

AI-driven tools for ADHD support in adults

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Recently our understanding of neurodevelopmental conditions like ADHD has improved greatly. Adults with ADHD often face persistent challenges in executive and emotional regulation, affecting daily life. AI-enabled technology offers interesting opportunities for personalized, adaptive support. In this project you will develop and evaluate innovative AI-assisted tools tailored to adults with ADHD, perhaps in collaboration with ADHD-foreningen, or other users.

Ideas for topics (you can add your own for sure)

1. **Explainable AI for Adaptive Task & Energy Management:** Develop an AI assistant that learns individual work patterns and energy rhythms, offering transparent, adaptive scheduling, task breakdowns, and prompts. Prioritize XAI to build trust and understanding—how can suggestions be transparently communicated, and what balance of automation and user control optimizes effectiveness?
2. **AI-Powered Affective Companion for Emotional Regulation:** Design an empathetic AI that promotes emotional awareness through guided journaling or real-time tone analysis, providing micro-interventions like mindfulness exercises. Key questions include ensuring perceived empathy, ethical handling of sensitive data, and clear explanations of AI feedback via XAI.
3. **Context-Aware Focus Shield & Environment Modulator:** Create a system that monitors digital and physical environments to filter distractions dynamically—blocking notifications or adjusting ambient sounds based on task context. Important considerations involve accurately inferring focus states non-intrusively, enabling seamless user control, and avoiding overreach while maintaining effective distraction management.