INNOVATION PARTNERSHIPS
UNIVERSITY OF MICHIGAN

InteractOut: Leveraging Interaction Proxies as Input Manipulation Strategies for Reducing Smartphone Overuse

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OVERVIEW

InteractOut is a flexible suite of smartphone interventions that subtly make common touch gestures more effortful, empowering users to reduce overuse without heavy-handed restrictions.

- **Core Features:** Adjusts taps and swipes with minor delays, location shifts, and gesture modifications, nudging users to reflect before interacting further.
- **Market Opportunity:** Captures the growing digital wellness market by offering an intervention style with 25% higher user acceptance and significantly less frustration than traditional screen lockouts.

BACKGROUND

Smartphones have become central to daily life, but overuse leads to real costs: sleep disruption, eye strain, reduced productivity, and worsened mental health. Throughout the world, concern for these risks is rising, especially post-pandemic when mobile usage skyrocketed. Existing interventions mostly block screen access or remind users to stop—approaches that are often too strict, causing irritation and abandonment, or too gentle, rendering them ineffective.

There's a clear market need for solutions that truly help users moderate their behavior, demonstrated by the rapid growth of digital wellness tools and demand for sustainable, user-

friendly interventions. Yet, persistent adoption remains elusive, signaling an opportunity for a method that strikes a better balance between flexibility and impact.

INNOVATION

InteractOut introduces a fresh approach: rather than blocking or distracting users, it subtly modifies the physical input—what your fingers do—by adding small but noticeable effort to everyday actions like taps and swipes. For example, a simple tap might require a slightly longer press or a double-tap, and a swipe may feel slower or ask for more fingers.

This technique exploits a psychological principle: when an expected action doesn't work quite as smoothly, people pause and reflect, making intentional choices instead of acting on autopilot. InteractOut's flexibility allows for fine-tuning the intensity, avoiding both annoyance and ineffectiveness. In user studies, this approach reduced app-overuse by 15% more than popular lockout features, and it doubled acceptance rates with dramatically improved user experience.

No other solution specifically targets input friction to nudge behavior—making InteractOut both unique and powerful, especially as a complement to existing screen-based interventions.

ADDITIONAL INFORMATION

REFERENCES: "InteractOut: Leveraging Interaction Proxies as Input Manipulation Strategies for Reducing Smartphone Overuse"