Future Improvements and Technical Directions: ElektraFi – Gamified Financial Wellness Platform

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Deployed Version

Currently deployed for testing at github. The system runs on a full-stack architecture with React frontend and Node.js/GraphQL backend as detailed in our GitHub Repository: Frontend (https://github.com/reframegroup/frontend/tree/feat/streak-gamification), Backend (https://github.com/reframegroup/nest-backend/tree/feat/streaks)

Feature Enhancements

Enhanced Psychological Need Support (SDT Framework)

- Autonomy: Implement customizable financial challenges with user-selectable difficulty levels
- Competence: Develop multi-stage achievements with clearer milestone visualization
- Relatedness: Add privacy-conscious social features including anonymized peer comparisons and team challenges

Advanced Gamification Mechanics

- Implement variable reward schedules to maintain engagement beyond initial adoption phase
- Create personalized 'financial health journeys' with branching challenge paths
- Develop an interactive badge collection system with enhanced visual appeal (current rating: 4.1/5)

Integration and Data Enhancements

- Strengthen Plaid API integration for secure, automated financial data verification
- Implement real-time financial insights based on transaction patterns
- Develop offline functionality for consistent engagement during connectivity issues

Mobile-First Experience

- Create a dedicated mobile app optimized for the 2-5 minute micro-tasks preferred by 75% of participants
- Implement context-aware notifications aligned with both user financial patterns and optimal engagement times

Technical and Design Improvements

Performance Optimization

- Refactor streak calculation logic for improved scalability with growing user base
- Implement edge caching for frequently accessed gamification elements
- Optimize GraphQL query patterns to reduce response times on task completion events

User Experience Refinements

- Redesign progress visualization components (currently highest-rated feature at 4.4/5)
- Enhance feedback mechanisms to provide more immediate competence reinforcement
- Improve task categorization UI with clearer visual distinction between Available, Active, and Completed states

Analytics and Measurement

- Implement comprehensive event tracking for all user interactions with gamification elements
- Create a research dashboard for monitoring SDT need satisfaction metrics in real-time
- Develop automated reporting for key engagement indicators tied to financial wellness outcomes

Research and Evaluation Roadmap

Comprehensive A/B Testing Program

- Implement the planned 2×2 factorial design manipulating autonomy and competence features
- Expand participant pool from initial 12 internal users to 50+ external participants
- Conduct 8-week longitudinal study measuring both engagement patterns and financial behavior changes

Theoretical Framework Expansion

- Integrate behavioral economics principles with SDT for more sophisticated nudge mechanisms
- Investigate cultural differences in response to gamification elements
- Explore the relationship between streak duration and long-term financial habit formation

Financial Impact Assessment

- Develop measurement tools to correlate platform engagement with actual financial wellness improvements
- Partner with financial institutions to assess long-term impact on savings rates and financial decision-making
- Conduct follow-up studies on the sustainability of behavior changes after 6 and 12 months