

Increasing Subscription Conversion Through Capability Discovery

A product analytics case study on feature discovery, value realization, and retention in AI subscription products

45.6%

Discovery engagement

Users who clicked a discovery card.

38.6%

Upgrade conversion

Completed discovery-to-upgrade funnel.

65

Deep Research events

Highest feature engagement signal.

A/B

Next validation step

Move directional signal to causal proof.

Kelly Connelly

PM portfolio project | Amplitude + SQL + product analytics

Fictional product: ChatAI Pro | Synthetic data

Executive Readout

The product opportunity: users cannot subscribe to value they never discover.

158

Synthetic users

Latest funnel cohort.

72

Card clickers

45.6% clicked a card.

61

Preview viewers

38.6% reached preview.

61

Plus upgrades

Directional conversion signal.

CORE THESIS

AI subscription products may lose users not because the product lacks value, but because users evaluate the subscription before discovering enough high-value use cases.

THIS CASE STUDY DEMONSTRATES

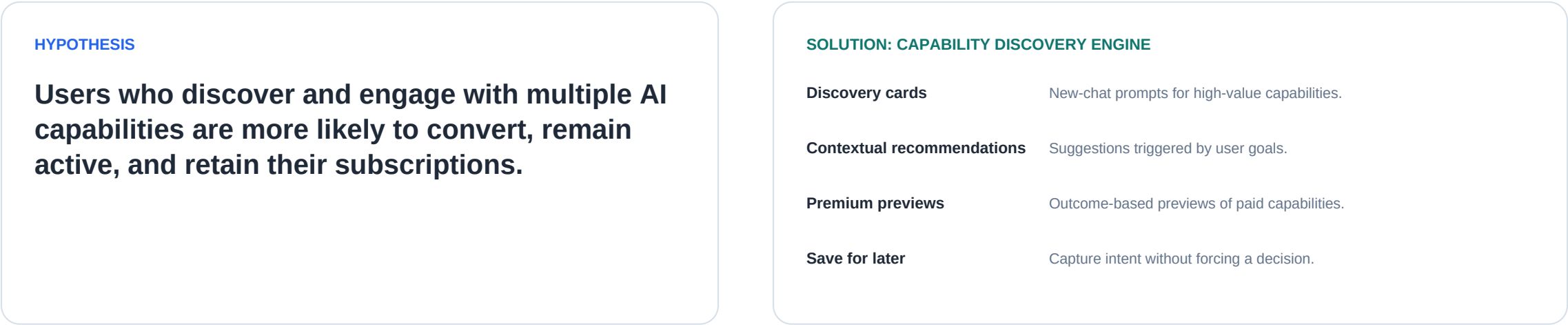
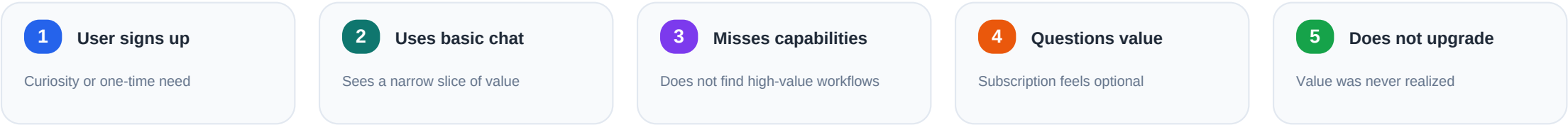
- Product hypothesis framing around activation, conversion, and retention.
- Event taxonomy and analytics framework design.
- Funnel, retention, segmentation, and experiment planning.

KEY FINDINGS FROM THE SYNTHETIC ANALYSIS

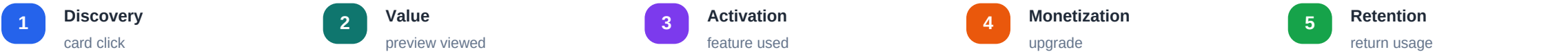
- Discovery engagement is the largest visible bottleneck: 54.4% of users did not click a discovery card.
- Once users reached the premium preview, conversion remained very strong in the simulated data - a signal to validate, not assume.
- Deep Research emerged as the highest-engagement capability and should anchor early value realization experiments.
- Churn signals point more toward 'not enough value' than price, suggesting onboarding and discovery may be stronger levers than discounting.

Problem: The Value-Discovery Gap

As AI products add more capabilities, feature breadth can become invisible to users.



MEASUREMENT MODEL



Analytics Framework

The goal was not just to make charts - it was to define how the product should be measured.

EVENT TAXONOMY

account_created	Start of acquisition funnel
first_chat / chat_started	Core engagement and return behavior
discovery_card_viewed	Discovery surface exposure
discovery_card_clicked	Discovery engagement / activation candidate
premium_preview_viewed	High-intent monetization moment
image_generated / file_uploaded	Capability breadth
deep_research_attempted	High-value premium capability
plus_upgrade	Conversion outcome
subscription_cancelled	Retention/churn outcome

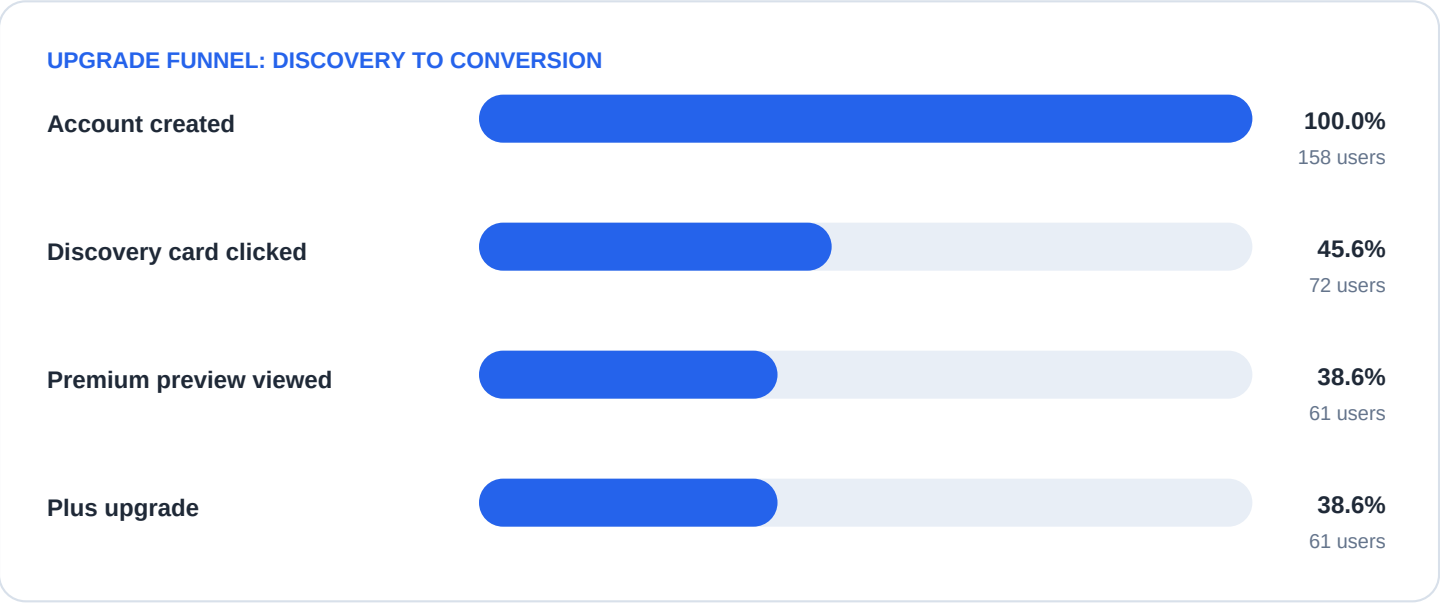
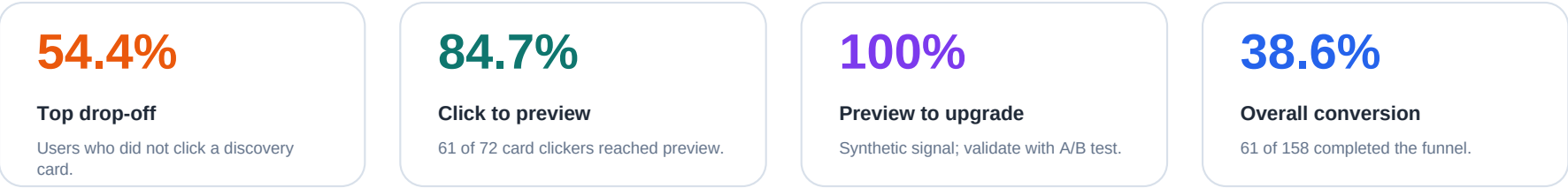
PM METRICS

Activation	Discovery card clicked + preview viewed Can users find meaningful value quickly?
Conversion	plus_upgrade rate Does discovery translate to monetization?
Engagement	Distinct capabilities used per user Are users expanding beyond basic chat?
Retention	Return usage after signup / upgrade Do users come back after value realization?
Guardrail	Cancellation + prompt dismissal Are prompts creating fatigue?

Caveat: Synthetic dataset designed to demonstrate analytics reasoning, not actual OpenAI behavior.

Evidence 1: Discovery Is the Bottleneck

The strongest opportunity appears at the top of the discovery-to-upgrade journey.

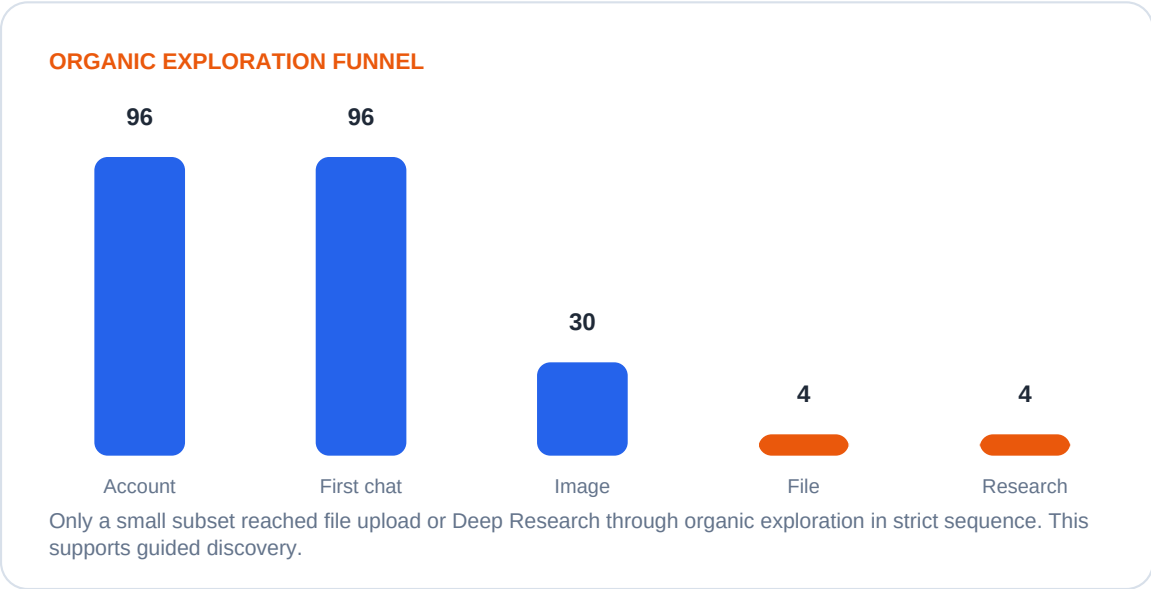
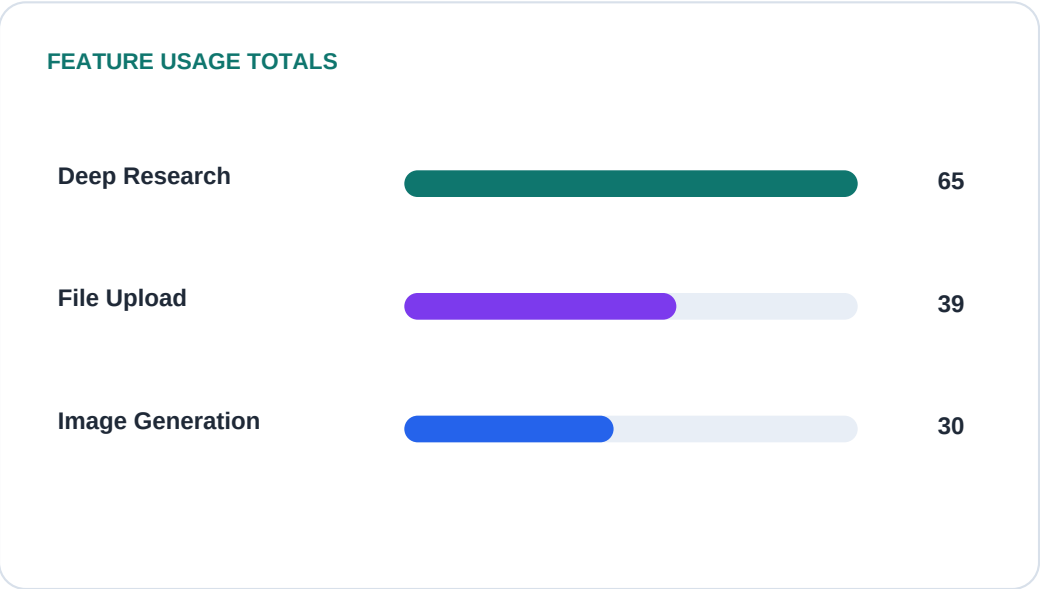


PM INTERPRETATION

Optimizing checkout may matter later, but the bigger lever is helping more users reach the moment where premium value becomes obvious.

Evidence 2: Guided Discovery Beats Accidental Exploration

Organic exploration dropped sharply in the strict feature journey; Deep Research stood out as a strong engagement signal.

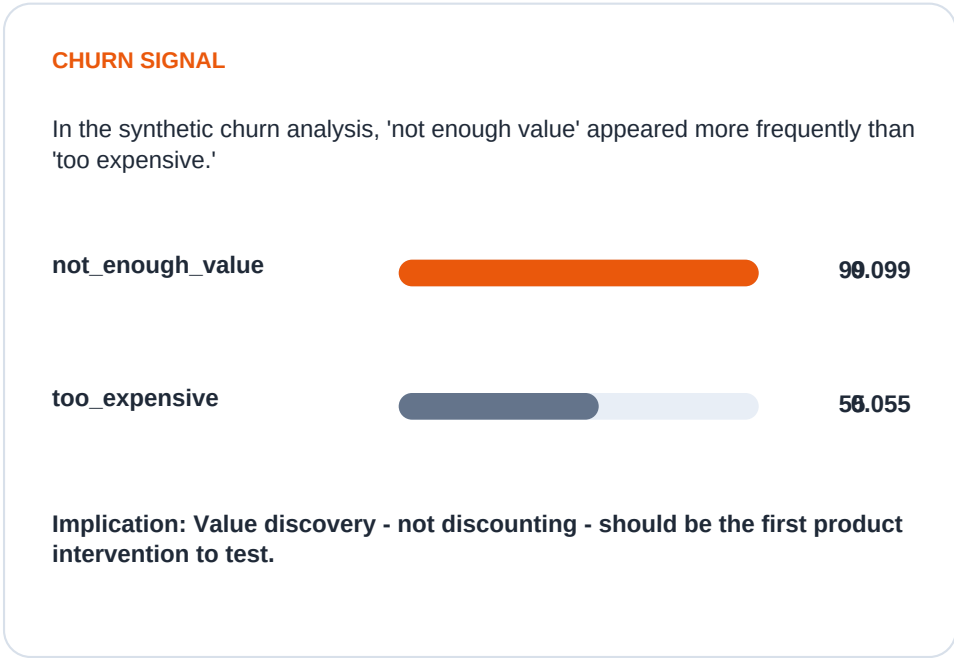
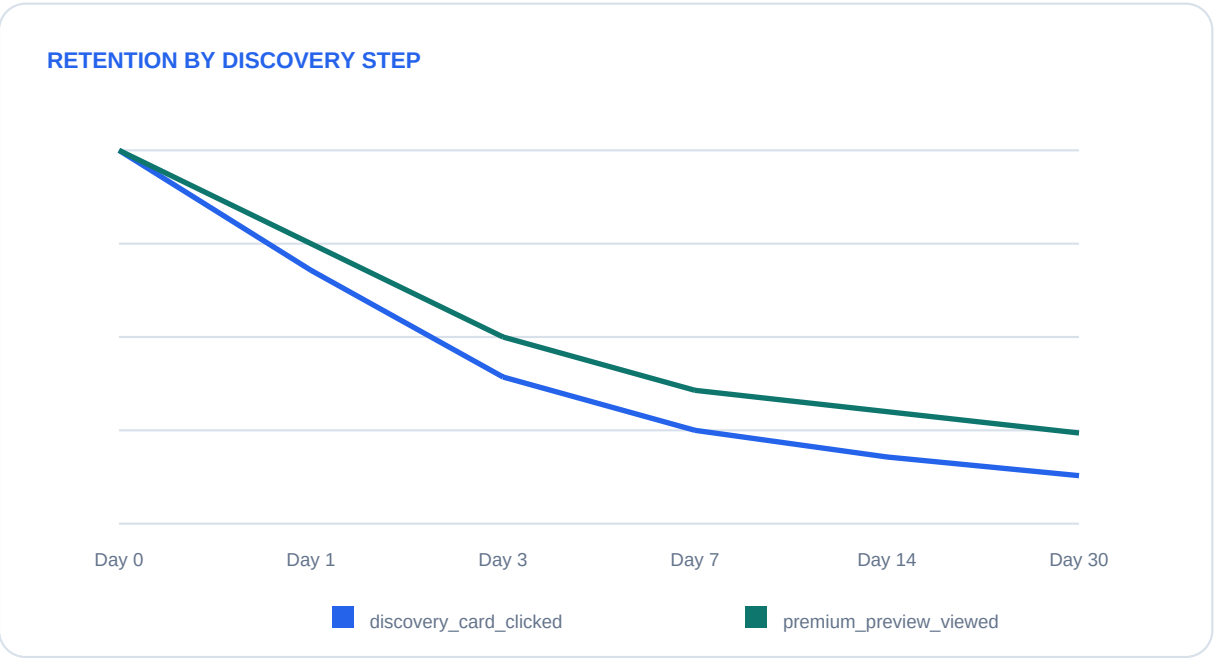


STRATEGIC INSIGHT

The product should not rely on users to discover advanced capabilities by accident. It should intentionally guide users from curiosity to high-value workflows.

Evidence 3: Churn Looks Like a Value-Realization Problem

The early retention export and churn signals suggest the biggest risk is users not finding enough value before they decide.



PORTFOLIO CREDIBILITY NOTE

The retention sample is sparse after early usage, so I would avoid claiming a proven long-term lift. The stronger PM takeaway is the measurement design: define the candidate aha moment, instrument it, and validate retention impact through a controlled experiment.

Product Recommendations

Focus on getting users to meaningful value faster, then validate causal impact.

P0**Surface discovery in the first session**

Place a contextual discovery card above the fold on the new chat screen and trigger it within the first two minutes.

P0**Anchor premium value around Deep Research**

Use the strongest engagement signal as the default premium preview and onboarding example.

P1**Create a Day-3 value intervention**

Target active users who have not clicked a discovery card or attempted a high-value capability.

P1**Add save-for-later to reduce pressure**

Let users save a suggestion without interrupting their current task; use it as a re-engagement signal.

P2**Personalize discovery cards**

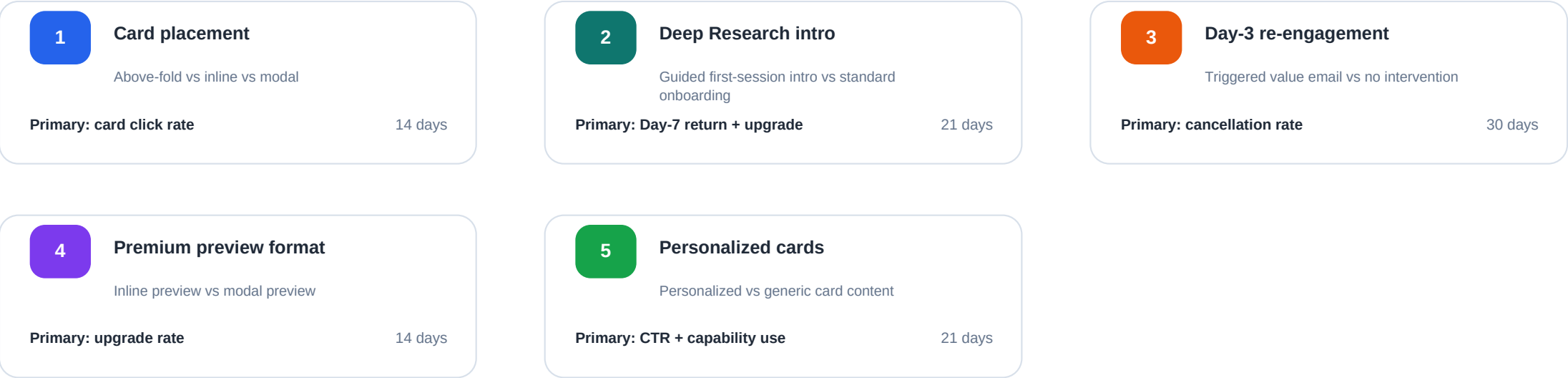
Use query type, device, acquisition source, and prior behavior to recommend the most relevant capability.

SUCCESS METRICS

Discovery card reach | Discovery card click-through | Premium preview view rate | Plus upgrade rate | Day-7 retention | Subscription cancellation rate | Prompt dismissal rate

Experiment Roadmap

Move from directional signals to causal proof.



ROLLOUT DECISION RULE

Ship broadly only if treatment improves upgrade conversion and Day-7 retention without increasing cancellation, prompt dismissal, or user complaints. If conversion rises but guardrails worsen, iterate on frequency caps and personalization before rollout.

What This Case Study Demonstrates

This is the bridge from enterprise Product Owner experience to analytics-driven tech Product Management.

1**Product strategy**

Framed a monetization and retention problem around user value realization.

2**Analytics design**

Defined events, properties, funnels, retention metrics, and guardrails.

3**Growth thinking**

Connected discovery, activation, conversion, retention, and customer lifetime value.

4**Experimentation**

Moved from directional insights to a validation roadmap with clear success metrics.

5**AI product sense**

Focused on outcome-based capability discovery instead of generic feature upsells.

BOTTOM LINE

The strongest product opportunity is not merely adding more features. It is helping users discover the right capability at the right moment, then measuring whether that discovery changes activation, conversion, and retention behavior.

Appendix

Source Amplitude exports

The following slides preserve source exports across multiple pages so charts remain legible and traceable.

Appendix: Dashboard context

Source title and case-study framing from the Amplitude dashboard export.

ChatAI Pro: Feature Discovery & Retention Case Study

study analyzing how feature discovery impacts subscription conversion, engagement, and retention for a fictional AI subscription product (ChatAI Pro). Hypothesis: u
multiple AI capabilities are more likely to upgrade, remain active, and retain their subscription.

AI Pro: Feature Discovery & Retention

Hypothesis: Users who discover and use multiple AI capabilities are more likely to upgrade from free to paid, remain active over time, and retain their subscription.

ig Tested: "Did You Know?" discovery cards, contextual recommendations, and premium capability previews shown on the new chat screen.

ns:

ery cards increase feature adoption?

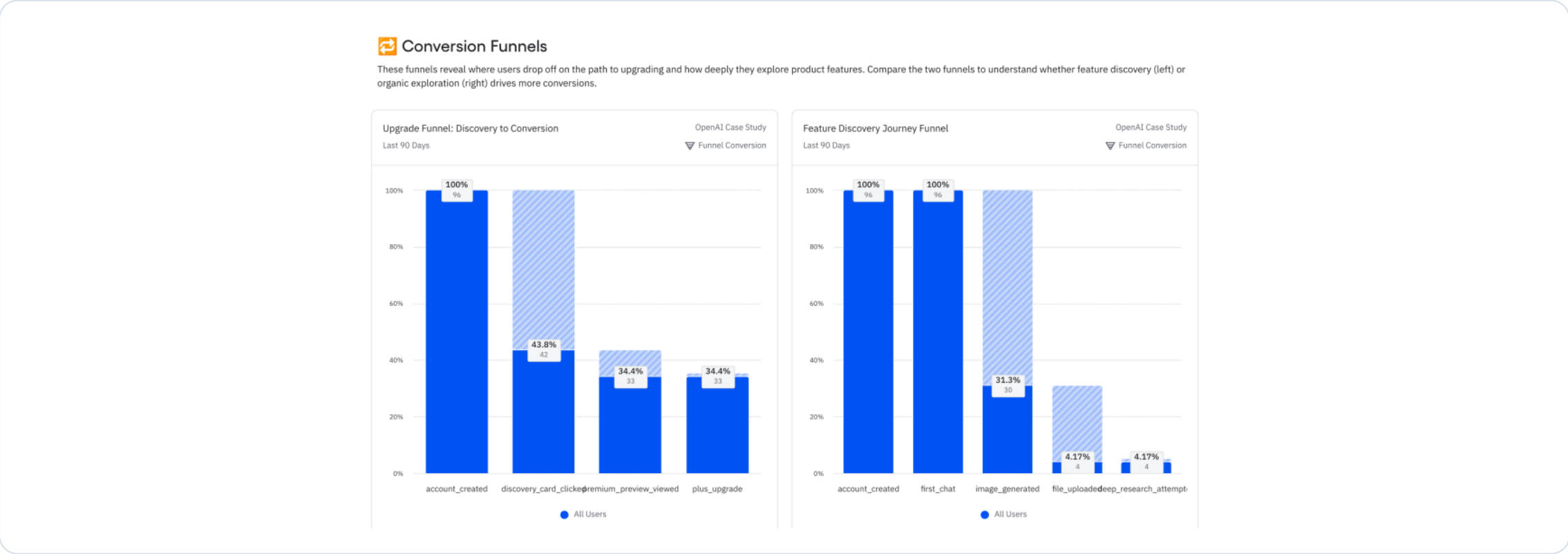
who discover more features convert to Plus at higher rates?

quisition sources and use cases drive the best retention?

Figure A1. Dashboard context and case-study framing. Source: synthetic Amplitude export used for portfolio demonstration.

Appendix: Dashboard conversion funnels

Dashboard crop showing conversion funnels used to compare discovery-led and organic exploration paths.



Appendix: Dashboard feature adoption

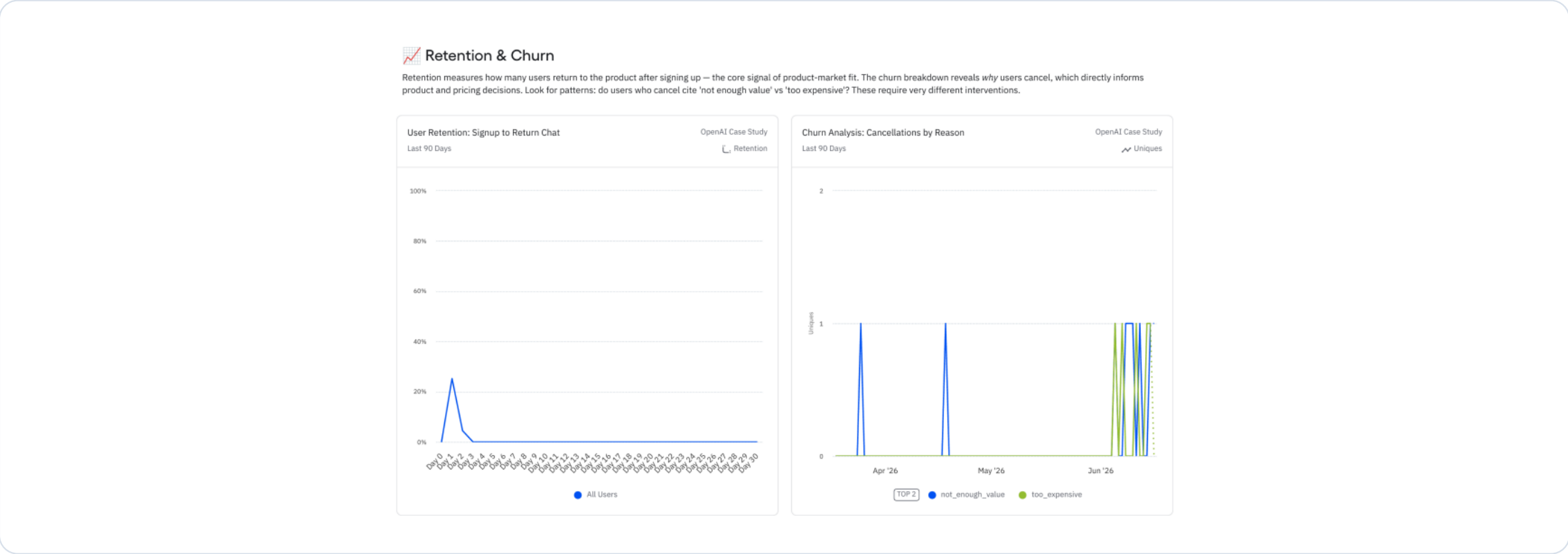
Dashboard crop showing feature usage and discovery card performance over the 90-day period.



Figure A3. Feature adoption and discovery-card performance exports. Source: synthetic Amplitude export used for portfolio demonstration.

Appendix: Dashboard retention and churn

Dashboard crop showing retention and cancellation reason views from the source export.



Appendix: Upgrade funnel export

Source funnel export behind the bottleneck analysis and conversion-step calculations.

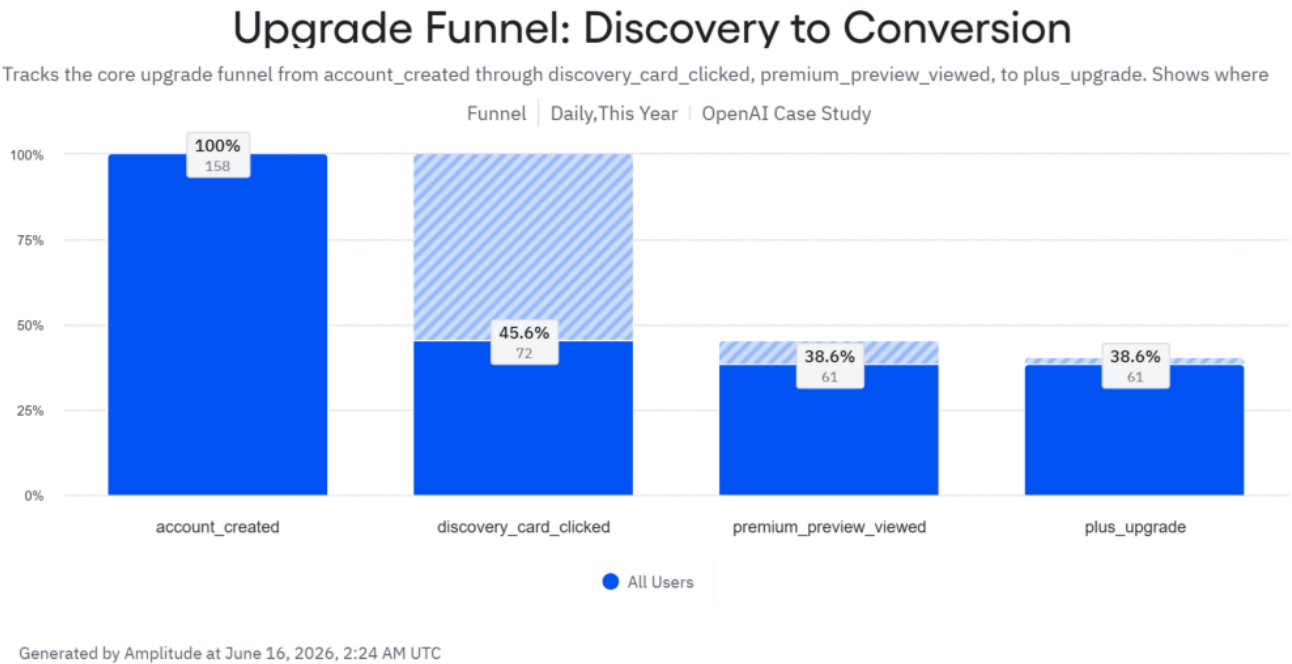


Figure A5. Upgrade funnel export. Source: synthetic Amplitude export used for portfolio demonstration.

Appendix: Retention export

Source retention export used to discuss early return behavior and measurement limitations.



Figure A6. Retention export. Source: synthetic Amplitude export used for portfolio demonstration.

Appendix: Segmentation export

Source segmentation export comparing account creation, discovery card clicks, and premium preview activity over time.

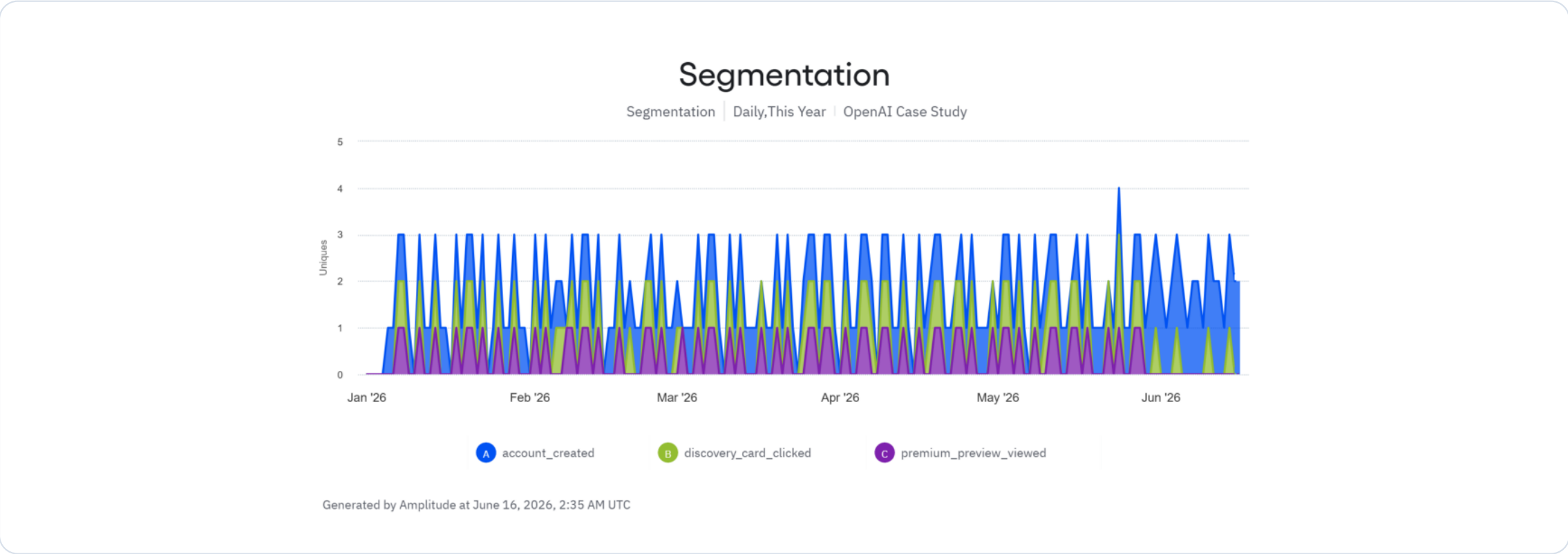


Figure A7. Segmentation export. Source: synthetic Amplitude export used for portfolio demonstration.