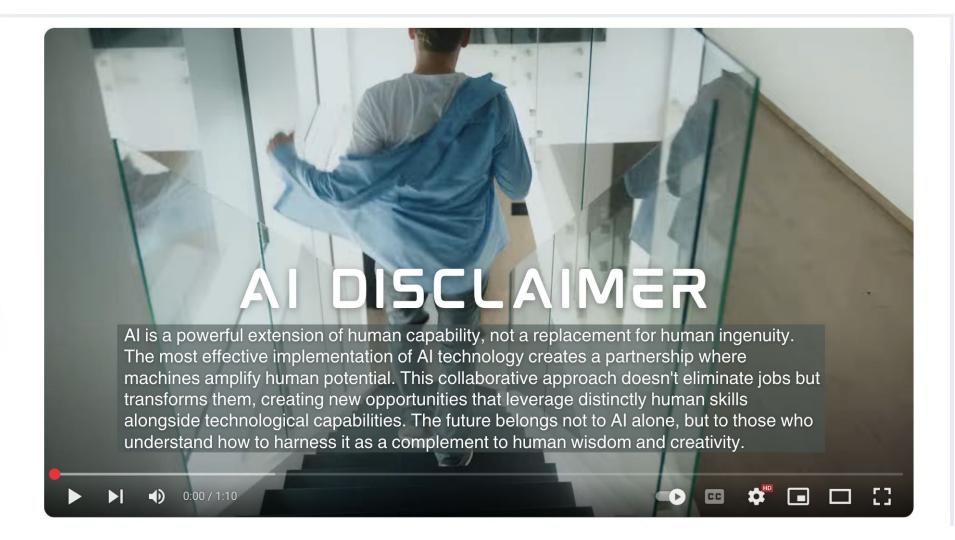
**NEW FRONTIERS IN** 

# ARTIFICIALINTELLIGENCE

FSI Retail Banking Conference 2025 Sam Maule



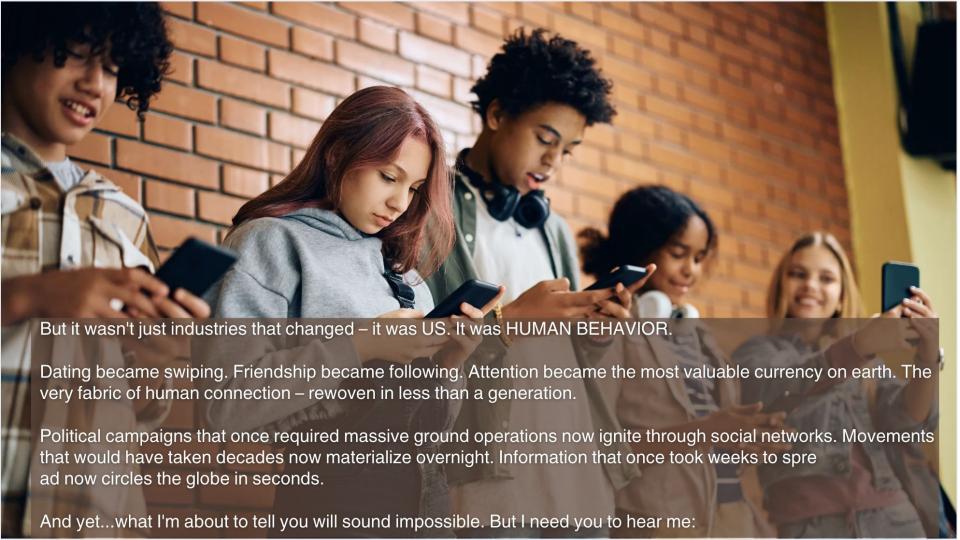


# WHERE WERE YOU WHEN THE WORLD CHANGED?



That moment when Steve Jobs walked onto that stage in San Francisco and pulled out that small device – that wasn't just a product launch. That was the line in the sand between the world that was and the world that would be. In that instant, everything changed. EVERYTHING.

Banking? Transformed. Media? Unrecognizable. Transportation? Reinvented. Retail? Reimagined.



The smartphone revolution will look like a GENTLE RIPPLE compared to what's coming with AI. This isn't hyperbole. This isn't futurism. This is happening NOW, and it's accelerating at a pace that defies comprehension.

'Al won't just change banking. Al will OBLITERATE our very concept of what banking is. The question isn't WHETHER everything in your world will change – it's HOW QUICKLY you'll recognize it's already happening.

Five years from now, the banking services you're selling today will seem as relevant as fax machines. The business models you're building will seem as current as video rental stores. This transformation isn't coming – it's HERE. The meteor has hit. The extinction-level event for traditional banking has already begun. The only question is whether you'll be among the mammals who adapt or the dinosaurs who disappear.

You have a choice to make TODAY. Not next quarter. Not at the next strategic planning session. TODAY. Will you be the person who saw this coming and led the charge? Or will you be explaining to your family years from now why you missed the most significant technological revolution in human history?

The future of banking isn't some distant horizon. It's breathing down your neck. It's already here, redistributing power, redefining value, and rewiring every transaction on earth.

## AIFRONTIERS



PERSONALIZATION

NOITAMOTUA



Generative AI is projected to drive US banking fraud losses to \$40 billion by 2027, up from \$12.3 billion in 2023-a compound annual growth rate of 32%

**51%** of financial institutions reported losing between \$5 million and \$25 million to Al-powered fraud in 2023

Deepfake-related fraud affected **46%** of financial institutions in the last year, with synthetic identity fraud rates climbing to 2.1% of all transactions in 2024.

Deepfake incidents in the fintech sector increased 700% in 2023 year-on-year.

Account takeover attacks surged by 250%, driven by Al-powered techniques that allow criminals to bypass traditional security

In 2022, customers of Chase, Bank of America, and Wells Fargo lost a combined total of **\$465m** to scams on Zelle.



Philadelphia attorney Gary Schildhorn told a Senate panel Thursday about his story of an attempted scam against him where his son's voice wa... read more >





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**DUBBING** 

□ TEXT TO SFX

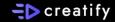
(ii) VOICE CLONING

**VOICE CHANGER** 









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#### **EXCLUSIVE**

### Google Back in Talks to Buy Cybersecurity Startup Wiz With a \$30 Billion Deal

It would be Google's largest-ever acquisition. Earlier discussions had fizzled over concerns about how long a deal would take to clear regulatory hurdles.

23 min ago (4 min read

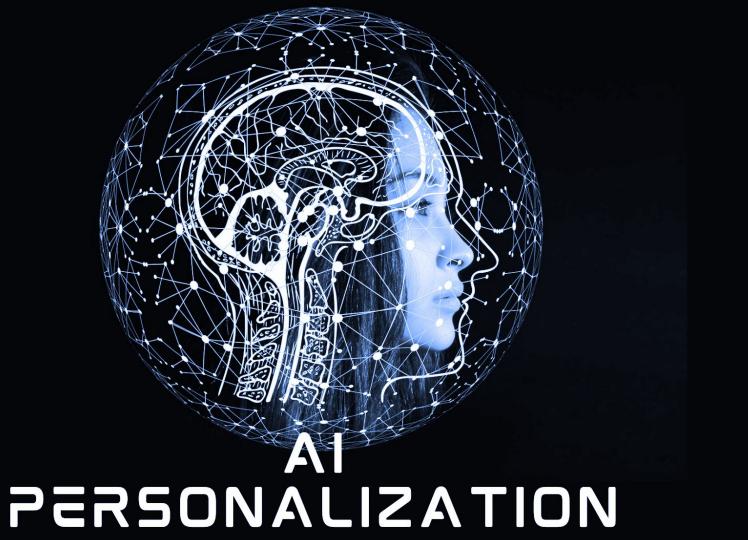
### The<sup>T</sup>/erge

Google's parent company, Alphabet, <u>has announced its largest-ever acquisition</u>, entering into a deal to buy New York-based cybersecurity firm Wiz, making it a part of its Google Cloud division. This is the company's second attempt to buy Wiz after talks stalled last year at a lower \$23 billion evaluation.

<u>Wiz</u> is a fast-growing Israeli-founded startup that works with companies like Microsoft and Amazon to provide cloud-based cybersecurity solutions. The company was <u>valued at \$12 billion</u> in May 2024, which <u>reportedly</u> climbed to \$16 billion later in the year in an equity offering to employees, and has been working towards an initial public offering (IPO) in the months since the previous acquisition fell through. Should the deal receive regulatory approval, it will easily outsize the \$12.5 billion paid by Google for Motorola Mobility in 2012.

The Wiz purchase is the latest of several acquisitions that Google has made in recent years as it attempts to bolster security for its cloud computing customers. In 2022, Google purchased two cybersecurity firms — Siemplify and Mandiant — for \$500 million and \$5.4 billion, respectively, with the latter company best recognized for uncovering the SolarWinds hack. Adding Wiz to that mix feels like a targeted effort to tighten Google's cloud protections in the face of Microsoft's less-than-stellar cybersecurity reputation.



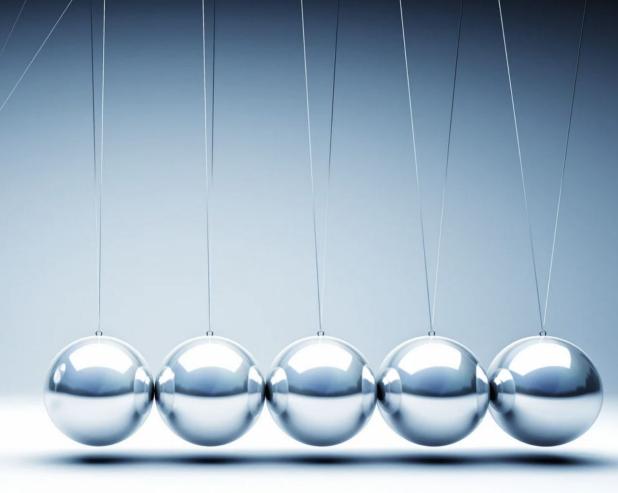






## INERTIA





### 2024

Reinventing Financial Services

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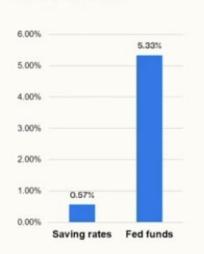
MATT HARRIS
PARTNER,
BAIN CAPITAL VENTURES



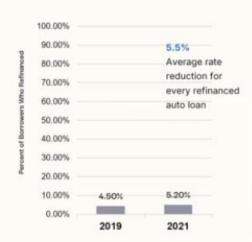


### Inertia is a Powerful Force in Retail Banking

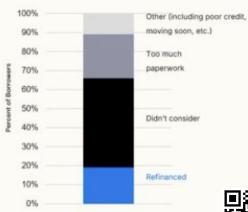
#### Avg. savings account interest vs. Fed Fund Rate



### Auto loan refi rates (during COVID interest rate dip)



### Mortgage refi rates (during COVID interest rate dip)





### **Individual Annuity Surrender Activity - 2023**

Despite the rise in interest rates and ~40% of annuities eligible for a withdrawal at FMV, only 7% of policyholders withdrew in 2023







### The Economics of Banking

Pre-Tax, Pre-Provision Income by Asset Size





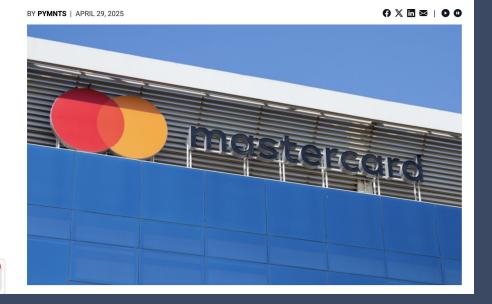
Source: S&P Global Market Intelligence: Financial data as of 9/30/2019



### THE FUTURE IS NOW

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### Mastercard Debuts Agent Pay to Promote 'Agentic Commerce Future'



Mastercard has launched Agent Pay, its agentic artificial intelligence (AI)-driven payments program.

The new offering, announced Tuesday (April 29), introduces Mastercard's Agentic Tokens, which the company said builds upon tokenization capabilities that power global commerce solutions like mobile contactless payments, along with programmable payments such as recurring expenses and subscriptions.

"This helps unlock an agentic commerce future where consumers and businesses can transact with trust, security, and control," the company said in a news release. "Mastercard Agent Pay will enhance generative AI conversations for people and businesses alike by integrating trusted, seamless payments experiences into the tailored recommendations and insights already provided on conversational platforms."

That means, the company said, that someone planning a party could chat with an AI agent to curate outfits and accessories or plan a venue. The agent can then make purchases based on that customer's preferences and feedback, while also recommending the best way to pay.

According to the release, Mastercard plans to collaborate with a number of tech companies on the program: Microsoft on new use cases to scale agentic commerce, IBM to accelerate B2B use cases and companies like Braintree and Checkout.com to enhance tokenization capabilities already in use.

"The launch of Mastercard Agent Pay marks our initial steps in redefining commerce in the AI era, including new merchant interfaces to distinguish trusted agents from bad actors using agentic technology," said Jorn Lambert, Mastercard's chief product officer.

"Recognizing the seismic implications of this evolution, we are keen to collaborate with industry players to advance the standards for agentic payments, such as applying the Model Context Protocol to Secure Remote Commerce," he added. "This lays the foundation for scale and builds trust in agentic commerce."



### 5 MINUTES LATER...



#### BY MATT O'BRIEN

Updated 4:05 PM EDT, April 30, 2025

Share 🖒

Artificial intelligence "agents" are supposed to be more than chatbots. The tech industry has spent months <u>pitching Al personal assistants</u> that know what you want and can do real work on your behalf.

So far, they're not doing much.

Visa hopes to change that by giving them your credit card. Set a budget and some preferences and these Al agents — successors to ChatGPT and its chatbot peers — could find and buy you a sweater, weekly groceries or an airplane ticket.

"We think this could be really important," said Jack Forestell, Visa's chief product and strategy officer, in an interview. "Transformational, on the order of magnitude of the advent of e-commerce itself."





### Agentic Al: PayPal vs Mastercard vs Visa

By: Panagiotis Kriaris

|                     |   |   | VISA   |  |  |
|---------------------|---|---|--|--|--|
|                     | PayPal Agent Toolkit  | Mastercard Agent Pay  | Visa Intelligent Commerce  |  |  |
| Announcement date   | <b>14 &amp; 29 Apr 2025</b> PayPal Dev Days   | 29 Apr 2025 - global press release  | 30 Apr 2025 - Visa Global Product Drop   |  |  |
| Headline            | Let any Al agent plug directly into PayPal to<br>handle the full commerce loop—pay, ship, invoice,<br>dispute   | New payment infrastructure for agentic<br>commerce - autonomous Al assistants execute<br>transactions on behalf of users  | Empower Al agents to deliver personalized and secure shopping experiences at scale   |  |  |
| Use cases           | <ul> <li>Pay for purchases and settle invoices</li> <li>Track shipments in real time</li> <li>Auto-manage subscriptions / inventory</li> <li>Raise or resolve disputes</li> </ul> | <ul> <li>Birthday-party shopping concierge</li> <li>SME agent that sources overseas and settles with a virtual corporate card</li> <li>Retailer chat-bot - best way to pay</li> </ul> | <ul> <li>Book flights/hotels (send spend limit)</li> <li>Order weekly groceries automatically</li> <li>Reserve hard-to-get restaurant tables and pay without exposing card data</li> </ul> |  |  |
| Rails               | Existing PayPal Open Platform APIs + new<br>Model Context Protocol (MCP) and<br>"Agent-to-Agent" workflow endpoints   | New Agentic Tokens on Mastercard's token & passkey stack; supports programmable rules   | <b>Tokenised Al-ready Card</b> created via Visa<br>Payment Passkeys; 5 APIs cover auth, tokenisation,<br>spend-rules, risk signals   |  |  |
| Key partners        | AWS, Google Cloud (Gemini),<br>Microsoft Azure, Anthropic   | Microsoft, IBM watsonx,<br>Braintree, Checkout.com  | Anthropic, OpenAI, Microsoft, Samsung,<br>Stripe, Mistral AI, Perplexity   |  |  |
| Features & Controls | <ul><li>One-time-password identity checks</li><li>PayPal fraud intelligence</li><li>Embedded merchant verification</li></ul>  | <ul> <li>Register &amp; verify "trusted agents</li> <li>On-device biometrics for strong authentication</li> <li>User-set purchase permissions</li> </ul>                              | <ul> <li>User-defined spend limits, MCC/category filters,<br/>real-time approval prompts</li> <li>Visa Al fraud engine (\$40 bn blocked '24)</li> </ul>                                    |  |  |
| Timeline            | <ul><li>APIs live now</li><li>Merchants shown in public demos</li><li>Early dev projects under way</li></ul>  | <ul> <li>Partner integrations began April 2025</li> <li>Broader merchant rollout "next phase" (no date yet)</li> </ul>  | <ul><li>Pilot APIs live</li><li>Controlled pilots in 2025</li><li>Full global rollout targeted for 2026</li></ul>  |  |  |
| Overlap             | Tokenised credentials, agent-friendly APIs  | Tokenisation + user controls  | Tokenisation, spend rules, broad partners  |  |  |
| Edge                | Deepest <b>post-payment features</b> (invoicing, disputes, shipping)  | First to formalise "trusted-agent" registration & mandatory biometrics  | Most granular spend / MCC limits and instant global acceptance   |  |  |



### PERSON-AI-ZATION

- PFM Alvisor
- RespondAI: Lightning-fast AI. responses that feel thoroughly human
- COACH (Customized Optimization And Cash Handling): Personal financial optimization platform
- COMPASS (Customer Opportunity Mapping, Prediction And Solution Suggestion): Navigation system for future financial needs
- PRIME (Personalized Reach In Moments of Engagement): Optimal timing communication platform





### **Forbes**

### Citibank's Billion-Dollar Mistake And How It Turned Out Two Years Later

| By Joshua Stein, Contribu | tor. ① I write about commercial real estate nego | ~ | Follow Author |
|---------------------------|--|---|---------------|
| Sep 12, 2022, 10:15am EDT |  |   |               |

In August 2020, Revlon paid Citibank a few million dollars to cover some interest on the loan. Citibank distributed that payment to the lenders as appropriate. By mistake, Citibank also wired to all the lenders all the principal due on the loan — about a billion dollars — even though the loan wasn't due and Revlon hadn't actually repaid any principal. So Citibank mistakenly paid off all the lenders in full with the bank's own money. That happened because Citibank's payment software was so badly designed that it almost encouraged bank personnel to make huge mistakes. Nothing in the litigation suggests, however, that similar mistakes had previously occurred.



|                  | BDLL Bor              | rower LIBOR | Drawdown Prod                 |                  | D                      | rawdown  |  |
|------------------|-----------------------|-------------|-------------------------------|------------------|------------------------|----------|--|
| 001BDLL201480094 |                       |             |                               | 001BDLL201480094 |                        |          |  |
|                  | 024462                | F           | REVLON CONSUMER PRODUCTS CORP |                  |                        |          |  |
| Facility Name    | REVLON TERM LOAN 2016 |             |                               |                  |                        |          |  |
| L Detail         |                       |             |                               | Oven             | vrite (                | default  |  |
| Component        |                       |             | Internal GL                   |                  | settlement instruction |          |  |
| COLLAT           |                       |             |                               | Q                |                        | <u>e</u> |  |
| COMPINTS         | F                     |             |                               | Q                | Г                      |          |  |
| DEFAUL           |                       |             |                               | Q                |                        |          |  |
| DFLFTC           |                       |             |                               | Q                |                        |          |  |
| FRONT            |                       |             |                               | Q                | Г                      |          |  |
| FUND             |                       |             |                               | Q                | Г                      |          |  |
| INTEREST         |                       |             |                               | Q                |                        |          |  |
| PRINCIPAL        | PRINCIPAL             |             | 023                           | Q                | ✓                      |          |  |
|                  |                       |             |                               | Q                | Г                      |          |  |

### Citi employee's typo leads to an \$81 trillion transaction error

Citigroup Inc. mistakenly credited \$81 trillion to a customer's account instead of \$280 last April before reversing the transaction hours later, according to the Financial Times. The transfer was missed by two employees and detected by a third employee 90 minutes after it was posted, the report said. No funds left the bank, and it was disclosed as a "near miss" to the Federal Reserve and Office of the Comptroller of the Currency, according to the report.

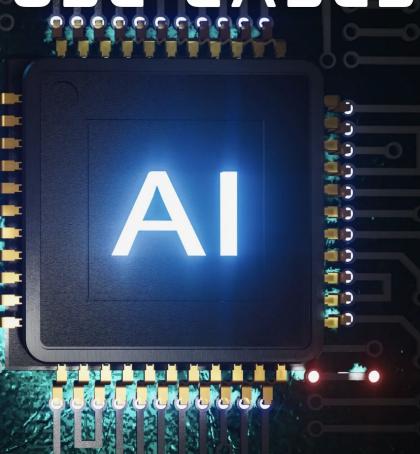
A total of 10 near misses of \$1 billion or more occurred at Citi last year, according to the FT, citing an internal report. While it's down from 13 cases in the previous year, the report said near misses of greater than \$1 billion were unusual across the US bank industry.

Citi's \$81 trillion near miss in April was due to an input error and a backup system with a cumbersome user interface, according to people familiar with the incident. In mid-March, four transactions totaling \$280 destined for a customer's escrow account in Brazil had been blocked by a screen that catches payments that are potential sanction violations.

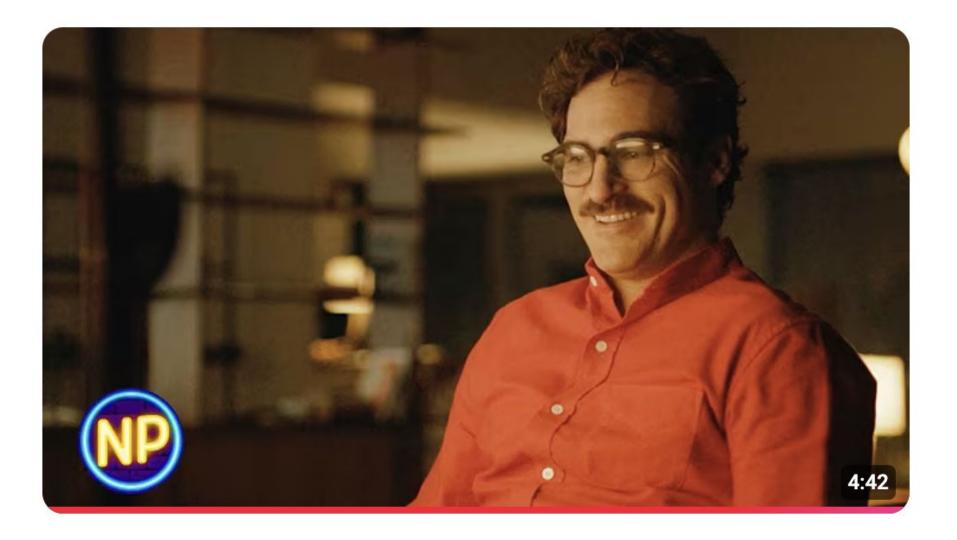


# BACK OFFICE USE CASES

- Automating extraction of data from loan applications, KYC documents, mortgage papers, tax forms, etc.
- Automating identity verification, credit risk assessment, and onboarding workflows.
- Speeding up underwriting for mortgages, business loans, and personal loans.
- Automating compliance checks (AML, KYC, GDPR, CRA), generating regulatory reports.
- Predictive analytics. Forecasting staffing needs, cash requirements at branches/ATMs, or IT capacity.
- Automating random sampling of transactions and processes for quality assurance.









### **Fintech Brainfood**

Deeper dives into Fintech and Finance, food for your Brain.



- Payments: "Buy me the same groceries as last week and deliver when I'm home"
- Financial guidance: "Optimize my savings and investments"
- Taxes: "File my taxes" (can you imagine!!)
- Consumer cashflow: Agent says "hey, you're running low on cash, would you like to move some money from savings so you don't get a fee?"
- **Business collections:** "You have 6 invoices late today, would you like me to give them a call?
- Embedded Financial Planning: "Create a vacation fund and find me the optimal savings strategy based on my spending habits"
- **Financial Identity Management:** "Keep my financial identity current across all my accounts automatically"
- Personalized Financial Coaching: "Analyze my spending patterns and coach me on better habits" (goes beyond alerts to actual behavioral change)



Generative Al

### How People Are Really Using Gen AI in 2025

by Marc Zao-Sanders

April 9, 2025

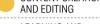


#### **Top 10 Gen AI Use Cases**

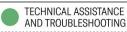
The top 10 gen Al use cases in 2025 indicate a shift from technical to emotional applications, and in particular, growth in areas such as therapy, personal productivity, and personal development.

#### **Themes**

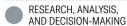


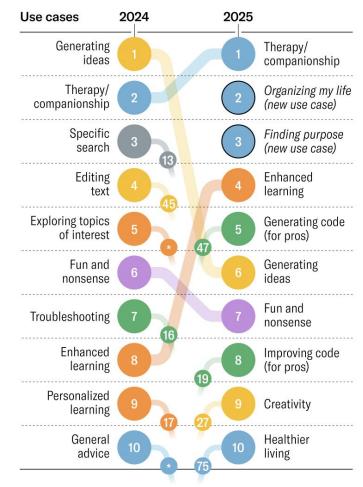












<sup>\*</sup>Did not make list of top 100 in 2025 Source: Filtered.com





So here we are at the crossroads.

Just like that January day in 2007 when Steve Jobs changed everything, we're standing at the threshold of a new world. The difference is that we know it's coming. We can see it. We can feel it.

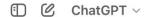
You have three options:

You can deny it. You can tell yourself this is just another technology cycle, another incremental change that you'll adapt to when you need to. The taxi drivers thought that too when Uber first appeared.

You can fear it. You can focus on all the ways AI might threaten your current business model and customer engagement approach. The media executives did that when Netflix emerged. Where are they now?

Or you can embrace it. You can run toward this change with everything you have. You can be the person who doesn't just witness history but shapes it.





### What can I help with?

Assume the persona of a US based bank / credit union executive. What are ten recommendations you can provide on how I can drive AI adoption for my organization to future proof our operations and offerings. Think in a 10x mindset and ensure we aren't left behind. Build this a two year rollout plan and prioritize the recommendations that drive cost savings first, then recommendations linked to potential net new revenue offerings. For each recommendation please include 2-3 vendors/partners worth exploring.

Please also format this as a two year phased implementation plan and create an executive briefing



Search



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#### ChatGPT at Work (11)







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Every technological revolution has created enormous wealth and opportunity – but not for everyone. Only for those who recognized the moment and acted with courage.

When you leave here today, you'll make a choice whether you realize it or not. With every board meeting, every technology investment, every community initiative, you'll either be stepping into banking's future or clinging to its past.

The world of community banking as we know it is ending. Something new and extraordinary is being born.

So I ask you one final time: Where will you be when everything changes?

Because I'll tell you where I hope you'll be – right at the center, leading the charge, transforming not just how banking works, but what's possible for every community you serve.

The revolution isn't coming. It's here. And it's waiting for you to join it.



in /sammaule