

## DATAART FINANCE TECHNOLOGY TRENDS AND PREDICTIONS FOR 2018

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Some things will remain the same in fintech in 2018, but there is one massive game-changer that smart firms will start to assimilate, and thus realise the opportunities presented.

1. **Artificial Intelligence.** The game changer. The boom in AI will go exponential and the skills gap will turn into a war for talent. Press warnings about threats to job from AI will evaporate as AI skills becomes the biggest driver of hiring in the industry. Staff concerns will also subside as people wake up the fact that AI does not do work that people do; it does work that people cannot do. AI techniques such as pattern recognition, machine learning (ML), and fuzzy logic have underpinned cyber-security tools and financial data parsing for years; they have also facilitated the RegTech revolution; but now three new major areas open up: (1) deriving deep learning from structured and unstructured data to drive strategic planning; (2) using Big Data tools to support operational risk management and operational planning; and (3) using AI to predict financial turbulence and to assess risk of financial contagion. AI and ML skills that will be highly sought after by employers include: adaptive software development; speech and face recognition; artificial neural networks, pattern recognition, deep learning, and Big Data.
2. **Big Data.** For AI/ML to work at maximum effectiveness, it is important to have unrestricted access to large amounts of personalized data. New artificial intelligence frameworks will consume an enormous amount of such data. Diversity of sources and quality of information will influence heavily the success ratio and areas of application for AI solutions. Cross-domain exchange of data will become a norm and we will see growth in solutions focused on aggregating and exchanging user data.
3. **Data Security, Data Regulation and Data Breach Prevention.** Businesses and their customers more and more recognize the value of user data. Finding the right balance between interests of AI solutions that want to have an unlimited access to data, and the personal and social interests of users that want to keep most of the data private will drive AI solutions into the space of multi-layered data systems. In such systems, user data is stored in separated data protection layers. Ie some data in relatively open form; some information in aggregated or masked state; and, the most sensitive data in a highly protective mode for storage and analysis. Regulators will have to move

forward even further into Data Protection and it will create an additional complexity that Big Data/AI solutions will have to deal with. Recent data breaches clearly demonstrate the size of the impact on businesses if they do not take data protection seriously. AI working with sensitive data brings data protection to another level. As AI technology matures and start moving from concepts and POCs into production solutions, the security topic will strongly influence the speed and overall direction of development in this technology sector.

4. **Avoiding the next crash**, will move from being a regulatory (rules based) issue to being a data management and technology issue as reviews of Dodd Frank et al highlight a failure to understand and control systemic risk. Expect to see the fintech equivalents of Elon Musk being rolled out to advise on the art of the possible. AI will have a big role to play; as will massively improved data management; and, balance sheet and inventory management. Reporting will increasingly start to be seen as old hat and ineffective in the battle to protect global economies.
5. **Digitalisation and User Experience (UX)**. Only the highest standards of digitalisation and UX will be acceptable to customers. Telling the world that digitalisation is your highest priority while only updating web-based desktop solutions will result in loss of confidence and loss of customers as people become used to omni-channel, consumer-centric solutions with great UX in every other area of their lives. If they cannot do it on their phone as easily as they can use Uber, while feeling that their financial and personal information is secure, then they won't be doing it with you for much longer.
6. **Operational risk management (ORM)**. The importance of ORM will escalate as executives lose their jobs over ORM failures. Technology will play a big role in helping to assess risk across the enterprise. Inefficient risk identification parameters are common currently in the industry, leading to a failure to achieve a holistic data view, which leads to incorrect risk identification. Silo based organisational structures across banking, insurance and asset management – combined with poor data management practices – make it hard to achieve cross-enterprise risk measurement across business lines. AI (see above) will make the seemingly impossible, possible, without the need for reorganizations.
7. As the benefits of distributed ledger technologies such as Blockchain become more widely understood, growth will become exponential (and unrelated to the growth in crypto-currencies and their trading mechanisms). Poor performance of original blockchain remains a concern that is driving further evolution of distributed ledger technologies. 2018 could see performance being addressed by combining distributed ledgers with other new technologies such as IoT. Insurance is an industry that would benefit from such innovation. Blockchain will also start to be seen more widely as solution to issues of cyber-security and personal data protection. Blockchain can help

address these issues hat with new confidential solutions based on zero-knowledge proofs, ring signatures or completely new principals of data organisation.

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