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# Artificial Intelligence: a new frontier for the financial sector?

When the ACPR published its first report on Artificial Intelligence (AI) in the financial sector (December 2018), one element clearly stood out: half of the R&D projects already included the use of AI). Facilitating the work of employees, managing relationships with customers, monitoring or pricing risks, enhancing fraud or anti-money laundering prevention, AI potentially applies to a wide range of activities. The industry appears to be on the brink of a set of innovations that will profoundly transform it. The same holds true for the supervisors themselves.

Envisaging AI as a “new frontier” may therefore make sense. To reach a new frontier means questioning past organizational habits but also accepting that not all promises will be fulfilled as and when expected. However, the journey is worth it. Supervisory authorities are facing an additional challenge here: to foster and monitor the adequate regulatory and governance environment so that the journey can be made in safe conditions with regard to financial stability.

The first condition for wider adoption is to overcome overly innovation-averse mindsets, as institutions might be prone to prolonging the life of legacy systems - and methods! A cultural shift is however taking place year after year, thanks to the increasing reliance on data scientists or hybrid business/data profiles. This may help the market meet the current challenge of transitioning AI to production.

Technical constraints inherent to AI should also be addressed: reproducibility of machine learning models (ML) is not often built into their design, and their robustness needs to be carefully monitored. AI systems would also greatly benefit from the lessons learned in software engineering, for streamlining development, reliably delivering products and managing third-party risk.

A key lever for the implementation of AI in high-stake processes (for instance, financial transaction monitoring) is access to adequate training data. One recent European initiative aims to shape common data spaces wherein data from public and private bodies can be used safely and fairly, while another one considers guaranteeing supervisors’ access to supervised entities’ data.

Against this background, regulation does not appear as a significant obstacle. In fact, regulating too early such a changing area carries the risk of being irrelevant or creating undue hurdles. The same holds true for alternative options like voluntary “quality labelling”.

However, the market needs guidance on how sector-specific regulation applies to AI-driven processes. Explainable AI (XAI) is thus in the interest both of the financial institution which builds it and of the supervisory body which audits it.

A recent discussion paper issued by the ACPR last June casts explainability as a fundamental pillar on which other AI design principles such as fairness, performance or stability should rely: not only does it distinguish AI the most from traditional algorithms, it is also – when adopted for internal control or external audit – a keystone of responsible AI. XAI is therefore central to the reflection conducted by the ACPR along with other supervisory authorities and the financial sector on how to build, monitor and audit AI. ●