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A Temenos white paper

Everyone's
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Platform

Five Banking Trends Driving Artificial Intelligence Forward

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Introduction

Artificial Intelligence(AI) has evolved rapidly in recent years and especially so in financial services as banks continuously strive to get ahead in hyper-personalizing customer experience to empower customers to “live more” and “bank less”.

AI has brought benefits to consumers, businesses, and the wider economy. However, AI has also amplified risks and created new challenges and will continue to do so as AI models get more sophisticated.

It is with this background that we consider the 5 key trends in AI where banks will be focusing their efforts and investments in the area of AI.

1

Governance

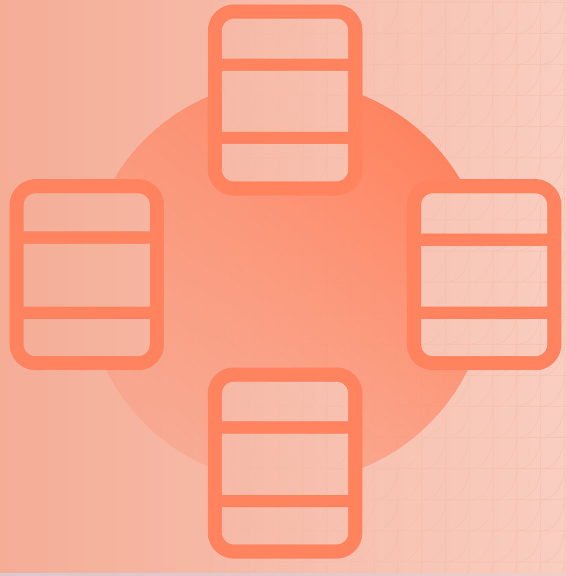
Let's start with governance as banking is highly regulated. Good AI strategies and ensuing investment successes depend on how well integrated, proactive, and aligned their executions are with internal governance and regulations.

Banks are taking to AI as it is perhaps the only solution that empowers autonomous and precise decision-making at scale and speed. This empowerment, however, have profound implications on governance for ensuring effective accountability and responsibility.

Governance of AI has been found to be more effective if it embraces diversity of skills and perspectives and covers the full spectrum of functions. This cross-functional functional approach mitigates the complexity of AI and related data challenges.

Hence, we expect banks to accelerate the understanding and awareness of AI's benefits and risks throughout the organization, including more formal governance arrangements and a clear role for senior leadership. Making and ensuring all its AI mechanisms are explainable are important steps towards facilitating this understanding.

2



Managing Data

Growth in AI is largely driven by the vast increase in data availability. Proper management of AI models are priority requisites for successful Ais. However, one can argue that the benefits and associated risks lie with the data. Understanding the lineage, completeness and relevance of the data deployed in an AI model requires the prerequisite of proper data management, documentations, and monitoring, especially so as the way data is used changes rapidly.

Owing to the nature of the XAI algorithm and the fact that outcomes and drivers of XAI are fully explainable, the uncovering and understanding of latent data quality issues can happen during XAI model developments, which supplements up-stream data management efforts thereby creating a virtuous circle.

It is against this backdrop that we expect to see banks accelerate their expansion into explainable AI adoptions, in tandem with perennial data management endeavours.

3

Managing Model Risk

AI models can create risks that arise from complex inputs, inter-variables relationships, the algorithm itself, and even the ensuing outputs. Hence, explaining AI model output is critical and more so in the financial industry as regulators keep a keen watch to proactively prevent the pervasive use of AI from causing a systemic risk to the banking system.

Traditionally, AI explainability has been focused on the features and parameters to obtain optimal model performance. We see exceptional customer experience become a key ingredient in building customer journeys that lead to exceptional customer management.

We therefore expect to see banks progressing from managing AI explainability solely from a data science perspective to also include consumer engagement and clear communications.

4

Barriers to Adoption

While AI can be deployed in many business scenarios, the barriers to AI adoptions, especially for smaller banks, can still be significant. High on the list are the barriers involving data, documentation, explainability and governance. AI can magnify existing risks and introduce new challenges resulting in more controls and structures, and these could be factors that put banks off from embracing AI and reaping its benefits.

That said, we can still expect to see smaller banks looking to gain more traction into explainable AI, which will mitigate against the risk associated with controls and structures, while the inherently explainable models address data and model outcome bias risks.

5

Optimized Explainability

This is where high levels of Explainability can be achieved while not compromising on accuracy. “Explanation” depends on context where a good explanation for a customer is very different between data scientists or bank executives. This explainability gap requires consistency to facilitate understanding among the different stakeholders.

The key argument is to focus the explainability on the customer experience and not just on model features, this makes explainability a much broader requirement on banks to communicate decisions in meaningful and actionable ways.

While inherently explainable AI models address the above, banks have long been aware of the compromise they have on model accuracy and traditionally have operated sub-optimally on existing inherently explainable AI algorithms.

To support this level of AI explainability, while we expect banks to favor inherently explainable AI algorithms that directly tackle the issues with black-box models, we also see banks demanding higher model accuracy. Ultimately, they are need AI to be explainable without compromising on model accuracy.

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