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THE RELEVANCE PEOPLE ASSIGN TO ALGORITHMIC-SELECTION APPLICATIONS IN EVERYDAY LIFE

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Introduction

Fast growing public and academic attention dedicated to algorithmic selection on the internet goes along with appraisals of their high social significance and impact on daily life in digital societies (Beer, 2017; Gillespie, 2014; Latzer & Just, 2020; Willson, 2017). These appraisals—in particular regarding social risks including manipulation, discrimination and bias—form, inter alia, the basis for the governance of algorithmic selection (Latzer et al., 2016). Appropriate governance choices, however, call for an accurate and empirical understanding of the relevance of algorithmic selection in order to assess the scope of potential associated risks. This paper aims to contribute to this systematic assessment and adds to a profound basis for governance measures.

Previous studies have predominantly deduced the relevance of algorithmic selection either from purely theoretical reasoning or from non-generalizable empirical investigations. These empirical accounts approximate the social relevance of algorithmic selection from a user perspective by measuring for example the amount and frequency of the use of algorithmic-selection applications. The widest academic focus is on the usage time of online services for political topics (Park, 2019; Vraga & Tully, 2019). The results indicate an increased social media use for information seeking (Newman et al., 2020; Shearer, 2018) and the consideration of online services as alternative daily news sources (Bialik & Matsa, 2017; Schmidt et al., 2019).

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In order to question and substantiate these assessments and to gain a more holistic understanding of the actual relevance of algorithmic selection for Internet users' everyday life, this article makes a comprehensive, empirical assessment of the relevance that people subjectively assign to algorithmic-selection applications. This study seeks to answer what relevance individuals assign to algorithmic-selection applications relative to online and offline alternatives and whether there are differences between life domains and societal groups. In line with a comprehensive, mixed-methods measurement model of algorithmic governance (Latzer & Festic, 2019), this paper uses subjectively assigned relevance as a weighting for the interpretation of other findings such as data on the amount and frequency of social media use.

Methodology and Approach

The study is based on a combination of a representative online survey of Swiss Internet users and preceding qualitative interviews. It comparatively assesses the subjectively assigned relevance of algorithmic-selection applications for five life domains: political and social orientation, socializing, health, entertainment and commercial transactions. The survey participants ($N = 1202$) were asked to assign relevance to a list of ten to fourteen services and activities that are deemed important for the respective life domain. These services and activities included algorithmic-selection applications, non-algorithmic-selection online services and offline activities. For instance, being on social media (algorithmic-selection application), calling on Skype (non-algorithmic-selection online service) or meeting friends (offline activity) are among the relevant services and activities for the life domain of socializing. The lists of relevant algorithmic-selection applications and online and offline alternatives were derived from qualitative interviews ($N = 58$) conducted prior to the representative survey.

Findings

The findings revealed, first, that Internet users perceive algorithmic-selection applications as being less relevant—in particular compared to offline, but also to online alternatives. This empirically supports claims from qualitative news repertoire studies that—although increasingly used—algorithmic-selection applications are unlikely to replace traditional sources for news consumption (Schmidt et al., 2019).

Second, algorithmic-selection applications, in particular social media, are found to be of relatively low assigned relevance for all life domains investigated. Offline activities are consistently ranked highest.

Third, younger and heavier Internet users assign greater relevance to various algorithmic-selection applications across all life domains. In line with earlier findings (Abril, 2016; Smith, 2016), this indicates that younger people integrate algorithmic-selection applications more heavily into their everyday lives.

Altogether, the results on subjective relevance allow for a better interpretation of usage data. This relevance for people does not necessarily rise with the amount of use. Services may be highly influential, even if people report a low usage time—and vice versa. These discrepancies seem to apply in particular for social media like Facebook

which is consistently assigned a very low relevance across all life domains, including political and social orientation, where it ranks lowest. This qualifies and calls for rethinking concerns about the prevalence of associated risks, if they are solely raised based on intensive social media use.

Conclusion

This article contributes to the literature on the social relevance of algorithms by comprehensively investigating how relevant internet users perceive algorithmic-selection applications to be. The study does not only focus on single platforms or applications, but takes a comparative look into different domains of daily life and includes various relevant algorithmic-selection applications and online and offline alternatives. By drawing on countrywide, representative data, the results complement the current debate on the social power of algorithmic selection, promote a more nuanced and realistic assessment of the issue and inform policy-makers aiming for more appropriate governance choices. Overall, the results of this study indicate a moderate relevance of algorithmic-selection for Internet users' everyday lives. However, this paper also argues for a holistic approach when it comes to assessing the relevance of algorithmic selection.

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