CIT594 Data Structures Prof. Eric Fouh & Prof. Harry Smith HW6 Social Impact Paper Rui Kan Penn ID 15599572

How Technology Encourages Political Selective Exposure Summary and Critique

This paper discussed customizability technology and how it impacts political selective exposure. There are two dimensions of customizability technology: user-based vs. system-based, and topic-based vs. ideology-based. This paper listed split opinions and evidence on how each type of customizability technology affects selective exposure.

Selective exposure in politics is an issue because it was shown to increase political attitude polarization and decrease people's fair judgement of political views. The psychological process that translates the presence of customizability technology to selective exposure include the desire to minimize cognitive dissonance, the desire to avoid media content perceived to be hostile or biased, and the perception that attitude-congruent information is of higher quality.

One question the author tried to answer is weather user-driven and system-driven customizability have opposite effects to selective exposure. A study by Beam (2014) is carried out to answer this question. In this study, participants are assigned to system-driven ideology-based and user-driven ideology-based customizability conditions. A conclusion from this study is that system-driven customizability increased selective exposure, whereas user-driven customizability decreased selective exposure.

There are 2 models developed in this paper to study various user-level and content-level customizability effects. The first model focuses on user-level customizability, and they found that social and psychological variables tend to mediate and moderate its effect on selective exposure. In comparison, the second model focuses on system-level customizability, and it is not affected much by social and psychological variables. Therefore, both user- and system-based increases selective exposure, but system-driven customizability imposes a more direct effect.

The other dimension is topic-based vs. ideology-based customizability. It is proposed the use of political ideology-based customizability results in greater levels of selective exposure than topic-based. There are a couple of reasons. First, certain parties are often associated with certain topics. For example, the Democrats are viewed as being better at jobs and healthcare, whereas Republicans are at taxes and crime. One party inevitably shows up more when one search for certain topics. Second, it is easier to for people to remove themselves from topic-based political contents than from ideology-based contents, topic-based contents are usually more "political" than the other.

When taking the combination of user-driven vs. system-driven and topic-based vs. ideology-based customizability, we must examine the effect from a matric perspective. It is shown that system-driven, ideology-based contents seems to be most prone to political selective exposure. Even though this article

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did not settle the debate on whether customizability technology results in selective exposure, it have proven that this study is so important in the space and should not be ignored in future conversations.

The news feed recommendation engine could reinforce people's biases. Because machine learning optimizes for certain loss function (for example, click through rate), over time it will learn to recommend contents with similar point of views or contents other similar users clicked before. If a person already has extremely biased views, the recommendation system will likely recommend other articles with biased political views. I believe the recommendation engine should not only optimize for maximizing the click through rate but also should consider including fairness and inclusiveness as its objective function. In this way, it will learn to offer balanced point of views to the readership and make sure people have equal access to contents with diverse political opinions.