TECHNISCHE UNIVERSITÄT DRESDEN

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Algorithmic Transformation of the Public Sphere

Algorithmic Media Use: Predominance of Chances or Risks?

The operation mode of the Internet (esp. Social Web) is based on intelligent algorithms. Information is provided automatically in accordance with individual user preferences or previous behavior: 'algorithmic turn' (Napoli 2014).

Chances

- Accidental exposure to information, serendipity
- Gaining more relevant information
- Tailoring information towards preferences
- Tackling information overload

Risks

- Transformation of criteria for selecting information: from professional journalistic criteria to tabloid journalism
- Increasing tendency of exposure to consonant information
  - ➢ Filter Bubbles (Pariser, 2011) and Echo Chambers (Jamieson & Cappella, 2008)
  - ➢ Fragmentation and polarization of opinions (Bennett & Iyengar, 2008; Sunstein, 2001)

Empirical Evidence

Findings on the consequences of algorithmic media use are mixed. Research is methodologically challenging and findings depends on study design:

- Dylko (2015) found that customizability technology increases the likelihood and the degree of selective exposure (see also: McPherson et al. 2001, Davis 1999, PEW 2014, Stroud 2009).
- Contrary to that, Beam & Kosicki (2014) found no differences in the selection of consonant or dissonant information for users and non-users of personalized news portals (see also: Wojcieszak & Mutz 2009, Garrett 2009, Brundidge 2010, Kim 2011).
- ➢ When analyzing exposure to information in algorithmic media, users habits, interests and attitudes need to be considered as well as technological functions which in turn determine the patterns of use (Mahnke, 2015).

Methodology & Research Design

Identifying types of algorithmic media users

1. Qualitative preliminary study: uses and gratifications of information from facebook
2. Standardized telephone interview (CATI): uses of algorithmic media, typology of users

Development of an integrative research tool

Analyzing the process of political information in algorithmic media

3. Tracking: Process of political information online
4. Experience sampling method: Criteria for selecting information & quality evaluation
5. Diary: Process of political information offline

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Added Value

Development of a methodological approach to measure the transformation of the public sphere concerning…

- Specific patterns of usage for a wide range of algorithmic online platforms
- Mixed methods approach: Validating self-reported information behavior through tracking data
- Measuring selective exposure to consonant political information and opinions possibly leading to filter bubbles and polarization

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