

A RESEARCH PAPER PRODUCED BY FINEXTRA

IN ASSOCIATION WITH INTEL

JUNE 2018



# CAPTURING THE AI OPPORTUNITY: TRANSFORMING FINANCIAL SERVICES TECHNOLOGY AND CULTURE



**Finextra**

<b>01 Capturing the AI opportunity: transforming financial services technology and culture .....</b>	<b>3</b>
How are banks approaching AI? .....	3
Who owns AI and what is driving it? .....	4
Challenges .....	4
The two tribes in banking.....	5
Applications for customers and internal processes .....	7
Demonstrating return on investment .....	7
A transformative time .....	9
<b>02 About .....</b>	<b>10</b>

# CAPTURING THE AI OPPORTUNITY: TRANSFORMING FINANCIAL SERVICES TECHNOLOGY AND CULTURE

As part of the NextGen Banking London 2018 event, Intel hosted a roundtable that gathered together experts from a wide selection of the global banks to discuss the accelerating data-driven transformation in financial services due to artificial intelligence (AI) and the move towards a secure data and analytics platform it is working alongside partners to create.

Under Chatham House Rule, what emerged during the discussion was a disconnect between the technology and business divisions and how some are broaching this. Clearer training and understanding is called for across the different divisions of the business and an approach that consolidates the business goals, which needs to be data-driven. To do this requires a top-down cultural change, which can promote and foster innovative thinking at all levels. This, in combination with AI truly enhances the human output that drives the business.

## How are banks approaching AI?

There are a lot of use cases for AI but they are somewhat siloed, which can create silos of silos, complicating the problem. Everyone is dealing with the challenge of how to tame the data deluge, and how to get all this data internally and externally to really leverage the insight and deliver that across the entire organisation at scale. Banks have a strong position to win in this space by leveraging their key strengths of data-rich assets and trust, providing the opportunity to move to a new place and relationship with their customers. However, they need to bring technology and processing into this fold. The challenge is how they can create a framework from the top down that drives a different view of data across the organisation and instills customer trust around data emulating trust over deposits. In order to generate this there needs to be a real engagement with the customer.

One candid contributor shared experience from a banking meet-up twelve months prior, during which a generally perceived notion among banks that they are behind the curve in AI advancement was refuted. Having said that, it was noted that in the past six to 12 months, a few banks are inching ahead, forging third-party partnerships and creating bona fide solutions.



Clearer training and understanding is called for across the different divisions of the business and an approach that consolidates the business goals, which needs to be data-driven. To do this requires a top-down cultural change, which can promote and foster innovative thinking at all levels.

### Who owns AI and what is driving it?

Ownership of AI in banks dominated the discussion, one banker describing their institution's central solution team that provides horizontal servicing to all of the franchises. Vertical innovation teams, such as risk innovation, corporate innovation, private banking innovation and so on were also in place. These innovation teams sit very close to the corporation, giving opportunity to inform practical solutions. The horizontal team is there to facilitate the engagement of third parties, the hiring policy, to engage with data innovation, and to look at architectural system requirements and governance, for example. Frameworks are emerging, thanks to the new smart technologies that are forcing this change, which is leading to a more cross-functional, collaborative and joined up approach. From an innovation perspective, it was explained that this bank is now trying to look at solutions that it can deploy across the bank.

Another participant explained how they have been fortunate that the innovation and AI in their institution has been sponsored by the CEO, which has allowed them to deliver an end-to-end code approach. They have taken a chatbot approach, and advised that it is possible to start very slow but then scale right across the bank so it is not just the retail bank that benefits, but also corporate and wealth divisions, etc. Additionally, they are applying this internally, so they now have their own internal chatbot, available for service stage queries, for example. They plan to build upon this and use on many verticals.

### Challenges

The primary challenge is that AI is such a blanket term. People use it for different technologies within AI. It was noted how it can be hard to keep track of how many innovation teams inside their companies are looking at AI, and that it is very difficult to then have a strategy around AI because there are so many streams. Delegates also described how they are finding it difficult to herd people around certain solutions and certain suppliers, in order to build on these, when the ecosystem is so large. This problem is yet to be solved.

Trust emerged as another challenge on the path to AI implementation. A good idea is hard to implement across the organisation in one go. People want to start small in case they get it wrong and provoke a negative reaction- this was one



view that emerged on how hard it can be to sell your work to the organisation. This can be fixed, if people are culturally willing to change and there is training available to support this, as the levels of understanding across a firm can be completely different. One participant noted that you cannot start executing a strategy without a common ground, it is just impossible.

### The two tribes in banking

A key theme of the discussion revolved around the possible disconnect between two tribes within banking, the technologists and the business. A really interesting debate emerged around the different ways to connect these two sides to ensure that banks are creating solutions to actual business problems.

Centres of excellence were put forward as a platform for franchises to tap into, and then take away the right teams, the right mix of people and the right capabilities to execute on specific problems. The importance of having a multifunctional team was stressed, with one banker explaining their technologists and architects are involved with their centre of excellence, as well as their business people. The businesses are always drivers of what needs to be done, one banker noted. Centres of excellence and the like are more reactive, they should obviously be the owners of innovation but they are really a service function, there to support the business. They have the skills to get things done and have a view across the synergies of different teams and at solutions that can be deployed elsewhere.

The roundtable also heard a contrasting view on the centre of excellence. One panellist urged those present to put themselves in the shoes of the people who work in the back office. When hearing the phrase ‘centre of excellence’, they will think of data scientists doing things they don’t understand, as if in an ivory tower. This can be where things get blocked, break down and don’t happen, and so a simple change of name could eliminate this perceived divide. The reality of the transformational change of AI is that it becomes special when everybody in the business embraces it and understands it. The culture of the institution needs to be addressed at the same time as the processes.

One banker’s institution had started with more of a centralised approach to AI, but quite quickly found themselves becoming more disparate. They felt this is the right path because the business then really understands the issues, what the pain points are and how to track the problem. However, they did note that synergy is lost to competition, most parts of the business wanting to get their solution out first. This decentralisation may not be a good fit when scaling to the rest of the organisation, they remarked.



One panellist described innovation forums at their bank, in which a senior person from each of the businesses is represented – be it from front, middle or back office. There would be a couple of bankers on the forum, a couple of regional bankers, a chief operating officer, and a number of technologists too. And those who source partnerships, look for start-ups or a group of start-ups that can potentially plug a gap for them. They said they thought this was the only way to carry out a top-down innovation push.

A question was posed about how banks are spreading the knowledge of lessons learned internally And how, if something does not work in a use case, can you ensure the same mistakes are not repeated elsewhere? In answer, one banker explained communication between both vertical and horizontal innovation teams, so everything is shared. If one business is doing a proof of concept on machine learning, for example, they will make sure the line of sight from that proof of concept is reflected into all of the businesses so that everyone can monitor it.

It was then noted that one of the biggest challenges that a large institution faces is how to best find the synergies between all the disciplines that co-exist. Sometimes there needs to be a willingness to try things out and to fail, as there are lessons to be learned from failures as much as successes.

Success in AI strategy comes from strong and innovative leadership. One bank situation was described, where rather than having an innovation function in each business, innovation is instead part of each business manager's day job. As a result of that, the person who actually identifies the potential application of the new technology is the one who owns the message, all the way to the head of the business CEO and the innovation forum, and is hence mandated and empowered. Alongside this, you need someone who is following where each business benefits from what each project leader is doing.

**Banks have a strong position to win in this space by leveraging their key strengths of data-rich assets and trust, providing the opportunity to move to a new place and relationship with their customers. However, they need to bring technology and processing into this fold.**



## Applications for customers and internal processes

Where is AI best deployed by institutions, in their internal processes or in customer solutions? One participant noted they are very much at the start of their journey in terms of really exploiting what AI can do, using it thus far in areas such as customer service with chatbots, helping with basic customer queries. Also, they see an opportunity to use natural language processing and other speech recognition technology to speed up reports generated after customer meetings on the wealth management side.

Another participant said that, even though these are not changes the customer can see, they are using automation in a way that frees up staff to spend more value-added time with the customers, so AI is really creating a knock-on effect for productivity. Looking to the front office, they are also laying the groundwork for digitisation, moving to a model that will basically allow for more processes where the customer can self-serve. Even if banks are a bit slow on the uptake, customers will become the driving force because they expect this superior level of service.

Above all, it is vital that the solutions developed are actually in line with business needs, rather than ending up with a solution looking for a problem. Delegates heard from one banker how a couple of years ago the innovation function in his institution had an IP on a specific blockchain technology that they brought to all of the businesses and instructed them to use. After six months of trying to make it work, they realised it was the wrong way to address the problem. Instead, they quizzed product managers to understand what needed fixing and what unique selling points they would want to create for their customers if they could do anything at all. Once you can create that story showing the workflow, the pain points and the benefits, it was noted, you are in a strong position to take this to a central committee to see if other businesses have similar issues. In this scenario, the organisation agreed these were issues in other businesses and they needed a comprehensive solution for all.

## Demonstrating return on investment

Perhaps the most delicate area of conversation around AI comes when looking at how banks can demonstrate the return on investment. The primary area where this can be shown is in cutting costs, but this is not a simple matter. One participant noted that people want to have some sort of tangible number – ‘if we do this, we will cut costs by 20%’ – but said this is a very narrow-minded approach. It is going to be very expensive in the long term for organisations that think AI implementation is a short-term project.

Banks need to have a five-to-ten year view. However, they made the point that banks cannot have the courage to sign a five-to-ten year view transformation with AI unless they know what they are signing. And this comes from the board



– if as a board you do not know what you can do with this technology, you are not going to sign anything due to the liability this places on a director. Taking the point one logical step further, financial services boards are formed by a majority of non-executive directors who may sit on another four or five boards, ie they unlikely have a vested interest to invest long-term and take a five-to-ten-year view.

Clearly the value of AI to an institution can be looked at in two different ways. The first is that it will enable people to do more, and more quickly, because they will have instant access to information. In theory this will allow them to dedicate their time to activities where they can add more value. The second is that the better AI is, the less requirements there will be for the human resources to perform that work. The point was made that if you look at the return on investment on a long-term strategic plan for the implementation of artificial intelligence solutions, you are looking at fewer employees. Furthering the first line, however, the scope to enhance human productivity and grow revenue is invaluable, it was noted.

One delegate pointed out that the financial services industry has a duty towards society as well as to shareholders and to the board, adding that perhaps the biggest challenge to deal with is that it is very easy to install love in something that is making somebody's job simpler and easier, and fuller, but this is easily replaced by fear if they suspect they are no longer required. It was stressed that banks are going to have to balance this as they implement new technologies such as AI, in order to make it work properly.

From a technology perspective, there are a lot of ideas on how to continue to bring AI into human-machine interactions so that they become a human-machine collaboration. Humans will stay in the loop, but the ratio is changing. An example of the growth of certain banking teams in recent years was cited – particularly anti-money laundering (AML) teams that have been growing fairly exponentially. AI will allow this hiring growth to slow down dramatically. The question then posed is whether this is a bad thing or a good thing? Are those resources better deployed in other parts of the organisations? Today this is not possible as banks are spending so much money fighting crime, but with the help of AI these resources could be freed up.



**A key theme of the discussion revolved around the possible disconnect between two tribes within banking, the technologists and the business. A really interesting debate emerged around the different ways to connect these two sides to ensure that banks are creating solutions to actual business problems.**

### **A transformative time**

There is a convergence of AI, cloud, digital transformation, maturity of tools across machine learning, deep learning, natural image processing, hybrid computing, and more. This ensemble is here and provides banks with the ability to be more transferable, build end-to-end solutions, be more modular and flexible, and transform culture with training from the bottom up as well as the top down.

To support this process across institutions, an important theme that emerged from this roundtable was the need to demystify AI- around the platform, the processes and the people. Banks were encouraged to work all three of these areas at the right levels up and down the organisation to make it work. It is about how banks manage data. And to facilitate this, a focus on an integrated data platform would afford the necessary ‘vision’ and holistic, integrated view organisation-wide.



### Finextra

This report is published by Finextra Research.

Finextra Research is the world's leading specialist financial technology (fintech) news and information source. Finextra offers over 100,000 fintech news, features and TV content items to visitors to [www.finextra.com](http://www.finextra.com).

Founded in 1999, Finextra Research covers all aspects of financial technology innovation and operation involving banks, institutions and vendor organisations within the wholesale and retail banking, payments and cards sectors worldwide.

Finextra's unique global community consists of over 30,000 fintech professionals working inside banks and financial institutions, specialist fintech application and service providers, consulting organisations and mainstream technology providers. The Finextra community actively participate in posting their opinions and comments on the evolution of fintech. In addition, they contribute information and data to Finextra surveys and reports.

#### **For more information:**

Visit [www.finextra.com](http://www.finextra.com), follow [@finextra](https://twitter.com/finextra), contact [contact@finextra.com](mailto:contact@finextra.com) or call +44 (0)20 3100 3670

### Intel

Intel powers the incredible technology at the heart of transforming any business or industry. See how Intel is changing the world through powering supercomputers and the cloud, and discover the tools and resources that will help you evolve your financial services business.

Additional information available [here](#).



# Finextra

## **Finextra Research Ltd**

1 Gresham Street  
London  
EC2V 7BX  
United Kingdom

### Telephone

+44 (0)20 3100 3670

### Email

[contact@finextra.com](mailto:contact@finextra.com)

### Web

[www.finextra.com](http://www.finextra.com)

All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any information storage and retrieval system, without prior permission in writing from the publisher.

© Finextra Research Ltd 2018