Tim Schneegans

Escaping the comfort zone: a three-level perspective on filtering effects and counter-measures

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Tim Schneegans

Abstract

Together with the growing connectedness in the progress of globalization, researchers warn about the rise of so-called “filter bubbles” and “echo-chambers” that segregate citizens into comfort zones of self-confirming information and opinions. Regarding the Brexit referendum in 2016, DiFranzo and Gloria-Garcia (2017) blamed social media (e.g. Facebook) for trapping their users in an environment of self-confirming opinions that keeps them away from the political discourse. Besides technological filters, Geshcke, Lorenz, and Holtz (2018) regard the mechanisms of filter bubbles on three levels, including technological recommender algorithms, homogeneous social networks, and individual biases. In this essay, I will follow this framework and describe certain filtering effects and deduce contraindications on all three levels. Amongst others, the concepts of social self-categorization (Tajfel, 1974), homogeneous networks (e.g. Bakshy et al., 2015), and self-confirmation biases (see the review from Garrett, 2009) might help understanding filter bubbles. In order to promote public information exchange, we should not only modify filter algorithms but also become aware of our social comfort zone and our cognitive ability to select self-confirming information. Segregated groups must redefine their social identity and enlarge its definition to connect to seems-like-alien people (Pettigrew, 1998; Tajfel, 1974). This way we can promote the intrinsic human drive for curiosity as a counterweight against segregation.

Keywords

Echo chamber, filter bubble, digital citizenship, political psychology

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Introduction

According to common intuition, globalization facilitates access to information and individuals all around the world; despite that, we observe a growing polarization in society, which is widely blamed for political effects such as the Brexit referendum (e.g. Sunstein, 2018). Regarding the vote in Great Britain about leaving the European Union in 2016, DiFranzo and Gloria-Garcia (2017) blamed social media (e.g. Facebook) for trapping their users in an environment of self-confirming opinions that keeps them away from the political discourse. There are two popular terms describing this phenomenon: Sunstein (2018) observed that, due to the facilitation of communication via Internet, citizens find themselves in “echo-chambers” surrounded by a self-confirming social environment and a free choice of information. Pariser (2011) spoke of “filter bubbles”, referring to paternalistic recommender systems of social network services that feed citizens with self-confirming information. Both Sunstein and Pariser describe a comfort-zone that facilitates citizens to avoid uncomfortable opinions. To describe these self-confirming environments, which extend the technological perspective, I will use the term “comfort zone”.

Comfort zones

Being not obliged to deal with opposing opinions can have detrimental effects. In the best scenario, people, who lack of cross-camp discussion, have difficulties to reason their own public opinion (Huckfeldt, Mendez, & Osborn, 2004). In the worst scenario, people radicalize in isolated discussions, a phenomenon called group polarization.
(Sunstein, 2002) and even fall to conspiracy theories (Gerdes, 2016). As a contraindication, we should promote the idea exchange of people across diverse interests and public opinions. By doing this, I follow the example of Geschke et al. (2018) and consider the perspectives on technological facilities—in detail recommender algorithms in social network services—, social relation, and individual cognition to derive measures corresponding to each one of these three levels.

Geschke et al. (2018) simulated an information sharing process, including recommender algorithms, social network services and individual cognitive biases. Social network services enables their users to simultaneously post chosen bits of information to all friends; under these circumstances of centralized information distribution, and even without the effects of recommender algorithms, individual biases suffice to enforce segregated and centralized groups (Geschke et al., 2018). The authors referred this scenario to the US election in 2017 and the Brexit referendum. Let us take a closer look on all three levels.

**Filters**

*Technological filters*

Research on the effects of filter algorithms on the public discourse show ambiguous results. Pariser (2011) raised public awareness of the selection algorithms applied by Google, Yahoo, and Facebook, amongst others. For example, he depicted the case that due to customized search results of the word “Egypt” via Google, politically less interested individuals do not receive information about the Egyptian revolution, which, however, was a major event in 2011. Del Vicario et al. (2016) find supporting evidence that selective information exposure has a major influence on the spread of rumors. In contrast, Flaxman, Goel, and Rao (2016) argued that search algorithms only have minor effect, a. o. because most people directly visit the homepages of their favored media institutions instead of using search pages or social network services. Bakshy, Messing, and Adamic (2015), as well, point out that individual choices outweigh the impact of algorithms.
Social filters

The way we process information necessarily happens in a social context. In their review, Leary and Baumeister (1995) identified the need of belongingness to fellow human beings as a fundamental human motif of perception and action. They describe how people search for attachment to others, not only by looking for face-to-face interaction but also by allocating themselves to supra-regional ideological groups, e.g. political camps. According to the theory of social identity, people define their perception, goals, and actions through the interaction with their corresponding group (Tajfel, 1974). For example, by sympathizing with party A due to its convincing election program, I regard myself and party A as “us”, separated from party B “them”, which may result in party A behavior (e.g. supporting their ideology in online discussions). Greenaway et al. (2015) found that people matched together based on their political opinion reported increased well-being, which they explained with the formation of social identity in the respective groups.

Besides the positive outcomes of individuals, our search for attachment may result in homogeneous networks that restrict public discourse. People tend to surround themselves in homogeneous networks of minded people, a phenomenon that is called homophily (Bakshy et al., 2015; McPherson, Smith-Lovin, & Cook, 2001). Boutyline and Willer (2017) found that conservatives are more prone to build homogeneous networks than liberals and others.

Individual filters

Our individual biases in combination with centralized information distribution suffices to create comfort zones (Geschke et al., 2018). We tend to choose or interpret information in the internet or in a real-world discussion according to our preexisting beliefs (Nickerson, 1998). We feel that most people share our attitudes, even if that’s not the case (Ross, Greene, & House, 1977). By picking from the wealth of information, we do not necessarily ignore opposing opinions but often favor information in support of our opinion (see the review from Garrett, 2009). Meffert, Chung, Joiner, Waks, and Garst (2006) showed that voters catch more information about their preferred candidate and more negative information about the opposing candidate, as well as they recall more
positive information for their preferred candidate and more negative information about the opposite candidate.

In their review, Lilienfeld, Ammirati, and Landfield (2009) highlight three cognitive biases that consolidate the individual preexisting mindset: The false consensus bias refers to the belief that the own opinion represents the majority or, at least, a big group; the bias blind spot makes us to think that most minds are biased except our own mind; and thirdly, naive realism fools us to think that the world is as we perceive it, which makes us perceiving dissenting opinion as irrational.

These cognitive effects are so strong that they can even win against established facts. Nyhan and Reifler (2010) show that confrontative information, which challenges the subjects individual opinion, as a counter-reaction actually strengthens his or her belief. In one study, they assessed the subjects’ political ideology and asked them, whether they think that the tax cut initiative by the conservative Bush administration in 2001 had positive economical effects for the government. Then they faced the subjects with professional research proofing this claim wrong, and asked the same question again. Among the conservative subjects (n = 60), when faced with the correcting information, participants agreement to the statement that tax cuts increased the government revenue raised from 36% to 67%, whereas non-conservatives (n = 136) agreement fell from 31% to 28% (Nyhan & Reifler, 2010).

Solutions:

*How to get out of our comfort zone?*

Summarizing the evidence so far, we are prone to despair towards being lost in the complexity of the progressing connectedness, exposed to unstoppable technological progress as well as to our social and individual dispositions. Nevertheless, regarding phenomenon of filter bubbles on three levels enables us to map out distinct and feasible solutions (Geschke et al., 2018).
**Technological measures**

To achieve a differentiated picture of discussions, recommender systems have to be edited to support the formation of opinion, not to replace it (Wilkinson, 2018). Resnick, Garrett, Kriplean, Munson, and Stroud (2013) listed several programmes for this purpose: The software Consider-IT provides a pro-/con-list for the individual topic of interest (Kriplean, Morgan, Freelon, Borning, & Bennett, 2012); the software Reflect (Kriplean, Toomim, Morgan, Borning, & Ko, 2012) intervenes the user participation in online discussions by making him or her think about the opponents statements (e.g. “what did person A say?”, “what did person B say?”); the software Opinion Space Z displays the opinion of the corresponding users in a space other users’ opinions, marked with others’ agreeing, or disagreeing opinions. It remains a question, whether these ideas are integrated into established social network services.

**Social measures**

Overcoming our social comfort zone with its prejudices and stereotypes means social contact with allegedly alien fellows (Leary & Baumeister, 1995). Shin (2011) depicts how this can be arranged by education. He initiated a new education style to get his art students out of their cultural comfort zone, without totally objectifying their own culture: they conducted interviews with fellow students from other cultures and built widespread intercultural knowledge. On of Shin’s goals was to promote his student’s ability to empathize with others, in order to self-correct their stereotypes. By educating and in work groups of ethnical, political and other forms of diversity, we can benefit from the conflict inherent in diversity that enhances health, well-being, intellectual development, and group performance (De Dreu, 2002; 2010).

People achieve a shared reality (Echterhoff, Higgins & Levine, 2009) by either seeking the subjective feeling of common mental representations as shared processes or outcomes of thought (consensus) or the feeling of a commonality between the own representation or the meta-representation of others, i.e. to feel understood by others (recognition; French, Hoechtl, & Kerschreiter, 2018). Even though, many people prefer to seek for consensus in order to experience connectedness to others, recognition and
appreciation of other people’s thoughts offers an alternative that does not cut the selection of people we interact with in our daily lives.

**Individual measures**

In order to make more deliberate decisions and overcome our, we must change from an automatic and fast mode of thinking towards a controlled but slow mode of thinking (Kahneman & Egan, 2011). In their review, Lilienfeld et al. (2009) point out three major methods for debiasing. First, raise awareness of biases by psychoeducation: even though it does not necessarily cause a long-lasting impact (Lilienfeld et al., 2009), it should be a major part of media competence education (Geschke et al., 2018). Second, certain perspective-taking-techniques, such as with the help of the technological tools I described above, makes people consider opposing information (e.g. Schulz-Hardt, Jochims, Frey, & Processes, 2002). Ross et al. (1977) depict how some people collect articles with opposing ideas to escape their comfort zones. Third, delayed decision making cannot remove but reduce the impact of biases, as it gives more time to the controlled thinking mode.

**Conclusion**

The Internet on the one hand provides a paradise of information, which enable us to regard social political issues from diverse perspectives; on the other hand, it hold people in segregated information bubbles (Sunstein, 2018). While some research restrains the effect of technological filters, other research suggests it as real threat to public discourse. In order to promote public information exchange, we should not only modify filter algorithms but become aware of our social comfort zone and our cognitive ability to select self-confirming information. Above these filtering effects, we should keep in mind that humans do not merely adapt to economic circumstances but have an inner drive for curiosity that makes them extend their boundaries (Geschke et al., 2018). It requires interdisciplinary collaboration to develop measures for supporting the media competence and social exchange to elicit this potential.
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