

Designing for the Better by Taking Users into Account: A Qualitative Evaluation of User Control Mechanisms in (News) Recommender Systems



Jaron Harambam[·], Dimitrios Bountouridis^{··}, Mykola Makhortykh[·]
Joris van Hoboken



[·]University of Amsterdam, ^{··} Delft University of Technology

Introduction

- Recommender systems (RS) offer great promise, but much societal concern as well
- FairNews project examined their ethical, societal and technical dimensions.
- How do people evaluate different control mechanisms in news RS, which ones they prefer and why?

Method

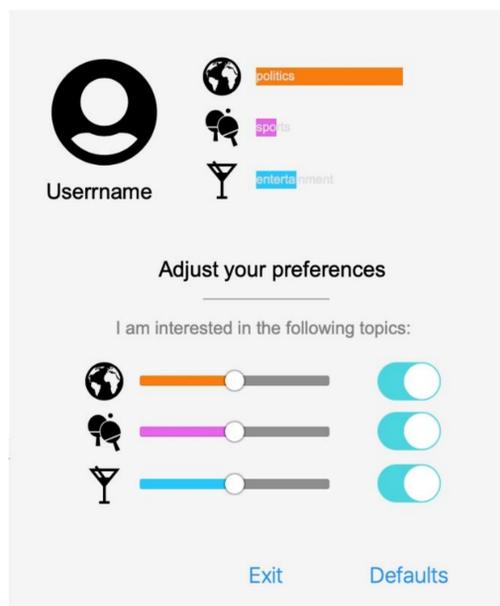
- Four focus groups of Dutch news readers (n=21)
- User control mechanisms for RS identified via literature reviews, interviews with practitioners and brainstorm sessions with scholars
- Mechanism prototypes are implemented online and discussed with the users

Main findings

- User control is both required and cherished by news readers
- Input (user profiles with reading history) and process (choice of a recommender algorithm mechanisms) are particularly relevant
- Output mechanisms are perceived as a useful addition, but not sufficient to provide users with a sense of control

Input control mechanisms

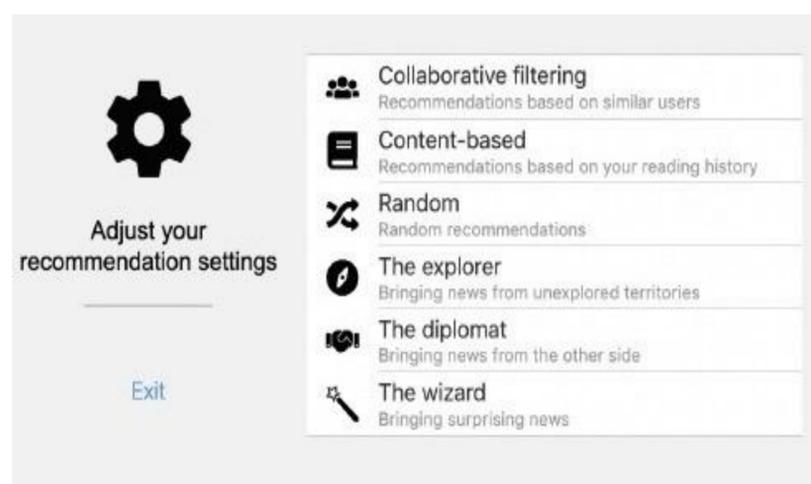
- User profiles with reading history aggregated across 3 news categories (sport/politics/ entertainment)
- Sliders used to modify the volume of content from specific categories
- Users find reciprocity an important part of RS and express interest in options (e.g. dashboards) to learn about their news consumption



- “more clear if there would be percentages connected”
- “Are they using data from Facebook, Twitter and all that gang? I would like to know, it would surprise me after all”
- “I find it refreshing actually, to see how they see me. I mean, you get something back of what you did. You give in fact information to the news provider, so it’s nice to get it back, it’s your information after all”

Process control mechanisms

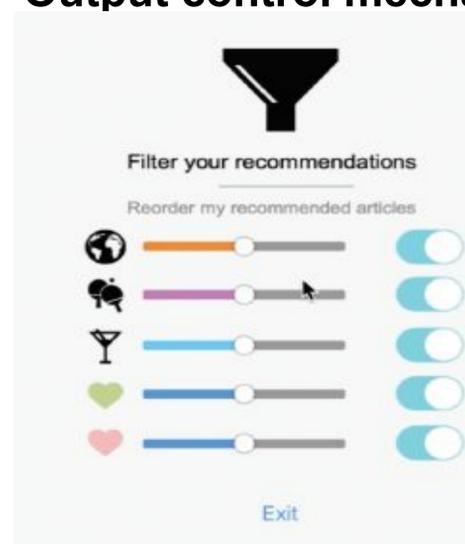
- Various recommender algorithms can be chosen by the user:
- Traditional: content- and user-based collaborative filtering and random recommendations
- Personae: anthropomorphized algorithms to provide intuitive understanding of their functionality
- Viewed as a self-actualization tool allowing to try something new



- “one-click only, so this is much easier”
- “really liked the intuitive, the human like [personae], they are more inviting than those technical ones”
- “emotionally, I keep having the feeling that someone else decided for me what I am seeing. As if I am not in control”

Output control mechanisms

- Users can reorder an established list of recommendations to reflect their preferences better
- Sliders allow to modify the visibility of content related to three topics and similar/dissimilar items
- The least popular option and also the one often confused with input control mechanism



- “well, you don’t really have control right? Per definition. Just over the ranking”
- “what exactly the difference was between this and the dashboard above [user profile or first control mechanism]?”
- “it is useful, despite not having control over the recommendations, it’s more of an extra service”