Influencing Individually: Fusing Personalization and Persuasion

BY – SHLOMO BERKOVSKY, JILL FREYNE, HARRI OINAS-KUKKONEN
Personalization and Persuasive Technologies

- Personalized technologies aim to enhance user experience and assist users in achieving their goals by taking into account their interests and preferences, and other relevant information.

- Persuasive technologies aim to modify user attitudes, intentions, or behavior through computer human dialogue and social influence (one size fit all approach).
The proposed fusion of persuasion and personalization encourages the use of deeper user modeling and personalization techniques throughout the persuasion process.
Strengthening the Impact of Persuasion

- Three natural opportunities for personalization in persuasive systems:
  - Personalized assistive features focus on monitoring and presenting information about aspects of importance to a user.
  - Personalized messages tailor the content and the look-and-feel of the information in order to meet user’s communication preference.
  - Personalized strategies focus on responding to a user’s susceptibility to various persuasive techniques and methods.
**Practical Example**

- Dijkstra studied the impact of personalized smoking cessation messages, which gave smokers personalized feedback on their smoking.

- The system provided to users generic information on the dangers of smoking and personalized information pertaining to their smoking habits.

- The results showed that after four months, the personalized feedback led to significantly higher levels of smoking cessation than standard non-personalized feedback.
The aim of personalized applications is to provide relevant information or services to users based on their preferences and needs.

The personalization cycle can be broadly divided into two components:
- User Modeling
- Personalized service delivery.

Fig. 1. Fusion of persuasion in personalized technologies.
Increasing the Uptake of Personalization

- The key fusion points for persuasion in personalized system lie in the user-related functional areas, which we denote by persuasive user experience and persuasive data acquisition.
- The most general way in which persuasion could be included in a personalized system is through the information, language, media, and communication modes used by the system.
- Personalization systems may benefit from explaining to users the reasoning behind the recommended or filtered items, or suggested information.
Increasing the Uptake of Personalization

- Personalized search engines, navigation aids, learning tools, and recommender systems require accurate information pertaining to their users, in order to provide personalized services.
- They propose that persuasion could be used to encourage users to provide more information, alleviating the data acquisition challenge.
Felfernig proposed that the presentation of recommended items and the presence of other items influenced user choices of the recommendations.

The evaluation showed that the perceived utility of a recommended item changed in the light of the surrounding items and position effects were important for item comparison pages.

Specifically, the appeal of items changed when similar, but better-value or higher-specification items were shown.

They investigated methods to determine the ordering and decoy strategies that could effectively persuade users to consume a recommended item.
Discussion

- Ethical issues: The introduction of personalized persuasion can lead to an ethical dilemma, as user requirements may conflict with a designer’s intentions.

- How can we balance what is best for the user and the commercial realities facing the service provider when delivering personalized persuasive interventions?