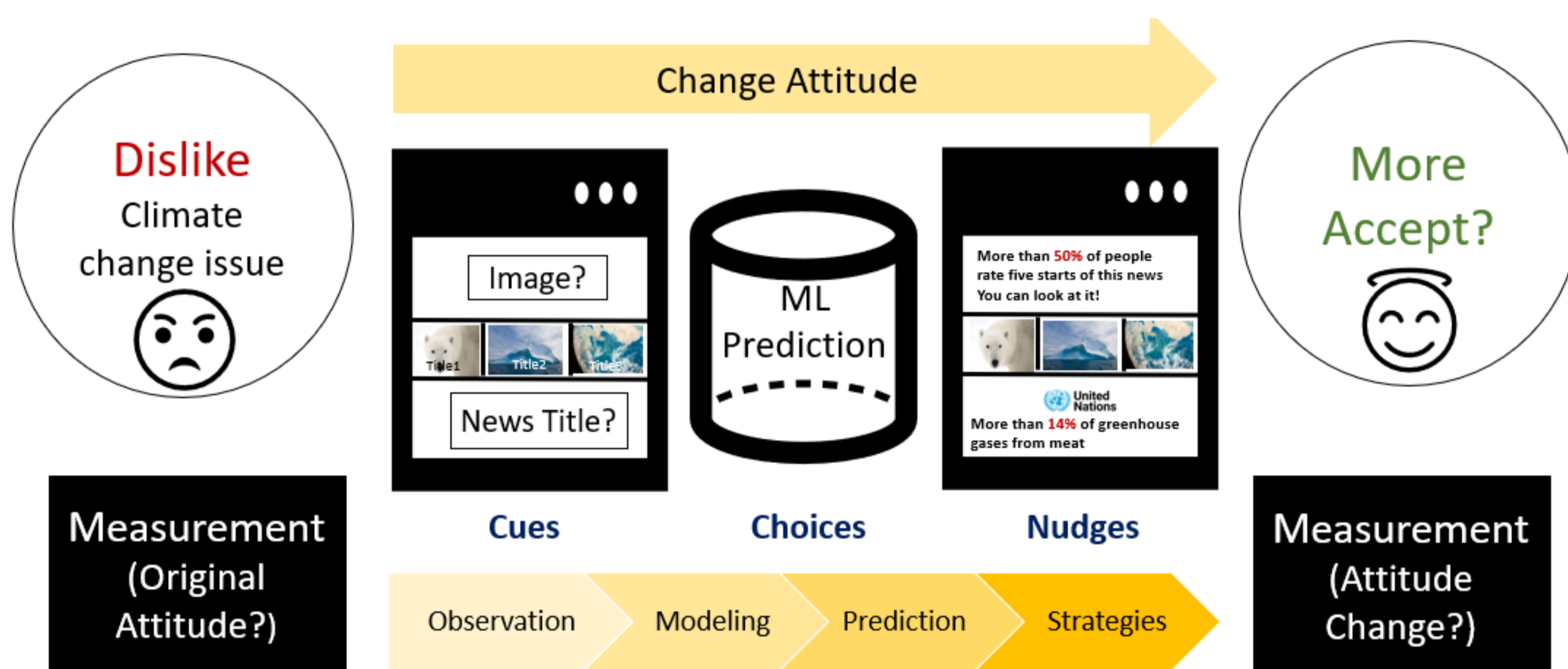


Bridging the Gap of Polarized Perspectives: Changing the Thoughts of the Hard Believers in Online Communities

Media Futures

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Research question

1. To what extent are user choices affected by their attitudes in an online recommender system, compared to traditional user characteristics, such as demographics, personality, etc.?
2. How is cue usage in a media recommender system related to user attitudes and profiles?
3. To what extent can we predict user choices in a media recommender system using different attitudes and profiles?
4. To what extent can we steer user choices in the context of media recommender systems toward different topics?

Abstract

Recommender systems aid in decision-making in many areas. However, undesired effects can emerge. Among these are filter bubbles: an undesirable side-effect of personalization is that it may lead to polarized opinions due to selective information exposure. Filter bubbles may strengthen the existing attitudes of “hard believers”, who suffer from belief perseverance: discounting contrary evidence due to their opposing attitudinal strength. Becoming a hard believer can be unsafe, because it is difficult to accept information objectively. A crucial issue in recommender system research is how to mitigate these undesired effects by designing recommender interfaces and machine learning models that enable people to consider to be more open to different perspectives. Alongside accurate models, the user experience is an equally important measure. Indeed, the core statistics are based on users’ behaviors and experiences in this research project. Therefore, this research aims to steer the choices of hard believers based on altering their attitudes. The core methods plan to concentrate on the interface design and ML model building involving manipulations of cues, users’ behaviors prediction and changing the nudges. In sum, the project aims to provide insight in the extent to which recommender systems can be effective in mitigating polarized opinions.

Conclusion

In conclusion, this project aims to propose novel recommender technology that can steer people’s choices based on their attitudes in the political domain, to reduce the adverse effects of polarization. Firstly, this research will focus on the interface design with different cues. Next, the project will observe which cues different people use the most based on their attitudes and profiles. Then, this project will build machine learning models from the observations to predict people’s choices. Finally, the project will alter different kinds of nudges to discover how they can steer users’ choices. Moreover, we plan to focus more on the user’s perspective with long-term testing in the final evaluation stage. Therefore, this research will consider comprehensive visions, from frontend and backend design to user-system interactions.

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