User Experience Research Portfolio

Maria Perez

About Myself

Ph.D. Political Science (USC)

M.S. Applied Economics and Econometrics

Mixed Methods Researcher

Consumer Behavior and Attitudes

Research Skills

Surveys & Measurement

Survey design, analysis, and visualization

Conjoint analysis (choice-based, adaptive)

Questionnaire design & scale development

Sampling strategies & weighting

Response bias detection and mitigation

Experimental & Behavioral Data

- A/B testing and experimentation frameworks
- Hypothesis testing and statistical inference
- Funnel, cohort, and retention analysis
- Behavioral analytics interpretation (usage data)
- KPI and metric definition (e.g., NPS, CSAT, SUS)

Statistical Methods

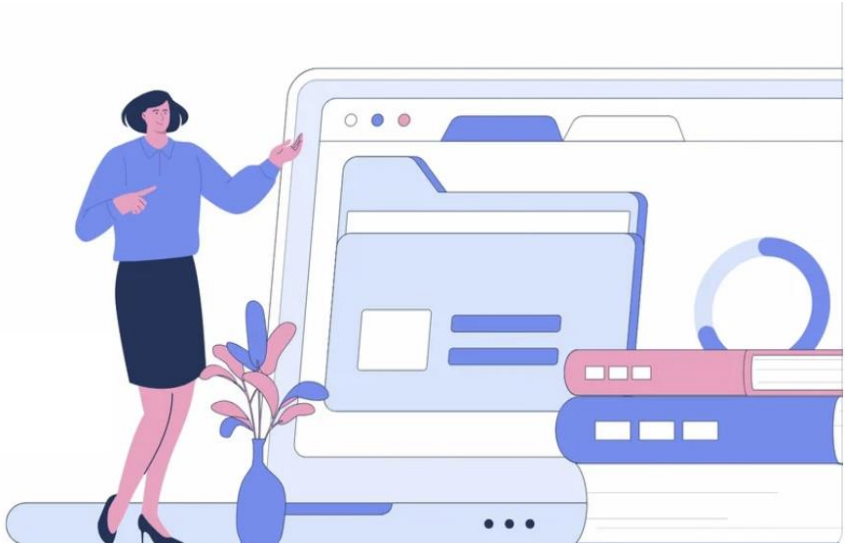
- Descriptive and inferential statistics
- Regression analysis (linear, logistic)
- Factor analysis & dimensionality reduction
- Segmentation & clustering
- Power analysis and sample size estimation

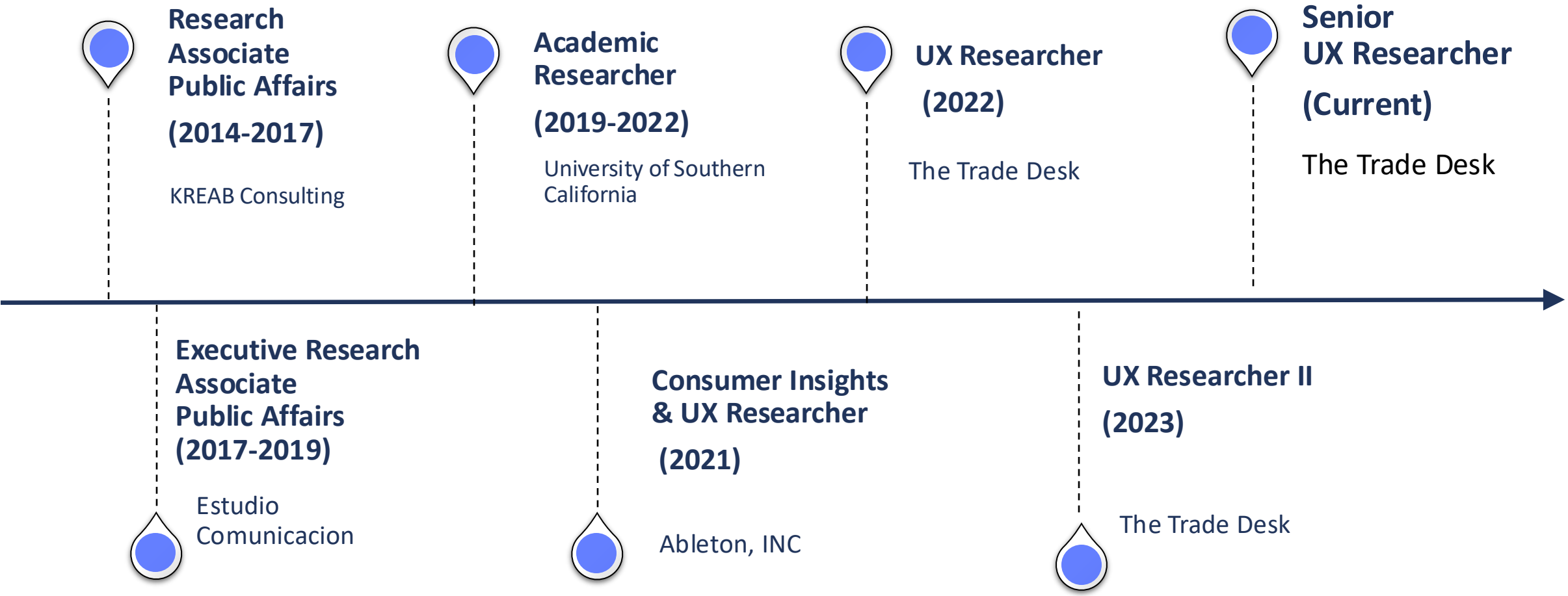
Interviews

- Structured and semi-structured interviews
- In-depth user interviews (remote & in-person)
- Stakeholder interviews (internal & external)
- Contextual inquiry

Observational & Generative Methods

- Usability testing (moderated & unmoderated)
- Diary studies
- Field studies & ethnographic research
- Task analysis and workflow mapping
- Journey mapping & service blueprints
- Persona and archetype development
- Jobs-to-Be-Done (JTBD) analysis

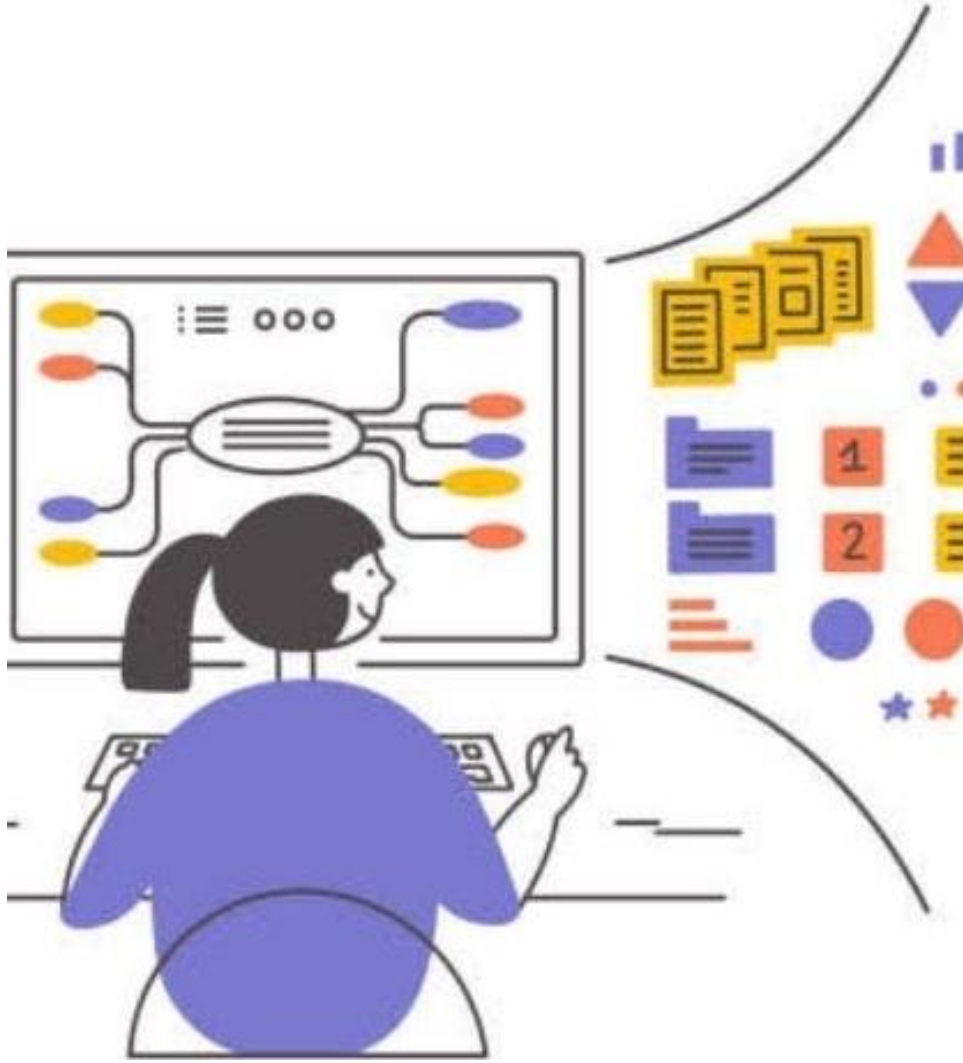


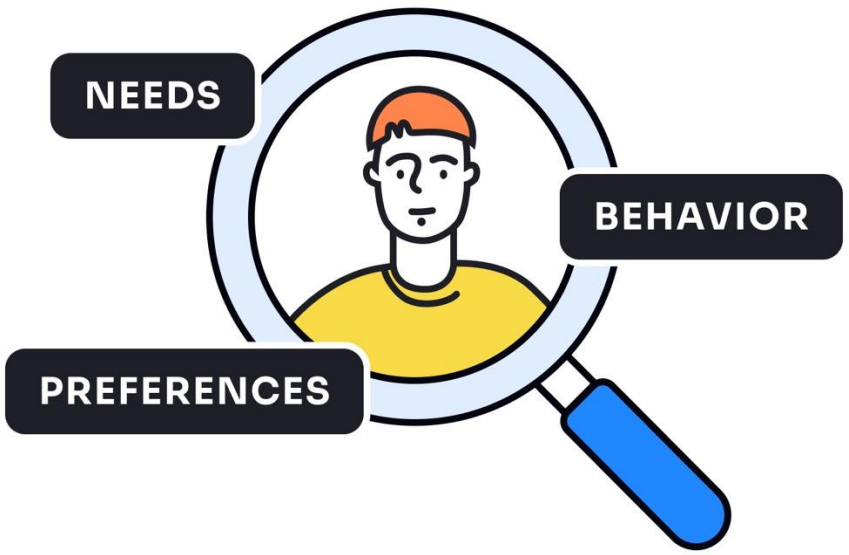

Research Associate Public Affairs (2014-2017)
KREAB Consulting
Executive Research Associate Public Affairs (2017-2019)
Estudio Comunicacion
Academic Researcher (2019-2022)
University of Southern California
Consumer Insights & UX Researcher (2021)
Ableton, INC
UX Researcher (2022)
The Trade Desk
UX Researcher II (2023)
The Trade Desk
Senior UX Researcher (Current)
The Trade Desk

Bringing AI into User Workflows

The problem

- Internal users of the TTD platform face manage complexity across campaign setup, optimization, troubleshooting, and reporting workflows. Existing documentation and tools require context switching, deep platform knowledge and navigation.
- The goal was to develop an internal AI assistant to help improve the experience and efficiency of these tasks.
- Before the AI tool could be design there was a critical need to understand:
  - Where AI assistance would meaningfully reduce cognitive load rather than add complexity.
  - How accuracy, latency, and explainability impact trust in high-stakes advertising decisions.
  - How do users expect the model to answer their questions and support their workflow.





Why this matters

Without grounding in real user workflows, AI systems can increase cognitive load, surface incorrect guidance, or fail to earn user trust—especially when users rely on them for high-stakes decision-making.

The key is to shifts AI development from a purely technical exercise to a **user-centered system,** aligning model behavior, product design, and workflow integration before broader rollout. This ensures the AI release would be:

- **Useful**, not distracting, within real workflows
- **Trusted**, by reducing hallucinations and unclear reasoning
- **Actionable**, by supporting decisions at the moments users need help

Research Approach

Technical Evaluation & Model Learning

This track focused on improving model performance and operational readiness through real-world usage and feedback.

- Guided training sessions where users completed real tasks while interacting with the AI, generating high-quality prompts, corrections, and failure cases
- Continuous feedback collection through in-product signals and structured review sessions to identify hallucinations, unsupported queries, and data misinterpretations
- Analysis of response quality, latency, and error patterns to inform prompt optimization, guardrails, and iterative model improvements

User-Centered Experience & Workflow Integration

This track focused on ensuring the AI fit naturally into existing workflows and supported real user needs.

- Participatory design sessions with users to map workflows, identify high-friction moments, and co-design where AI assistance would be most valuable
- Usability testing and qualitative interviews to evaluate comprehension, trust, and decision-making when using AI-generated guidance
- Iterative validation of integration concepts to ensure the AI reduced cognitive load rather than introducing new steps or distractions

Design

Model Training & Guided Usage Sessions

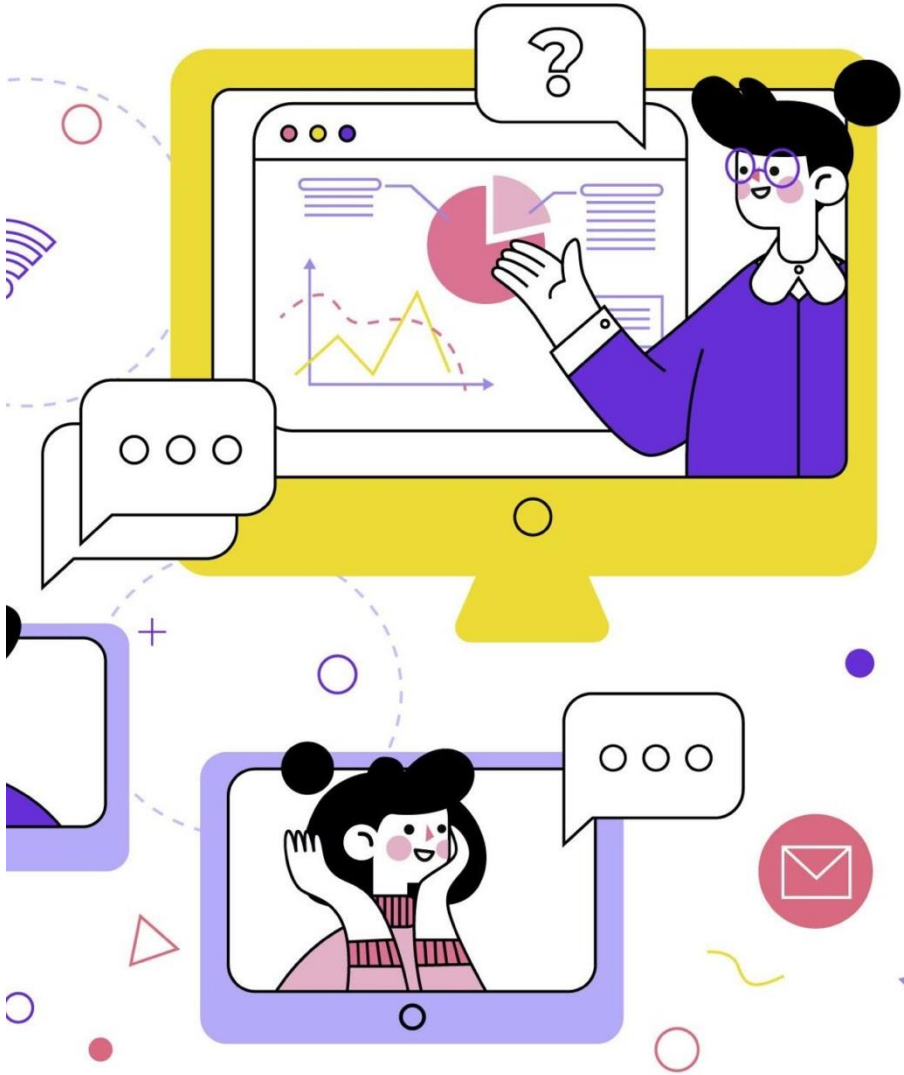
Structured sessions where participants use the AI tool with real tasks. These sessions generate labeled feedback, corrections, and failure cases to inform model tuning and prompt optimization.

Ongoing Feedback & Evaluation

Users provide in-product feedback and participate in follow-up sessions to assess response quality, trust, and workflow alignment. This captures both behavioral data and qualitative insight into where the AI succeeds or breaks down.

Design & Usability Testing Workshops

Collaborative sessions with users to map workflows, identify decision points, and co-design where AI assistance is most valuable (e.g., setup, troubleshooting, reporting). Outputs include opportunity areas and integration concepts grounded in real usage.



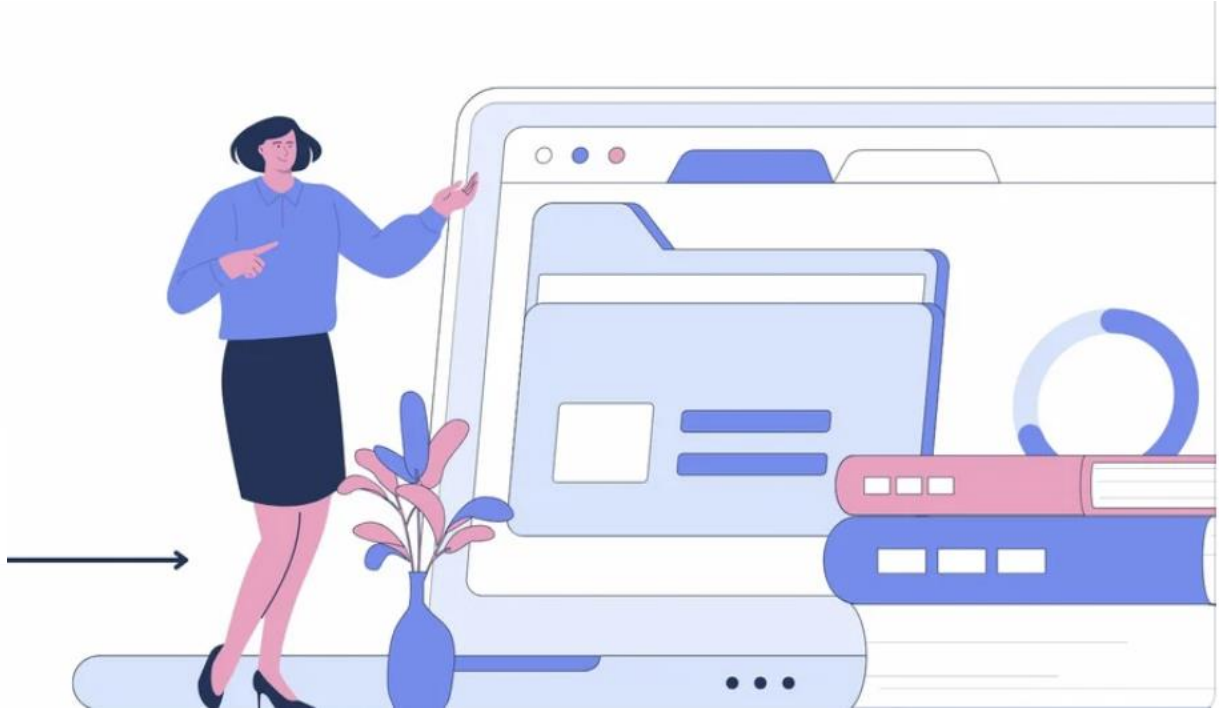
Research Impact

This research directly informed both model development and product design by:

- Prioritizing AI capabilities based on real workflow needs
- Identifying integration points that reduced cognitive load and context switching
- Producing labeled feedback and failure cases for ongoing model improvement
- Aligning stakeholders around a shared understanding of when AI adds value—and when it should stay out of the way

The outcomes enabled more confident iteration, reduced risk ahead of broader release, and ensured the AI evolved as a trusted workflow partner, not just an experimental feature.

Improving OpenPass Singn-In Experience



The problem

- Publishers hesitate to adopt OpenPass without proof that its **sign-in experience matches or exceeds competitors.**
- Existing perceptions of usability are influenced by **brand recognition**, not the actual product experience.
- Lack of empirical evidence makes it harder to **differentiate OpenPass** and persuade clients.

Why this matters

Usability is critical: a seamless sign-in is often the first impression for users and directly affects adoption.

A **fair, brand-neutral test** is necessary to evaluate OpenPass on its own merits.

Research Approach

➡ Challenge

- **Our leading's competitor strong brand recognition** biases user evaluations of sign-in flows.
- Directly comparing OpenPass vs. Competitor risks **unfair judgments** not based on usability.
- Needed a **fair, brand-neutral benchmark** to validate OpenPass's sign-in experience.

➡ Solution

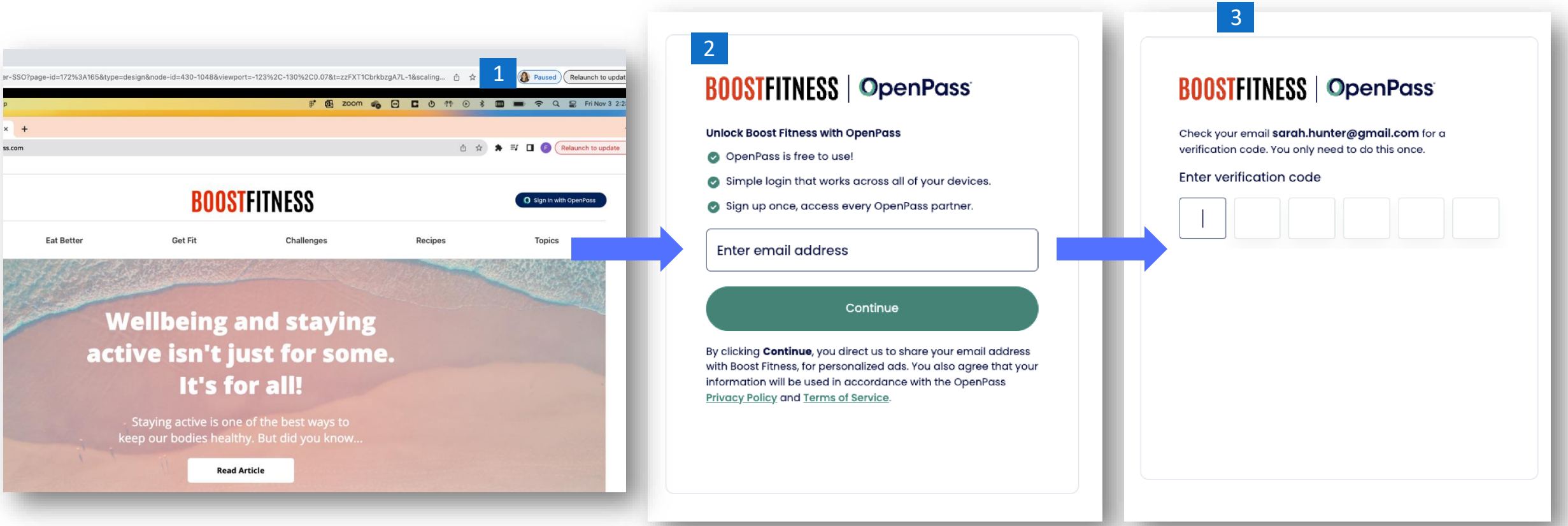
- **White-label competitor test**: Used Competitor's sign-in flow but replaced branding with OpenPass to remove brand bias.
- Conducted an **A/B test**:
  - Condition A → OpenPass UX
  - Condition B → White-labeled Competitor's UX
- Survey to measure and benchmark usability and satisfaction.
- In-depth interviews.
- Participants recruited via **dscout** ($n \approx 500$).

Design

- Participants completed **two tasks**:
  - New user sign-in
  - Returning user sign-in

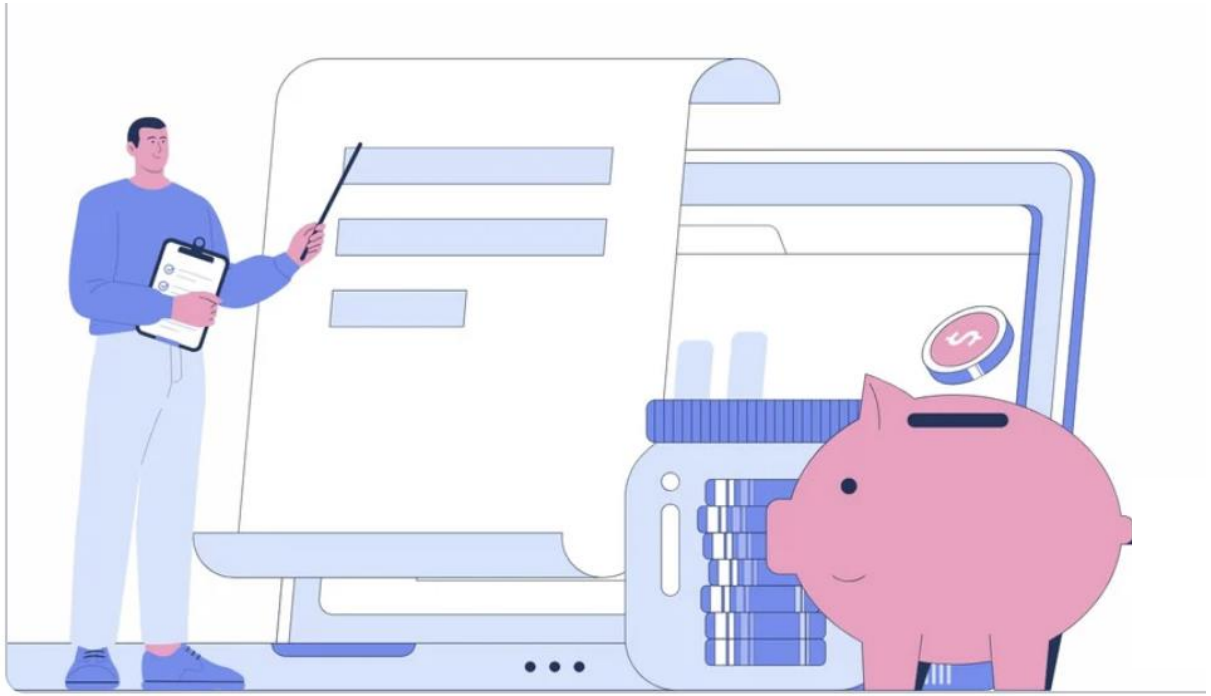
- After each task, participants rated:
  - **Overall experience** (1 = Very poor, 5 = Very good)
  - **Ease of use** (1 = Very difficult, 5 = Very easy)
  - **Ease of use vs. other providers** (Google, Facebook, Microsoft)
  - **Trust in provider's handling of private data**
  - Whether they **read Terms & Conditions**, and clarity if read

Sample Sign-In Flow



Research Impact

- Not only demonstrated parity with leading competitor in ease of use, OpenPass was rated as **easier than competitors**.
- Provided **empirical evidence to strengthen publisher adoption** and support sales conversations.



- Benchmarking reinforced OpenPass's market positioning with objective, data-driven proof.
- Qualitative data supported and expanded quantitative insights.
- **Insights guided product** recommendations to further enhance usability.

Measuring Clients' Trust, Satisfaction and Empowerment

The problem

- Lack of systematic way to measure **user empowerment** and decision-making authority.
- Limited insight into **trust levels and satisfaction** with The Trade Desk platform.
- Unclear understanding of **critical user journeys (CUJs)** and their pain points.
- Product development risk: decisions based on **anecdotes rather than empirical evidence**.

Why this matters

- Empowerment and ease of use directly impact adoption, satisfaction, and retention.
- CUJs help prioritize prioritize features that directly improve outcomes for advertisers, rather than spreading effort across lower-value areas.
- Without measurement, it’s difficult to track progress, prioritize improvements, or benchmark against competitors.
- Trust is a critical driver of NPS and willingness to recommend TTD.

Research Approach

➡ Challenge

- Asking directly *"Do you feel empowered?" or "Do you trust TTD?"* can lead to vague, inflated, or socially desirable answers.
- A user may feel empowered for one task (e.g., choosing inventory) but not another.
- Competence, motives, and integrity all shape trust. Focusing on just one dimension (e.g., "Do you trust us?") oversimplifies a complex relationship.

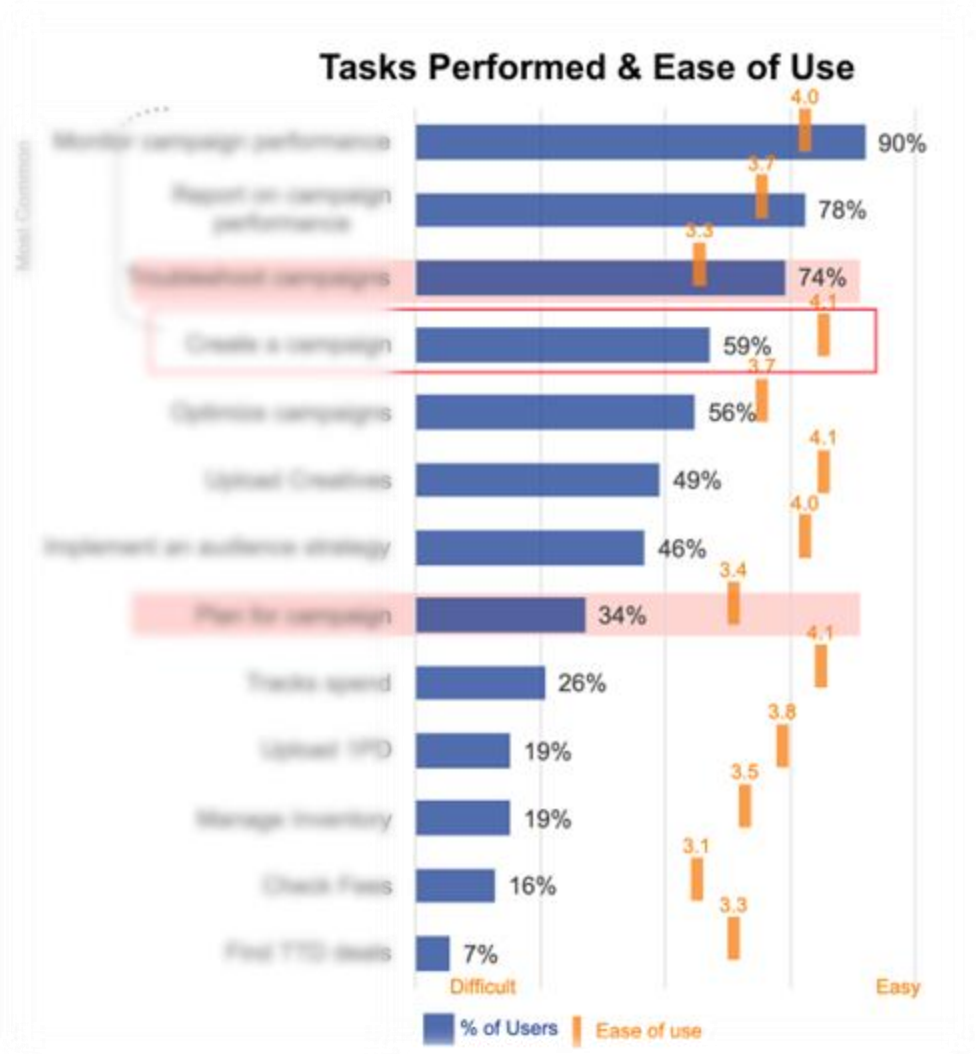
➡ Solution

- **Composite Index for Empowerment & Trust:**
- Empowerment is calculated as the average across the four measures of user authority.
  - The composite score reflects **where users have influence (inventory, data, targeting)** and **constrained (e.g., channel, creatives)**.
- Trust in TTD is calculated as the average across the 3 established factors: competence, motive, integrity.

Design

- 7-minute survey distributed via Qualtrics (Feb–Mar 2023).
- Audience: 3,285 external advertisers (Indie & Hold Cos).
- Focus areas:
  - **CUJ frequency/importance**
  - **Ease of Use**
  - **Pain Points**
  - **Empowerment**
  - **Trust dimensions (competence, motives, integrity).**

Research Impact



- Provided empirical evidence to guide product roadmaps (i.e. reporting, troubleshooting, campaign planning).
- Benchmark for tracking empowerment and trust over time.
- Identified high-priority workflows (reporting & troubleshooting) for usability improvements.
- Equips product & sales teams with data-backed insights to address client concerns.