for development. In the IATI cost management plan that we have put together at this point, it is a four-phased approach. We established a cross-functional working group last year to put this together to look at a step-by-step process where we could begin to add more fields that we're reporting on against the International Aid Transparency standard.

At this point, phase one has been completed, I'm glad to report, and so that's nearly doubled the number of fields that we're reporting on in IATI, from 20 to 36, I believe. Phases two through four are a little more complex. You know, being a decades-old organization, we have different types of information systems in our various missions

around the world. So embedding the IATI standard into those is the next step of the process, and there are a lot of complex IT business process-type challenges there that languishing would not be the proper word. It would be the necessary deliberation that it takes to infuse just proper consideration into redesign and tweaks to those systems.

As you look at, for example, the QDDR and the mention of the development information solution, that is what USAID is looking as a comprehensive way of unifying its data management structure, its information architecture, so that we can better report on those standards. And one thing that sits at the middle of the DIS project is greater IATI compliance. But that, again, requires connecting the dots among the more than 80 missions in which we work.

In terms of the plan right now, we have moved it forward. It's with senior agency leadership for approval. You know, there are cost and effort implications for this, but right now it's with senior level for approval. And we look forward to continuing to work on that to move it out.

MR. INGRAM: And real quickly, is data quality part of that?

MR. PUSTEJOVSKY: In terms of the IATI, data quality is part of what is infused into our policy at any rate. So we already have a data quality policy at USAID for our programming data.

MR. INGRAM: But the question is this, the quality of AID's IATI data has not been good, and is getting that quality better part of the plan of the four-phase plan?

MR. PUSTEJOVSKY: It absolutely is in the sense that what we're needing to do on the IATI standard is that, historically, when you haven't been accustomed to releasing certain fields of data, it means that staff have potentially used those fields in a certain way to start with and it requires a training element. And so that is absolutely part of the plan is retraining in the use of these specific fields to ensure that the data coming from those fields is consistent across the various systems.

So there is a training component in there. It is a culture change in terms of how we're using those specific fields to ensure that those additional fields have the data quality we need moving forward.

MR. INGRAM: Great.

MR. PERRIELLO: A couple of quick things. First, I think I just want to give a brief shout-out to the importance of human-centered design in all of this. If it's taking two or three steps to move from the information we have to how we present it, given the time constraints on people, you're going to see significantly less of it and you're going to see it presented in much less user-friendly ways than we do that. Unfortunately, human-centered design often takes, again, upfront investment to save significant time and find efficiencies over time.

The value of data and statistics is certainly something I think we're looking at in the context of the analytics. I would say not just because Alex Tiersky's here, we've looked at CRS sort of as a model in some ways of some of the analysis that we're looking at vis-à-vis various agencies, but it's an issue.

But the main thing I want to address is the question from PBS Online because it is a huge deal. The premium we've put on engagement in this report and getting back to the fact that we spend several times more for the same Foreign Service officer to be in the field than for that same Foreign Service officer to be back here. They spend three times more living in Northern Virginia than they spend in the field, but that's another story. (Laughter) And we do that, again, because we believe there's a premium on what they can do in the field and only in the field, and a huge portion of that is direct engagement.

And we mentioned a number of constraints. You know, I lived in Sierra Leone when the embassy was still down on the main circle in Freetown and it's now way up on a hill far out. There were some issues with that embassy, anyway, but I think

we've seen a trend here for really 20 years. We've looked from the attacks in the '90s through obviously some more recent tragedies, not just Benghazi, but the Kenyan mall attack and others, in terms of how we protect our personnel.

But I think you see some of the strongest language yet from the Secretary's comments at the launch, as well as from the document itself, that there is inherent risk in what we do and we cannot be asked to or try to manage to zero risk or you will get zero results. It's not a standard that can be met not only in areas of acute risk that get a lot of attention, but, as we've seen recently in South Korea and other places, it can be in very traditional and stable countries that non-state actors can be a threat to our personnel.

So as we look at this, we have to remember -- and, again, I think the QDDR speaks to this strongly -- this is a mission-oriented organization. The Foreign Service signed up understanding there was inherent risk because they wanted to serve their country. In the same way, the folks at USAID believe in the service that they are providing. That's a three-part deal. We need to do risk analysis and management. We have to make sure we understand the risks we're facing and can mitigate where we can. Wellness, we need to take care of our folks before, during, and after their serving in tough positions. And three is an adult conversation about risk tolerance.

And in the report, the Secretary has talked about personally launching a conversation with Congress. We've been having it really quite constructively, at least when the cameras are off, about these issues and how it looks when America presents itself that way and what it means for our ability to do diplomacy and development. I mentioned earlier that over half the Foreign Service, active Foreign Service, has come in since 9-11. This is perhaps the number one concern that was expressed to us in the listening process. People signed up to do a job and to serve, albeit in a civilian capacity, and they don't want to be constrained from doing those jobs and serving the American

people in that way.

So it's absolutely something that came up in our process and that we begin to address in the report.

MR. INGRAM: We have time for two more questions. There's one right there, a couple at the back, Madeleine. And we have a hard stop at 11:30 because there's a 12:00 program here, so be very concise.

DR. HOLLY: Dr. Holly. We've had a lot of discussion about ingestation of data, open data, dissemination of data. I'd like to hear your thoughts concerning protecting the authenticity of data and reliability, given that as that data becomes more open, there is the rebranding of that data, re-reporting of that data, and predictive analysis that people run on it that often chance the outcomes that were originally captured in that data.

MR. ROTHENBERG: Jon Rothenberg, Afghanistan consultant. I'm a long-term Afghanistan person and my experience with data in Afghanistan is that the data that's accepted is the data that's best marketed and that quality sometimes doesn't take a priority. I think in places like that, that that's something that happens. I want somebody to comment on that.

MR. INGRAM: Great. Glenn and Mark, you want to work on those?

MR. WHITE: I'll speak to the second one and then --

MR. PLATT: Okay.

MR. WHITE: But sometimes the prettiest data wins, right? What is that thing, liar's den, liars are statisticians, right? So it's two things.

One, it's incumbent on us to make certain that the visualizations and the presentments that we create are understandable, actionable, and compelling. The good news is that's much more doable than it ever was. By the way, back to the third D, design. Right?

To that same point, it's harder to get the data to lie when the population of data is large. Right? So what we have now, particularly as I begin to open up to the social samples and open up to some of these other sourced, be it structured or unstructured data, externally sourced data, I can get a population size that's actual (inaudible). I can get an actual population where the statistics now are much stronger and much more difficult to tweak.

However, sometimes the prettiest data wins. Right? Sometimes the prettiest answer wins, so.

MR. PLATT: Yes, on the question on the authenticity of the data, I think it's a great question. I like that question because I think it gets at why we do this to begin with. Right? In some sense, the toothpaste is really out of the tube when it comes to data, that, you know, our responsibility is to be sure that the data is accurate, that we have good data, to the earlier points, but how that data gets used, in some sense, I don't think should be our concern other than that we use it for purposes that we see are the important questions to ask. And to your point, you know, make sure that we market that effectively.

But being open should be at the core of how we approach our data strategy, right, but to have as many people -- the more people that can use this data, for whatever purpose, you know, the stronger that data will be and the more broadly accepted it will be.

You know, to Brandon's point earlier about the future is now, one of my favorite quotes along those lines -- and I'm blanking on who said it, so someone could certainly help me here -- is that, you know, the future is here, it's just not evenly distributed. Right? (Laughter) And, you know, the more we can evenly distribute that, the more people that can access that data, you know, it is what it is. Right? And so if we can preserve the quality of the data, then how it gets used, in some sense, shouldn't be

our concern as much as it is that we are using it in ways to then answer the questions that we think are the important ones to address.

MR. WHITE: One more quick piece and sensitive of the time. Sentiment analysis, right, the idea of these particularly text-based data and trying to detect people's meaning or understanding, intent, or feeling is inherently inexact, at least today. So the good news is we've actually become somewhat skilled in dealing with this eventually consistent data and making our models and our decisions that are guided by those models adaptive as we go.

So it's an imperfect world. Right? There's no such thing as hacker-proof. Well, you know what? There's not such thing as perfect data, at least in the wide, wide world. And we have to be able to respond and adapt to take advantage in any case.

MS. TRITTER: George, very briefly?

MR. INGRAM: Please.

MS. TRITTER: You know, you bring up a very interesting notion which is that data is useful for decision-making, hopefully, if you use it correctly for decision-making and responsibly. And also, it's good for accountability. And one of the things that there are a lot of conversations happening in many different fora around the Sustainable Development Goals and how to ensure accountability with those goals and also, frankly, how to decide how to attack those goals based on the data that exists. And one of the big pieces of the puzzle that some of us have spoken about today, but I think deserves just sort of a little bit more airtime is the notion of actually empowering people in developing countries and the people we're hoping to reach to use the data that's available, which I think deals with some of the authenticity issues. And use it for good decision-making and then use it to hold their own governments accountable and, frankly, also donor governments accountable for what they're doing.

So this isn't really -- the capacity-building is a really important piece. It

can't just be we throw good data out there. It also has to be we make sure that people understand how to take that data up and turn it into good decision-making and accountability.

MR. INGRAM: Tom, as I give you the final word, the reason I find the theme, the 3 Ds, throughout the QDDR so exciting is I've learned that data is power. It's particularly powerful when it's combined with good diagnostics and really powerful when there's effective design. And data can change the direction of policy. It can change the dynamics of a meeting if it's hard and if it's well presented. And that's why I think this is so important for both State and AID moving forward.

MR. PERRIELLO: It absolutely is. And just a couple closing thoughts very quickly.

One, it's not just the best marketed data. Unfortunately, sometimes it's whatever data reinforces the preexisting bias of the person who's trying to make the decision. So something we've reinforced with the team that's coming together to try to do this is, you know, supply and demand, even if we produce the best product in the world, this is existing in a nebulous space of policymaking and subjectivity, so we can't think this is going to be a silver bullet and every policy decision will be perfect after that. We're also dealing in probabilities.

However, and this is one of the things Adam Riggs always reinforces, these are verified and validated methods. This is not rolling the dice or joining a roulette table. We are talking about actual social scientific research. We're talking about data and diagnostics that are meaningful. They can be predictive. You can test and refine the predictability.

So I think for those who see this as truly some mad scientist kind of move, we need to understand these are not experimental. These are tested theories, that can help us do our jobs better and we need to understand in that context.

And I think that's why it's exciting that -- and I want to give George a particular thanks here at the end, for everybody who's engaged in this substantively, this is an easy thing to take potshots at, both before and now. It's harder to roll up your shirtsleeves and do this.

And I'll just tell you one closing data story very quickly. When I was in Sierra Leone and we were working on trying to break through the stalemate in the peace talks, and I was in the NGO sector working with mainly women leaders there, one of the most transformative things we did was figure out how to run the first public opinion poll in the country that shows that none of the three groups at the table had any popular support. And, in fact, the people of the country hated all three of them. The methodology some of my students at the university came up with because there hadn't been a Census in forever, was to figure out using the bread lines and distribution systems in the city to be able to come up with a semi-randomized study to be able to run a poll to do this. It was a very simple study, although it wasn't that simple at the time, but it was a piece of data that put in the right hands with the right graphics was transformative on a peace process, along with many other factors.

So I think that's what we're talking about, is how can we use these tools to better inform and advance the things that we care about, including peace and shared prosperity, in these goals? So I just want to thank everyone who has been constructive. The implementation is the hard work and we hope people will continue to partner with us and, frankly, push us pretty hard to make this a reality.

MR. INGRAM: Well, I apologize to those of you who had your hands up. We could have gone for a long time more.

I think it is a brave new world and that I can't imagine having this conversation in this room 5 years ago and particularly keeping 150 people mesmerized with maybe 2 people leaving during that time. So please thank the panel and thank Tom

and his staff for the QDDR. (Applause) For some reason, Tom thinks his staff was important to the QDDR. (Laughter)

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