

AI-ENHANCED APP TO PROMOTE HEALTHY MOBILE USAGE FOR CHILDREN

Proposed Solution:

- AI-based app to monitor screen time, encourage offline activities, and promote social interactions.

Solution Details:

- Tracks screen usage and suggests study, break schedules, and real-world activities.
- Uses face detection and personalized recommendations to guide mobile use.

Innovation & Uniqueness:

- Combines AI insights with gamified social skills training.
- Unique blend of screen monitoring, parental insights, and rewards for balanced screen time and social interaction.

TECHNICAL APPROACH

Technologies:

- Frontend: React Native. (cross-platform compatibility)
- Backend: Node.js, MongoDB for data storage.
- AI: TensorFlow.js for personalized recommendations, Expo Camera for face detection.

Methodology:

- Screen Time Monitoring → Face Detection → AI-Driven Suggestions → Feedback Loop.

Implementation Process:

- Data Collection → Analysis with AI Models → Real-Time Monitoring → Feedback & Rewards.



FEASIBILITY AND VIABILITY

Feasibility:

- Technologically feasible with accessible AI, mobile, and face detection tools.
- Compatible with mobile platforms, allowing broad accessibility.

Challenges & Risks:

- Privacy concerns over data collection.
- Balancing AI recommendations to avoid excessive restrictions.

Mitigation Strategies:

- Data encryption & parental consent for privacy.
- Fine-tuned AI models to ensure balanced recommendations.

IMPACT AND BENEFITS

Impact on Target Audience:

- Helps children balance digital and offline activities, improving focus and social skills.

Social Benefits:

- Encourages real-world interactions, family bonding, and improved communication.

Economic Benefits:

- Reduces dependency on mobile devices, potentially enhancing academic performance.

Environmental Benefits:

- Promotes sustainable digital habits that reduce screen time and energy usage.

RESEARCH & REFERENCES

Research Sources:

- Studies on the effects of screen time on child development and academic performance.
- AI-based mobile monitoring tools and face detection technology.
- We also had the look at the drowsiness detection project, where even they include computer vision and enable camera to capture the pictures.

References:

- [List of relevant academic studies, articles, and tech documentation]
- Links to AI and machine learning resources (TensorFlow, MongoDB)
- Documentation for React Native, Expo Camera API, and other tools used.
-