

A complex interplay: Exploring the (mis)match between audiences' and news organizations' assessments of news personalization

Short Paper Submission

News recommender systems (NRS) constitute algorithmic and/or AI-driven solutions that filter, recommend, prioritize, and sort *news* content based on previous or similar users' news behavior, explicitly stated user preferences, popularity metrics, and other content-specific features such as news items' topic or length (Feng et al., 2020; Karimi et al., 2018). News organizations worldwide invest in NRS and news personalization in hopes of better adapting to the changed information landscape and news use patterns following digitalization (Bodó, 2019).

NRS are a prototypical example of how the demand and supply of news are inextricably linked. News organizations supply NRS, at which point news audiences use these systems and their outputs. But it's not a one-way street. Users play an active role in shaping the output of these systems through their engagement (Möller et al., 2018). This active participation can influence subsequent news story selection and production (e.g., Christin, 2020; Fürst, 2020). At the same time, the technology itself sets a boundary condition for how these systems are adopted within news organizations and how audiences perceive and use them.

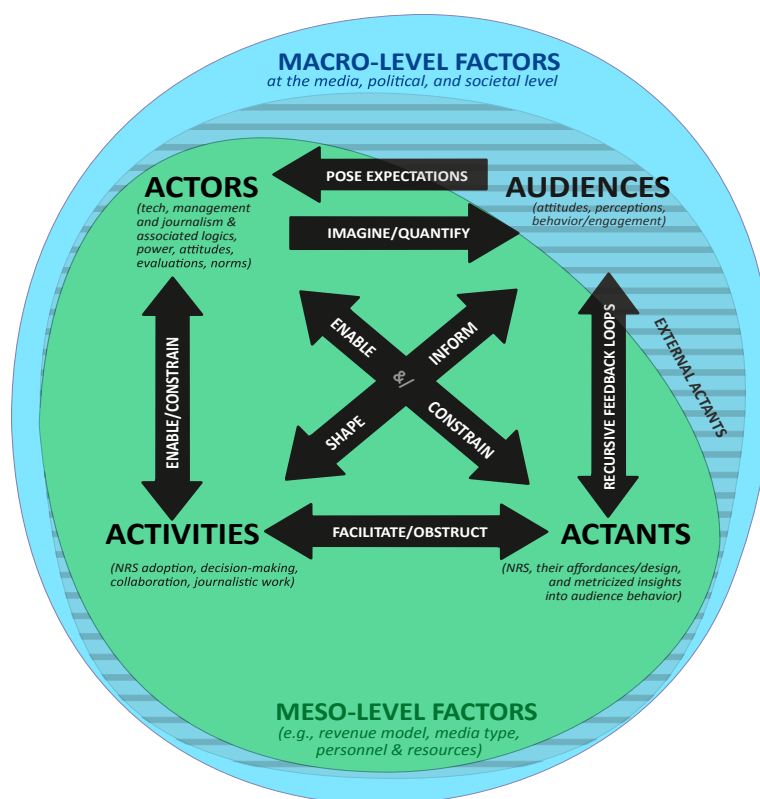
One framework that can be used to conceptually model this complex interplay is Lewis and Westlund's (2015) matrix of "4As"—actors, actants, audiences, and activities in digital journalism. This submission and presentation combine and analytically synthesize empirical insights across two datasets, which examine audiences' and journalists' evaluations and expectations toward these algorithmic systems in conversation with the 4As matrix. Methodologically, we relied on qualitative semi-structured guided interviews with 36 news professionals across 13 media organizations in the Netherlands and Switzerland. To investigate audience assessments, we utilized a standardized cross-sectional survey aimed at representativity regarding age (18+), gender, and region in Switzerland, Poland, the Netherlands, the United Kingdom, and the United States ($N = 5079$).

Our findings point to the relevance of all *As* in NRS development and reception. How NRS technology, as an *actant*, is adopted depends on technological capabilities and the power different *actors* across functional groups, as well as extraneous influential algorithmically driven social media platforms (*external actors and actants*), have in setting the direction of such ventures. Furthermore, NRS adoption is

influenced by the data-informed and imagined conceptualizations news organizations have of their *audiences*. These systems' outputs are also directly affected by audiences' use thereof through recursive feedback loops. Last but not least, NRS development is affected by and affects various *activities*. These are not limited to established routines, rules, and journalistic missions connected to news distribution. Instead, new work processes may arise as a response to intraorganizational tensions among multiple actors with incompatible demands. Last but not least, technology must always be considered against the social, economic, and political context in which it is embedded (Jones et al., 2022). Thus, it is necessary to contextualize the adoption and reception of technology by considering regulatory, market, socio-cultural, and political factors at the macro level (Ferrucci & Perreault, 2021).

These elaborations and pathways of mutual construction can be visualized in a preliminary schematic illustration:

Figure 1: Consolidated schematic illustration



Source. Own visualization

In my presentation, I will focus on the interdependence between audiences and actors within news organizations and their NRS-related activities. Our findings reveal noteworthy areas of (mis)match in how audiences and news professionals perceive and evaluate algorithmic tools such as news recommenders.

For example, *alignment* is observable regarding the sections NRS should (not) be applied for and the perceived importance of responsible NRS. News professionals believe NRS are more useful for niche and less-read topics such as culture than for political and breaking news. Our respondents mostly share this sentiment: NRS for sports, entertainment, and culture are rated as more useful than for politics, local, and breaking news. Furthermore, there are website sections, such as the homepage, where, on average, users prefer manual to algorithmic curation, mirroring journalistic assessments. Additionally, news professionals are conscious of the importance of responsible NRS design for alleviating audiences' reservations about algorithmic news distribution. Similarly, we find that users desire transparency and control, particularly when they acknowledge more concerns related to NRS.

But we also see patterns of *disconnect*. These are visible in envisioned *vs.* actual audience desire for news personalization, as news professionals tend to overestimate the extent to which users actually want NRS. Another important area of mismatch concerns the negative implications of NRS for user trust. While news professionals largely refute the adverse effects of journalistic AI and news recommenders on trust, on the demand side, higher estimated adoption rates negatively correlate with user trust. Even users who already generally trust the media desire control and transparency. This raises important questions about whether and under which conditions audiences can trust algorithmic recommenders. "Betting" on existing trust in media and journalistic content might not extend to trust in algorithmic distribution, even within news websites that produce their own content.

Based on the proposed conceptual model and empirically identified areas of (dis)connect, the presentation will derive practical recommendations for the responsible design of algorithmic and/or AI-driven tools in the newsroom while being mindful of technological affordances, audience expectations and contextual influences at the meso and macro levels.

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