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Your source for payments education

AI in Retail Payments

Can AI fix what's wrong with Payments...or make things worse?

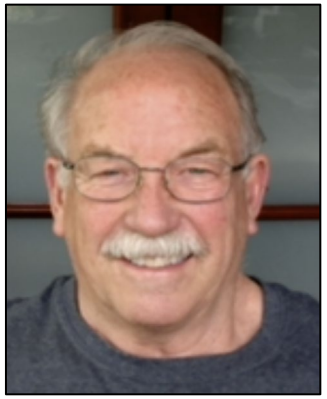
Alx Block, Head of Payment & Risk Operations, Automattic
Joshua Lockhart, CTO of Aeropay
Steve Mott, Principal of BetterBuyDesign, LLC

Key Takeaways from this Session

- AI in retail is evolving fast—know the "**why**" and "**how**."
- Learn **where AI** is showing **real traction** today.
- Identify what ***you*** can do with AI/ML in payments and commerce.

Meet Today's Speakers

Alx Block leads Payment & Risk Operations at Automattic, overseeing fraud prevention and risk strategy for WooCommerce, WordPress.com, Tumblr, and more.
With over a decade in digital commerce risk, he builds scalable systems, empowers high-impact teams, and turns risk into a competitive advantage. Fraudsters try every trick in the book, but many end up running into, literally, an Alx Block.



Steve Mott is Principal at BetterBuyDesign, LLC a consulting company advising clients on financial services for more than four decades.
Steve has worked with merchants on many initiatives involving online and mobile commerce, real-time networks, A2A/P2P/Stored Value payments, and interchange/network rules issues. Steve deployed his first AI/ML application in 1990.

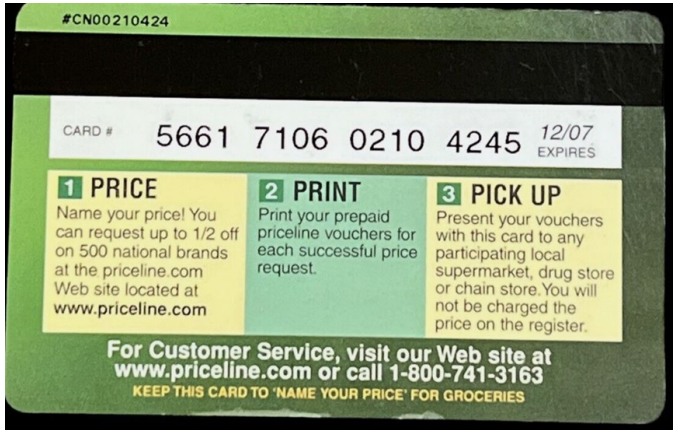
Josh Lockhart is the Chief Technology Officer (CTO) at Aeropay, a financial technology company redefining pay-by-bank transactions.
Since joining in 2024, Josh has brought deep expertise in payments infrastructure, security, and scalability—gained from his experience at PayPal, Braintree, and as Vice President of Engineering at GoFundMe. Josh is committed to leveraging his expertise to enhance Aeropay's technological capabilities and drive innovation in the payments industry.

Topics for Discussion Today

1. A brief **background on AI/ML**
2. A high-level **framework for** targeting **operational improvements**
3. Insights on how **Automattic** has gotten started on automating support for WordPress and associated entities
4. Insights into how **Aeropay** has harnessed machine learning to derive cleaner transactions
5. Thoughts on/assessments of **recent initiatives by networks** (including Agentic AI)

1. Background on AI/ML

It turns out that AI/ML have been around a long time…



The difference: Today we can crunch massive amounts of data in real-time very cheaply

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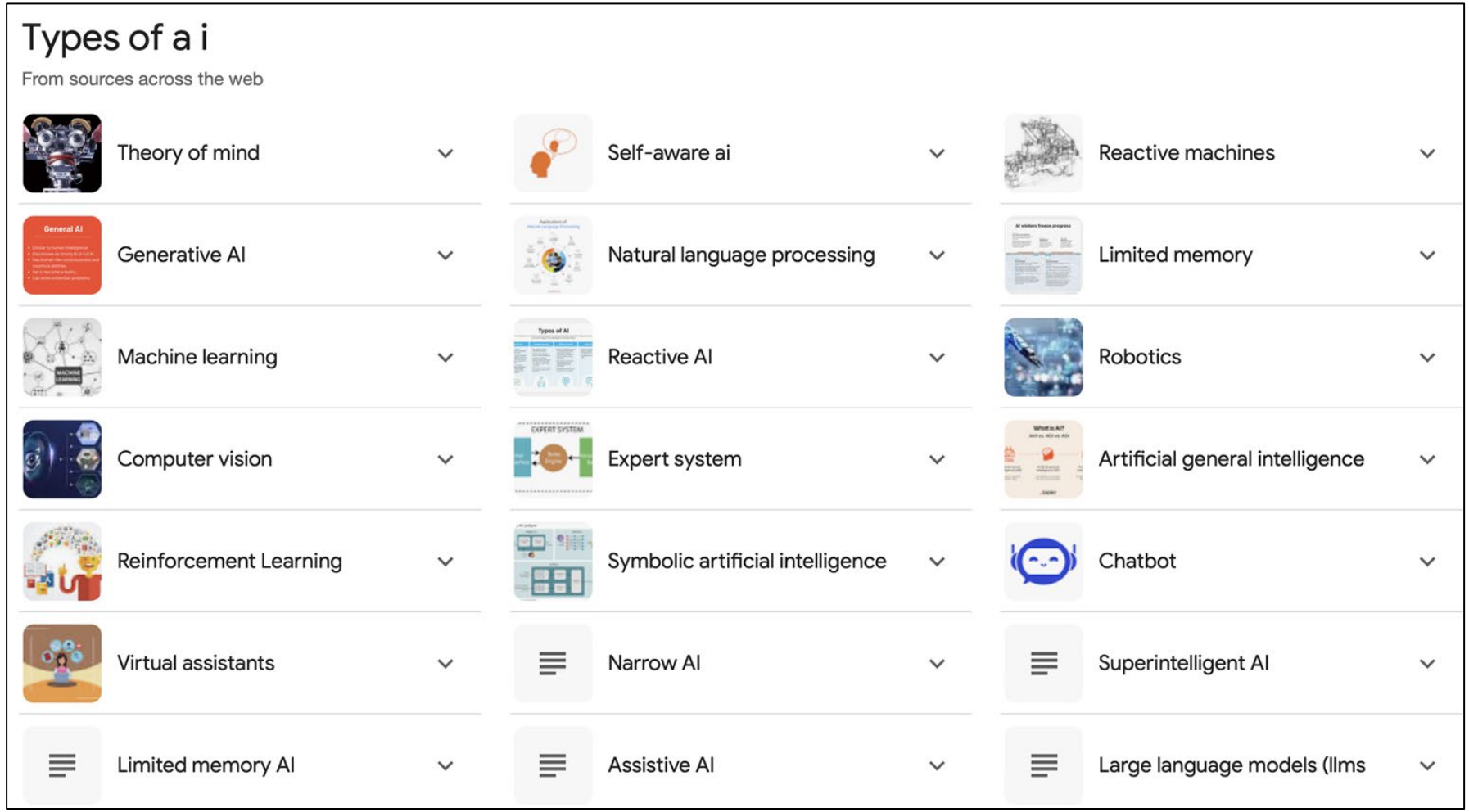
Artificial Intelligence/Machine Learning takes many forms; most of us know "Generative AI" for research



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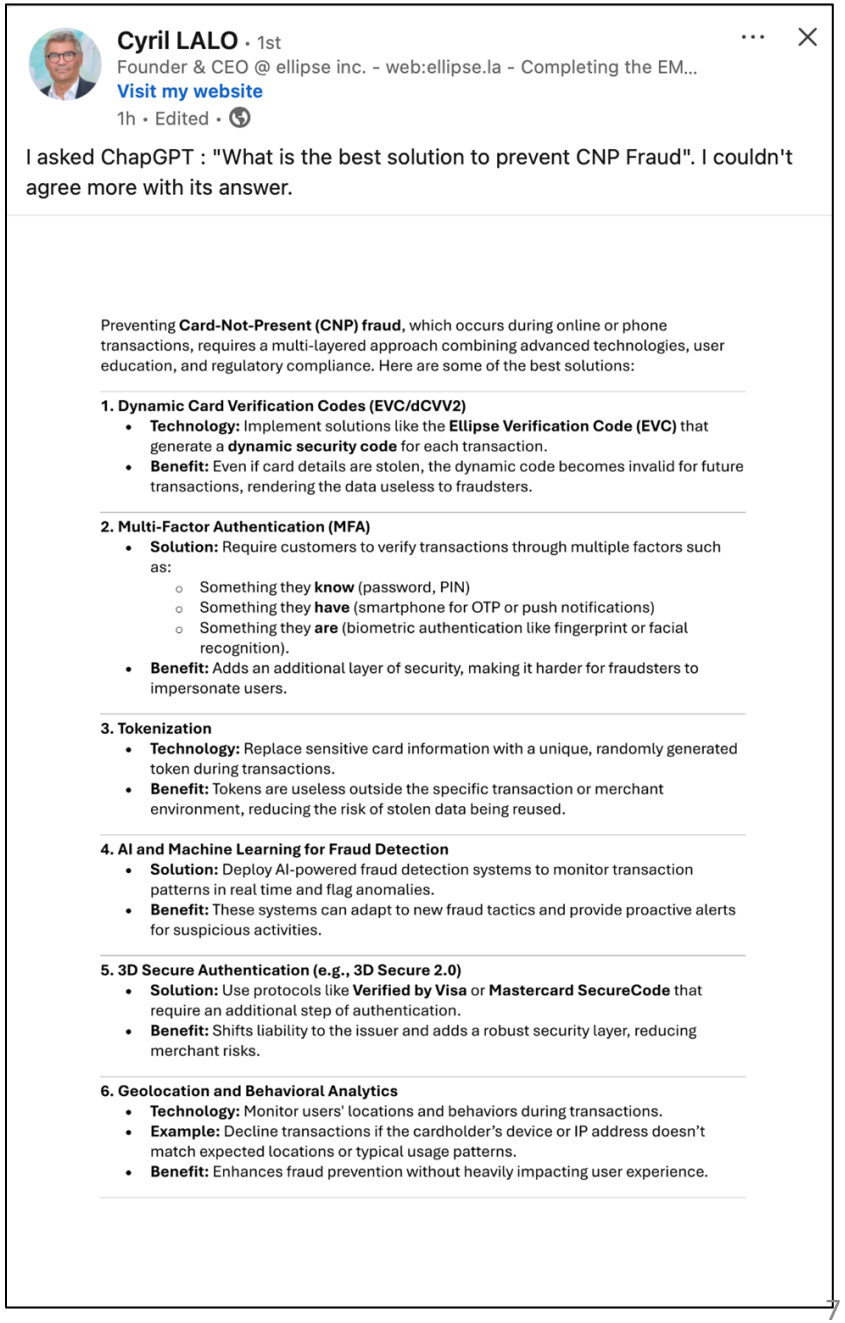
Example: Consult ChatGPT to search for "What is the best solution to prevent CNP Fraud?" A: Lots of things…but what now?



Cyril LALO · 1st
Founder & CEO @ ellipse inc. - web:ellipse.la - Completing the EM...
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I asked ChapGPT : "What is the best solution to prevent CNP Fraud". I couldn't agree more with its answer.

Preventing **Card-Not-Present (CNP) fraud**, which occurs during online or phone transactions, requires a multi-layered approach combining advanced technologies, user education, and regulatory compliance. Here are some of the best solutions:

1. Dynamic Card Verification Codes (EVC/dCVV2)
- **Technology:** Implement solutions like the **Ellipse Verification Code (EVC)** that generate a **dynamic security code** for each transaction.
- **Benefit:** Even if card details are stolen, the dynamic code becomes invalid for future transactions, rendering the data useless to fraudsters.

2. Multi-Factor Authentication (MFA)
- **Solution:** Require customers to verify transactions through multiple factors such as:
  - Something they **know** (password, PIN)
  - Something they **have** (smartphone for OTP or push notifications)
  - Something they **are** (biometric authentication like fingerprint or facial recognition).
- **Benefit:** Adds an additional layer of security, making it harder for fraudsters to impersonate users.

3. Tokenization
- **Technology:** Replace sensitive card information with a unique, randomly generated token during transactions.
- **Benefit:** Tokens are useless outside the specific transaction or merchant environment, reducing the risk of stolen data being reused.

4. AI and Machine Learning for Fraud Detection
- **Solution:** Deploy AI-powered fraud detection systems to monitor transaction patterns in real time and flag anomalies.
- **Benefit:** These systems can adapt to new fraud tactics and provide proactive alerts for suspicious activities.

5. 3D Secure Authentication (e.g., 3D Secure 2.0)
- **Solution:** Use protocols like **Verified by Visa** or **Mastercard SecureCode** that require an additional step of authentication.
- **Benefit:** Shifts liability to the issuer and adds a robust security layer, reducing merchant risks.

6. Geolocation and Behavioral Analytics
- **Technology:** Monitor users' locations and behaviors during transactions.
- **Example:** Decline transactions if the cardholder's device or IP address doesn't match expected locations or typical usage patterns.
- **Benefit:** Enhances fraud prevention without heavily impacting user experience.

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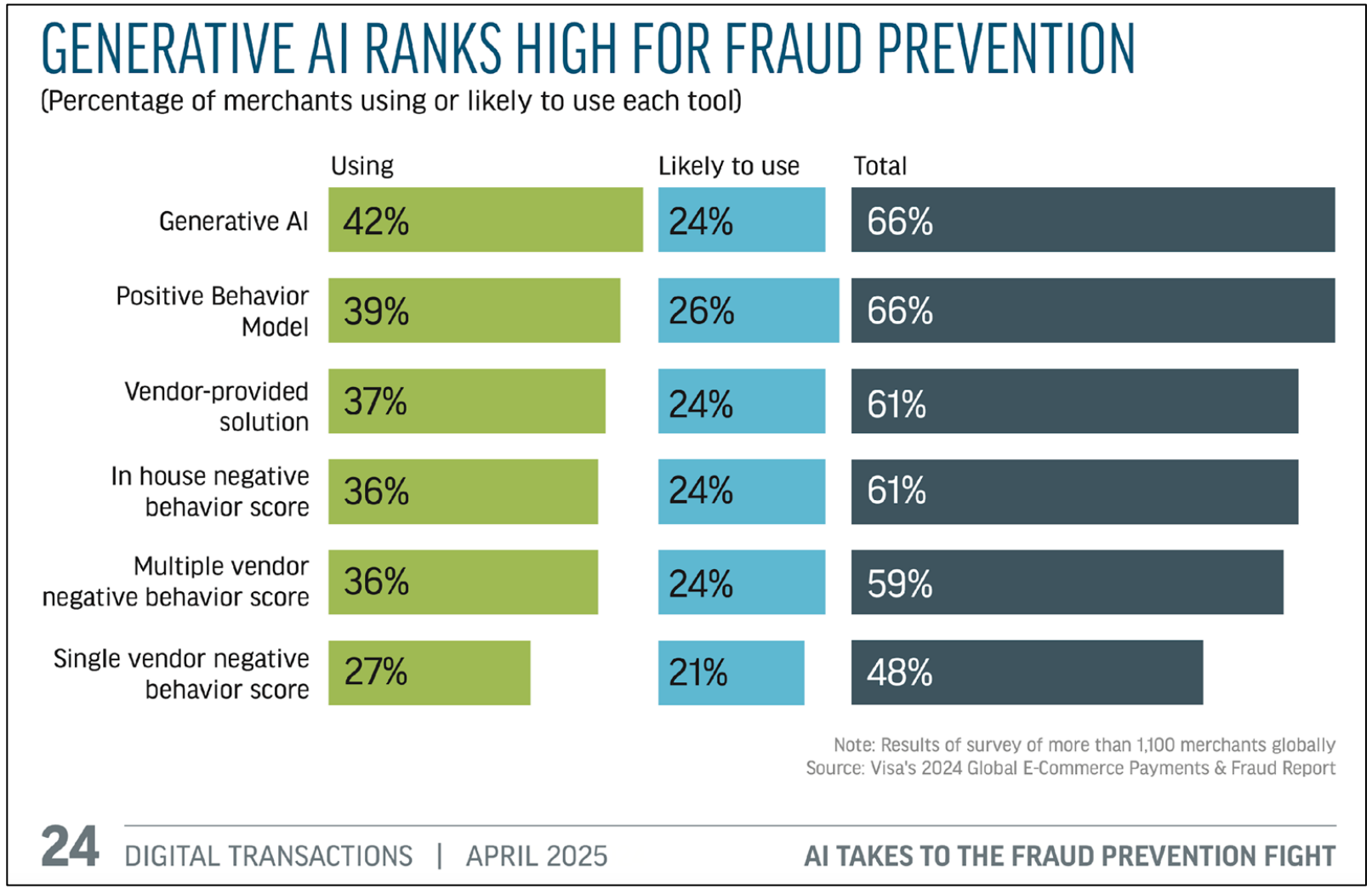
Industry Mantra: Use AI/ML for Fraud Prevention



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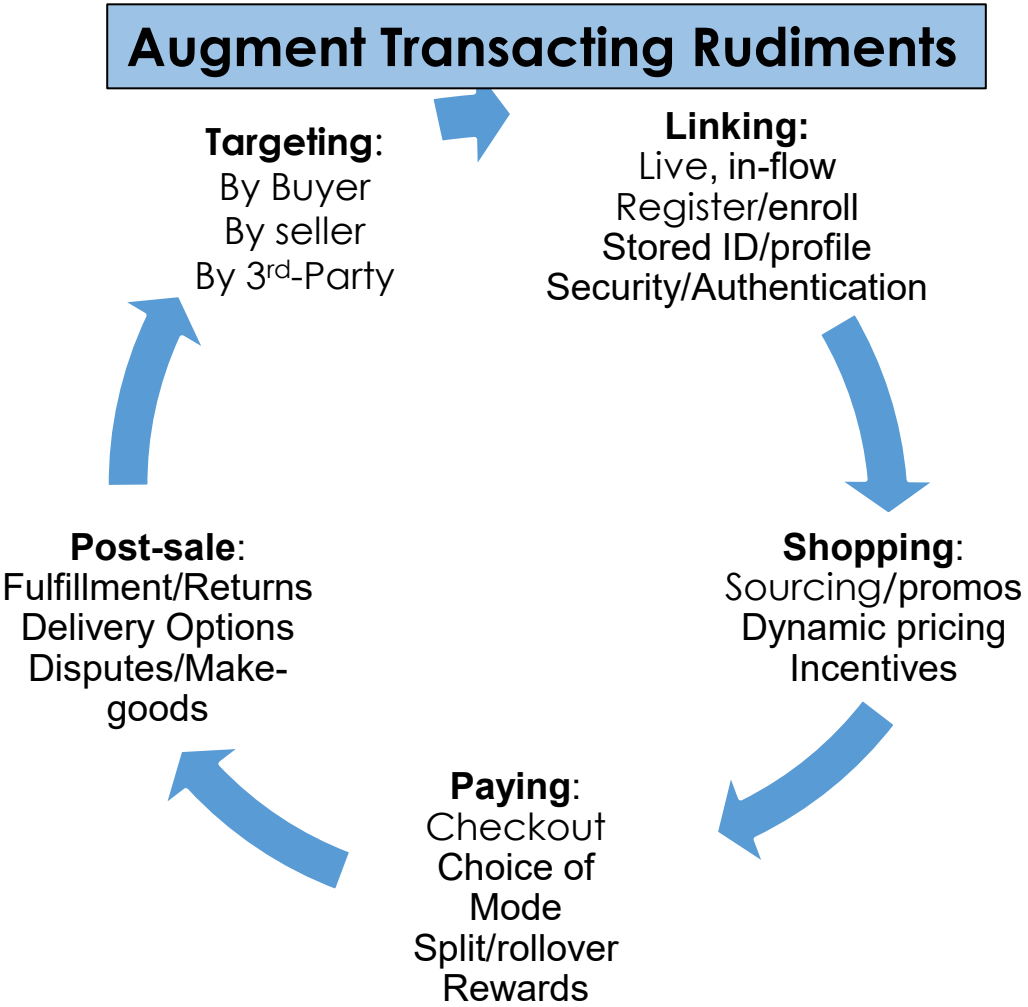
2. A Framework for AI/ML: Key Assumptions

Capabilities Emerging	Examples of Potential Value-added
Assists in transition from physical to digital venues	Improves transactional times, efficacy and user gratification
Augments tactical initiatives-- especially legacy learned behavioral analytics	Coagulates real-time signal processing inputs to improve fraud mitigation and minimize exception-handling
Improves understanding of users (both buyers and sellers, payers and payee) at addressable transaction rudiments	Enhances propensities to interact successfully (shop/price/fulfill) and improvs economics for all transactional parties
Facilitates orderly, editable exchanges of data by transaction parties and participants	Addresses myriad of quirks and gaps in existing information reporting systems (e.g., ISO 8583, network data, etc.)
Leads ultimately to strategic objectives	Expands potential for fully automated/cost-optimized processing
Sets the stage for transformative reinventions of payments	Introduces breakthroughs such as privacy-by-design and security-by-design

Where AI can Help in Retail Payments :
Depends on your Data and Painpoints

Automate Tactical Initiatives:

- Reduce Fraud
- Reduce Friction
- Improve Auth Rates
- Reduce Errors
- Improve User Comm
- Automate Recordation and Accessibility of Data



Fulfill Strategic Objectives:

- Efficacious Risk Management
- Expand Sales
- Improve User Experience
- Lower Product Costs
- Lower Core Fees and Charges
- Foster Customer Continuity

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3. Experience at Automattic: Hub for WordPress, WooCommerce, etc.

Automattic is a fully distributed company behind WordPress.com, WooCommerce, Tumblr, Jetpack, and more. We help power over 43 percent of the web and support millions of creators and businesses around the world.

Our Payment & Risk Operations team focuses on:

- Protecting commerce at scale by **preventing fraud** across key platforms
- **Enabling global payments** through WooPayments in more than 100 countries
- Balancing growth and trust by **aligning revenue goals with platform safety and compliance**

We have no central office. Our remote-first culture is built on transparency, ownership, and continuous learning. These principles shape everything we do in risk, payments, and AI.

Automattic AI Projects in Progress: Chargebacks and Merchant Risk

We are building two AI-powered systems to reduce manual effort and increase accuracy in core areas of our work:

Chargeback Representment Automation

- Evolving our internal tool to auto-fill and evaluate evidence packages
- Uses AI to match templates to reason codes and flag missing info and automatically represent disputes
- Designed to reduce handling time and improve win rates at scale

Multi-Agentic Risk Reviews

- A prototype using multiple AI agents for merchant vetting
- Agents check website content, verify onboarding data, scan for PII, and review social signals
- Creates faster, more complete risk profiles for better decisions
- Analysts become leads of their own little team of agents

AI as a Force Multiplier for Leadership and Team Clarity

AI is not just helping us process more work. It is helping us lead more effectively and bring the full picture into focus.

- **Performance reviews, redefined**: I manage feedback using a structured framework rooted in our values, with a tone and style guide that ensures clarity, fairness, and alignment across the team.
- **Real visibility into the work**: With AI, I can see trends, outputs, and patterns across reviews, tickets, projects, and individual contributions without relying on manual tracking.
- **A shared lens on performance**: This gives me and my leads a consistent way to evaluate progress, impact, and growth areas. There are fewer blind spots and less guesswork.
- **Fewer bottlenecks, more momentum**: We can now connect the dots between what people are doing and what the business needs, faster and with more confidence.

AI helps us lead with context and clarity. It creates alignment and builds trust at every level.

Machine learning is tasked with driving better transaction success rates

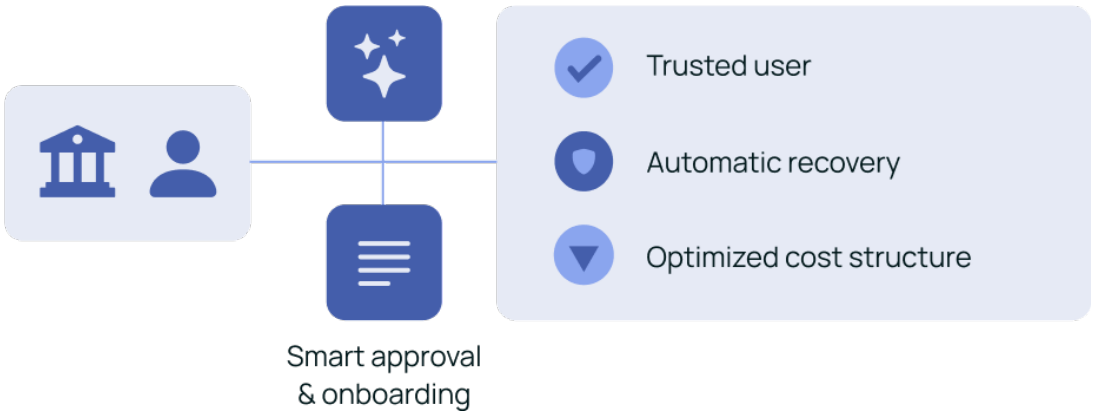
By leveraging AI-driven risk models informed by billions of prior interactions, merchants are able to:

-> Approve more transactions

-> Block known bad actors

-> Accurately predict payment behavior...

...with an increased **acceptance rate**, network-level risk assessment, and real-time fraud prevention, The goal is to help merchants accept the good while rejecting the bad - all with greater confidence.



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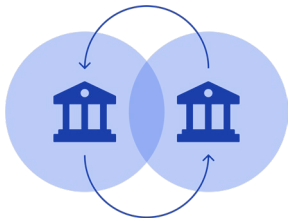
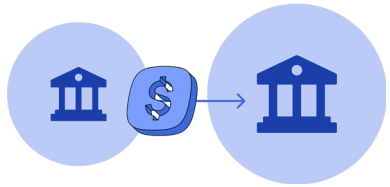
Machine learning is aimed at optimizing account-to-account transacting via four product pillars



Bank Linking

Seamless, secure account linking through open banking rails



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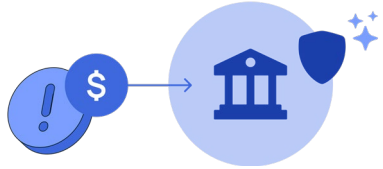
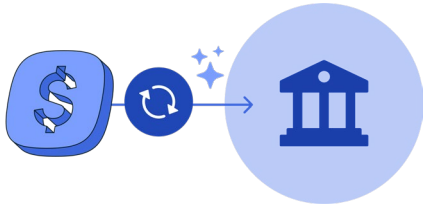
ACH, Same-Day ACH, RTP, FedNow — flexible options for A2A



Guard

Real-time risk and fraud controls that intelligently approve transactions



Smart Recovery

Automated retries and recoveries with optimized cadences

The machine learning is fed by a growing network of authenticated users that gets smarter over time, enabling these pillars to form the foundation for a secure, efficient A2A payments network.

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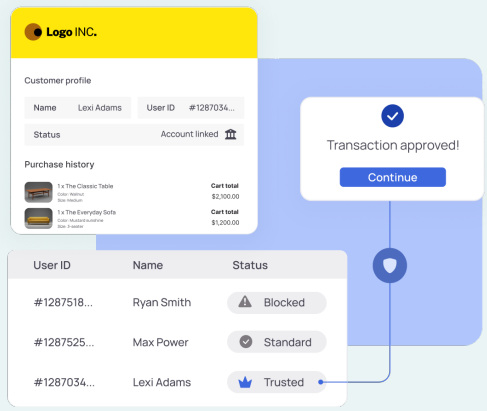
Advanced machine learning applied to risk and recovery



ML-powered Guard

Predictive fraud and risk modeling trained on billions of interactions

Accesses account history, balances, and transaction behavior

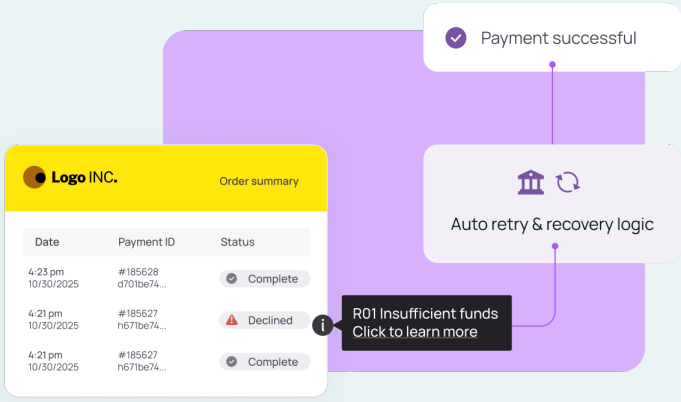
Provides merchants with guaranteed funds approvals in real time

Smart recovery engine

Adaptive recovery strategies for returned transactions

Uses user and bank behavior patterns to retry with the highest likelihood of success

Reduces failed payments and boosts merchant recovery rates



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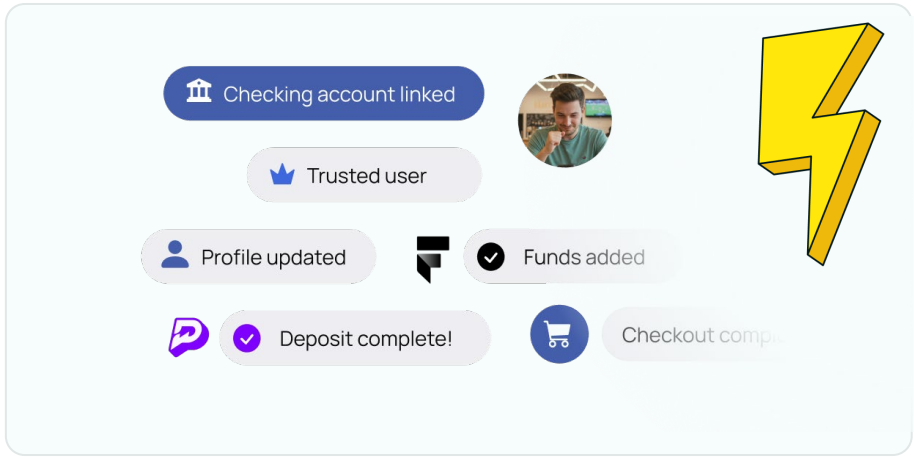
The innovation process is designed to leverage the ‘network effect’

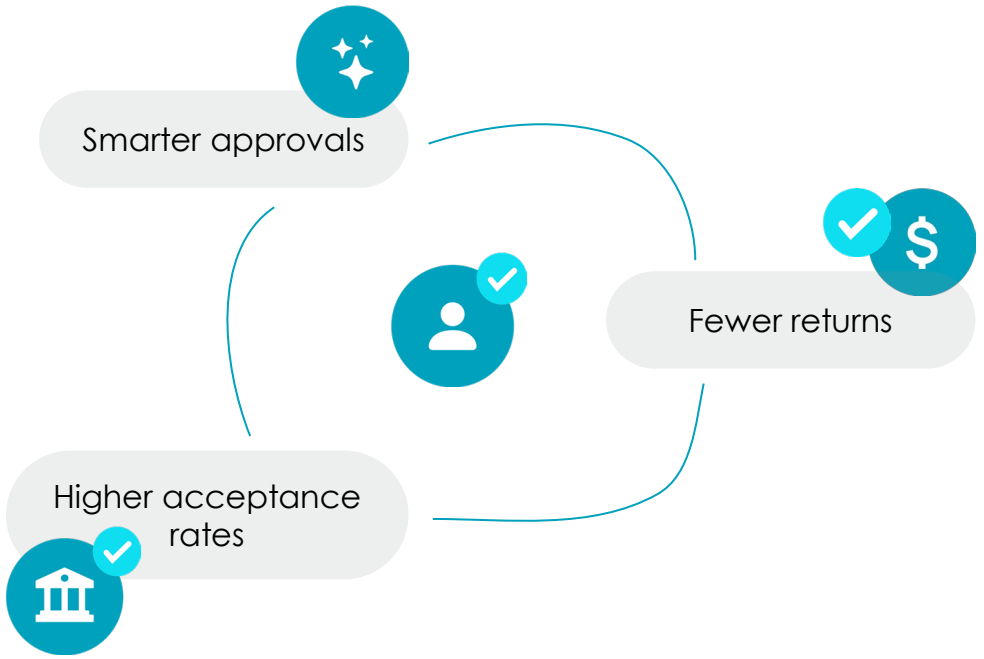
Every user who has a payments transaction strengthens the network...

...enriches data models for risk assessment and recovery...

...improves confidence in payment outcomes over time...

...and supports a cycle of smarter approvals → fewer returns → higher acceptance rates





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5. Perspectives on Network Initiatives in AI/ML

- Processor-outsourced risk management (Adyen)
- Facilitated Checkout (Mastercard, PayPal, checkout.com)
- Agentic shopping on behalf of buyers (Visa, Mastercard, PayPal, Stripe, ….)

Efficacious Risk Management by Adyen

THE PAYPERS

Insights into Payments and Beyond

150% rise in pay by bank*. Are you ready?

*Internal Worldline data analysis

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News

Adyen launches Adyen Uplift

Friday 10 January 2025 14:30 CET | News

Global financial technology platform, Adyen, has recently announced the launch of its AI-powered payment optimisation solution, Adyen Uplift.

The solution is set to help businesses boost payment conversion, diminish the cost of payments, and simplify fraud management. Adyen's business customers can use data-driven performance recommendations and opportunities to run various payment configuration tests and maximise performance.

How can businesses benefit from Adyen's Uplift solution

Businesses constantly struggle to choose between conversion, eliminating fraud, and keeping minimum costs. Adyen's Uplift is designed to optimise the full payments funnel with the use of AI, trained on the company's global transaction dataset. Using risk-based intelligence and automated conversion optimisation, the tool aims to help businesses get the most out of payments. Moreover, Adyen claims that the new Uplift will focus on the power of AI to solve real-time payment optimisation which, in turn, will boost businesses' efficiency and performance.

Fighting fraud with AI-first approach

Fraud is extremely complex and can happen at any point during the checkout process, account verification, and even after a payment is reconciled. This forces businesses to implement extensive manual rules to fight against villains and ever-evolving fraud techniques. And even though machine learning and automated reviews have been successfully implemented by many businesses, we still cannot talk about zero fraud.

Uplift is designed to automate fraud control and remove the operational burden from management teams, flagging only a series of problematic payments that require further, manual verification. Adyen's solution also automates and refines risk management, helping businesses lower fraud levels and reduce false positives with the use of tailored and trained AI models.

According to the company, the clients that piloted the new risk product have already reduced their manual risk rules by 86%, on average, while 35% of customers eliminated manual ruling completely. At the same time, it is said that Adyen Uplift can reduce payment cost by up to 5% as it selects the best routes and best rates for transactions to minimise the total cost of payments.

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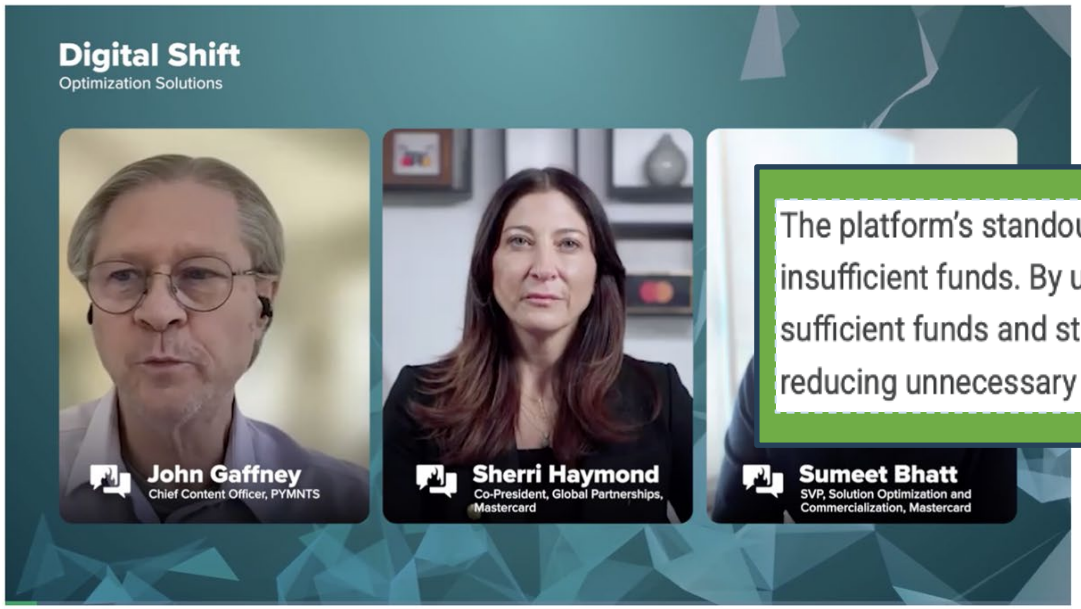
Mastercard: AI at Checkout

Mastercard Says the Checkout Revolution Will Be Optimized … by AI

BY **PYMNTS** | DECEMBER 4, 2024



Digital commerce is growing at a staggering pace. Online transactions have more than doubled over the past four years, placing a new urgency on ensuring seamless checkouts.

For businesses, checkout is where revenue is won or lost. For customers, it's where experience defines loyalty. Yet checkout remains a hotspot for friction, abandoned carts and dissatisfied users.

PYMNTS sat down with Sumeet Bhatt, senior vice president, digital solution optimizations, at Mastercard; and Sherri Haymond, co-president, global partnerships at Mastercard, to hear about how artificial intelligence (AI) isn't just refining the payment process — it is reimagining it, and turning one of eCommerce's thorniest pain points into a streamlined, strategic advantage.

"AI and real-time enriched data represent a leap forward for the payment industry," Haymond said, highlighting the technology's promise to enhance approval rates and transform the customer experience.

With AI, vast datasets can be analyzed in seconds to recommend the most relevant payment options for each customer's checkout journey, reducing errors and optimizing transaction routing.

For merchants, the stakes are high: Over 42% of consumers report they won't return to a merchant after a failed transaction. This fallout underscores how false declines or cumbersome payment processes can damage customer relationships and bottom lines.

The platform's standout feature is its ability to address one of the most common causes of payment declines: insufficient funds. By using network-level data, Mastercard can predict when a customer's account is likely to have sufficient funds and strategically reattempt the transaction. Bhatt said this approach can drive incremental revenue while reducing unnecessary transaction retries.

But, as Bhatt said, Mastercard is at the forefront of tackling these challenges with its AI-driven Payment Optimization Platform, promising not only to enhance approval rates but also to transform the customer experience.

"Merchants own how they route transactions," he said, "but Mastercard's unique position allows us to see the full ecosystem of payment data." This perspective enables Mastercard's AI to analyze transaction patterns, issuer preferences, and fraud indicators in real time, enriching authorization messages to increase the likelihood of approval.

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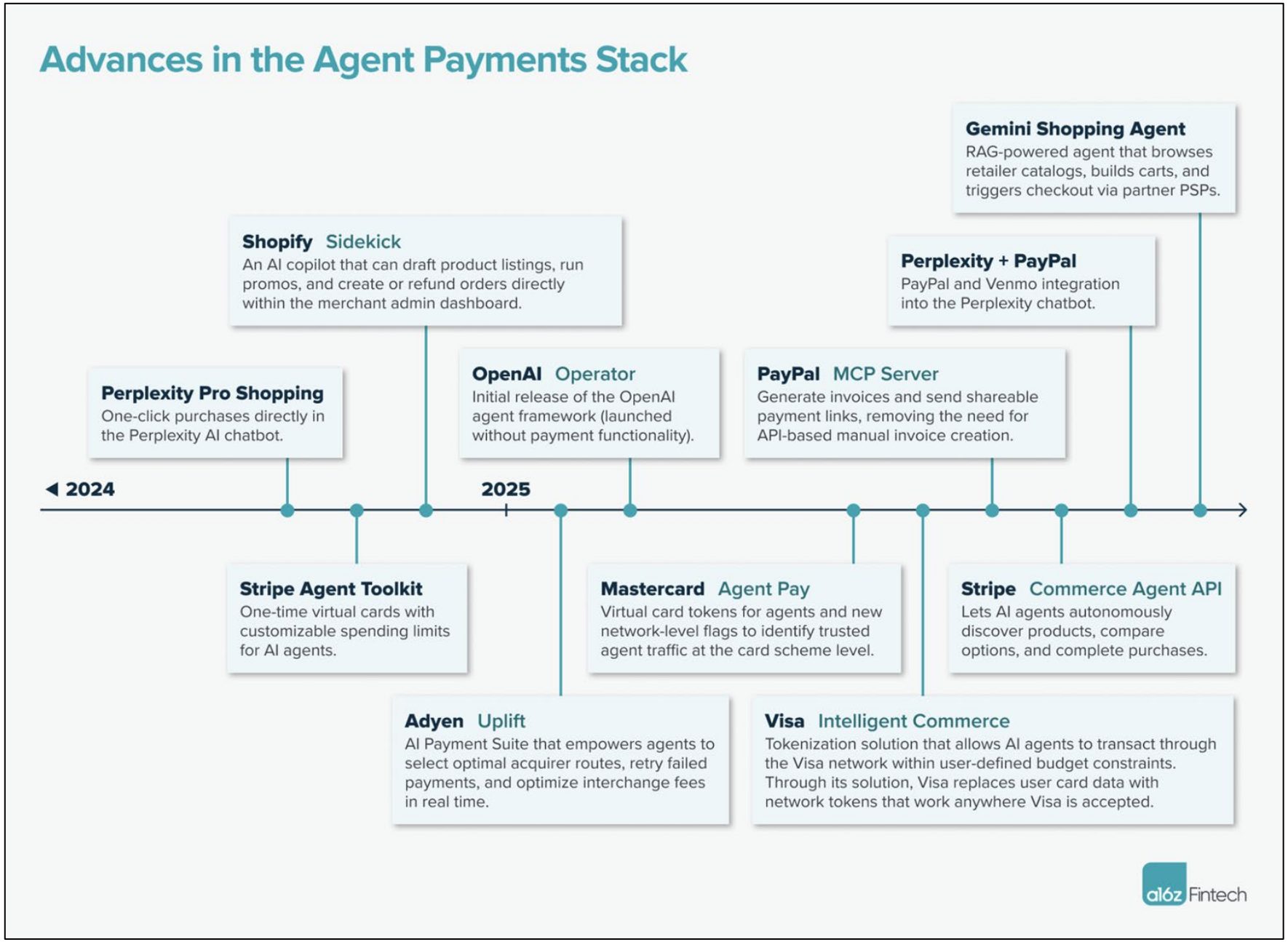
"This is the holy grail of optimization," Haymond said.

Agentic Commerce : Network agents transact for buyers



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Key Learnings/Advice on Getting Started

Discussion and Questions from the Audience

Summary & Key Takeaways

1. The AI/ML genie is clearly out of the box for retail transacting.
2. Constructive paths are available for automation across the spectrum of payment operations.
3. Sorting out what works best for a given merchant will take diligence.

Thank you!

- Alx Block, Head of Risk Operations, Automattic
- Joshua Lockhart, CTO, Aeropay
- Steve Mott, Principal, BetterBuyDesign
- Don’t forget to submit your session evaluation!

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