

AI-Driven Systems: From Marketing Intelligence to Autonomous Testing Use Cases



Use Case 1: An AI-Driven Lifetime Value Prediction and Marketing Decision Framework

Problem Definition

User acquisition in digital products is largely driven by paid advertising, where each campaign, ad set, and creative generates a measurable cost. However, the return on this investment is realized gradually through user behavior and monetization over time.

Across mobile apps, web platforms, and subscription-based digital products, organizations face common challenges:

- Users are acquired via multiple channels (e.g. Facebook, TikTok, Google, web campaigns),
- Marketing spend decisions must be made immediately, while revenue unfolds over weeks or months,
- Monetization models vary: Subscriptions, Usage / token-based purchases, Hybrid revenue models,
- Behavioral and revenue data is fragmented across third-party analytics systems (e.g. attribution, billing, event tracking platforms),
- Existing analytics tools are mostly retrospective, focusing on past performance rather than future value.

If I invest X amount today in a specific campaign, country, platform, and ad set, what percentage of this cost will I recover after 365 days?

Use Case 1: An AI-Driven Lifetime Value Prediction and Marketing Decision Framework

The proposed solution is a research-oriented, modular system designed to transform raw acquisition and behavior data into actionable lifetime value predictions.

Four-Pillar System Design

Data & Signal Aggregation

Unified ingestion of acquisition metrics, user behavior patterns, and conversion signals across all channels.

Early-Stage LTV Modeling

Predictive algorithms that estimate lifetime value within the first 7-14 days of user engagement.

Cohort-Based Revenue Intelligence

Segment analysis revealing performance patterns across acquisition sources and time periods.

Decision-Oriented Architecture

Modular design enabling rapid iteration and seamless integration of new intelligence modules.

AI-Driven Marketing Decision Agent

* LTV Microservice * Churn Prediction Module * High-Value Detection Module * Context-Aware Intelligence

Use Case 2: AI-Powered Test Management, Automation & Multi-Device Control Platform

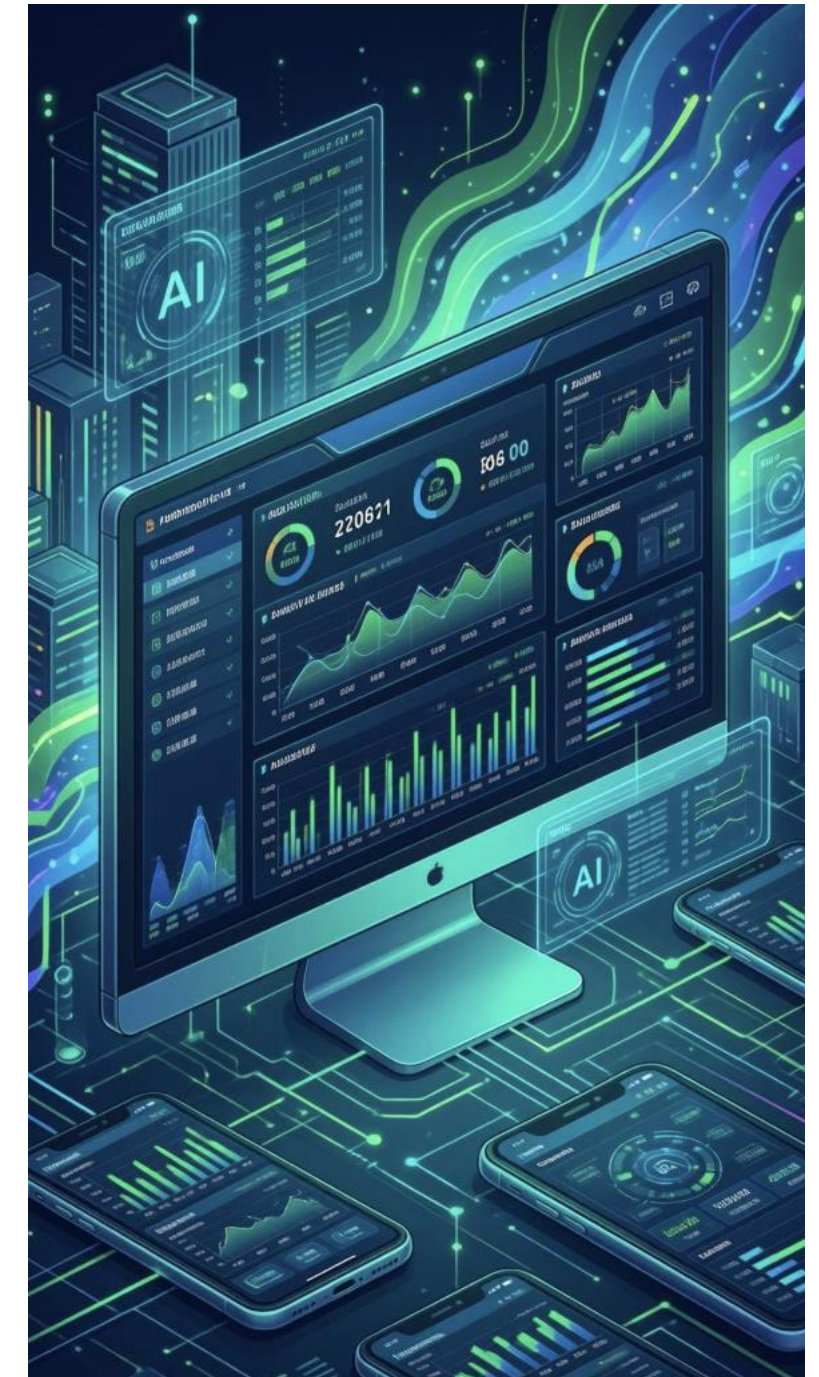
Problem Definition

Software testing processes are becoming increasingly complex due to rapid release cycles, multi-platform mobile environments, and growing expectations for software quality.

Proposed Solution

The proposed solution is a research-driven, modular platform composed of interconnected components:

- **AI-Driven Test Intelligence:** AI-generated test scenarios directly from issue-tracking systems,
- **Visual Testing & Anomaly Detection:** Automated, objective evaluation of test quality,
- **Multi-Device Management & Automation:** Unified real-time control of Android and iOS devices within a single platform.



Deep R&D Heritage and Innovation Track Record

Driving innovation across AI, autonomous systems, and emerging technologies through strategic R&D leadership

Key Innovation Areas

- **TEYDEB 1501 Projects:** 5 cutting-edge AI and machine learning initiatives
- **International Collaboration:** ITEA3 & ITEA4 program participation
- **Yıldız Technopark:** 5 advanced technology development projects



Impact Focus

12 major projects spanning AI, mobile platforms, and emerging tech ecosystems

NLP & Machine Learning

- Spam detection and call identification
- AI assistants with RAG agentic capabilities
- Keyword analysis and sentiment analysis

Next-Gen Communication

- Global eSIM management
- Offline communication services
- Cross-platform integration

Generative AI

- Text-to-image and image-to-image synthesis
- Text-to-video and image-to-video generation
- Advanced content creation pipelines

Subscription Intelligence

- Advanced subscription management systems
- Intelligent fraud detection algorithms
- Web-to-app conversion optimization
- Deep user behavior analytics

Let's Build Consortium

We're excited to explore collaboration opportunities that leverage our deep technical expertise, proven R&D capabilities, and global market reach.

Looking for the consortia.



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Thanks...