



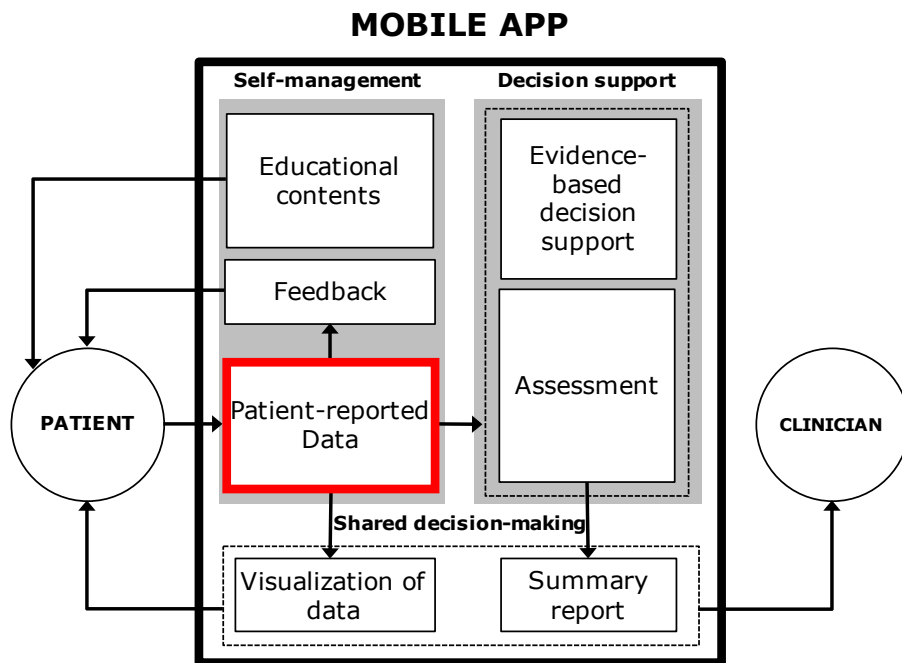
EMERGENT RESEARCH FORUM

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Effects of User Interface Design and Task Complexity Level on User Experience in an mHealth Application

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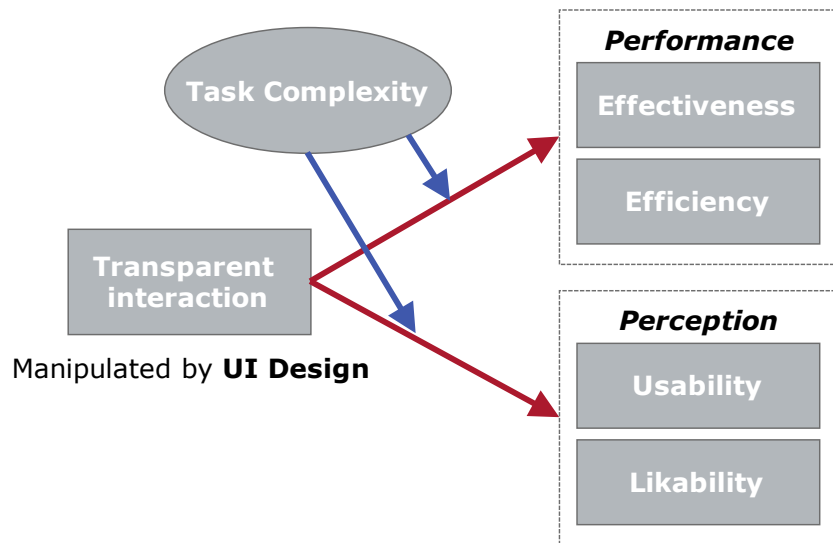
Importance of UI Design in User–App Interaction



User interface (UI) directly affects the user–app interaction.

- Especially for mHealth apps that require users to input data “frequently and repeatedly” (e.g., pain and stress), data input UI is a crucial component that affects users’ engagement with the app and determines the concrete user experience (UX) with the app.
- The lack of adherence to data entry becomes an issue. Without users’ data, mHealth apps can provide only generic tips and suggestions.
- ✓ *The motivation of the study was to provide research evidence to find out the best UI for frequent and repeated data input task in an mHealth app context.*

Which UI is the best for data input?



Based on Effective Use Theory (Burton-Jones & Grange, 2013), we hypothesized that:

- UI design affects users' performance in terms of efficiency and effectiveness, as well as users' perceptions of UI's usability and likability.
- Task complexity level moderates the effects of UI on performance and perception.

We conducted controlled experiments.

- Design: 2 (touch technique: tap vs. slide) X 2 (target direction: vertical vs. horizontal) X 2 (task complexity level: simple vs. complex)
- Participants: 165 college students
- Measures
 - Performance: task completion time & error rate
 - Perceptions: 5-point Likert scale-based survey items on perceived usability and likability of UIs

