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'It's All About Money' – News Users' Folk Theory of Audience Data Utilisation in Journalism

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ABSTRACT

Journalism scholars have extensively explored the implications of audience analytics for journalistic work and content. However, the audience's perspective on this issue has received relatively little scholarly attention. This study investigates news users' understandings of the role of audience data in journalism by employing folk theories as an analytical approach. In particular, it highlights news users' beliefs regarding why audience data are collected and the resulting implications for journalism. The research material consists of five focus group interviews and instant messaging group chats conducted with 21 readers of the Finnish tabloid Iltalehti. The findings reveal that participants primarily perceive the utilisation of audience data as commercially driven. Consequently, in their view, this influences journalists' relationships with both advertisers and audiences, as well as the production of journalistic content. Notably, news users associate the increased influence of advertisers and news business owners with the utilisation of user data, leading to a heightened commercial role for the audience. Furthermore, they see that commercial motivations negatively impact the quality of journalistic content. This research highlights the complex interplay among audience data, commercial interests, and journalistic practices, emphasising the need for a more nuanced understanding of audience analytics in contemporary journalism.

KEYWORDS

Folk theories; news users; datafied journalism; journalism; datafication; audience data

Introduction

The trend of datafication—which refers to transforming human action on digital platforms into a countable form (e.g. Cukier and Mayer-Schönberger 2013; Mejias and Couldry 2019), often to yield economic value (Mejias and Couldry 2019)—also affects journalism. Datafication plays a role in opening new sources of journalism as well as in its production and distribution, manifesting *via* data, automated, algorithmic, and metrics-driven journalism (Loosen, 2018). Consequently, not only individuals working in advertising departments but also those working in newsrooms have started to focus on how people consume news and what news they are willing to pay for. The field has suffered from financial struggles for years due to declining print and

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advertising revenues, and news organisations believe that monitoring analytics and pursuing subscription revenues instead of advertising offer them economic stability (Ahva and Ovaska 2023).

Newsrooms employ audience metrics to collect real-time data on users' demographics and online news consumption. Journalists actively exploit this information in online content production by changing the headlines and arranging the list of articles on the front page, as well as by publishing more articles about popular topics derived from the analytics (Nelson and Tandoc 2019) to attract more readers (Tandoc 2019). These new user-data-related practices have resulted in a wide range of implications for journalism. Audience metrics influence a) news production volume, rhythm, and practices; b) topic placement and selection; and c) the formats and styles of news presentation (Fürst 2020). Besides the content, this also affects journalists' work practices (e.g. Petre 2021) and orientations (Ferrer-Conill and Tandoc 2018; Hanusch and Tandoc 2019). One consequence is that instead of focusing merely on citizen orientation when producing content that readers need to know, metrics make journalists more consumer-oriented, offering readers what they want to know (Hanusch 2017; Tandoc 2014). Using metrics as a primary mechanism for audience feedback, Hanusch and Tandoc (2019) noted that Australian journalists increasingly perceive the consumer-oriented role as important—an orientation primarily driven by intense market pressures. These pressures compel journalists to broaden their appeal by publishing content that not only delivers hard news but also provides relaxation and entertainment to the widest possible audience (Hanusch and Tandoc 2019). Although journalists can include democratic values in datafied practices, such as when creating personalisation algorithms on news sites (e.g. Møller 2022), metrics have still intensified commercial considerations in the newsroom (Hanusch 2017; Hanusch and Tandoc 2019).

Despite the large body of literature on how journalists use audience metrics and how they influence the journalism they produce, the issue has not been widely studied from an audience perspective. This paper contributes to the field of datafied journalism studies by exploring audience perspectives and ways of utilising audience data in the production and distribution of journalism. While previous studies have explored the audience perspective, for example, by focusing on how news users make sense of their own roles in news personalisation (Monzer et al. 2020), how they engage with datafied journalism (Ovaska 2024), or news audiences' trust evaluation in the context of datafied journalism (Ehrlén et al. 2023), there is room to examine news users' views on the impact that audience data utilisation has on journalism.

Although news users constantly contribute to datafied journalism with their data, they may be unaware of data collection (Heikkilä 2022; Tandoc 2019) and struggle to understand how data-fed algorithms influence their news consumption (Dogruel 2021). As news media gain legitimisation for their actions from the public, this lack of awareness raises questions about the legitimatisation of these widely popular practices: How do news users rationalise why news organisations utilise audience data, and how acceptable do they perceive it? Journalists rationalise the necessity of audience metrics by highlighting the latter's role in strengthening journalists' audience relations and commercial situations (Ahva and Ovaska 2023; see also Hanusch and Tandoc 2019). The question is, do news users find similar reasonings, and do they find commercial reasoning acceptable?

This paper explores Finnish news users' sense-making of the targets and implications of user data utilisation in journalism by asking: *What are the key understandings that news users draw upon when making sense of the role of user data in journalism?*

To answer this question, this study employs *folk theories* as an analytical approach, which is an interdisciplinary approach to studying how people draw understandings of the world in their everyday lives (Ytre-Arne and Moe 2021). These "folk theories" can be understood as popular beliefs (Nielsen 2016), conceptions (Ytre-Arne and Moe 2021), or intuitive theories (Gelman and Legare 2011) that people hold regarding their everyday lives. These can be implicit and imprecise (Gelman and Legare 2011) or even speculative (Rip 2006). They are rooted in individual experiences or second-hand information (Rip 2006) and are not necessarily true (Nielsen 2016). Although folk theories, similar to scientific theories, aim to identify repeated patterns that help understand the world, they are not similarly challenged or evaluated and do not aim to accumulate knowledge but to enable action (Nielsen 2016). Leaning on Swidler's (1986, 2001) notion of "culture as a toolkit," Nielsen (2016) argued that people have cultural tools, such as understandings of different issues, which shape their navigation and engagement in their everyday lives. In this case, folk theories can not only work as resources for sense-making (Toff and Nielsen 2018) but also help organise the experience and guide the learning, behaviour, and reasoning of everyday life (Gelman and Legare 2011). Thus, people create folk theories to make sense of the world and act in it.

Folk theories have been widely used in various fields, such as to study people's understandings of the taken-for-granted assumptions of the physical world (i.e., folk physics) (Silva and Silva 2006) or those of the biological world (Medin and Atran 1999). They have recently been applied in the field of human–computer interaction and media research to study people's understandings of emerging technologies, such as algorithm functions (DeVito, Gergle, and Birnholtz 2017; Eslami, et al. 2016; French and Hancock 2017; Rader and Gray 2015; Ytre-Arne and Moe 2021), as well as those of journalism and its functions (Nielsen 2016).

As algorithms, a prime example of datafication in people's everyday lives (Ytre-Arne and Moe 2021), and journalism both fall into the category of people's folk theorisation, folk theories provide an intriguing approach to studying people's understandings of user data's role in journalism. This paper aims to explore news users' folk theory of datafied journalism by focusing on their rationalisations of why user data is used and what implications this has on journalism. The paper proceeds by first reviewing the existing literature on people's expectations, beliefs, and folk theories of journalism, followed by those of datafication and algorithms.

Audience Expectations and Folk Theories of Journalism

Journalism as a discipline has remained remarkably production-focused (Swart et al. 2022) despite recent years' growing interest in the audience (Costera Meijer 2020). While there is a large body of literature on journalists' relations with their audiences, journalism scholars have often overlooked not only news users' expectations of journalism (Karlsson and Clerwall 2019; Riedl and Eberl 2022) but also their understandings of it.

Audience expectations of journalism have often been studied using quantitative methods and existing role conception typologies and statements. For instance, in

Finland, people want journalists to inform them about current issues, do fact-checking, be advocates, and monitor those in power (Grönlund, Horowitz, and Lehtisaari 2024). In Germany, news users expect journalists to carry out objective reporting (Loosen, Reimer, and Hölig 2020), and in Austria, they are expected to report on current events (Riedl and Eberl 2022). Furthermore, qualitative studies exploring audience expectations outside conventional role conceptions have shown that news users want journalists to incorporate positivity and possible solutions into their reporting (Banjac 2022). They also expect not only to "feel good" but to experience feelings of "delight" when consuming high-quality news content (Costera Meijer 2013).

In addition, studying expectations can help detect discrepancies in perceptions between journalists and the audience (Banjac 2022), for instance, in their beliefs about what influences journalism. Prior studies have noted that news users perceive commercial motivations as influential on journalism. For instance, when comparing Finnish media policymakers' and news users' survey answers regarding the key factors that influence journalism the most, Grönlund, Horowitz, and Lehtisaari (2024) noted some differences. While policymakers highlighted the significance of ethical guidelines, resources, and time pressures, news users claimed that business leaders, economic goals, and the company's shareholders were the most influential factors in journalism (Grönlund, Horowitz, and Lehtisaari 2024: 26). Although traditionally, news organisations seek to keep financial pressures out of the editorial office and keep the advertising department separate from the newsroom (e.g. Tandoc 2019), the discrepancy shows that news users highlight commercial motivations' influence on journalism production more than policymakers. In addition, when discussing the future of the print newspaper, Finnish readers feel that their preferences hold a subordinate position compared to advertisers' and shareholders' wishes (Heikkilä, Hellman, and Ovaska 2023). Moreover, while the desire to relax and fill empty moments of the day by consuming news and softer news content (see, for instance, Heikkilä, Hellman, and Ovaska 2023; Ytre-Arne 2023) aligns with journalists' consumer orientation (e.g. Hanusch and Tandoc 2019), news users' perspectives on commercialism seem to be negative. In interviews with South African news users about their expectations of journalism (Banjac 2022) and students at an Austrian university about their views on journalistic boundaries (Banjac and Hanusch 2022), both groups considered journalism to be too commercially oriented, leading to poorer-quality content.

Audience expectations signal audiences' understandings of what journalism is and what they can expect from it. Nielsen (2016) introduced folk theories of journalism as an approach to examine what kinds of popular beliefs people have about what journalism is, what it does, and what it ought to do. Nielsen argued that these beliefs and understandings shape news users' interpretations of journalism and, therefore, influence their engagement with it. Palmer (2019) added that folk theories of journalism are rooted in everyday situations, such as news users' first-hand experiences when consuming news. As prior studies have observed that news users' understandings and beliefs of journalism are built in social discussions (Heikkilä et al., 2012), influenced by news media's self-criticism (Haas 2006) and by meta-journalistic discourse, in which journalists publicly "articulate, negotiate, defend, and even obscure their cultural, social, and political significance" (Carlson 2012: 268), these can be seen to

influence news users' folk theories of journalism. Therefore, folk theories of journalism are not only rooted in repeated situations when engaging with the news but also in everyday private and public discussions; however, they are by no means "set in stone" but are in constant flux.

Audience scholars have used folk theories for various research subjects. Nielsen (2016) noted that news users' folk theories (i.e., their interpretations of a local newspaper) affect how relevant they consider the local newspaper is—whether they feel it is "our newspaper," which is both relevant and local; "their newspaper," if it is relevant but geographically or politically biased; or "what newspaper" if it is deemed not relevant at all. Mont'Alverne et al. (2023) studied people's perceptions of partiality in news content, which were rooted in two intertwined folk theories: hidden agendas and commercial considerations.

Scholars have also used folk theories to highlight different audience segments' perceptions of journalism. For instance, Palmer, Toff, and Nielsen (2020) noted that news avoiders do not believe in the "journalists as watchdogs" ideal but believe that news media "covers things up," such as leaving some topics untouched due to journalists' ideologies. Juarez Miro (2025) used folk theories to grasp how populist supporters make sense of their news consumption and navigate in a high-choice news environment. She noted that they use various news sources, as they believe that "everything is biased," as well as to hear others' opinions. Despite the criticism, populist supporters can still experience positive emotions from staying informed. Toff and Nielsen (2018) noted that infrequent news users believe that news would find them even without self-motivated news consumption, and if they want to find news, they will. Therefore, people's understandings of journalism's functions heavily influence their (dis)engagement with it.

As mentioned above, folk theories are also used to grasp people's beliefs about what journalists do or should do (Nielsen 2016). For instance, some people criticise journalists' practice of adding context to a news article, which is seen as a potential avenue for bias (Wilner, Valle and Masullo 2021). Moreover, people embrace journalistic ethics, saying that "good" journalists do not seek quotes and take responsibility for their story's outcomes (Palmer 2019). This shows that news users actively interpret journalistic practices and evaluate their ethics while consuming news.

However, little attention has been paid to how people perceive datafication's impact on journalism. Some scholars have studied the role of algorithms in people's media consumption (e.g. Swart 2021; Ytre-Arne and Moe 2021), but fewer studies have focused on news users' evaluations or engagement of user data practices in journalism (Ehrlén et al. 2023; Ovaska 2024). As datafication taps into different fields, people's folk theories of user data's role in journalism might also be affected by their beliefs about datafication and algorithms in general.

Users' Understandings of Datafication and Algorithms

Many of our daily activities take place on datafied platforms, such as on social media or streaming services, where user data are collected and utilised, for instance, in content personalisation. This highlights the importance of studying datafication's influence on people's everyday lives (e.g. Kennedy 2018). Ytre-Arne and Moe (2021)

stated that algorithms can be seen as a prime example of datafication in everyday life, as they operate with data and people encounter algorithms on various platforms when using media. Since algorithms' functions can be opaque (e.g. Eslami, et al. 2016), this has opened an avenue for scholars to study how people understand and make sense of algorithms' operations and datafied systems (e.g. Lomborg and Kapsch 2020; Swart 2021; Ytre-Arne and Moe 2021).

Similarly, as in journalism studies, human–computer interaction scholars have used folk theories as an approach to study people's sense-making of datafication, especially about algorithmic functions. Scholars have employed this framework to study people's perceptions of algorithms in various contexts, such as in media use (Ytre-Arne and Moe 2021) and online dating (Huang, Hancock, and Tong 2022).

To understand rapidly changing media systems, "folk theorisation" serves as a form of constant speculation (DeVito, 2021). These theories can significantly differ from professionals' conceptions, such as those of developers or designers regarding how a platform functions (Eslami, et al. 2016). Users' sense-making has become an important source of algorithmic knowledge (Ruckenstein 2023). By observing online causalities, such as changes in advertisements following an online search, people learn to understand the workings of uncontrollable algorithms (Ruckenstein 2023).

When people create folk theories of algorithmic systems, or "decode" the algorithms, they rely not only on knowledge but also on the feelings these systems evoke, which further influence their engagement with them: people's decoding is heavily influenced by past personal experiences and professional and third-party knowledge, as well as algorithm-related feelings and actions (Lomborg and Kapsch 2020). Decoding algorithms can evoke both negative and positive feelings, and depending on these feelings, people might comply with the datafied systems, negotiate their engagement with them, or act against them (Lomborg and Kapsch 2020).

Folk theories are not only rooted in private experiences but are also shaped by public discourse. For instance, scholars have noted that audience theories share elements with academic critiques of datafication. Since data is a form of capital (e.g. Sadowski 2019) and large corporations, such as Google, aim to predict and modify user behaviour for profit, a concept known as surveillance capitalism (e.g. Zuboff 2015), similar concerns are vivid in people's folk theories concerning algorithms that process their data. Algorithms are often perceived as exploitative (Ytre-Arne and Moe 2021) and driven by commercial motivations (Dogruel 2021). In these cases, public discussions regarding academic discussions inform folk theories. Given that people's understandings of algorithms influence their engagement with platforms, studies can uncover the reasons and motivations behind their (dis)engagement with datafied systems.

In the context of journalism, understanding news users' beliefs and perceptions about the role of user data in journalism production and the operation of algorithms on news sites enables us to grasp their relationship with journalism. Therefore, this study stems from a framework that combines folk theories of journalism, datafication, and algorithms. Combining these elements is crucial for studying their relation to datafied journalism, which is heavily influenced by audience metrics and utilises data with the help of algorithms.

Research Setting

This paper's findings are grounded in five empirical focus group interviews and the ensuing instant messaging group chats with 21 readers of the Finnish tabloid newspaper *Iltalehti*. Finland is a Nordic country with 5.6 million inhabitants. In international comparisons, Finns are known for their high trust in news: 69% of Finns said that they can trust "most news most of the time" (Reunanen 2023). The Finnish news media landscape comprises a strong public broadcaster, strong regional press, and one national daily and two tabloid newspapers (ibid.). *Iltalehti* is one of these two tabloids; it reaches over half of the Finnish population weekly online (ibid.) and publishes articles about celebrities and health as well as politics and domestic affairs. In the Finnish context, *Iltalehti* is a forerunner of using audience metrics. Due to its advertising-based revenue model, its audience data strategy focuses strongly on counting page views (Penttilä, Ovaska, and Ahva 2024). Additionally, it has been developing subscription metrics for its chargeable Plus section, which was launched in 2021 (Penttilä 2024).

The audience research was conducted within a larger research project in which the other subproject studied the journalists of *Iltalehti*. To reach active users of *Iltalehti*, 21 participants were recruited through online advertisements published on *Iltalehti*'s website. Almost 400 people expressed their willingness to take part in the study. The researcher chose as diverse a group of participants as possible. However, because of the high number of people with a high education level and the low number of young people and pensioners in the group of volunteers, and the difficulties in recruiting them or getting them to commit to the one-week-long research despite their initial interest, the sample is not representative but an informative sample of *Iltalehti*'s active readers. The average age of the participants was 47 years. Seven of the 21 participants identified as men, while the rest identified as women. The participants were divided into five groups by age to ensure a smooth discussion, as, especially in the online environment, age can play an important role in communication habits, such as using emojis and GIFs (see, Azad, Chhibber, and Tajhizi 2023). In the analysis, participants are referred to by pseudonym and age to protect their identities.

Storms and Alvarado (2024) suggested "sensitising activities" as a research approach to tackle the common challenges (e.g. low awareness, varying definitions, and digital inequalities) of studying users' experiences with algorithms. Sensitising activities can take the form of asking direct questions if participants are they aware of recommendations on a specific platform, keeping a diary about encounters with news on social media, and questionnaires with statements that simultaneously increase participants' awareness of algorithms, which can help them reflect on their experiences with algorithms (Storms and Alvarado 2024). As prior studies have noted news users' lack of awareness regarding datafied journalism (e.g. Dogruel 2021; Heikkilä 2022; Tandoc 2019), a similar research strategy was used for this study: the participants were provided with information about journalists' and news platforms' datafied practices, as well as tasks to guide their attention and tease out their experiences and sense-making of the issue.

The empirical data collection involved three phases. First, the participants answered a *quiz survey* containing a wide range of true/false statements of datafication in

general and in the fields of social and news media. The quiz survey included a series of statements designed to assess the participants' understanding of key concepts related to data collection and algorithmic processes in digital media. These statements covered a range of topics, such as 1) basic definitions, including what cookies, data, personal information, and algorithms are; 2) mechanisms of data collection, for example, through login information tracking; 3) data practices in social media, illustrated by a statement "Facebook and Google collect and sell user data so that advertisers can target their advertisements. TRUE"; 4) third-party data collection in news media, exemplified by a statement "Third parties place cookies on the Iltalehti website and collect data about Iltalehti readers. TRUE"; and 5) the use of user data in editorial decisions, including statements "If a news piece does not gain enough readers, it can be placed lower on a front page. TRUE" and "Click rates do not affect headlines. FALSE."

After completing the quiz, the participants were provided with explanations to enhance their understanding. For instance, in response to the headline-related statement, the explanation clarified: "Journalists typically create multiple headline options for a news story, and the version that attracts the most clicks is often selected as the final headline."[1]

In the second phase, the participants were divided into five groups by age. Each group participated in an orientational *focus group interview* conducted through Zoom. Besides the traditional aim of focus group interviews, which is to study participants' ways of understanding and interpreting the researched subject (Lunt and Livingstone 1996), here, the focus group interviews also aimed to introduce the participants to the nature of the research, as well as to other group members and the researcher. The interviews began by requesting each person's informed consent to participate in the study and to be recorded.[2] The participants reflected collectively on the quiz (e.g. were there some surprises or new things for them), discussed the list of *Iltalehti*'s most read articles (e.g. did they engage with the article, and what inferences did they make about other readers based on the article's listing), and compared their front pages with each other to detect the personalisation algorithm's logic to learn more about the issue.

In the third phase, the participants joined a one-week-long *instant messaging group chat interview* conducted through the instant messaging service Signal. Instant messaging chats are rarely used for data collection in audience research, often serving as media diaries to track media consumption habits (e.g. Kaufmann and Peil 2020; Kümpel 2022). In this study, however, group chats were employed to integrate research participation into the participants' daily news consumption, deepen their understanding of the issue, and provide a platform for sharing encounters and interpreting audience data utilisation in news media. In practice, the researcher assigned the participants a daily task to observe various aspects of user data utilisation in journalism while consuming any news content, including those other than *Iltalehti*. The tasks concerned features such as topic choices, visual and textual elements, headline and picture testing, personalisation algorithms, and paywalls, which are some of the features in which audience data have been found to play a role (e.g. Fürst 2020; Rydenfelt, et al.2024; Tandoc 2019). For instance, when the moderator asked them to pay attention to and share encounters with topic choices, the participants were also

asked to evaluate the role they believed audience data collection had on topic choices. When discussing paywalls, the moderator commented that besides gaining large audiences, *Iltalehti* tries to gain revenue through subscriptions, and asked the participants about their views concerning paywalls.

When sharing their encounters and insights with the group, the participants were also asked to describe why they believed a feature was created or to find reasons behind journalists' user-data-related practices to tease out their understandings. The moderator encouraged and asked the participants to elaborate if they gave short answers or, for instance, shared only a screenshot without a comment. Furthermore, the participants could ask the moderator to provide further information. For instance, one participant was not familiar with headline testing and asked the researcher whether it actually works to increase click rates. The focus group interviews were very effective in lowering the threshold to participate and share thoughts in the chat phase, as the participants were introduced to each other and the moderator prior to the chat phase.

The dataset for this paper was derived from five focus group interviews and instant messaging chat records. The quiz responses from phase 1 served only a supplementary role. The dataset includes textual material, such as the transcripts from the five focus group interviews (each lasting about 100 min) and 420 group-chat messages. Additionally, 76 screenshots and 15 links were shared *via* chats. The data were analysed inductively as a whole with the Atlas.ti qualitative analysis program using "theoretical" thematical analysis (Braun and Clarke 2006) (i.e., analysis that focused on collecting the notions of participants' sense-making of why news media employed certain user-data-related features, and what influence they believed this had on journalism). These notions were then reviewed to define and name the themes (Braun and Clarke 2006) in order to find repeating notions of sense-making, thus identifying the three key understandings that the participants drew upon when making sense of how audience data utilisation influences journalism.

Findings

All 21 participants were active news consumers. They not only followed *Iltalehti* but also national media outlets, such as the Finnish broadcasting company *Yle*, the biggest daily, *Helsingin Sanomat*, and regional and local newspapers. Such high news consumption indicates that journalism plays a role in their everyday lives. By following news media, they received information to use in everyday conversations and in making political decisions. Although they acknowledged the news media's role in society and a well-functioning democracy, when discussing news organisations' audience data practices, the speciality of journalism did not arise; news organisations did not appear as special data operators.

The participants' understandings of the role of user data in journalism were based on several sources of information regarding news organisations' operations and data collection. These understandings were influenced by 1) their first-hand experiences and knowledge of how data are collected and used on various platforms (e.g. discussions about the links between online searches and advertising; Anja, 54, in a focus group interview (=FGI)); 2) second-hand information, such as

discussions with close ones about their experiences (e.g. gained when comparing news outlets' front pages with friends; Kaisa, 48, in an instant messaging group chat (=GC)); 3) public discussions, including those in the press or on social media about data operations, which were manifested when sharing existing beliefs in interviews; 4) the media itself, such as how news organisations discuss their data practices, often published in the form of announcements of cookies (which many reported declining); and 5) the information gained through participation in this study, including the quiz survey, tasks, and group discussions. Therefore, to acknowledge the influence of research participation on participants' understandings, the folk theories examined here are understood as *sensitised*, as they are not "pure" but actively teased out *via* research. As the data collection employed sensitising activities, the sense-making was heavily connected to the features the participants discussed following guidance and prompts provided by the researcher. The participants were asked to pay attention to distinct features of datafied journalism and to share their understandings of why such features were employed. These understandings, which would not have been articulated out loud in everyday conversations, now emerged sensitised by the research.

The findings suggest that the participants generally perceived data utilisation as commercially motivated, regardless of gender, age, or education. When introduced to how audience data is used in news organisations, and especially focusing on how it influences journalistic content, the participants saw a commercial orientation to it. Consequently, their folk theory of datafied journalism is that it is driven by commercial motives. This perception influenced their views on journalists' relationships with advertisers and audiences as well as the production of journalistic content.

User Data Collection is Commercially Motivated

When making sense of user data practices in journalism, all five groups came to the same conclusion: user data utilisation is inherently commercially motivated in the field of journalism. This notion aligns with prior findings that people believe that algorithms and data collection are conducted for economic purposes (Dogruel 2021) and that algorithms are exploitative (Ytre-Arne and Moe 2021). As all news organisations in Finland (except for the public broadcaster *Yle*) are commercial companies, the participants strongly linked user data collection to organisations' revenue generation.

> If I really think this through, at the end, it is all about this: Alma Media PLC (the company publishing *Iltalehti*) is an exchange-traded corporation. According to the act, the purpose of its operations is to generate profit for shareholders unless otherwise stipulated in the articles of association. Alma's Articles of Association do not provide otherwise. So … yes, then all the solutions to some extent are related to how they are expected to affect the financial result. (Janne, 43, GC)

When the informants were asked to imagine any reason for data collection other than commercial ones, some doubted that there were any. Although Janne indicated that there may be some (without specifying any), he finally declared that "it's all about money." In addition, in the group chat, Jaana (50) started to highlight

journalism's role in democracy in general, but when discussing data practices precisely, she did not find any "journalistic" or "societal" reasoning in it. This aligns with research findings that journalists also balance between "doing well" (i.e., reaching large audiences) or "doing good," such as fulfilling their public service mission (Nelson and Tandoc 2019). The participants saw that journalists do both, although user data utilisation highlights the motivation of "doing well": the participants neither believed that user data would be collected to strengthen journalists' relations with their audience nor that data collection would benefit journalists in conducting their societal tasks, such as informing citizens better. Furthermore, the participants theorised that commercially motivated user data utilisation affected advertising, news users themselves, and journalistic outputs.

User Data Utilisation Benefits Advertising

The participants indicated that news organisations mainly collect user data for advertising purposes: to price the advertising space correctly, they need to determine the number of site visitors. Online advertising is a key revenue source for news organisations, especially those such as *Iltalehti,* whose main online product is free to use. In contrast to the traditional understanding that editorial and advertising departments work separately in news organisations (Lauerer 2019), the participants believed that collaboration is not limited to advertising pricing but that advertising has a wide range of implications for journalism and its development.

For instance, the participants believed new technologies, such as the frontpage personalisation algorithm, are developed to enhance user engagement, a view reflected by journalists as well (e.g. Rydenfelt et al. 2024). Although some participants felt that the personalisation algorithm helped news users find interesting stories efficiently, many saw commercial motivations in it. If a user receives constantly fresh content, they will spend "as much time on news sites as possible" (Lari, 43, GC), visiting the site frequently and seeing more ads:

> Personalisation is used so that the right people consume the right news and, therefore, are targeted by the right advertisements. (Samu, 24, FGI)

> It's a bit unclear for me, but it must be that data is used for revenue purposes, like how to attract readers and get those people attracted that the advertisers want. (Matti, 63, GC)

After years of financial struggles and declining print revenues, the participants were aware of the importance of online advertising in journalism funding. In addition, since advertisements are visible on news sites, their role in news media's revenue models was easier to detect compared to user data usage in news organisations' strategic decisions.

News Users Are Data Objects

The participants believed that user data utilisation has transformed the audience's role in journalism. News users are no longer merely buyers of newspapers but have

become a product that news organisations sell; they sell both news users' data and advertisers' attention to gain profit (see also Bodó 2019). The participants were familiar with the idea that to receive online services for free, the user generally pays with their data, which means that their personal information is collected and sold to advertisers. They saw data donation as a fair trade for receiving free news:

> If I do not pay for the product or the service, then I am the product that is sold. If I do not pay, they find out how to get the most out of me and how they can exploit me. And I am fine with that. (Päivi, 42, GC)

The participants believed that when using news outlets online, they were subject to similar far-reaching data collection as on other platforms and that news sites actively use their age, gender, and topics of interest in content personalisation. This understanding was manifested in their explanations of how they believed frontpage personalisation works on *Iltalehti*'s website.

Some participants believed that *Iltalehti* had determined their gender or family situation. In the focus group interview Elli (29) thought that a certain story was recommended for her as "apparently a machine has concluded that I am a woman." In reality, *Iltalehti*'s personalisation algorithm is based on a user's past behaviour on the site. Only one participant, Matti (63, FGI), highlighted that news organisations' data collection is not as far-reaching and detailed as that of social media companies.

Although prior studies have indicated people's perceptions that news organisations handle user data in a more ethical manner than bigger data collectors (Ehrlén et al. 2023), the majority of this study's participants did not express such views: they placed news organisations' data collection on a continuum along with global data platforms:

> They all use the same programs, such as Google Analytics. Cookie data is collective, so it moves from company to company in bidding. (–-) So supposedly, it does not really matter if a commercial operator or news media has it. (Samu, 24, FGI)

An explanation for the views of similarity could be the obscure nature of news organisations' user data practices: the participants were hesitant about what kinds of data are collected on them and how they are used (i.e., data confusion, as noted by Ehrlén et al. 2023). As algorithmic systems (e.g. Eslami, et al. 2016) and news organisations' data practices can both be unfamiliar for users (Tandoc 2019), the participants filled the gaps by relying on information gained from different datafied platforms: when making sense of the issue, they relied on comparisons to other platforms and believed that news organisations worked in a similar way.

User Data Utilisation Leads to Poor-Quality Journalism

When making sense of why news organisations utilise audience data, the participants believed that the commercial goals of the news organisation influence journalistic content. Although the participants considered that news organisations also publish high-quality journalism, the amount of poor-quality "supplementary content" had increased. This type of content had unclear news value, and often the participants used the term in referring to quickly produced news, such as poorly translated copies of international news, republished old articles, significant amounts of celebrity news

(which are often based on social media posts), articles about funny coincidences posted on social media, or even rumours and speculations. This evoked worries about whether some important stories were left out when using resources to produce supplementary content.

Some of the participants mentioned that the less "real news" there is, the more news media publish entertainment stories. As the news outlet's revenue depends on the number of visitors, content needs to be created even though it has negligible journalistic value. Additionally, as the number of clicks was seen as a highly motivating factor for journalists who strive to break visitor records, they are eager to write sensational news that will gain a lot of clicks. In the group chat, Jonna (26) even stated that commercialism seems to be more important than readable and edited text. Two of the groups discussed whether journalists make grammar and spelling mistakes on purpose so that people would share and discuss the articles more online.

In addition, the participants linked user data utilisation to decreased quality in online headlines. They believed that, with the help of headlines, journalists try to "trick" people into clicking news that they would not otherwise read. They found it hard to find any journalistic reasoning in this, such as how this would help inform readers; therefore, they concluded that this was motivated by commercial factors.

The participants were especially critical that A/B-testing negatively affects the quality of headlines. With the help of this testing, journalists create a couple of headlines for an article, and after publishing both for a period of time, the one with the most clicks is retained as the final headline. For many participants, headline testing was a new feature. Some stated that they had noticed the changing headlines, but they thought these resulted from journalists adding more information or updates about the news situation. Many reasoned that testing is an attempt to optimise content to attract more people and trick them into clicking on more articles:

> They change the headlines to get as many readers as possible. So yeah, maybe that is journalism then. (Matti, 63, FGI)

> This was a new trick … I mean the headline testing. Business-wise it's clever, but if we think about a good headline, testing might move it even further away. (Janne, 43, GC)

The participants were especially critical when noting the negative impact that user data utilisation had on the quality of journalism. In contrast, if data utilisation occurred in the background, such as in the form of cookie selling, without affecting their news-user experience, the participants seemed to be more accepting of it.

Nevertheless, the participants debated that all journalistic content is, at some level, motivated by commercial purposes. Lari (43) stated in the focus group interview that as the site is commercial, all content is chosen based on commercial reasons to reach the widest audience. Still, some defended that journalists should still cover a wide range of topics due to their role in democracy. The participants identified the conflicting pressures of informing people but also producing content to secure the continuity of the business.

Conclusion

This paper employed the framework of folk theories to unravel news users' understandings and beliefs about why user data is used in journalism and what influence

it has. The key finding was *the sensitised folk theory of datafied journalism* that news organisations' user data utilisation is inherently commercially motivated. The study participants associated user data utilisation with increased influence from advertisers and news business owners, leading to a heightened commercial role for the audience. They saw that they are not only paying consumers of journalism but also that their data is an economic commodity for media organisations, a notion familiar to news professionals as well (see Schaetz 2024). Furthermore, the participants believed that commercial motivations negatively impacted the quality of journalistic content (see also, Banjac 2022; Banjac and Hanusch 2022).

This perception aligns with prior findings that people tend to link data collection and algorithms with commercial motivations (e.g. Dogruel 2021; Ytre-Arne and Moe 2021). News organisations did not seem to present an exception to this trend. Moreover, the participants found it difficult to identify any "journalistic" reasoning in user data utilisation, such as how it could help journalists inform people better or fulfil the audience's expectations of journalism. This highlights the public's understanding of the dominant commercial nature of data: it is difficult to imagine other benefits of data utilisation besides commercial ones, regardless of the context.

The findings also highlight the complex nature of folk theories. The folk theory of datafied journalism is constantly evolving and is influenced by multiple sources. However, as the participants were quite unaware of how and why news organisations collect user data, they filled up their folk theory of datafied journalism with information gained from different contexts, mainly social media platforms. This indicates that news organisations' user data practices are neither familiar to users nor actively communicated to readers.

As journalism gains legitimacy for its actions from the public, both the public's lack of awareness and its understanding of the commercial motivations of user data utilisation raise questions of whether news users accept news media's datafied practices and their new revenue models. This study's findings evoke concerns about whether news users find commercial motivations to be a legitimate reason for data utilisation and accept it as a fair trade and whether a greater understanding of the phenomenon may result in a disconnection from the news. Although the participants perceived this phenomenon in a negative manner, they were still eager news users. This raises questions of whether their views were a sign of critical media literature (see, Heikkilä and Ahva 2015) on how active news users can be critical) or of something that will disconnect them from journalism. As folk theories of the functions of journalism can explain (dis)engagement with news (see, for example, Toff and Nielsen 2018), these findings should not be dismissed but analysed carefully as a fact that influences current and future news user engagement with datafied journalism.

Nevertheless, the chosen methods bring limitations to the findings. Due to the opacity of journalistic user data practices, the illustrated folk theory of datafied journalism was actively teased out by information about journalistic user data practices and tasks illuminating different aspects of those practices. Additionally, the quiz survey's statements and the moderator's introductions to the tasks framed the participants' sense-making of the issue. However, the participants tended to find commercial motivations in all datafied practices and outputs, such as attracting readers *via* headlines, which could have also been interpreted as a citizen-orientated action. The research

material was formed *via* focus group interviews and instant messaging group chats, which produces collective sense-making and collective folk theory. Consequently, as the examined folk theory was actively teased out and formed collectively, it is vital to recognise its *sensitised* nature. Furthermore, the selected data collection and recruitment methods introduced certain limitations. Since the aim was to reach active readers of *Iltalehti*, individuals who avoid news altogether were excluded from the sample, and nevertheless, all the participants were active and mainly middle-aged news users, which leads to issues in generalizability. In addition, the requirement for time-consuming research led to a higher participation rate among individuals with higher education levels, while those with lower education levels were more challenging to recruit.

As the research setting was located in Finland, a Nordic country known for its citizens' high trust in public institutions and the news, the cultural context may have affected the findings. In other cultural contexts, data surveillance or ethical matters could have more prominently articulated the implications of user data utilisation, which is relatively absent in the present findings. This opens up an avenue for future research to explore news users' understandings of journalism and datafication in different platforms and cultural contexts, such as to study the audience's understanding of data utilisation in the context of a public service media, or conduct a research outside the Nordic context with users that have less trust in news and in societal institutions.

Notes

1. The execution of the survey was inspired by Taylor, Kennedy, and Oman (2024).
2. The Finnish National Board on Research Integrity (TENK) states that ethics review is required only for research involving sensitive personal data (TENK, 2019: 139). For other research, informed consent from participants is sufficient. After assessing potential risks and harms, we obtained informed consent following national guidelines.

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