

How AI Is Affecting Financial Services & Insurance



C E O • DIGITAL

in partnership with

TIBCO™

Introduction

For the final webinar of 2019, our focus turned to one of the largest sectors of the world economy: finance. Artificial intelligence is transforming the way that FSI functions, bringing a game-changing approach to the fore. You can [view the whole webinar for free now](#).



Craig McCartney, the webinar host, was joined by chair David Skerrett and Mark Palmer, SVP and General Manager of Analytics at TIBCO, who were also our sponsors. The pair discussed the current trends in AI and how new techniques are transforming financial services and insurance.

First of all, David introduced the topic before handing over to Mark, who shared his insights gained from providing enhanced AI Solutions to finance and insurance institutions.



**ARTIFICIAL INTELLIGENCE
IS TRANSFORMING THE
WAY THAT FSI FUNCTIONS,
BRINGING A GAME-
CHANGING APPROACH TO
THE FORE.**



The World of FSI and AI

For David, AI is levelling the playing field between large FS institutions, who have all the capital and customers, and smaller start-ups, who have grand ambitions and are unencumbered by legacy systems or thinking. In other words, no matter the type of company AI is creating a financial revolution by unbundling the bank.

You need only look at the statistics to see that this is the case. David showed that:

65% of senior FS management expect positive changes from the use of AI in FS ([Forbes](#))

83% of businesses say AI is a strategic priority for their business today ([BCG & MIT](#))

AI is forecast to drive cost savings of \$1.1 trillion in FS industry by 2030 ([Bain & Co.](#))

AI will contribute \$1.2 trillion in value to US financial services companies by 2035 ([Accenture](#))

There are already 2.5 million US financial services workers whose jobs are already being directly impacted by AI ([Autonomous](#))

It's clear that AI is going to transform finance, as it will many other sectors. Knowing that, the time is now to look ahead to other issues around AI, not just how it's being implemented but what people think of it. David claimed that AI in FS and insurance is fast becoming an ethical and trust issue.

For instance, claim optimisation algorithms are able to predict the amount of pay out a customer will be happy with and could therefore offer a lower pay out than average to certain customers. Banks and financial institutions are taking action before legislation has been passed to regulate AI use, further exacerbating this crisis of trust.

Nevertheless, it isn't all doom and gloom. Autonomous found that AI is and will be utilised across myriad use cases, including: reporting and process automation; conversational AI; personalised CX; KYC/AML; image recognition and labelling; and data processing, among others. In total, these use cases are projected to save FS&I over a trillion dollars by 2030



Avoiding “Puppy Dog AI” with Mark Palmer

It was at this point that Mark took over from David to provide his keen insights, garnered from his time at TIBCO. **Mark’s first piece of advice: avoid “puppy dog AI!”.**

With 11% of senior financial services management trusting their AI models, there is an ugly problem with AI right now.



I like to think about it sometimes when I talk to customers as puppy dog AI, [which] is still happening in a lot of companies where they’re doing a lot of AI all over the place, like having a puppy in the house, where they’re getting into the paper, chewing up your slippers.



For Mark, the hype about Auto ML – the ability to automatically generate AI models based on high-level inputs – is misplaced enthusiasm, because it assumes that simply by making AI more accessible to any user, you’ll get more effective AI. This can encourage organisations to take more random acts of AI that are disconnected from the business.

To prove his point, Mark shared a tree map of analytics by number of users from a real TIBCO client. From the left you can see organisation-wide efforts, but as we move to the right more projects spring up but the number of individuals accessing them dramatically decreases. The trick in avoiding “puppy dog AI” is to keep innovation connected with the rest of the business as a team sport.



Mark Palmer’s tree map of analytics by number of users.

Companies that view AI as a team sport form a collaborative bond between data engineers, data scientists, analysts, developers and business professionals/leaders. In particular, organisations build bridges between data scientists and business users. AI should be created in partnership with business users, not as separate lab experiment. Otherwise, the puppy will run wild and cause trouble.



Rethinking Data Science with Streaming

Traditional data science assumes the world is stable, because they train models only on historical data. But this approach is based on the assumption that conditions essentially stay the same, that the same patterns and anomalies from the past will happen again in the future. Palmer presented new AI tools that flip that traditional view on its head, like streaming data science.

Streaming data science is different. It's the difference between looking only in the rear-view mirror and looking through the windshield— you get a bigger picture. Namely, by applying machine learning for applications where the world isn't stable or predictable, you benefit from a more dynamic view of the future. It takes into account not only what happened last year or last month, but what is happening right now, in real time.

Mark showed us a great example of an insurance provider who have utilised streaming data science to better predict insurance claims following a hurricane in Florida. As the storm travelled up the Florida coast, the AI models are scored against sliding windows of data in real-time to predict the number of claims and where those claims will be more severe. He showed how those predictions change as the data changes, in real-time. This allows the insurance company to more effectively respond as conditions change, and engage their clients better: they can dispatch adjusters, for example, to the areas they know will have the heaviest claims.





Success in Insurance and Open Banking

Mark also talked about predictable success in insurance, using TIBCO client AA Ireland as an example. The company uses real-time data flows to speed up policy delivery. AA Ireland's Chief Analytics Officer said:



You don't sit in an IT queue for a year and a half. You build a model yourself and generate a lot of revenue for the company. It's that power. You can build it, and you have the computational power to do things like fraud identification and embedded customer value, and to update those models in live environments.



Customers expect things quickly, and AI is helping FS&I organisations to deliver that type of speed.

Finally, Mark turned his eye to open banking. For too many companies, open banking simply means throwing an API on an existing system and exposing services to a digital platform, but it's much bigger than that. How can you do open banking in an intelligent way to provide new services in real-time? How can I reduce risk and check for fraud in real time? After all, the best time to spot fraudulent activity is as it's happening.

To succeed here, FS need to create solutions that absorb service requests from open banking API calls and process it in real time to make dynamic decisions on how to engage customers - for example, on how to price services, provide offers, delight customers and alert operational staff of problems and opportunities while they still matter, in real-time.

Mark had some other fantastic insights, which you can find for yourself in our exclusive webinar. It's free to access, simply head to [On-Demand Webinar: AI's Influence on FS](#) now.



THE WORLD OF FSI AND AI

65% of senior FS management expect positive changes from the use of AI in FS¹



83% of businesses say AI is a strategic priority for their business today²

AI is forecast to drive cost savings of \$1.1 trillion in FS industry by 2030³



There are 2.5 million US financial services workers whose jobs are already being directly impacted by AI⁴

AI will contribute \$1.2 trillion in value to US financial services companies by 2035⁵



Sources: ¹Forbes ²BCG & MIT ³Bain & Co. ⁴Accenture ⁵Autonomous

3 INSIGHTS ON HOW TO MAKE THE BEST OUT OF AI IN FSI



AVOIDING PUPPY DOG AI

Puppy dog AI is when companies are doing a lot of AI all over the place, like having a puppy in the house, where they're getting into the paper, chewing up your slippers.



The trick in avoiding "puppy dog AI", is to keep innovation connected with to the rest of the business as a team sport.



RETHINKING DATA SCIENCE WITH STREAMING

Traditional data science assumes the world is stable, but this approach is based on the assumption that conditions essentially stay the same.



Streaming data science takes into account what is happening right now, in real time.



SUCCESS IN INSURANCE AND OPEN BANKING

How can you do open banking in an intelligent way to provide new services in real-time? How can I reduce risk in real time?



FS need to create solutions that absorb service requests from open banking API calls and process it in real time to make dynamic decisions.



Introducing Our Sponsors, TIBCO

This webinar was brought to you by TIBCO. TIBCO build digital business through innovation, integration and analytics. The company looks to enable better and faster decision-making with its Connected Intelligence Cloud solution, which captures data in real time to augment business intelligence.

[Learn more about TIBCO and discover how to connect anything and transform everything.](#)





The Good, the Bad and the Ugly

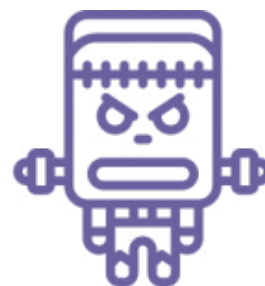
Following on from our talks, we moved to our recurring segment: **The Good, the Bad and the Ugly**. We discussed a selection of AI use cases from around the world and opened up the floor to see what our audience thought.



Should exist
Opportune
Useful
Beneficial
Interesting



Shouldn't exist
Serves no purpose
Solves no problem
Harmful
Dangerous



Why does it exist?
Can be improved
Could be re-applied
Won't win a beauty contest



WATCH ALL AI WEBINARS ON [CEO.DIGITAL](https://www.ceo.digital)



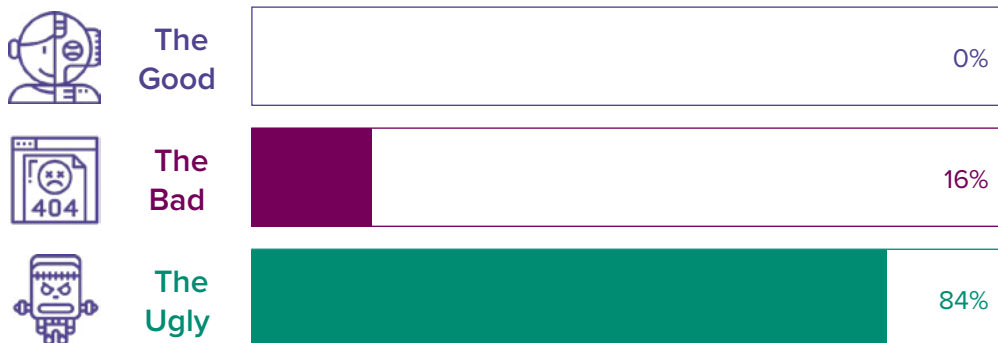


DEBT-SHAMING APP LAUNCHES IN CHINA

WeChat is one of the largest apps in the world and is often dubbed a 'super app' because of its sheer range of functions, including messaging, social media and mobile payments. It's also powered by AI, with its latest feature being an in-app addition of 'Deadbeat'.

This app lets you see if people around you are poor and in debt. It intends to create a social honesty network, but it is effectively a debt-shaming app. 18 million low-ranking individuals have already been banned from

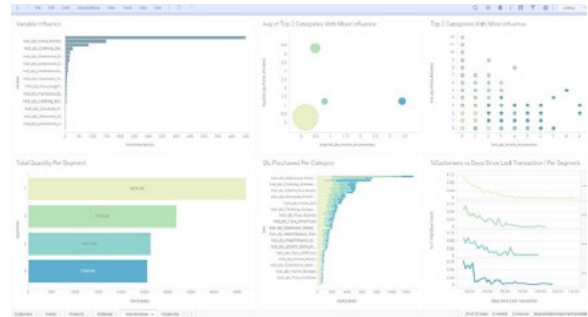
flying and a further 5.5 million have been banned from high-speed rail. High-ranking individuals, meanwhile, get discounts and beneficial treatment.





DATA SCIENCE MODELS LEARN & GET SMARTER

Streaming data science takes input from any type of data source and continuously identifies 'anomalous' factors that have changed. By alerting analysts, risk managers and operations, these conditions can be evaluated in real-time as conditions change.



The Good



The Bad



The Ugly

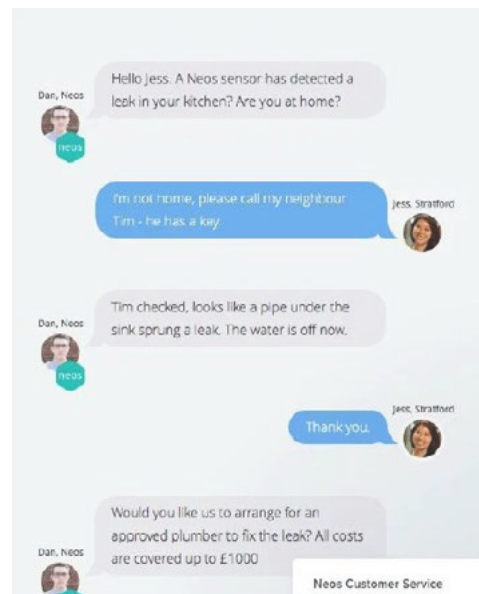




24/7 AI & IOT POWERING THE HOME INSURANCE OF THE FUTURE

Insurance is seeing great shifts currently. Instead of pricing based on likely behaviour, insurance companies are moving to price policies on actual behaviour. It is a proactive approach to insurance that utilises smart sensors and emergency assistance to revolutionise home insurance.

The idea is that if insurance providers can provide tech that makes gas leaks, water damage and home intrusions less likely, then they'll be able to pass along those savings to customers with lower premiums.



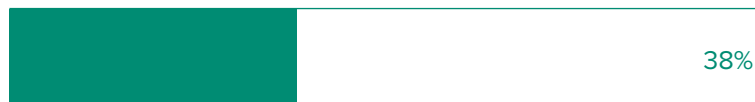
The Good



The Bad



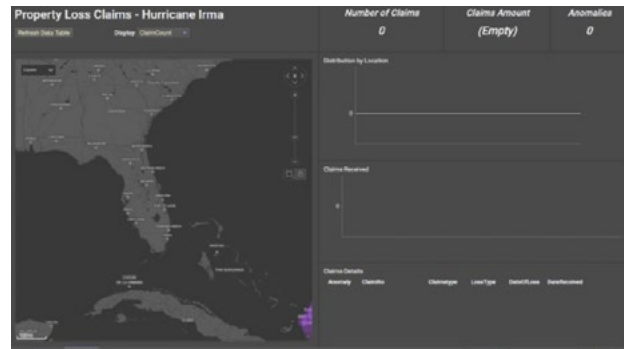
The Ugly



CONTINUOUS RISK MANAGEMENT IN REAL-TIME

By applying streaming data science, models can be continuously re-assessed in real-time as inputs change. Live conditions and predictions can be simultaneously compared to historical conditions.

Business action can be taken based on this continuous live view of what's happening now. Actions that might result include the dispatch of insurance adjusters to the right place at the right time, or even simple customer connection and awareness based on predictive signals.



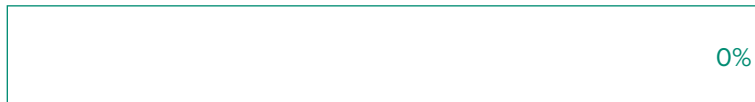
The Good



The Bad



The Ugly



AI TACKLING MORE DIVERSE PROBLEMS, LIKE PERFUME CREATION

Perfumery is an ancient art, but Olfactory is disrupting the space with AI. IBM and Symrise are working on next gen perfume and fragrances using a combination of historic data and concoction types aimed at specific demographics.

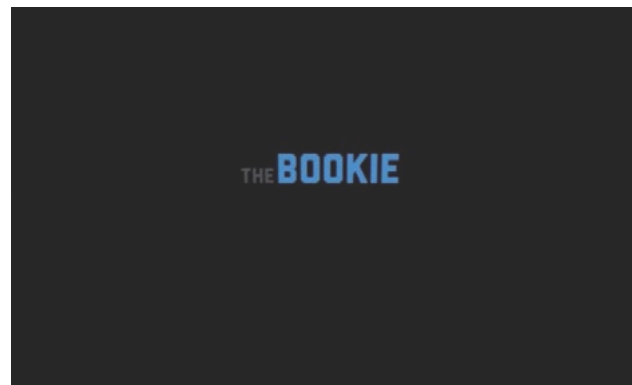
Perfumers are working alongside AI apprentices to create thousands of formulas and novel combinations. This effort brings together human expertise with machine intelligence to create novel, fine fragrances. Advances in AI, meanwhile, are helping us to introduce unique new fragrances.



AI-DRIVEN PREDICTIVE PRICING SIGNALS FOR GAMING AND BETTING

Little known fact: 80% of the world’s sports betting activity happens after the game starts. As such, odds change in real time throughout the game, taking into account an unimaginable amount of possibilities – a gargantuan challenge for bookies. But TXOdds has another solution.

TXOdds is a specialist in online gaming data for predictive. The company applies streaming data from live sporting events throughout the world in real-time to predictive models. Bookies and bettors use the feed this produces to make real-time decisions on odds.



AI FOR REAL-TIME IMAGE ANALYTICS

Any FS&I firm can innovate with AI-aware streaming video and images. For instance, one solution monitors traffic information on-the-fly, providing real-time updates on traffic flow, accidents, pedestrian footfall and more. FS&I firms could utilise this information to identify trends that could help inform financial decisions and insurance policies.



The Good



The Bad



The Ugly



Want to Join the Next Webinar?

Ready to learn more about what David and Mark talked about in this webinar? You can [view the full recording of the webinar](#) to glean even more insights from our expert speakers.

We'd like to thank our sponsors, TIBCO, for making this webinar possible. For more information about the AI solutions TIBCO offer, be sure to visit their website today.

Can't get enough of All Things AI? The next webinar is already in the calendar for 19th February 2020. Our focus? Retail.



Before you go, we've one question for you: do you want to get your organisation's name in front of AI enthusiasts from around the world?

Then we have the solution for you. The AI webinar series from CEO.digital is open to sponsorship. We have several more webinars available for sponsorship in the series, so get in touch with Craig McCartney today to discuss this opportunity more.

GET IN TOUCH WITH OUR PRESENTER CRAIG MCCARTNEY.

