TC Webinar Series:
Revised Core Principles for effective banking supervision
Part 2: Digitalization in Finance

Panelists:

Socorro Heysen

Superintendent, Banks, Insurance, and Pension Fund Administrators, Peru; Board Member, Toronto Centre

Francesca Hopwood Road

Head, Bank for International Settlements (BIS) Innovation Hub, London Centre

Moderator:

Jennifer Elliott

Advisor, Monetary and Capital Markets Department, International Monetary Fund (IMF); Board Member, Toronto Centre

Date:

June 27, 2024

Transcript:

Babak Abbaszadeh:

Welcome to Toronto Centre's webinar on Digitalization in Finance. This is the second webinar of a five-webinar series that we're doing on the revised Basel Core Principles (BCPs). I am Babak Abbaszadeh, CEO of Toronto Centre, and delighted to be opening this. We congratulate the Basel Committee in updating the Core Principles, reflecting priorities of mitigating financial risks, strengthening macroprudential supervision, promoting operational resilience, reinforcing corporate governance and risk management, and addressing new emerging risks, including digitalization of finance and climate risk. Today we're focusing on digitalization.

Advances in digitalization and financial technology continue to transform and disrupt the landscape of the financial system. While digitalization can benefit both banks and their customers, it can also create new vulnerabilities and amplify existing risks to banks and financial stability. This calls for stronger vigilance by supervisors. Today, our distinguished panel will discuss regulatory and supervisory implications of innovative technologies and their applications, as well as new competitors and business models.

We have assembled a very, very strong team and we know them, we've seen them at our programs, so they've been tested. Socorro Heysen, Superintendent of Banks, Insurance, and Pension Fund Administrators of Peru, is one of our speakers, and she's also a member of our board of directors here at the Toronto Centre for Global Leadership in Financial Supervision. Our friend, Francesca Hopwood Road, is the head of the BIS London Innovation Centre. And this conversation is moderated by our good friend and board member, Jennifer Elliot, who's an advisor at the Monetary and Capital Development Markets Department of the IMF. Jennifer, as I mentioned, is a member of our board and a frequent moderator. She does such a good job that she keeps getting dragged into this. Welcome to our speakers and moderator. You have seen their bios. Now, it is my pleasure to hand the platform over to you, Jennifer. Thank you.

Jennifer Elliott:

Thanks, Babak. It's always great to be at the Toronto Centre, where we have the opportunity to talk about issues really in front of supervisors and central banks, and issues that are kind of issues we're all still finding our way through. The Basel Committee's finally taken FinTech into the standards that we use to benchmark supervision around the world, but of course, it's a moving target. So we're here to talk about that moving target, and I'm going to start with a question for you, Francesca. Because the BIS has set up these innovation hubs to kind of track and think about new technology and what it means, so tell us what's happening at the London BIS Hub, what you guys are thinking about, and what your priorities are?

Francesca Hopwood Road:

Thank you so much, Jennifer, and thank you to the Toronto Centre for inviting me to join you all today. It's a real privilege to be with you and joining so many colleagues from around the world. Yes, Jennifer, in London, perhaps I can zoom out a little bit and talk about the Innovation Hub. We work across six domains, all the way from central bank digital currencies, financial market infrastructure, supervisory technology, and regulatory technology, all the way through to green finance. And in London, we have been up and running for about two-and-a-half years now, so we're kind of one of the younger siblings of the seven centers that make up the Innovation Hub, and our areas of focus are in three key areas within those six.

One of our first projects was Project Rosalind, which looked at retail central bank digital currency (CBDC). We've also been doing some work in the next-generation financial market infrastructure space. But I think what's really pertinent for today's call is the work that we've been doing on the supervisory technology and regulatory technology side of the house, if I can put it that way. And what we've been looking at is how we can develop tools, proof of concepts, prototypes that really support supervisors and regulators in emerging areas of regulation principally. So we've been looking at digital assets.

For example, in London, we have Project Pyxtrial, for which we'll be launching the report next month, so do please look out for that on our website. And that's looking at how we can develop tools to support the monitoring of stablecoins because we know that around the world, legislation and regulation to support the monitoring of stablecoins is coming into force. So we've been really thinking about how we can go on the front foot, if you like, and take a technology-first approach to supporting our supervisory colleagues with a tool that will enable them to see

the assets and liabilities behind stablecoins and help them to monitor that.

And that motif actually is something we see quite a lot across our work in the Innovation Hub more broadly around supervisory technology, whether it's our colleagues in the euro system with Project Atlas, or our colleagues in Singapore with their work in the climate space, looking at how we can support supervisors with these emerging areas that are coming into our regulatory perimeter around green finance. But that being said, we also recognize deeply that there is a significant hinterland, isn't there, of issues around regulatory reporting, anti-money laundering (AML) financial crime, which also require a lot of thought and work to really continue to boost that.

In London, we have been doing a lot of work to think about what the hub-wide strategy to SupTech is and how we can really support our colleagues in experimenting with technology on some of those knotty, thorny problems that have maybe plagued us for many years and how we can really bring technology to the fore. And so perhaps later on in the conversation, I can delve into that in a bit more detail.

> There is a significant hinterland of issues around regulatory reporting, anti-money laundering (AML) financial crime, which also require a lot of thought and work to really continue to boost that.
>
> **Francesca Hopwood Road**
>
> BIS Innovation Hub

Jennifer Elliott:

Thanks, Francesca. That's super nice that you added this idea of opportunities for supervisors from technology because fighting technology with technology seems like a positive. I don't mean to say that technology is just a risk. We all enjoy the benefits of technology, so that's fantastic. Thanks.

We're going to go to Socorro for the sober look at supervision on the front line. So, Socorro, given all your experience, many years of supervision, not just in Peru, where of course you're heading supervision there, but also internationally. So from your perspective, from the front line, how do you see banks dealing with mitigating the op risk stemming from technology?

Socorro Heysen:

Well, thanks, Jennifer. First, let me give you a little bit of context. Digitalization of finance is growing at a very fast pace in Peru with most other countries. The use of cloud computing, application programming interfaces (APIs), and apps are broad-based. Let me give you just a couple of examples of the deep changes that are taking place. For instance, we follow statistics of the development of new products or significant changes in products in Peru, and only in 2023, well, the changes or new products increased by 60%, and we received 496 risk reports on these changes on products. That's a lot for one single year for about the 60 institutions that we have in Peru: 34% of these changes were related to digital transformations.

Also, the use of models has grown significantly in Peru. There are 972 models being used in Peru right now, only credit risk, without counting the other models: 61% of these models are used by the five systemic banks we have, and 20% of the models are based on very new technologies. This is an example of the changes that we are seeing. The most common uses for models are loan approval, pricing, borrower segmentation, and things like that.

How do we deal with this? Well, first of all, we have a very robust supervisory approach, which generally aims at being regularly updated to follow the new risks that we see, the new problems that we are identifying, and of course, changes in international standards. So we update, every year, our strategic plans to fine-tune the priorities to see what needs to be done faster or slower. And we also review our regulation regularly. For instance, in 2021, we changed our information security and cyber risk regulation and also introduced digital onboarding, authentication requirements, requirements for APIs, and things like that. Also, we enhanced regulations governing service providers.

And more recently, in 2024, we have issued a new regulation requiring banks to manage the risks from the use of models. I mean, this is clearly important for us, given the broad-based expansion of these models and the intensive use for approval of credits and pricing of credits. So this is key for us. And right now we are also welcoming the approval of the BCPs by the Basel Committee, and we are reviewing our operational risk regulation, which probably will be issued in 2025, to introduce a concept of operational resilience and to enhance again the requirements for third-party providers and the management of change. So these are some of the things that we are doing. We have a team of specialized supervisors, and they followed very closely, the management of change by banks.

We have risk reports for new products or significant changes on products that banks have to do, conduct themselves, and later on, they have to give us a report on all of these changes so that we can try to see which things are changing in the system, which innovations are taking place, and examine where we feel that there are some risks that are being missed in these changes. So reports on new products are an important part of our supervisory process.

Another important part of our supervisory process is the operational losses matrix that we receive on a quarterly basis, so we can follow also what is going on in the system. So basically, these are some tools that we are using to deal with operational risk in our system.

Jennifer Elliott:

It's interesting. You're talking about the use of technology, then thinking about change management, risk management, and some of that is technology. And some of what's in your toolkit is technology. But some of it is just sort of a governance concern, right?

Socorro Heysen:

Right.

Jennifer Elliott:

How are you managing it? How does the bank have the capacity to manage it? So I'm going to throw you both an extra question you're not prepared for. And that's a question of when you think about SupTech, which really is appealing. Authorities don't have enough resources.

Technology moves fast. Data sets are huge. All of those things. So you can see that technology's got to be part of the solution. But in terms of those in the audience who are working in supervisory organizations, what do they need to think about in embedding SupTech then? I mean, thinking about what Socorro is talking about, governance issues, change management, risk management thoughts. Sorry to throw you a question that wasn't on the list. Socorro, what are you thinking about?

Socorro Heysen:

> The key constraint is resources … we do have to prioritize because we do not have the resources to do all the things we want to do. We have a long list of things that keep getting pushed down the line because all the more important things come up, so we have to make decisions.
>
> **Socorro Heysen**
> Superintendency of Banks, Insurance, and Pension Fund Administrators, Peru

Well, I mean clearly, the key constraint is resources, and really, we do have to prioritize because we do not have the resources to do all the things we want to do. We have a long list of things that keep getting pushed down the line because all the more important things come up, so we have to make decisions. And we have a strong team of specialized supervisors on operational risk, on information technology risk, also on model risk, but they are not enough to do all the things we do. We also use international cooperation and assistance from multilateral institutions and from other countries that are helping us in some aspects. That helps a lot. It's difficult. And capacity building, we do as much as we can on these issues.

Jennifer Elliott:

This leads us to Francesca then. It's very cool that the BIS is working on that on an international basis because it helps. So Francesca, what do you think about those risks of embedding SupTech?

Francesca Hopwood Road:

This is such an important question, Jennifer, and I'm so pleased you asked it because I think... I've been working in and around the field of SupTech now for the last five or six years, and I was at the U.K.'s Financial Conduct Authority where I led their SupTech and RegTech program for several years before I joined the Innovation Hub at the BIS a few years ago. And I think what we have seen with SupTech is, we have seen lots of experimentation. We have seen lots of proof of concept. We have seen lots of people get genuinely excited and rightly so about the art of the possible, the points exactly as Socorro mentioned and as you've mentioned about what it can enable.

But if I was to be honest, a couple of years ago, I was feeling a little downhearted because I was thinking, "Okay, well, this is proliferation of experimentation, but are our supervisors really reaping the benefits of this? Is this really being able to strengthen their hand in terms of automating those manual processes, in terms of helping them apply their judgment in those fields, where that is their expertise, and how do we enable that to happen?" And I was a little worried that we were kind of in a cycle, not with any criticism attached of experimentation, but we weren't really moving it out.

And part of that I think was because a lot of these tools were being developed *for* supervisors but not necessarily *with* supervisors. They weren't being developed hand in glove with the people who are going to be using them. And I think what we have seen over the last couple of years, and I am delighted about it, I can't tell you, is that we're now not having a conversation about the technology, we're having a conversation about the people. I think we've proven that the technology can do most of the things that we want it to do.

Now, it's about saying, "But our people are the ones that are going to be using the technologies. There are supervisors in the front line who need to be equipped with this. Has anyone asked them what they need to do, what they would like, and how this is going to... When they come in on a Monday morning with their cup of coffee, what is it going to look like on their workbench? How are they going to integrate this tool? Do they need this tool, or is it a tool that some brilliant people in a technology function have thought of, but not necessarily thinking about how our supervisors are going to use this?"

I think we're now starting to see much more of that co-location between our small and medium enterprises (SMEs), our supervisors, and our technologists, and I am delighted about that. But I think then what you get to is the next challenge, which is how do you get that stickiness of adoption? Socorro talked so astutely about the kind of constraints and the challenges we face. So how are you really smart about making sure that the tools that you invest in then stick with your frontline supervisors, so they can use them and they can shorten that path around the manual effort that is often a big part of the roles?

I think there is now a really important conversation about the people and culture change required to engage that. What kind of skills adoption do we need? You can tell I'm passionate about this. I'm sorry. I'm getting all excited. These are the kinds of skills that you need for your supervisors to really think about, how do they harness and use these every day. What kind of supportive skills do they need around them, around the communications and the business change, and all of those pieces? So that this investment that often organizations are having to really judiciously make, where are they going to spend resource that is tight, are in the right places and in the best places.

And I think I'm really heartened to see that we are now moving out of a cycle of experimentation into production, and that more and more we are having a global conversation about, and it's hard, but how do we really get that stickiness of take-up and adoption of the tools that we're developing?

Jennifer Elliott:

That's fantastic.

Francesca Hopwood Road:

I'll stop there. I could go on, as you can see.

Jennifer Elliott:

This is a place for people who are excited about supervision, so it's good. Let's move to thinking about how the industry might be changing as a result of technology. Socorro, how do you see competition in technology enabling new entrants, or is it what I have observed in some countries, which is once the technology looks good, the big guys buy it up, and you don't have that competition? What are you seeing? In Peru, what have you seen and maybe in the neighborhood?

Socorro Heysen:

Yeah. There's a lot of that, of buying up or partnering with startups. In Peru, we have three main areas I think in which new entrants compete with banks. Payments, currency exchange, and credit, those are the main drivers.

In 2019, we had 500,000 transactions a month taking place in the country through digital wallets. In March 2024, we have 475 million only in one month. So it's really a revolutionary change, the one that is taking place.

Socorro Heysen

Superintendency of Banks, Insurance, and Pension Fund Administrators, Peru

On payments, there are many applications both operated by banks and by startups, but the ones operated by banks got the biggest chunk of the market, much more traffic.

In early 2023, the Central Bank of Peru, which is a regulator of the payment system, approved a regulation requiring all these apps to have interoperability, so that they could talk to each other because, at the beginning, they were talking among themselves basically, or in very few clusters, separated. So once this interoperability regulation has come into place in a gradual process, what we have seen is an explosion of payment transit.

For instance, in 2019, we had 500,000 transactions a month taking place in the country through digital wallets. In March 2024, we have 475 million only in one month. So it's really a revolutionary change, the one that is taking place. It is most impressive right now in urban areas along the coast, but little by little, it's starting to percolate to rural areas, so I think we're only seeing the tip of the iceberg in this process.

The second aspect is currency exchange. In currency exchange, the apps have been very successful in attracting, especially young people, because they have lower margins and they're very fast to do the currency exchange, dollars versus soles. So in this aspect, the banks were a little slow, but now they have already caught up. They are giving lower prices in their apps. They have introduced currency exchange in their apps, and they are giving better rates in their digital apps than in the branches, so they are fostering customers to go to the apps. So this is evolving to also the banks squishing the market again.

And then on loans, we have a lot of loan applications, but we have not identified companies that can really make a dent in what the banks are doing. And there are some mixed reviews in these loan applications. Some are well established like PESCAPRIME who has a lot of customers. It's been operating for several years. They have about $200 million of credit. It's still small relative to the size of the market, but it is working. But there are others that come and go very fast. Though they start and they come and go, and among those that have come and gone, more recently we have a lot of fraudulent applications that offer these cheap loans. And really what they're doing is blackmailing. There are certain people charging huge interest rates. They are really criminal organizations that are... And we do have a challenge with those. Everybody has a challenge with those because it's given a bad reputation to loan application because people do not know whether a loan, a FinTech that grants loans, is legitimate or it's fraudulent.

We are giving, every month, lists of these applications to consumers. The ones that are fraudulent, to try to alert consumers of the ones that we have identified that are fraudulent. But it's always a catch-up. And then there you have some of these companies advertising on YouTube, in Facebook, in different applications, and you can download it in the Google Play Store, or Samsung app store, or Apple app store. And then, we talk to the big service providers. After a while, they take the application down after we tell them that it's fraudulent, but it takes a while, and immediately they change the name of the app, and they have another one. So it is a huge challenge.

Let me go back to the question. What you have is the large banks being ahead of the curve in general. And some of the smaller banks, especially microfinance institutions, feeling some squeeze of their competition, especially because these new technologies require a lot of capital, a lot of muscle to be able to grow, to innovate at the pace that these people are doing it. And so, the ones who cannot innovate at that fast pace are fueling the competition. But the rest of the bigger size of the market, the big ones are really in good shape so far. That's what we are looking at.

Jennifer Elliott:

It's very interesting because you started with a policy that changed things, which is interoperability, right?

Socorro Heysen:

Mm-hmm. Yeah.

Jennifer Elliott:

That really, it's not just industry-driven, it's also what policymakers can do, which is interesting. But then of course, the industry. And yeah, I think we do have to recognize that the downside is the fraud, which is everywhere, right?

Socorro Heysen:

Yep.

Jennifer Elliott:

Fraud, and then even the most financially literate can get caught up in that sort of stuff. All right. So, Francesca, you already told us quite a bit about what your priorities are and what you're working on, and I was really fascinated by the stablecoin monitoring because that is a little bit on the cutting edge for regulators and also in financial innovation. So can you tell us a little bit more about how you're thinking about where you see gaps and how you're thinking about addressing those gaps in the sort of ecosystem of the financial sector?

Francesca Hopwood Road:

Absolutely. So one of the things that I think is very important in the SupTech space is thinking about the – so the role and remit that we have as the BIS Innovation Hub is to experiment with technology in order to create public goods for you as supervisors and central banks to consume. So you are our customers. And so, what is terribly important in the supervisory technologies part of our remit, for us, is to think about how do we really understand and marry up your needs so that we are creating public goods that meet your needs with the technology. And so we've been doing a lot of work over the last few years to think about how we can best effect that in the supervisory technology space.

And later this year, what we're going to be hosting in October in Switzerland is a tech sprint. And I noticed there was a question that popped up from a colleague, a participant, about what are some of the tools and techniques we can use to support, and tech sprints are one very, very good and effective tool that we can use.

What is a tech sprint? A tech sprint is essentially bringing together mixed teams of different disciplines. So you might have technologists, you might have data people, you might have subject matter experts, in this case, supervisors, and you bring them together around really tough problems. And you bring them together, I won't say you lock them in a room, but not far off, for a couple of days, and you get them to think hard, probably with cold towels on their heads, about the challenges you face to create, at the end, a proof of concept or prototype.

These often work really well with industry. But what we're doing in October is, we're bringing together for the first time, I think I can say that, a tech sprint for supervisors. So we're inviting the supervisory community from across the world to come together in Switzerland. We have done a lot of work over the past three or four months to really understand where are the common pain points but also common opportunities that people want to come together around. Because again, back to Socorro's point in a world that is quite constrained around resources, if we are going to create proof of concepts for colleagues on this call to hopefully use and consume and get value from, we want to make sure that it's meeting your needs. We don't want to create something that we think is a great idea, but actually, you guys tell us, "It's not meeting our needs."

We've been doing a lot of work with over 25 different jurisdictions over the last three or four months to really get into the detail of what are the common pain points. And then we're going to be bringing teams together in person in Switzerland later this year over two days to go after these, and at the end of them, hopefully, create a suite of proof of concepts that we can then pick up and further develop knowing that they are already aligned to the things that our colleagues in the supervisory community care about.

And I think that's hugely important because of the resource constraints that Socorro has already talked about, but also because of this challenge, again, which Socorro has talked about, it was as if we had rehearsed this, that how do we balance as a community being at the leading edge, understanding how FinTech is evolving, how emerging technologies are evolving and changing what we do and how we might need to respond, but also balance that with also, if I can put it this way, the day-to-day, business-as-usual work that is ever the case for our supervisors around regulatory reporting, AML/CFT, risk identification, all of those things. How do we make sure that our experimentation covers both of those poles and that we are bringing the best of technology to really focus our efforts in those key areas?

> How do we balance … understanding how FinTech is evolving, how emerging technologies are evolving and changing what we do and how we might need to respond, but also balance that with … the day-to-day business as usual work that is ever the case for our supervisors around regulatory reporting, AML/CFT, risk identification, all of those things.
>
> **Francesca Hopwood Road**
>
> BIS Innovation Hub

And so that's a really key area, a priority area for us, Jennifer, in the next six months. And my team is hard at work doing that. And so, if colleagues on this call are interested in finding out more, please do get in touch. We would be delighted to have you involved. And then, of course, we are continuing with our wider supervisory technology remit, continuing to think about where are these emerging areas that are coming into the regulatory perimeter that would benefit from a tech-first approach. And obviously digital asset supervision and green finance supervision are key areas around this. But also thinking about, as I said, some of those knottier legacy challenges that could benefit from I would say maturing technology.

When I first started in the SupTech field, often the challenge we had when experimenting with technology and things around reg reporting for example was the technology wasn't quite mature enough to really be deployed at scale. I think we have seen such an acceleration over the last few years that I think some of the things that were really quite tricky for us to tackle have now come back onto the table if you like. And I would put some challenges around the reg reporting space squarely, squarely in that space.

Jennifer Elliott:

Everybody on this webinar now wants to be invited to something called a tech sprint, right? I mean…

Francesca Hopwood Road:

Why would you not? I've just told you; you're going to get locked in a room for two days and think big thoughts under a cold towel. I mean…

Jennifer Elliott:

No, I mean…

Francesca Hopwood Road:

I don't think I could have sold it any harder.

Jennifer Elliott:

What I find inspiring about this is we're taking technology out of the, sort of, clouds and bringing it down to our everyday life and every single one of us can think of things that we would like to improve. Sometimes we don't know if the technology could do that, but we know that something needs to be done. So that's fabulous. Yeah.

We're taking technology out of the, sort of, clouds and bringing it down to our everyday life and every single one of us can think of things that we would like to improve. Sometimes we don't know if the technology could do that, but we know that something needs to be done.

Jennifer Elliott
International Monetary Fund

All right, so let's go into ... there are already some questions in the chat with you which you have answered, Francesca, so that's great with that answer. But we'll come back to the questions. One more round from me though. So, Socorro, thinking about going ahead, and this question is also in the chat. What would you like to see in terms of international collaboration on technology and these issues of the challenges that you've laid out, which I think are very typical for supervisors? Some of the things Francesca mentioned, how would you like to see it on an international level? That collaboration?

Socorro Heysen:

I think that what the BIS Innovation Hub is doing is great. I think it is going to help a lot. In general, we need a lot of help with capacity building in all supervisory agencies across the emerging world and all the developed world too, but probably the press of scarcity of resources is more important in the emerging world. We do need to exchange information about new risks that are emerging, about the SupTech technology that works. I mean what have some countries done that is helping them deal with the new risks that is helping their financial institutions to deal with the new risks? So an information exchange on what works or what has already been proven in some countries would be great.

And also, of course, there needs to be some exchange of information regarding cybersecurity among countries to try to keep pace with the innovation of the criminal side, or the dark side. Because the dark side innovates all the time and is creating threats all over the world. And some things that happen in one place in the world are replicated later on in another place. The criminals learn from each other, so we have to learn faster from each other.

And then the other thing where collaboration is important is some sort of conversation or standards for big techs. We need to deal with the systemic nature and concentration of these big techs in providing services to our financial system and to the lack of jurisdiction that most countries have regarding big techs. And so how are we together going to work on this? And this is going to be a very challenging issue, especially if the world keeps on getting fragmented. So we have to deal with that. It is going to be a big test of our will, our capacity to collaborate on something that is critical to all of us. So those are the main things, I think.

Jennifer Elliott:

Francesca, just the last word on ... I’m taking you back to the clouds now. So the last word on what you think in terms of technology, what’s going to have the most impact on supervisors and central banks?

Francesca Hopwood Road:

I mean, I think the words on everybody’s lips at the moment are around generative AI and large language models. I think you can’t really avoid that at the moment, either in our personal lives or our professional lives. And I think there’s a real spectrum, again, exactly to Socorro’s point, if I can just build on that in this space, I think there’s a real spectrum for some, and there are few. There are not many. There are a few authorities who are actively experimenting with generative AI and the role it can play.

But actually, I think there is a much larger group of authorities who would benefit and be supported and are interested in going, “Okay, let me help me understand this. What is this? What does it mean? How can I start to hold it up to the light, if you like, and explore it and understand it, understand the risks, understand the opportunities, how is it being used by maybe the firms that I supervise? How might we consider using it?”

I think there is a whole host of knowledge transfer and exploration and safe spaces for these kinds of conversations with colleagues who might have the same questions, might have a different set of questions, but I think that the potential for that is extraordinary. I was at a panel discussion a couple of months ago, and I sat next to someone from the industry who was kind of waxing lyrical about how wonderful generative AI was and how it accelerated their path to production for their tools from six months to six weeks. And I kind of sat next to him aghast because I thought, “Actually a lot of us are having conversations about how do we get to grips with what this thing is?” And so, I think there is quite a potential delta there between the industry and confidence and comfort levels to really understand what the implications are. That being said, I think it has quite a lot of potential and it is very well worth exploring.

But the other thing I would say is, I think one of the challenges we face in the space of technology, because it is moving so quickly, is how you kind of keep a spread, an eye on the things that are new and worth exploring and worth engaging with, but also actually that sort of long tail of activity, which is your bread and butter and is the things that you do every day and whether that’s around what kind of data strategy do you need, what kind of SupTech strategy you need, and I’ve seen some of the questions coming through around that. I think the potential of emerging technologies is fabulous. We’ve talked about AI, and I also think there is a lot that we shouldn't lose sight of around existing technology that could be further and explored and examined for its utility for us as a community as well.

Jennifer Elliott:

Okay, thanks. So I'm going to bring you back to AI right away because there's a question in the chat. Maybe we'll get Socorro to opine first, and then you, which is, "Can supervisors use AI?" So I think Francesca addressed them, it's a bit worrisome when you hear some of the hyperbole in the industry about what can be done and what they're thinking about, and we have to catch up. But in terms of, from the supervision side, are we going to be able to use AI? I mean one thing I think about are these. For example, in market regulation, you would think about those vast trading data sets, and surely AI is going to be helpful for that, but I can barely use ChatGPT, so I'm not the person to opine on that. It just seems intuitive, but I don't know. Socorro, what do you think AI has potential?

> The use of technology to help us relate a report with another one, or to see if this report helps build up a case for something else, and to understand what are the key drivers, and to prioritize which reports need analyzing and which don't, that is a use that is already being made in Peru.
>
> **Socorro Heysen**
>
> Superintendency of Banks, Insurance, and Pension Fund Administrators, Peru

Socorro Heysen:

Well, I personally can't use it either. But my supervisory teams are really experimenting and using it for some purposes. There is machine learning and things like that that are helping us. At least I have two examples that we are using. One for anti-money laundering in helping us ... we receive a lot of reports of suspicious transactions. And those are basically unstructured data, and so the use of technology to help us relate a report with another one, or to see if this report helps build up a case for something else, and to understand what are the key drivers, and to prioritize which reports need analyzing and which don't, that is a use that is already being made in Peru, and it's working. It's starting to work because it's in the early stage.

And the second use that we have so far has to do with examining consumer complaints in social media. Basically, a year ago, we had a service that would flag some of the important phrases that were related to financial institutions and the issues. But the service has limitations, so now we were working with technical assistance, and we're building something that uses machine learning to basically analyze much more volume of information much faster to be able to identify what are the aspects that consumers are complaining about. So that has been worked into our supervisory processes to see if there is a need to pay more attention to an aspect of supervision or to make a change in regulation or things like that, or needs to give alerts to the financial institutions about that. So those are two examples that we are using.

I think this is just also, again, the tip of the iceberg. We would like to use it for examining several of the reports that we receive from financial institutions that are not the statistical reports, but the other type of reports that we receive that take a ... for instance, external audit reports or internal audit reports. Those are very resource-consuming to be examined. If you can, without examining each individual report, get a way to prioritize which one is more important than the others, you'll save resources. So there are many ways.

Jennifer Elliott:

This is fantastic.

Socorro Heysen:

It has a lot of potential.

Jennifer Elliott:

And the resource-saving is really important. I mean I know, working in different countries for the IMF, we see a lot of data quality issues, which would be one thing underlying your ability to do that. But it might also reveal them and help you figure that out. So it's just something that occurred to me about the ... and I think I've stolen one of Francesca's lines by the look of it. So Francesca, SupTech and AI.

Francesca Hopwood Road:

I mean to echo Socorro's point, I think, from our vantage point, we have seen authorities that have used AI, whether that's unsupervised or supervised machine learning in various guises, for several years now across a range of different use cases. It is definitely being used and used in a variety of ways. And I think if I can conceptualize a couple of key ways, obviously, it's about reducing manual effort. So the review of large packs of unstructured information that you have to read through how things like natural language processing can really help you pick up the key themes, sentiment analysis on social media posts, for example.

Another thing is around identifying patterns. So, Socorro, you talked about closing down an app only for it to pop up in another guise somewhere else the next day around fraudulent activity, how you can use pattern recognition to understand the connections of the people who are running those kinds of things, and be able to track and monitor those much more in an automated fashion rather than relying on your staff to be kind of trawling through and working out where those patterns exist.

And then into the predictive space, how can you use data to understand and identify connections and where issues might be arising? And I think we have seen various techniques and tools over the last five or so years that really, really speak to that. As I touched on, I think this emerging generation of AI, around generative AI, we are seeing a few agencies who are actively engaged, but we're also seeing a lot that are curious, if I can put it like this, wanting to press their nose up or against the glass and understand it in more detail. Understand how their firms might be using it, but also how they might use it as well. So I think there is a huge amount.

But as you said, rightly so, Jennifer, there is a huge amount, and I think it touches maybe on another question in the chat around what enables a SupTech strategy. Data. I mean, Socorro has talked about it, unstructured data, structured data, you need to think about your SupTech strategy along with your data strategy. The two need to go hand in hand when thinking about it. And again, thinking about, kind of, therefore the multidisciplinary effect, your data gurus, your technologists, your SMEs, all need to come together in thinking about how can we best enable the use and adoption, and experimentation, with technology.

Socorro Heysen:

Exactly.

Jennifer Elliott:

Thanks. That leads us to, I thought, a really good question, which is ... so we've talked a bit about international collaboration. I really want to hang on to the points about sharing practice and what's worked and what hasn't worked because I think that's key, and Socorro, both of you made that point. But Socorro, internally, how do you get people to talk to each other? All of us work in institutions. We know that the IT guys speak a different speak. So internally, Francesca talked about it a bit in a tech sprint in terms of industry and within the regulator as well. But in a practical sense, inside a supervisor, how do you get people to talk to each other?

Socorro Heysen:

I don't know. We do have some internal committees that are multidisciplinary. For instance, we have a data digital governance committee that deals with that, and it includes people from the law department and from the technical information department and from the research department, and supervisory. And they're all sitting together discussing data issues, and they help us prioritize our plans for the next year. And we do have very limited, well, limited IT resources internally, and so we have to say, "Okay, we have this much resources, what are we going to use these resources for?" And then you have all the areas competing against each other to present their plans and say, "My plan is better than yours." Different sectors, different ... but they do talk to each other. That doesn't mean that they always agree, but there is information exchange and dialogue in our institution. I don't know if that is unusual or not.

Jennifer Elliott:

I think it speaks to, though, internal culture and how important it is as well. All right. So related to that, Francesca, banks talking to supervisors is always a fraught topic, so if someone has a question, how do you get the industry talking to supervisors on the same wavelength? It sounds to me like you do a bit of that at the Innovation Hub.

Francesca Hopwood Road:

Yeah. If I could just add a couple of points actually on the previous question because I think it's such an important one. And it sounds like, Socorro, you've got it sussed about how to do this. But if I could add a couple of points. I think tone from the top is really important. The kind of tone, of an expectation, of we as a leadership group think that collaboration, coming together, utilizing data is really important, and maybe setting that expectation, I think, as I have observed, is very, very powerful in enabling that. But also, then thinking about how can you create communities of practice across your organization of people who are maybe enthusiastic first

adopters.

Socorro Heysen:

Yeah, absolutely.

Francesca Hopwood Road:

Who really want to kind of ... they see it. We all know these people. They see an opportunity. They've seen something. They want to understand it more. They think there is something that they can contribute. And I think it's around how that community is fostered and nurtured to bring that insight in. Because they will often be your super-connectors as well, within organizations. They will know the people who are experiencing similar challenges. And I think the importance of the formal roots and the governance roots, as Socorro talked about, is absolutely fundamental.

> In order to really understand what technology could do for us as an organization we needed to understand how it was being used by the regulatory technology community and to get that inspiration in.
>
> **Francesca Hopwood Road**
>
> BIS Innovation Hub

And alongside that, I think that tone from the top, but also how you foster communities. Sorry. You asked me a question, Jennifer…

Jennifer Elliott:

No, please.

Francesca Hopwood Road:

... around engaging. So let me caveat my response by saying, I am not a supervisor. I came from the U.K.'s conduct regulator. I now am at the BIS. But what I do have a lot of experience of, successful or otherwise, is how do you create the spaces for conversation with industry. And that can be culturally and behaviourally really challenging because the starting point is often very different, and the expectations might be very different.

But I think it's really important. I saw this in my previous role. In order to really understand what technology could do for us as an organization, we needed to understand how it was being used by the regulatory technology community and to get that inspiration in. And so, how do you create the spaces for tech fairs? Some things we call TechKnows where you would invite firms in to showcase their technology and ask questions and probe at it and learn from it. And so I think it's around creating the spaces with the right frameworks, the right guardrails in place, to do that in a way that engenders confidence and security because obviously you are making a step change in that.

Within the BIS Innovation Hub, in terms of the delivery of our work, we partner with the private sector a lot in the delivery of our projects. And the London Centre of the BIS Innovation Hub is no different. And we do that for a couple of reasons. Being really clear-eyed that often the private sector has a line of sight into a use of technology and types of technology that we simply don’t have. It’s around capacity. It’s around capability. And so thinking about how we create

those partnerships, again safely and securely, and with the right parameters and guardrails in place, we give a lot of thought to. We are very intentional about it.

And the year before last, we ran a tech sprint on our Project Rosalind in London, which was a retail CBDC project. We opened up what we had built, which was a set of APIs, and we invited the private sector to come in and build on the APIs that we had created. My team did an enormous amount of work before we even pressed the go-live button on the expressions of interest to make sure that we had our legal colleagues supporting us, our procurement colleagues supporting us, our comms colleagues supporting us.

And again, I think it goes back to that kind of multidisciplinary group who are your core enablers to help you safely engage with the private sector, maybe in a way you haven’t done before. But I’d also say that one of the things we shouldn’t lose sight of is the relationships with academia. Who in your university sectors are doing really exciting things, who might be experimenting with something for the first time? And it might then make the leap and the transfer over into the private sector, but kind of understanding who is doing interesting things and where, within your communities, and thinking about your communities in a really broad sense, the regulated sector, the academic sector, who’s on the edge of the regulatory perimeter, is what I would suggest is another helpful way to look at it.

Jennifer Elliott:

Okay, thanks. I’m going to come back to you with this provocative question about whether you have a benchmarking tool, but just to ... well, maybe I’ll ask you now. So we often get asked this at the IMF, “How do you benchmark good regulation?” And of course, we use the core principles from the Basel Committee to benchmark on a broad, high level, how is supervision being carried out? But the question for you in the chat is, “Are you developing a tool that will help regulators bench themselves against others in terms of how they’re handling all of this?” Digital maturity, I believe, is the phrase you used.

Francesca Hopwood Road:

No, because that’s not in our remit is the short answer. And I’m sorry to disappoint the participant who asked the question…

Jennifer Elliott:

It’s a great question.

Francesca Hopwood Road:

... who was hoping maybe I could point them to a neat little link. That’s not within our remit in the BIS Innovation Hub. So we haven’t been doing that. But there are others, the IMF included, the World Bank who do a huge amount of work to understand the capacity and the capability of institutions on this journey and actually what are the building blocks to go on this journey of digital transformation within your organization. And there are also communities and network building. So we in the Innovation Hub host an innovation network of practitioners across the central banking community who have an interest in innovation across the different domains that we work in. So there are communities to tap into and I would encourage... Socorro, you talked so much about the importance of knowledge sharing and capacity building and how do you maybe not reinvent the wheel and learn from your peers and build on your peers, and then feed that information back into the community. So I would encourage participants to seek out those sources of information. And obviously, the Toronto Centre is a wonderful example in that space as well.

Jennifer Elliott:

Yeah, thank you. I mean, every time you talk to Socorro, you learn how complicated it is, which means benchmarking it. Good luck. And then you learn practically, how much is still being done. So yeah, you just have to talk to Socorro for a while, and you realize how hard that would be. So, Socorro, I'm going to give you the last word. I will speak to the training thing in a minute. But you have a couple questions in here about handling disruptors and handling third-party service providers and how you manage that. And you talked a little bit about your new entrants. But any particular tips on how you prioritize, how you focus, what you think about?

Socorro Heysen:

Sure. I really don't understand the question.

Jennifer Elliott:

There was a question on how do you approach third-party service providers because I guess one of the things in technology is that there's a lot of outsourcing and a lot of third-party service providers, so that was one. I think you already spoke of the other part. Yeah, I think the other question's already been answered, so go ahead.

Socorro Heysen:

Yeah. Well, in general, our regulation makes the financial institutions responsible regarding their relations with the third-party providers. So they do have to be responsible for what they subcontract, what services they're being provided, they're responsible. If they buy models from them, they're responsible for understanding the parameters, understanding the risks that all these third-party providers bring to the table. So the regulation puts a lot of the weight on the financial institutions.

But then sometimes when you deal with these cases of service providers that are related to unregulated companies like these fraudulent companies, we do not regulate the company, so there's nothing to approach there. You have to approach this third-party provider directly and then we basically try to meet the local provider. And we have had some success meeting and discussing things with international credit card companies like Visa, MasterCard. Some success dealing with Google. We approach them directly. But in general, most of the weight falls on the financial institutions in ensuring that the risks that they ... they are the ones taking the risks, so they have to understand the risks and control them.

Jennifer Elliott:

You took us right back to risk management, culture, governance, all the things that matter to make technology successful. It's fantastic. All right. So we are at 10:01 and we're going to wrap up. Thank you so much. This was so interesting. I have more questions. We could talk another couple of hours, and we will because you'll both be back. I'm sure. There are still questions in the chat. Everybody wants to know what's happening. What I took away is the real need for collaboration and practice sharing, the real need for knowledge transfer, and the fantastic, hard job that supervisors are doing with limited resources, Socorro. And thanks to the BIS for taking a bit of the load to experiment on behalf of everyone, which is, I think, incredibly valuable. All right. Thanks very much and everybody have a great day.