

AI-ANALYTICS FOR BANKS: A METAPOLICY VIEW OF THE NEXT STEPS

[A] AI-Analytics as a Concept

AI-driven analytics is an emancipatory aid to decision-making in systems, and an increasingly intense interdisciplinary endeavour of our time. Its essence as a prudent business-proposition, however, lies in ensuring that outcomes are real-time and correlated with a vision on metrics. A good model of AI-Analytics also does its best to keep its operational excellence aligned to the preferred values of the end-user and provides agility, safety and sustainability as well.

A-1 Artificial Intelligence in the Age of Disruptions and Fusions

As a key enabler for disruptive innovation, AI has business models that improve quality, speed, functionality, and revenue growth. What matters further is the combined tech-advantage of the fourth industrial revolution. It is a revolution that is at its initial transformative stage: we should be prepared for more frequent and potent technological disruptions and fusions. Competing on Analytics, as a result, is and shall be the new science of winning to care for.

A-2 The Age of Algorithms and Networks : Strategic Issues

The digital era has taken its fourth step. It is a revolution ('The Connected Intelligence Revolution') with four core segments– (a) The Internet of Things, (b) Networked Computing Infrastructure, (c) Analytical Software, and (d) Real World Interfaces. Analytical Software, out of these, is the most active innovation and research area, comprising complex and evolving algorithms that identify patterns and trends, evaluate options, and recommend specific action.

A-3 The Age of Algorithms and Networks : Leadership Issues

The sphere of leadership within digital institutions begins where the operational excellence of AI technologies ends. Learning is a critical leadership operational mandate, and its domain covers all types of learning within systems– supervised learning, unsupervised learning or reinforcement learning. Experimentation dimensions of platforms is another sensitive leadership responsibility these days that demands a high degree of knowledge and strategic intent.



A-4 Issues for Determination for Institutions Today

The greatest responsibility lies in the organisations that wield the most power and the central network positions in tech markets. It is important to remember the fact that the pressure towards increased power and wealth accumulated in network hubs adds to the challenges of digital labour replacement, erosion of capability, and skill obsolescence.

A-5 AI-Analytics and the National Imperative for Growth

AI-Analytics today has sensitive strategic dimensions within nations to safeguard human interests. Such interests must prevail to ensure that flow of vast amounts of data from customers through superior techniques is not misused, and that the struggle to implement analytics for innovation does not degenerate into perverse surveillance in society or abuse of dominance in new markets. National imperative also means keeping valued data safe.



[B] AI-Analytics for Banks

Banks introduced ATMs in the 1960s, electronic card-based payments in the 70s, broad adoption of 24/7 online banking at the beginning of this century, and mobile-based “banking on the go” in the 2010s. These have impacted customer experiences and back-office processes significantly. Incorporation of advanced analytics and machine learning in decisions across the customer life-cycle need our policy-attention now.

B-1 Banking since the Year 2008

Since the Financial Crisis 2008, there has been an endeavour to separate the riskier forms of corporate and investment banking from retail banking. This necessitates closer monitoring and deeper analysis of (a) credit qualification, (b) limit assessment, (c) pricing optimization, and, (d) fraud prevention. Turnaround time of these is an efficiency / accuracy concern, besides the key banking trust-quotient concerns on relationships with customers. AI Analytics can and does play a great role towards addressing this class of problems.

B-2 The Importance of Personalisation in Digital Banking

The surge in online interactions in banking has created a demand for delivery through personalised interactions, so much so that any imperfection / default in seamless communication affects the revenue stream of the service provider significantly. This trend shall get accelerated in the future in which financial services shall be claimed as the ethic of rights-based morality. Tech research on analytics has already taken cognizance of this need.

Another aspect here is that AI can enable providing a better quality of service to users – traditionally, only Ultra-high-net-worth individuals (UHNWI) had access to personalised offerings and care, due to lack of scalability of available bankers to service all clients. With the advent of AI technologies, some aspects of said personalisation can be federated to all users, and this could become an important service-based differentiator.

B-3 Issues concerning FinTech Markets

In all markets, innovations from FinTech entrants have reduced bank margins and pushed banks to invest in competing solutions. A greater threat to banks, however, has come from the BigTech companies that control ecosystems (with network effects and switching costs) that are as large as those that banks are trying to use in their favour. Regulators must ensure that standards remain transparent/open, and no single player becomes dominant when it comes to payments.

B-4 Frameworks for Bank Stress Testing

A bank stress test is an analysis to determine whether a bank has enough capital to withstand an economic or financial crisis. Stress tests focus on a few key areas, such as credit risk, market risk, and liquidity risk to measure the financial status of banks in a crisis. Using computer simulations, hypothetical scenarios are created



using various criteria. In 2011, the U.S. instituted regulations that required a stress-test based Comprehensive Capital Analysis and Review.

B-5 Analytics 3.0 for Financial Sector Fraud Detection

Analytics 3.0 has been built on the descriptive and predictive foundation from analytics 1.0 and 2.0, and is capable of making decisions more agile, fast and accurate. The new capability is powered by advances in big data frameworks like Hadoop and Spark, and new analytical tools. The process involves verification through five stages– (a) account check, (b) device check, (c) activity check, (d) risk strategy, and (e) manual review. It is a new domain of research application capable of utmost use.





[C] AI-Analytics for Banks: A Metapolicy Veiw

The ability to understand and communicate about data is an increasingly important skill for 21st-century top management supervisors. This requires role clarity: statisticians offer rigour, machine-learning specialists provide performant AI models, and the coding style of analysts is optimised for speed and data visualisation. They must work as a team and should be given time for professional updation. Becoming an analytics-driven organisation needs leadership vision.

C-1 Metapolicy Conceptualization in Data Governance

Data skills – the skills to turn data into insight – are the drivers of modern economies. However, persistent efforts are needed to (a) set hypotheses, (b) test them, (c) find meaning in data, and (d) apply that to specific contexts. Analysts look at information from several angles and dig deeply before bringing it to decision makers. The decision maker then ascertains the extent to which more rigorous analysis is necessary in the strategic intent of the organisation.

C-2 Emerging Principles of the New Age

The Age of AI is driven by a relentless and systemic drive of change: change is no longer localised; it is systemic. Even if artificial intelligence never fully catches up with human thinking, it is clear that an increasing number of operational tasks now performed by humans will be enhanced by or automated by digital systems. This provides an unprecedented opportunity for new initiatives, but also leads to dislocations. Creative Dislocation needs to be planned.

C-3 Metapolicy Implications for Policy Makers

Infusion of Artificial Intelligence, Machine Learning and Big Data in Banking today has entrepreneurial and public service advantages, but these have implications as well. These implications must be addressed with a sense of history. We can highlight the following five –(a) network accountability, (b) transparent disclosures, (c) respect for regulatory compliance, (d) fair competition in markets, and (e) planning for the future of work. ■

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