From Artificial Intelligence to Financial Inclusion

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Microsoft CEO Satya Nadella On The Extraordinary Potential Of AI

AI Is Going To Shape All Of What We Do

What is perhaps at the core of the experiences [and applications] we create, as well as our platform itself, is AI,” Nadella told the audience. “AI is the runtime that is going to shape all of what we do going forward in terms of the applications as well as the platform advances.”
Conversations reveal a lack of common definitions for AI — this is an example of the ‘AI effect’

No one can agree on what “artificial intelligence” is or isn't

**AI effect**

This lack of definitional clarity is illustrative of a well-documented phenomenon called the “AI effect”, Essentially, this means the inability of observers to agree on what is, and isn't, intelligence and a tendency to conclude that the existing capabilities of computer programs are not “real” intelligence.

*Intelligence is whatever machines haven't done yet*  
- Larry Tesler, 1970
While no one can agree on what AI is, people clearly mean something when they use the term

When business people talk about AI, they typically are not talking about a particular technical approach or a well-defined school of computer science, rather they are talking about a set of capabilities that allows them to run their business in a new way. At their core, these capabilities are almost always:

A suite of technologies, enabled by adaptive predictive power and exhibiting some degree of autonomous learning, that have made dramatic advances in our ability to use machines to automate and enhance:

- **Pattern detection**: Recognize (ir)regularities in data
- **Foresight**: Determine the probability of future events
- **Customization**: Generate rules from specific profiles and apply general data to optimize outcomes
- **Decision-making**: Generate rules from general data and apply specific profiles against those rules
- **Interaction**: Communicate with humans through digital or analogue mediums

Many applications of AI-driven technology use a combination of the above automations and enhancements
AI does not exist in a vacuum — its capabilities will be intertwined with the development of all other technological innovations.

Advances in any one technology will increase the capabilities of other technologies that interact with it.

For example:

- Blockchain offers a source of immutable data that does not require centralized verification, which could be critical for identity management.
- While quantum computing holds the potential to break many encryption methods today, it may also bring new and even stronger techniques that will make blockchain more secure.
- Advanced and different computation methods provided by quantum computing will allow AI to tackle new problems that were previously intractable.
- AI will enable increasingly complex and automated smart contracts to be executed, allowing more blockchain use-cases to enter the mainstream.
- Cloud computing will provide both the data storage and the processing power necessary to train new AI models, in turn making cloud infrastructure a critical part of organizations.
AI is altering the attributes necessary to build a successful business in financial services
And creates a new wave of transformation across the global financial services industry

- **Scale of assets**: Economies of scale presented a cost advantage
- **Mass production**: Physical footprint and standardized products drove cost-effective revenue growth
- **Exclusivity of relationships**: Ability to have direct access to many markets and connections to investors was a critical differentiator
- **High switching costs**: High barriers to switching providers drove customer retention
- **Dependence on human ingenuity**: Processes scaled through additional labour and functional training
- **Scale of data**: As AI drives operational efficiency, economies of scale alone will not sustain cost advantages
- **Tailored experiences**: As AI drives operational efficiency, economies of scale alone will not sustain cost advantages
- **Optimization and matching**: Connections are digitized, increasing the importance of optimizing the best fit between parties
- **High retention benefits**: Continuously improving product performance to offer superior customer outcomes and new value will keep clients engaged
- **Value of augmented performance**: The interplay of strengths across technology and talent amplifies performance

This is placing legacy business models under pressure from those whose businesses are built around these new attributes
AI presents Banks and Fintechs with the opportunity to change their businesses in a multitude of ways ranging from incremental improvement to complete reinvention.

from relatively conservative efforts to improve existing processes to bold bets on new capabilities and business models.

**Doing the same things, better**

- Leaner, faster operations
  - Using automation to improve the efficiency of business-as-usual processes
  - Reducing the cost of simple, routine processes, while maintaining or improving quality of experience

- Tailored products and advice
  - Personalizing interactions to more closely meet the unique needs of customers
  - Providing convenient, high-quality service, while maintaining scalability

- Smarter decision-making
  - Using advanced data science to optimize business outcomes (e.g., lower default rates)
  - Integrating large volumes of data to derive better insights across business units (e.g., better capital allocation)

**Doing something radically different**

- New value propositions
  - Differentiating offerings through new operating models and ways of working
  - Building brand new products, services, and business models that use AI at the core
How will Banks Innovate and Evolve?

Micro Personalization of Financial Experiences

Branch of the Future
*(Virtual Presence, Augmented Reality, Seamless life integration)*

Advisory
Payments
Cards
Deposits and lending
Non-Traditional Services
Social Networks

Digital ledgers and blockchain

Predictive analytics, IoT, big data

Augmented intelligence *(bots/agents, robo-advisors, intelligent automation)*

Fintech partnerships

Payments
Cards
Deposits and lending
Non-Traditional Services
Social Networks

Digital ledgers and blockchain

Predictive analytics, IoT, big data

Augmented intelligence *(bots/agents, robo-advisors, intelligent automation)*

Fintech partnerships