

Digital Fitness for Citizens: Design and Acceptance of a Smartphone Based Behaviour Change Support System for Personal Cyber Security

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- · Awareness is not enough
- Security is overwhelming
- Lack of structural support
- Scalable & cost-effective solution needed

RQs: How could a persuasive app be designed? How do participants perceive it? What could lead to adoption?

Methodology

- Build a persuasive app interface according to PSD Framework
- Show to participants in online survey (n=73, 39 women)
- Assess perceptions of features and intention to use (5-point Likert scale)
- Research Model based on Unified Theory of of Acceptance and Use of Technology predicts influential factors

Bundesministerium für Bildung und Forschung



Tailoring



8/06
Sicherung Ihrer Benutzerkonten
Sichere Passwörter und ein zweiter Faktor beim Anmelden schützen vor Angreifern!
Sichere Passwörter speichern
Social Media Passwort verbessern
Fünf Ihrer Freunde haben das Social 000 Media Passwort bereits verbessert!
Super! - Das E-Mail Passwort
ist gesichert:
Zwei Faktor Anmeldung
E-Mail Konto mit 2. Faktor sichern
Sein Sie die erste Person in Ihrem Freundeskreis! 10:02
Super! - Das Social Media Konto
Überblick Konten Geräte Kontakte Einstellungen
Praise & Suggestion

Persuasive Design for Behaviour Change

- Reducing complexity (i.e. suggesting single actions) to make "security" easier to attain.
- Tailoring to individual context by selecting accounts and devices.
- Suggestion of next actions to increase security act as a prompt for execution of behaviour.
- Monitoring of own progress motivates to increase this behaviour.
- Social comparison motivates and shows that peers can do it, too, thus increasing self-efficacy.





Social Comparison

Key Results

- App was perceived as supporting in security (M=3.94) and effective in changing behaviour (M=3.66)
- App was perceived as rewarding behaviour (M=3.62)
- This led to positive intention to use app in the future (M=3.4)
- Social features were perceived as pressuring (M=3.57); that effect was higher in women
- (M_m=3.39 vs. M_w=3.76, *p*=.049)
- Pressure led to decreased intention to use (r=-0.5, p<0.0001)!

Discussion

PSD framework helps in design, participants find it useful and effective, but don't want social features.

Next Steps

- Build a functional app
- ldentify fitting persuasive features
- Study long-term
 behaviour change

Got questions or feedback? Send me an email! jan.nold@rub.de

Monitoring & Suggestion