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The future of banking is here

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The future of banking is here



“Innovation distinguishes between a leader and a follower.”

– Steve Jobs

The future of banking is here

The rate of technological change is so fast that our ability to understand the implications of it has never been so important. Startup companies unburdened by inertia or Wall St. expectations are growing faster than ever and challenging incumbents. Recognizing and embracing exponential opportunities sets apart successful leaders from linear thinkers. Over the next five years, financial services and indeed all sectors of the economy will be dramatically disrupted, primarily by greater customer empowerment and technology driven innovation.

Banking is becoming more convenient thanks to the Internet, and the future of the banking sector is growing increasingly digital. India has leapfrogged into the era of innovation in banking by adopting the latest in technology. Today's digital age and hyper-connected environment requires banks to re-imagine their business continuously, and Indian banks making great strides when it comes to true digital transformation.

In this article we will focus on some the innovations in the banking sector in the area of digital, IoT and Cognitive technologies.



Digital Banks



Changing customer expectations in the digital age are forcing banks to rethink their strategies. Customers are expecting a more intimate relationship with their bank and require a unique and compelling experience. They are expecting more flexibility and interactivity through digital platforms. Expectations are shifting to instant, 24/7 contact through digital channels, which includes more personalized products and services as well as real-time insights.

One of the largest banks in Israeli has launched a digital banks, with no branches and 100% free - no checking account fees. With higher expectations from both corporate/ institutional and consumer clients, the need to provide a next-generation digital banking experience becomes a strategic necessity.

Recently an Indian private sector bank announced the launch of their digital bank initiative that offers zero balance savings account with zero charges for all digital transactions and can be opened using Aadhar and PAN card. Born out of Hon. Prime Minister Shri Narendra Modi's vision of a Digital New India, this product has been designed around the idea of simplicity and ease of use.

IoT



The Internet of Things (IoT) is a significant technological transformation on the horizon, with many already claiming that we are entering the second major digital revolution. Analysts at an American research and advisory firm predict there will be 25 billion smartphones, smartwatches, wearables, connected cars and other connected devices by 2020.

Retail banks have actually been using an early prototype of an IoT device for decades: the automated teller machine (ATM). Since their widespread adoption, ATMs have been one of the top IoT devices that make banks far more efficient by removing the need for long wait times to see a teller at a brick-and-mortar bank.

Banks are turning toward new IoT technologies to enhance the user experience and reduce costs. Some banks have started using beacons, for example, to send customized offers right to customers' smartphones as soon as they enter the branch. And some ATMs now have live stream video support that allows customers to speak to tellers if they need additional assistance.

A large public sector bank recently had introduced RFID-enabled banking cards whereby a branch/relationship manager can identify a valued client entering a branch with the card. Similarly, one of the largest private sector banks in India has tied up with Indian startup for an IoT based smart asset management solution.

Artificial Intelligence –from sci-fi to reality



Artificial intelligence (AI) and Cognitive technologies have the potential to transform both front office and back office operations.

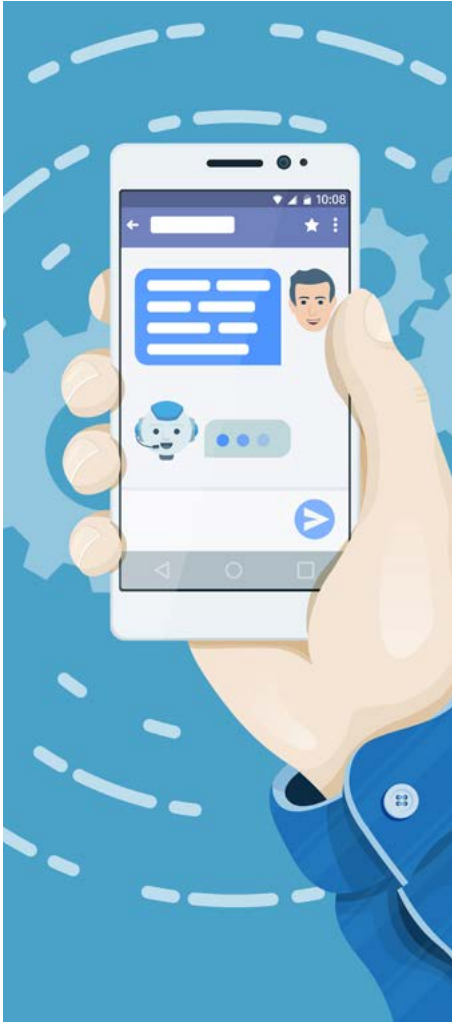
One of the largest Indian MNC bank has deployed software robots across 200 business process functions, reducing the response time to customers by up to 60%. Robots have been deployed last year to support the branch staff at two large Indian banks. These robots can cost anywhere between Rs 7-8 lakhs and are equivalent to 3-4 FTE.

AI has already proven itself in providing seamless differentiated customer experience on digital channels, and security measures with its integration within the banking infrastructure. Intelligent digital assistants are commonplace, and these self-learning programs keep getting better with every interaction.

An American bank holding company has teamed up with one of the largest online retailer to put up an app on a 'smart' speaker, allowing customers access their bank accounts using their voice.

Last year an Indian MNC bank had launched its voice recognition service where customers are no longer are required to enter their card numbers, PIN and answer security questions to authenticate themselves. Their voice will now act as the password for banking transactions through the call-center. The voice recognition technology works on voice prints, which are unique to an individual. It comprises more than 100 characteristics including voice modulation, speed, accent, pronunciation which are impossible to imitate, thereby enhancing security. The Bank stores the customer's unique voice print against a customer's account and matches it whenever the customer calls from the registered mobile number, offering a seamless experience to the customer.

Rise of conversational chatbots



Companies have used chatbots for customer service for a number of years, typically to replace or assist live agents in call centers or as an alternative to point-and-click interfaces for customers visiting websites. Now, a number of factors are ushering in a new era for chatbots.

Advances in cognitive technologies are making it possible to provide increasingly accurate and relevant automated dialogues. For example, speech recognition software has made advances in reducing word error rates, and machine translation has improved thanks to deep learning techniques. Improvements in speech and language processing technologies are making chatbots more capable, expanding their potential applications across the enterprise.

An article published in a leading business magazine had identified “app fatigue”—a declining willingness among consumers to install and use new mobile apps. At the same time, messaging has emerged as a dominant online activity.

With natural language processing and artificial intelligence, the chatbots are able to hold more intelligent and pleasant conversations all through the day and night.

A large private sector Indian bank had announced last year the launch of an intelligent banking chatbot. Through their mobile banking app and social media messaging platforms users can chat with these bots to pay bills, transfer funds, manage credit card spends and more.

Two of the largest private sector banks have been embracing social media to service and interact with customers. They have announced partnership with a popular social media company to integrate a set of digital customer support features for the bank’s customers. They have introduced social media messenger chatbots which can assist users with recharge, bill payments and booking a taxi. It can be used by customers and non-customers of these banks.

One of the Singapore’s largest bank and a leading bank in Asia is working with US-based AI startup to deliver AI powered conversational chatbots. This startup aims to transform the consumer banking experience with artificial intelligence.

Natural language generation



One of the biggest technological breakthroughs to hit the financial services market would come if machines were to develop an understanding of natural language on par with median human performance. Natural-language generation (NLG) engines can create seamless interactions between humans and technology by following rules to translate observations from data into prose. Broadcasters have been using natural-language generation to draft stories about games in real time. Using NLG technology structured performance data can be piped into a natural-language engine to write internal and external management reports automatically.

NLG is being used by major financial institution to generate automate portfolio commentary, automate investment performance reports and automate regulatory reports, such as Suspicious Activity Report (SAR) narratives.

Virtual reality isn't just for gamers



When you hear the words “virtual reality,” you typically think about video games. But virtual reality is already very much a part of the real world, offering numerous concrete applications. Banks are taking an interest in virtual reality, as well.

First of all, it will revolutionize customer relations, by offering a new method for “enhanced” communications. With online banking, you can already contact bankers by email, live chat, call back and more. Tomorrow, you can meet with their avatar inside a virtual branch, so your banker can present offers and advice, show simulations through modified, real-time graphics based on different parameters, etc. Easier and more engaging than a phone conversation or even a video call, the “virtual meeting” is just as effective as an in-person meeting with no need to travel! Augmented reality will also come to mobile apps capable of tracking your location and guiding you to a branch by “materializing” your path.

An American multinational investment banking and financial services corporation last year illustrated how the technology for virtual reality can be applied in banking, and specifically, in presenting trading data to users in a dynamic 3D view.

One of the other important development taking place in the form of fraud detection. Virtual banking will also allow for mapping of transactions. So when you log in via VR you will be able to see where the transactions were posted and if there is something fishy, it will instantly raise a red flag. The VR technology is so advanced that it will even be able to ask for verification of transactions that were made.

Riding the wave of exponential innovation



This article highlights some of the key exponential technologies that are disrupting the banking sector around the world and specifically in India. Some of these might seem like a fad at the moment because of regulations but the wave of exponential innovations is here and it is a matter of time before some of these will enter the Indian market.

On the economic front, financial inclusion is a focus area for the NDA government which led to the launch of Pradhan Mantri Jan Dhan Yojana under which over 13 crore accounts have been opened so far, close to two-thirds of which are in the rural areas. So, while it may not be feasible to have physical infrastructure everywhere, mobiles and internet could be used to reach out to those customers. This also translates to a lot of information and data that could be analyzed by these banks to derive insights into the habits of this newly banked audience to offer them relevant and enhanced services.

The time is right for bankers to size up opportunities and identify the exponential technologies that can be put to work in their own organizations.



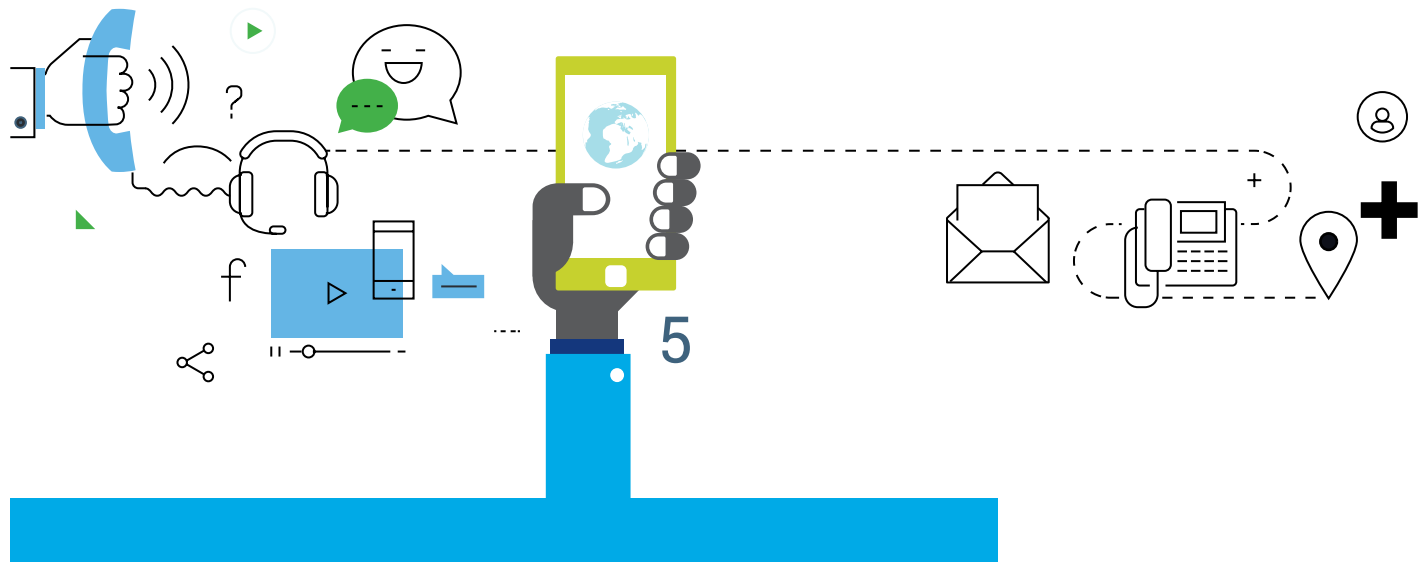
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