THE INNOVATION GAME

OUR TECHNOLOGY EXPERTS ENGAGE IN LIVELY DEBATE ON COLLABORATION, DISRUPTION, INNOVATION AND THOSE TRICKY MILLENNIALS. CHAIRED BY NICHOLAS PRATT.

PANEL

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***Funds Europe* – Are asset managers and asset servicers spending enough on new technology?**

Steve Young, Citisoft – Absolutely not. Most people's focus is on either regulation or relatively short-term cost savings, and most of the investment and spend is focused on those two areas. It's very short-term, and sadly it's been that way for probably the last decade. There is a real lack of innovation. People are focused on saving money and improving current processes and

there's no attention at all on building a new business model underlined by strong technology.

I understand the reasons for that, it's very hard with the level of regulation that's come through the industry over the last five years or more, but I do think it's a massive oversight. The level of legacy technology in every firm is still a huge issue that's not being addressed.

Senior management also has to take some responsibility for this. They tend to get involved early but when projects go wrong, you don't see the same level of profile in correcting them. Firms are very bad at making mistakes. Any big project is going to have problems and mistakes will be made but you should learn from them, recalibrate and move forward.

Paul Roberts, Milestone Group – Organisations find it difficult to invest at the right level because the return on investment (RoI) requirements are often measured in one or two years, not five to ten years. That then leads to short-term tech investment. For any transformational project, the RoI will come over a longer period of time than one or two years.

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Also, organisations don't manage the arbitrage between tech investment and people investment very well. When you invest in a technology project, you expect a more efficient model with less people involved in the process. But firms take the majority of that people saving rather than investing some of it in new technology to support the process.

Jon Willis, Calastone – I don't think you're getting people taking return on investment over one or two years, in the last few years, it has been within the current financial period of the organisation, and that's really hard to achieve. Asset managers have been spending more on technology but it's been around data and further analysis around the investment structure.

It has been the opposite in the back office. The downward pressure on pricing means that there is no money for long-term strategic technology investment. It has been on short-term tactical fixes. We have been sticking plasters on legacy technology for the last 15 to 20 years – making it look prettier and run faster but not fundamentally changing it.

In the last few years, we have seen firms spend a fortune deploying new technology but they are asking it to do exactly what the old technology does today. They are not even trying to change, they are almost upgrading for the sake of it. You need senior-level leadership to support the investment and to support structural change within an organisation and do something different than what you're doing today.

Trevor Hunt, MUFG Investor Services – People have rightly said that a lot of the technology spend has gone on regulation because of the profile of MiFID II and other regulations, but they might not have appreciated the integration there has been in the industry. All of those firms involved in big mergers are going to be inwardly focused for the next couple of years and not looking at anything transformational.

As the sector becomes more 'real-time', it can drive technology investment. Many asset managers are still doing their overnight batches of holdings and then rebalancing the portfolios in the morning. Thirty years ago, I was developing FX dealing systems that were giving real-time P&L and it's only a matter of time before portfolio managers want that and get that. A portfolio manager should be going home knowing the exact situation on their portfolio. We are nowhere near that yet, though, and as an asset servicer, we are still receiving faxes for subscriptions and redemptions.

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Janusz Lorenc, Metrosoft – Asset servicers' investments are driven by their clients and their existing processes. There are asset managers out there just looking to protect their territory and using new technology to do the same old processes, which makes no sense. But there are also asset managers that are looking long-term and willing to think differently – how they will be operating in ten years' time and merging their front and back-office activity. Technology is involved but it should open the minds of the decision-makers that can allow change.

Richard Street, RBC ITS – You have to ask what the strategy is of an asset manager before any determination can be made in technology spend. If they have an aggressive growth target, they are more likely to recognise the need for investment. But implementation is key to delivery. The problem is not the ambition, but the same people are being leaned on to enhance the existing technology while attempting to drive longer-term projects.

To really make a difference, you need to split these functions, one area running the firm day to day and another preparing for the future. Asset servicers fall into this category too and it's likely there will be expectations for us, the asset servicers, to develop, in partnership with fintech, the applications asset managers will need.

***Funds Europe* – Does the fund management industry have a cultural problem with innovation?**

Young – Fund management is a very conservative industry for very understandable reasons. It isn't there to be high risk, it's there to protect people's investments and provide for pensions and other critically important functions. The challenge is changing that culture when you look at IT. Every time we deal with a big IT project, the focus from the buy-side is on the worst thing that could happen and there's little focus on the best outcome. There are huge testing programmes but little focus on new features and how they could benefit the firm. It's a mindset that's been around for a long time. There are some green shoots of change but it is very early.

Willis – Calastone has just republished survey work looking at how many pure technologists sit on FTSE 100 and FTSE 250 boards, and the good news is it has gone up slightly this year. The bad news is it's gone up slightly from a base of almost zero to slightly more than that. The challenge when you're talking about material change rather than small, incremental change is that it will always need board-level approval.

Young – There is also a lack of skills. Most of the skills are there to upgrade processes or to keep the show on the road. We are not very good at bringing in new people. The demographics and diversity of firms are almost all the same and the failure to attract, build and retain the skills needed to innovate is a massive problem that I don't think everyone fully appreciates. I think it will start to hurt really badly in the next three to five years. The industry is also bad at dealing with failure. To innovate, you have to fail, and that's a huge accepting point that people have got to get their heads around.

Street – It is hard to say, "I'm going to innovate," and then five years down the line, admit that you've failed and the project is cast into the wilderness. If it is successful, then it's a different story altogether.

Willis – In this industry, you need three people to have a party – you need a distributor, an asset manager and a technology provider or asset servicer. It does not matter how quick you are, you can only move as fast as the slowest person in that chain. If you have to fit your agile development into a waterfall delivery somewhere else, you are tied to that. We don't do change well in this industry. There are industry participants with large change management groups that are not there to instigate and drive change but to make sure that any change happens in a slow, controlled and risk-free way.

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***Funds Europe* – Is there an innovation divide between back and front office?**

Hunt – There has been a constant pendulum in the asset management industry as to whether to insource or outsource the back office. The majority of the top 20 global asset managers manage their back office in-house, because there are so many distribution and settlement requirements. As a consequence, asset managers don't invest in their back office – it is seen as something that has to deliver a service rather than something that can add value, which is a shame, because if you get the data aspect right and introduce some innovation, it could make a real difference.

For example, we have been using robotics to automate some basic processes. There is no fundamental change to our business model but it is a shift of operational risk. Instead of people that know what they are doing operating manually, you have given that process to a robot that does not know what it is doing. So, if it breaks, who fixes it? Who knows what it should be doing? That is the danger with robotics. There is a lot of hype and there are some genuine use cases for it, but it is not fundamentally changing the way we do things.

Willis – Isn't robotics another Elastoplast to patch a problem with the underlying system?

Street – Isn't that a good thing, though? If it allows you to patch something up for a short period of time that improves the process, reduces risk and/or enhances the client experience? Ten years ago, if there was a problem in the core accounting system, you would revert to a spreadsheet until the problem was fixed. Unfortunately, there are too many scenarios where ten years later, that same spreadsheet is still being used. There is a natural inertia in our business.

The challenge with transformation projects is not the underlying systems but the surrounding applications that have been added and require manual intervention. These have created inefficiencies and risks to the business. Robotics will therefore have an impact in our world but it needs to be deployed efficiently and responsibly.

Young – It is indicative of the industry that you have something that's actually powerful and transformational and we use it to fix our ageing problems. It's not the technology that's the problem, it's the way that people use it to extend the life of a legacy system and to maintain the status quo.

Willis – We saw a similar thing 15 years ago when we had a problem with paper. But instead of getting rid of paper, we just sent it to a lower-cost processing centre. We have to make sure we do not do the same thing with robotics. We are using robotics to make a process more automated instead of scrapping that process. If we use it to create time for somebody to really fix a problem, then that is great. But history tells us that we will use the robotics, bank the cost saving and then move on to something else without ever going back to really fix the issue.

Roberts – There are lots of external organisations helping firms solve challenges with robotics, but that it is moving a lot of operating knowledge out of the industry and into the consulting groups and service providers that support the industry.

Young – If you look at the back office of many firms, they provide very little difference and large parts should be utilities. The investment therefore should be on collaboration and changing to consistent and common processes. One of the reasons that there are so many challenges with outsourcing is because no asset manager has a standard back-office model. It is a very defensive approach because there is a paranoia about making your business too easy to export to a third party, so there are all these nuances. The focus in the back office should be on efficiency and collaboration, whereas competition and differentiation are in the front office, but this is not happening. For example, blockchain has the power to completely transform the back office, but it works best in a collaborative environment.

Hunt – Asset managers are dreadful at collaborating. Everyone has been waiting for a pricing master data utility but any time one appears, there is no growth in clients and then it disappears. There is also a real dichotomy because instead of competing, the front offices are actually collaborating without knowing it. The biggest utility in the industry is Aladdin. There's almost $20 trillion of assets sitting on that platform and nobody's going, "Oh there's somebody who's systemically important to the industry." But in the back office, we're somehow all still doing our own thing. It's incredible!

Street – Back-office utilities like that have become over time natural monopolies as each has made slight variations on their applications. There is innovation going on selectively, but what the industry needs is those natural utility activities to evolve in a way that can be almost a simple plug-and-play and allow the asset managers to concentrate on their own core competencies.

Young – But everyone's frightened of a utility. Big custodian banks are paranoid about losing their market share. The collaboration has to start there in a large way.

Roberts – The concept of collaboration is possibly the most disruptive thing that could happen to our industry. There are certain functions where, when a utility can come to bear, absolutely all of those organisations should be sharing it and concentrating on the other things that are important to them as businesses.

The back office needs robotics and AI as much as the front office and I don't think there need be a divide in budgets if they're thought about in the right way. It's a question of focus. Investment in the front office is driven usually to increase revenues and profits, but investment in the back office is to reduce expenditure

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and increase profits. They're both driving towards the outcome, which is to increase the profitability of the firm, and that gets lost sometimes, depending on the focus of the organisation.

Lorenc – I agree. You need to invest equally in front office and back office, and you need the technology to drive the back office and front office, and you need to converge the two so that there is a more seamless connection between what you do in the front office and back office.

But I would disagree on collaboration. The leading systems didn't become dominant because of collaboration. It happened because there was a driving force and it forced everyone to catch up. For the last 20 years, many people have tried to sit around a table and collaborate and it hasn't happened. The disruption happens when everyone is forced to collaborate rather than deciding to collaborate.

Hunt – Yes, exactly right. We've had one instance in my career where the industry's really tried to collaborate and that was the Global Straight Through Processing Association (GSTPA). It came up with a product that worked, but then failed to use it. I remember thinking this would really change how we operate as an industry, but it died. That was the only chance we've ever really had of doing that.

***Funds Europe* – Can collaboration ever happen to the point where there is an industry utility?**

Willis – The word 'utility' has some challenging connotations. It can be used to describe something that everyone wants but they want to drive the cost down close to zero, which means the utility has to be a not-for-profit and that is difficult to achieve. In the past, we had

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EMX, which started life as an industry utility, but the fund managers realised that they had something of value which they could make money from and reverted to type.

But I think there has to be more collaboration and the industry needs to decide where to compete and where to collaborate. For example, there are a number of processes driven by regulation. But I agree that collaboration is hard to conceptualise and is more natural when you are driven to it. And as we move into this new world of technology, there will be some that will lead and the rest will have to follow and the best way to do that will be through collaboration.

***Funds Europe* – Is the conservative nature of the industry a good thing when it comes to new technology that might be overhyped?**

Young – There is a fundamental need to be careful when you are managing other people's money but that conservatism can turn into complacency. Elsewhere, there is a lot of focus on the user experience but this industry is incapable of building a user experience and it will have to bring in people from other industries. But it will have to change the culture to attract the talent. It is also a challenge to attract the technology firms you need to innovate. Almost none of the AI firms are interested in asset managers or asset servicers, because they've tried and it's too difficult and too slow.

Hunt – That's the culture and mindset. A portfolio manager in an asset management firm looks at projects as an asset class. They look at the money they have to spend and the return they might get. If you're an investment bank or a custodian, you never go through that process, you try and think about, 'What can I get in a reasonable short timeframe?' You're never going to change that mindset, because that's what asset managers do, and that's what the CEOs of asset management firms do, they take that long-term return view, projects are an asset class.

Young – Well, I think a disruptor will come in and the small firms will start to use these AI tools and will start to change the industry, and then asset managers will have to change. They're missing out on a huge raft of technology, because people aren't coming and talking to them. No asset manager sees themselves as a technology firm, which is a very unique position. If you go to any other industry, almost every firm now sees themselves in some part as a technology firm – banks, travel agents, airlines, shops, everything else, and they are using technology.

Lorenc – You cannot really use the example of different industries where the consumer gets an instant response or gets instant gratification because in this industry, the instant gratification for the end user is different. You invest, you wait. I think it is not the technology that is missing, it's understanding how the end consumer thinks and what they really need.

Willis – Firms have to work out who they are trying to service and how and why, and then apply the technology to that. If you want to be purely an institutional investment manager, you probably don't really want to worry about innovation, you just partner with a really good asset servicer and focus on getting the best return on your investment money. But there are other participants that will require asset managers to be at the leading edge of innovation if they want them to connect and if they want to retain them as clients. If you're a platform, are you an institutional platform or direct? The industry really isn't sure yet what everyone is. Historically, everyone has been a bit of everything because you could be.

Street – I think even if the asset manager is a bit of everything, it needs to divide the functions: for example, split distribution between direct-to-consumer or business-to-business. The problem is we see it holistically.

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We all sit around the table and we look at it through our own particular lens but we need to look at it through our clients' eyes.

***Funds Europe* – Could the industry be disrupted by the likes of Amazon or Google?**

Young – Google and Amazon are AI-driven businesses because they have proprietary data. If you're a manufacturer of an asset [such as an investment fund] and you're not directly connected to your consumer, how can you use AI tools to drive your business?

Roberts – By using platforms, fund managers have given away that data.

Lorenc – You need to have your own data to understand your own customer base. I happened to spend one hour in [inaudible] office, and it's a completely different world. It's not only how they think, it's something cultural.

Street – The simple answer to the question is yes. Both Amazon and/or Google could disrupt our industry, but do they really want to? The funds industry is not immune and in this context, no different to any other industry. The core basic principles are the same - understand how people are behaving today and what those drivers are, i.e. market and buying behaviour – then tailor your offering accordingly. The most successful businesses are those that understand and anticipate customer need, who are open to disruption and willing to adapt as demand requires. Take the music industry as an example: they never considered Apple a disrupter, and yet within 10 years of the iPod being introduced, the entire industry changed – from manufacturing through to distribution, the incumbents were guilty of complacency and never anticipated changing customer behaviour from disruption.

Young – Those firms that do want to innovate and do want to be more consumer-focused and use AI tools have a culture that will attract the skills to be able to do that. But then there are some firms that have innovation labs but they are off-site and out of sight and out of mind. They are not really transforming the culture, they are just playing at it. If innovation labs are going to transform companies they've got to be right at the heart of the company and that culture change has to metamorphose out.

Brands have less value in many other sectors than they've ever had and in our industry, people are still brand-obsessed. The way you interact with your customer base has become the most important thing. It is going to be interesting to see how that mix between the user experience and the trusted brand comes into play. It's not easy money – you can't just take an Amazon model and drop it into ours, because it is a complicated market – but something has to change.

Street – The regulation around our industry is merely a hurdle to entry and not a barrier. The potential for disruption from an organisation with resources and determination exists. The funds industry could be considered short-sighted in its thinking that the complexities to entry will discourage a new entrant. Yet it's those complexities that a disrupter views as the opportunity for streamlining to improve customer experiences.

Young – It's very difficult to be a start-up in asset management because of the cost and pain involved. Disruption is more likely to come from someone who's got deep pockets, the Amazons and the Googles, but they've got easier places to go at the moment.

Lorenc – But why would you like to become an asset manager when you want to disrupt the industry? If you know how to access the end consumer, you have overcome the biggest barrier. You don't have to manufacture the goods.

Young – I agree. Amazon and Google know where their client base is and if they wanted to distribute funds, they could almost transform that industry overnight.

Willis – Technology could disrupt every part of the business. Financial advice is going to be disrupted in the future because most people are no longer going to want to pay for advice, they will go on to an online forum. In distribution, technology will make it far easier to distribute funds without the need for grand platforms. Is technology going to disrupt fund manufacturing? Yes, because you can use technology to practically recreate fund managers' portfolios using the data that they are being forced to provide from regulation. Fund accounting used to be really complex but it's now much easier to get price delivery from stocks around the world. You used to have to have a huge custody network but the technology of tomorrow is going to virtualise all of that and it's going to be instantaneous.

"AMAZON IS ALREADY DEALING IN THE FINANCIAL COMMUNITY AND LEARNING ABOUT US EVERY DAY, EVERY MINUTE."

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The question is, who is not going to be potentially disrupted by all of this? The only participant that won't be disrupted is the consumer.

One of the biggest challenges to Amazon in its early years was finding a reliable distribution partner, so it built its own distribution capability. We don't physically distribute anything in the asset management market, you don't even get a cert anymore, you just get this contract note, this electronic thing that says, "Good news, you have so many units". So, I think Amazon could get that right because they already have the tools. I think the only reason they're not here right now today is they're playing with much more interesting things.

Street – Innovation will always be attracted to something which is inefficient and/or creating super-normal profits. You're right, Amazon could do it and it might be a better way, people might prefer to buy funds while shopping and rely on user reviews. That might be the way forward, but I think that just pushes the asset management community back into where their specialisation has always been, which is managing assets and allowing specialists in distribution to lead in their discipline.

Roberts – That's the Amazon that we know and think of as retailers, but of course, there's the Amazon that has infiltrated the financial services world over the last five or so years, which is Amazon Web Services (AWS) and its hosting service. Amazon is already dealing in the financial community and learning about us every day, every minute.

Hunt – Let's assume that the data from asset managers is sitting up there on the Amazon cloud. About 20 years ago, when I was based in Japan, there was this network called Syntax. All of the institutional managers used to put their data into it and then somebody who's outsourcing to multiple managers can see all their data.

If we had something like that in the UK, wouldn't it be great? Wouldn't all of the big government pension funds love looking at that kind of thing? But we don't, we all send our separate institutional reports and trustees look at all these different things. Can you imagine if Amazon say, "Let's just put on this app that sits on top of that data and we'll offer it as a service, people can just plug in and they've got aggregated performance data"?

Willis – The hardest bit about data is extracting it from the legacy systems. If it was all in the cloud, the ability to extract it would be completely transformed. It would still have to be cleaned and sorted but as a technology move, it would be revolutionary.

Young – I disagree with that quite strongly because in asset management, the markets are not moving together and are more disparate now than they have been for a while. So having one consistent data source that you can share seamlessly around the world is a long way off.

Hunt – I disagree, because it's fundamentally about where that data is. That's always been the problem. We've got multiple security masters around the world, sitting in data centres across multiple asset managers. We tried the utility approach and it didn't work. Now AWS is taking that data from multiple organisations and putting it into one place. That creates a huge common data set. And if you overlay that with the AI tools, it doesn't matter what format it's in, you can analyse it in whatever way you want.

Lorenc – If you are a global asset manager who uses multiple asset servicers, you will have limited influence over where that data sits because the asset servicer decides. So, to get one asset manager's data in one place is very difficult.

Willis – I fundamentally disagree. In everything that we do at Calastone, getting the data is the hardest piece; normalising it is the easiest piece. We are in 35 countries now with 15,000 trading links for 1,400 clients. We have about 190 different travel adapters converting between the formats. I agree that the data will not be in one place but if there is 95% of the data in four or five places, that is much easier than going to 500.

Roberts – But the problem is not the data, the problem is the vision and what to do with the data.

***Funds Europe* – Is there a technology that no one has thought of yet that would make your life easier?**

Roberts – I've a young sales guy who works for me and I asked him the question and he said, "Well, Paul, the industry is not full of millennials, but if it was, they'd be looking on the app store right now, and there's loads of stuff on the app store that we can make use of in this industry that we haven't even discovered yet." There is clearly stuff we haven't thought of yet, but there's a whole load of stuff out there that we just haven't discovered.

Hunt – Quantum computing expands the processing power that we have as an industry. It makes real-time processing possible. No one has yet built something you can actually use, but it's coming soon.

Young – These machine-learning tools and quantum-based processors where you can keep adding millions of parameters are like black boxes, in that you have to take what comes out as what comes out. It needs a leap of faith and that is challenge in our industry and the way it is regulated. I don't disagree that quantum computing will have an impact but we don't know what or where that impact will be. Working out how a machine got to a decision is impossible and that is a big challenge.

Willis – Quantum computing underlines the adage that it is not about the technology. You can do real time today. The technology has existed for 20 years or more. Back in the last millennium, you could trade in a fund and know the price at the point of execution. But then we moved away from that, to forward pricing. The challenge is the thought process. As an industry, we are not encouraged to think differently because we have been doing it the same way forever. We are not dragging technologists into senior positions in organisations or encouraging the youth of today to come and actively participate. We definitely don't listen.

The thing that no one has really thought of yet isn't technology, it's how to change the way that the industry thinks, and that is the biggest challenge to the industry because somebody else will come in, and it won't be because they've got better technology or anything else, it will be because fundamentally they have thought about approaching this industry in a different way.

Lorenc – There are two avenues. One is improving operations, the other is winning consumers so they invest with you and not your competitor. For the latter, you need to understand the consumer.

For the younger generation, socially responsible investing may matter more than the returns. The behavioural economics matters more than the technology. You have to find out what they think and what's important to them and then apply the technology.

Street – Rather than new technology, I would much rather change our culture to embrace the technological age we've been living in. Let's not just think like start-ups, lets act like it. It comes back to the point of being willing to fail, to accept the speed of change and with it, our approach. **f**e