SEOUL MINDS
AI HACKATHON

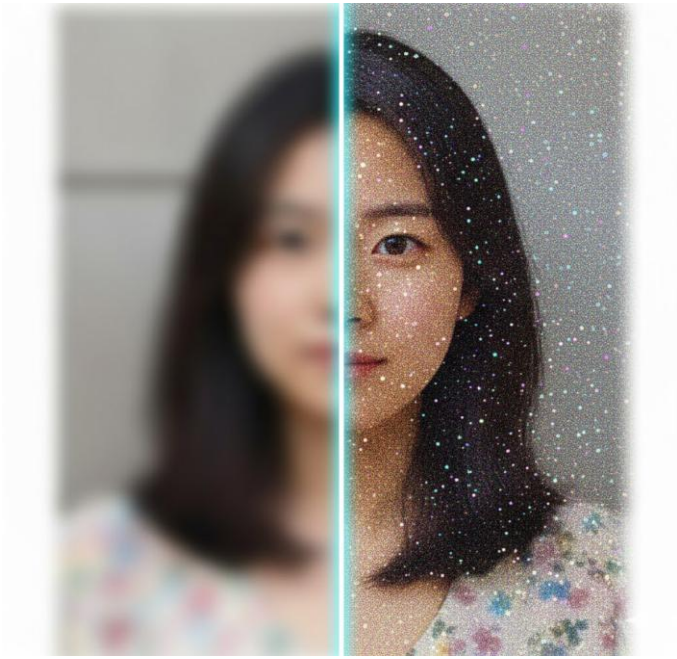
# Reduce returns.
# Raise conversions.
# Personalize every journey.

Solving fashion ecommerce's return crisis
with conversational AI.

# Problem Identification

## Retailers don't know customers — customers don't know themselves

**CURRENT STATE**
**(Low-Resolution**
**User Understanding)**

- **Platforms can't predict preferences → Wrong recommendations**
- **Sellers can't predict demand → Inventory waste**
- **Users can't predict fit → High return rates**

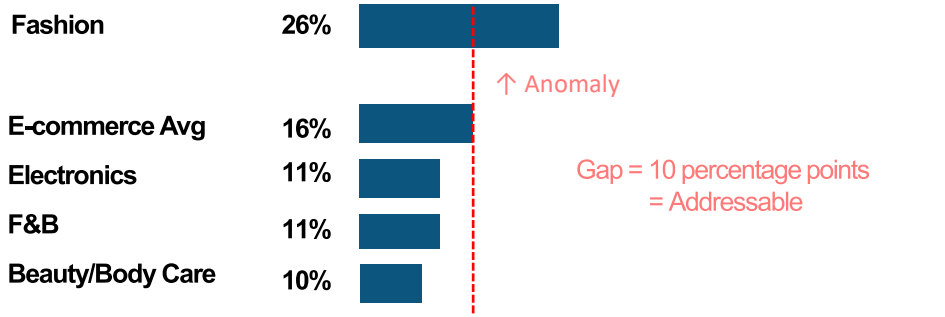
# Market Quantification

## From Problem Quantification to Market Opportunity

*Fashion's $208B return problem (26% rate vs. 16% avg) creates a $3-4B serviceable market for user intelligence solutions*

**INDUSTRY PROBLEM VALUE: $890B** (source National Retail Federation 2024)
Total e-commerce returns (16.9% average rate)

Return Rate by Category




**Why Fashion?**

Top Return Reason?

**TOP RETURN REASONS:**

- **65% Didn't fit**
- **44% Didn't like**
- **31% Description mismatch**

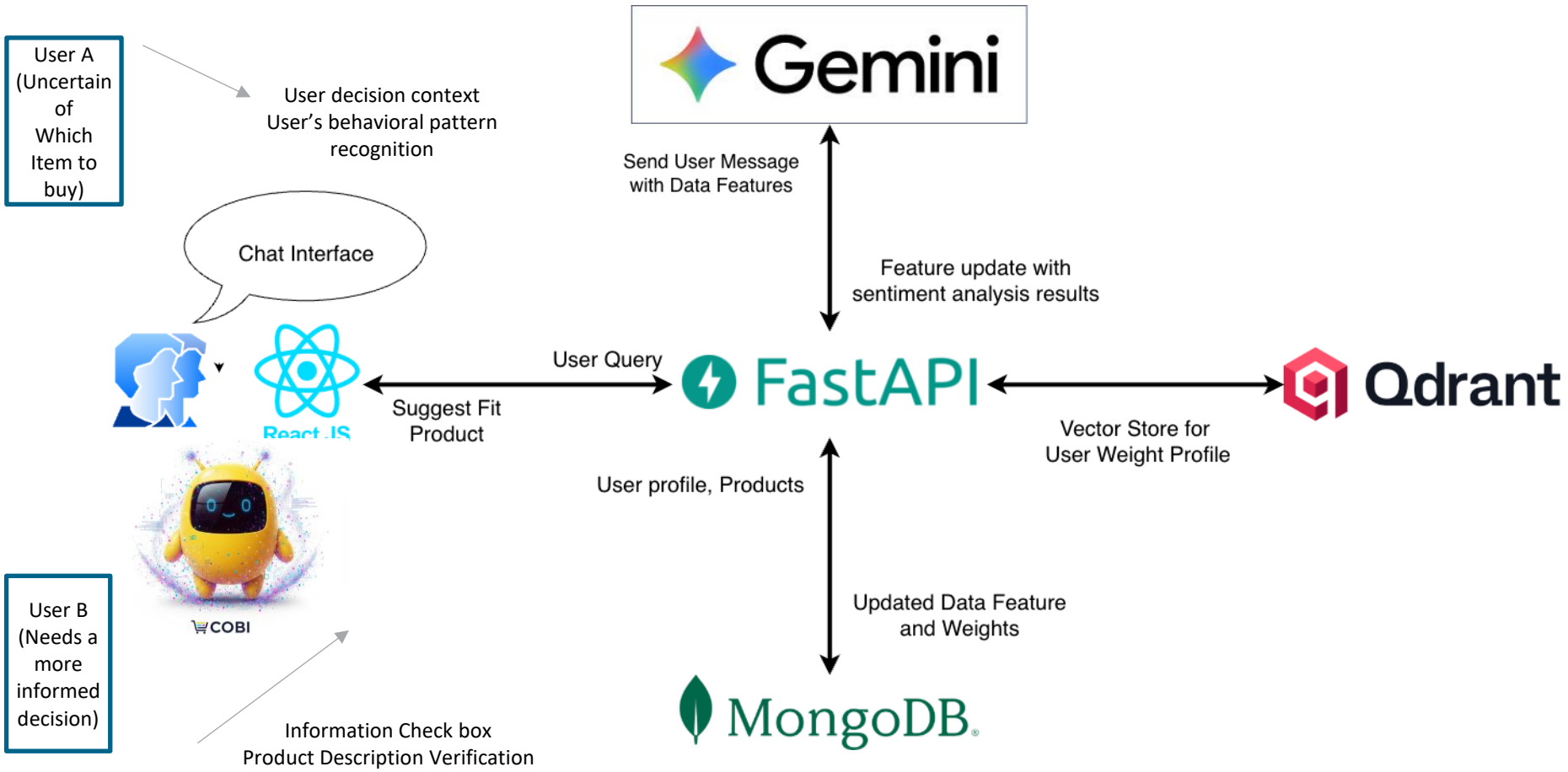
→ Problem is SOLVABLE
(not quality issue)

= The top 3 matching failures are due to a
= USER UNDERSTANDING PROBLEM

# SOLUTION ARCHITECTURE

## AI-Powered Behavioral Intelligence Platform

COBI is a chat bot interface that functions as a shopping assistant. It collects the necessary behavioral intelligence data through conversational exchanges and fine tunes the user profile.

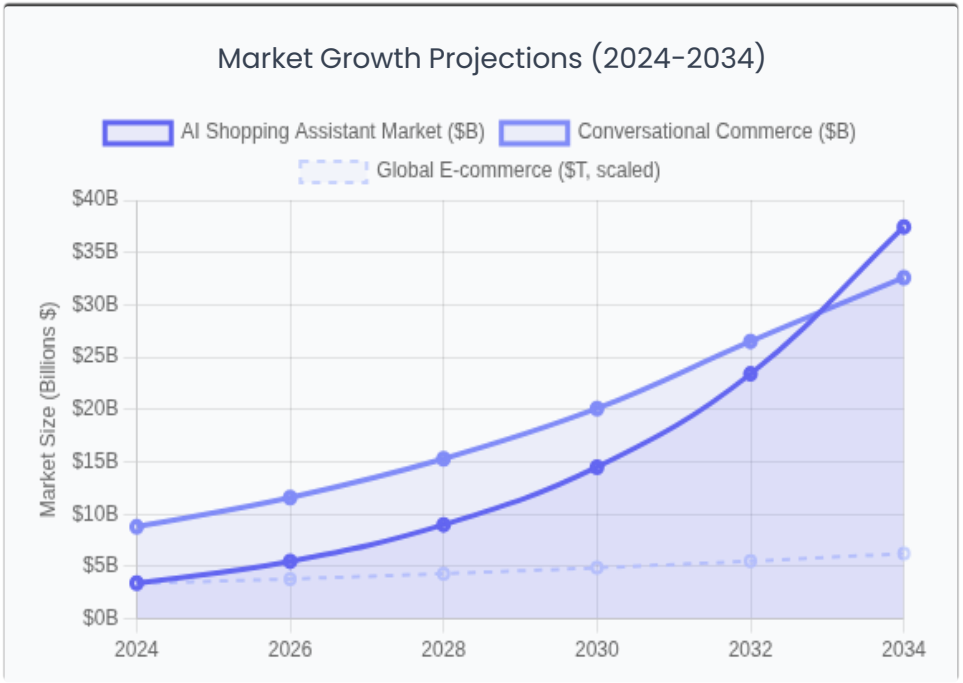


# Technical Demonstration

## AI-Powered Behavioral Intelligence Platform

# Market Opportunity & Timing

- Global ecommerce: $3.66T (2025), 6.3% CAGR
- AI shopping assistant market: $3.42B (2024) → $37.45B (2034), 27.0% CAGR
- Conversational commerce: $8.8B (2025) → $32.6B (2035), 14.8% CAGR
- 97% of retailers plan to increase AI spend
- 85% of apparel retailers plan virtual try-on




*"The AI Shopping Assistant market is at an inflection point, with unprecedented growth predicted over the next decade."*

# Differentiation

## Solution Formula (Status Quo vs. COBI)

Status quo uses static structured data yielding low- resolution profiles—COBI adds dynamic behavioral intelligence with time-decay weighting to create evolving, high-resolution user understanding

### STATUS QUO APPROACH

**DATA SOURCES**

**Structured Data Only:**
- Purchase history
- Click patterns
- Cart additions
- Size orders

**ANALYSIS**

- Equal weight to all data points
- No context
- Static profile

**Result**

- Generic matching
- No Learning

### COBI APPROACH

**DATA SOURCES**

**Structured + Unstructured Combined:**
- All structured data
- Why they buy
- Decision context
- Preference drivers
- Behavioral patterns

**ANALYSIS**

**Structured + Unstructured Combined:**
- Weighted by preference importance
- Full decision context
- Dynamic Profile

**Result**

- Hyper-personalized
- Continuous learning

# Business Impact

## Platform-Wide Value Creation

High-resolution user intelligence enables hyper-personalized recommendations and optimized inventory planning

| IMACT 1: Hyper Personalized Recommendations | IMPACT 2: Return Rate Reduction | IMPACT 3: Inventory & Pricing Optimization |
|---|---|---|
| ***The Machine Learns:***<br><br>***User A= Fit > Quality***<br><br>***User B = Price > Delivery Speed***<br><br>***User C = Color > Brand***<br><br>***→ Algorithmically matches product to precise user profile*** | ***Accurate Predictions***<br><br>***→ Decrease in return rate***<br><br>***→ cost saved for all stakeholders for platform, sellers, and users*** | **Demand Curve Accuracy ↑:**<br><br>• **Platform: Predict demand by preference**<br><br>• **Stock right size**<br><br>• **Dynamic pricing by segment**<br><br>• **Seller: Inventory Planning**<br><br>• **Demand Intel**<br><br>• **Less Deadstock** |