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Algorithms, Values, and Relevance

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Algorithms, values and relevance

1. Algorithms in the context of media personalization: Technology and affordances
2. Diversity and the filter bubble
3. Fragmentation and the public sphere

Core function of news media:

Keeping the gate:

Selecting news out of the pool of all possible event

Algorithm

■ a procedure or formula for solving a problem, based on conducting a sequence of specified actions.

Algorithmic sorting of media content

■ Sorting and prioritizing according to specifically chosen principles (***filtering)***
  e.g. match on key criteria with previously chosen content, collaborative filtering

■ Optimization towards specifically chosen goals (***key performance indicators)***
  e.g. Clicks, time spent, reading article until the end, coming back to the website

Why does this matter?

- Potential effect on diversity (filter bubble)

- Potential effect on the shared public sphere (fragmentation/polarization)

Filter bubbles: Empirical evidence

■ In experiments in the lab with students filter bubbles were observed (e.g. Dylko et al. 2017)

■ However, outside the lab there is no evidence for filter bubbles, on the contrary
  □ A majority of users perceives to receive more diverse news through social media (Fletcher & Nielsen, 2017)
  □ Exposure to news on social media can be linked to less extreme viewpoints (Beam et al., 2018)
  □ Algorithms select as diverse news as human editors (Moeller et al., 2018)
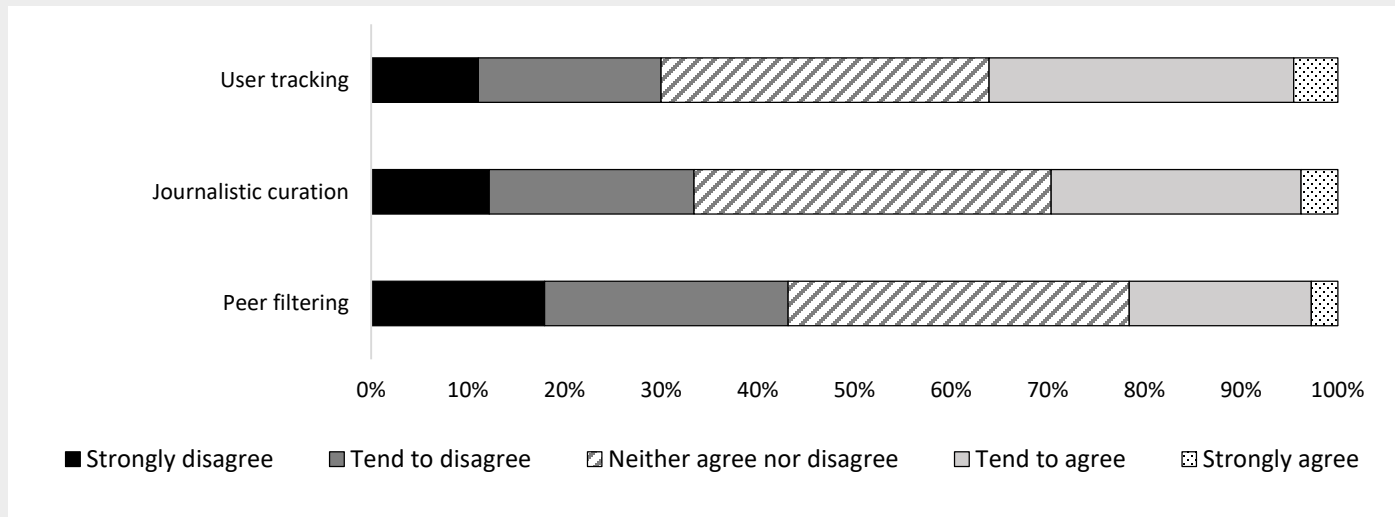
Users: recommendations good way to receive news

Figure: Belief that having news stories selected either automatically (on the basis of own past consumption ['user tracking'] or friends' news consumption ['peer filtering']) or by editors and journalists ('journalistic curation') is a good way to get news (n=53,314).
(Thurman, Moeller, Trilling & Helberger, 2018)

But they are also concerned about diversity

Factors of acceptance of news personalisation

Bodo, Helberger, Eskens & Moeller (2019)
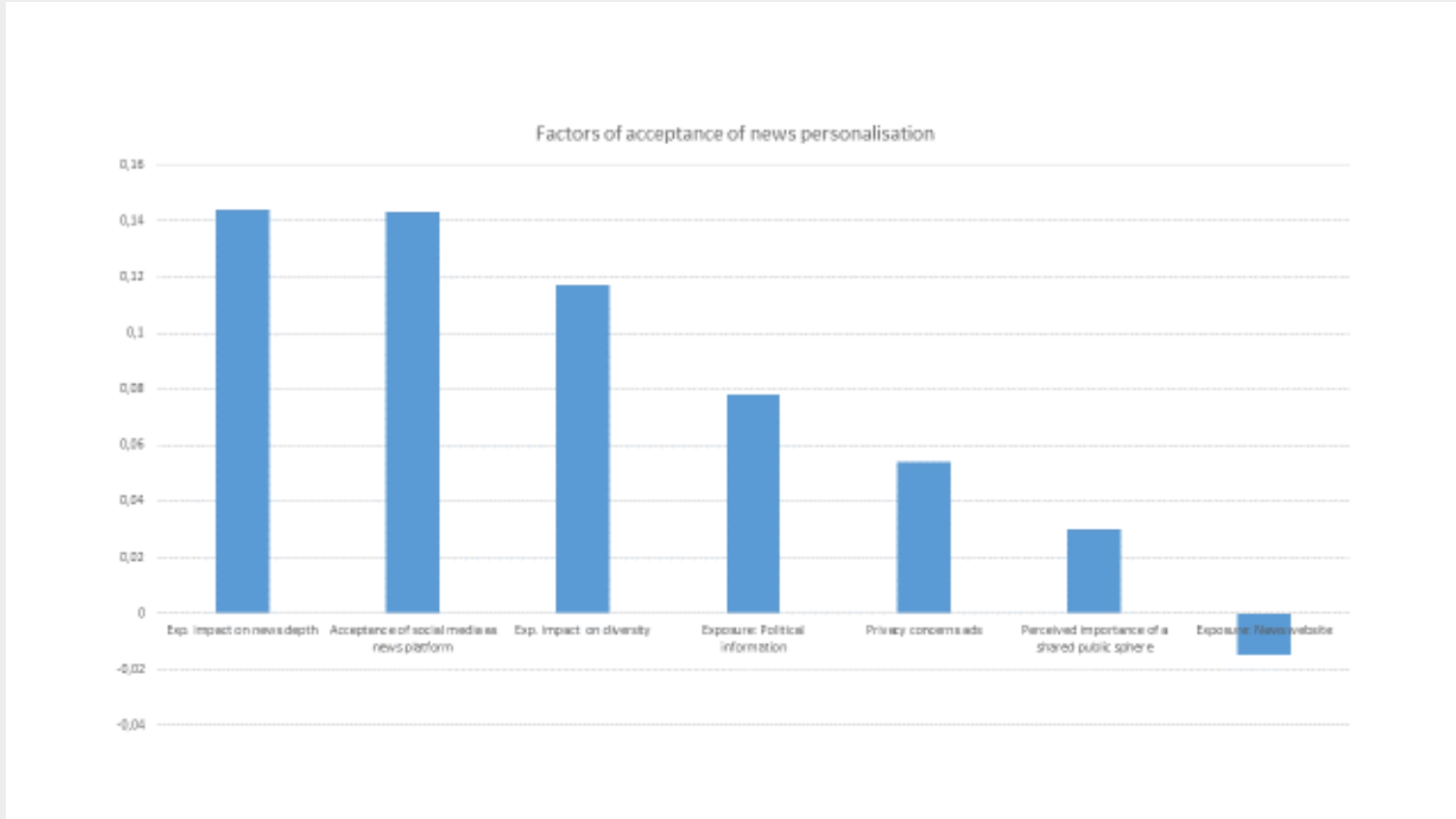
Diversity: a concept with a mission

If and how algorithmic recommendations lead to more or less diversity very much depends on the democratic theoretical perspective one adopts.

Depending on the perspective:

- ■ Different levels of concern
- ■ Different roles for citizens
- ■ Different ideas of what counts as 'ideal' diversity
- ■ Different scales: from diversity as a value in its own right, to a more functional approach (with the consequence that other criteria come to the fore, such as tone or possibility to interact)

(Helberger, 2018)

Fragmentation of the public sphere: Empirical evidence

■ Use of personalized news is not associated with less perceived importance of the most important topics, but also not with *more* in contrast to mass media (Moeller et al., 2016; Geiss et al. 2018)

Variables	Top	Long tail
Personalized media	−0.100**	0.072*
Newspaper	0.059*	−0.051
Online news website	−0.037	0.036
News on mobile devices	−0.042	0.041
TV news	0.145**	−0.128**
Radio news	0.023	−0.014

Key points and challenges

- Algorithmic news recommendation *useful and appreciated* to navigate information overload

- Algorithmic design can lead to improved access to diverse, and relevant news, but it can also catalyze dissemination of sensationalist news, *depending on the news selection logic* applied

- Algorithmic selection tends to *amplify biases* that are already in the data

- Click based optimization combined with collaborative filtering can cause spread of misinformation among *specific segments* of the population

- Lack of diversity and presence of inaccurate information is currently *hardly monitored*

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But most importantly :

Algorithmic filters can be designed to promote diversity and a shared public sphere

Quality media are the best guarantee to diverse, multi-faceted, and fact checked news, so creating the conditions for them to survive is crucial.

We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction.

Bill Gates

Thanks for having me!

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www.personalised-communcation.net

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