

Mapping audience analytics use in newsrooms a conceptual typology integrating individual and organizational influences

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ABSTRACT

Despite the pivotal role of audience analytics in journalism, frequency and intensity of their use vary. This paper utilises the Theory of Planned Behavior and journalistic role orientations to consider various influences on audience analytics use, taking into account their complex interplay. Drawing from a comprehensive literature review, individual and organisational influences are identified to inform a conceptual typology of audience analytics users in newsrooms. It distinguishes six types, encompassing Analytics Experts, Integrators, Enthusiasts, Followers, Opportunists and Skeptics. Each type is characterised by specific traits, offering a nuanced understanding of their relationships and positions within newsrooms. This paper offers a refined perspective on how journalism navigates technological changes and economic challenges, and informs media management strategies by providing a deeper understanding of analytics-related newsroom dynamics.

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Audience analytics in the newsroom

In an increasingly data-driven environment, audience analytics are an integral part of journalists' work establishing a superior standard of news provision (Ekström et al., 2022; Tandoc, 2019). The use of analytics is considered a priority among publishers (Newman, 2016). Analytics companies, in turn, design tools with deference to journalistic standards, aiming to create habit-forming user experiences (Petre, 2018). This shift represents a new turn in journalism, reallocating resources towards technology and innovations, sometimes at the expense of traditional journalistic tasks (Costera Meijer, 2020). From an organisational perspective, the integration of audience analytics offers a means to quantify performance. Moreover, they can be employed for motivational and disciplinary purposes, altering the dynamics of newsroom management (Bunce, 2017; Cherubini & Nielsen, 2016; Moyo et al., 2019).

This paper conceptualises audience analytics according to Cherubini and Nielsen (2016) as the systematic analysis of quantitative data capturing audience behaviour, with metrics as quantified measures within this analysis. Prominent metrics, often displayed in real time, include clicks (indicating the number of visits on a website), scroll

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depth (measuring how far users scroll on a site), engaged time (reflecting the duration users spend reading content) as well as referral sources (identifying whether users arrive directly to the site or via other sources) (Petre, 2020). Quantitative audience analytics are often used to decide on the newsworthiness of content (Tandoc, 2014a; Welbers et al., 2016). An orientation towards audience analytics can affect the selection, packaging and planning of news stories as well as the slant and format choices (Duffy et al., 2018; Fürst, 2018; Lee & Tandoc, 2017; Tandoc, 2014a). Hence, some scholars argue that the use of audience analytics risks compromising the journalistic purpose by catering solely to audience preferences, potentially neglecting essential information from a democratic standpoint. Consequently, editors striving for the broadest audience may gravitate towards the lowest common denominator, emphasising soft news (Ferrucci, 2020; Fürst, 2018; Groot Kormelink & Costera Meijer, 2018; MacGregor, 2007; Nguyen, 2013; Tandoc & Thomas, 2015; Zamith, 2018). Subsequently, this may lead to a potential decline in the quality of news content (Fürst, 2020). Conversely, others perceive audience analytics as an enhancement and an opportunity to inform decisions with data while advocating for a nuanced approach emphasising the absence of one universal metric for all purposes (Cherubini & Nielsen, 2016). Nevertheless, it is acknowledged that audience analytics are frequently employed without sufficient reflection, such as assuming that clicks directly indicate audience interest while neglecting the limitations of quantified analytics (Fürst, 2018; Petre, 2021).

While news organisations may strongly encourage the use of audience analytics for content modification and idea generation, the actual utilisation of analytics is expected to vary among journalists. Given the significance of journalistic autonomy and diverse attitudes towards technology within newsrooms, the integration of analytics will most likely be non-uniform (Duffy et al., 2018; Nelson & Tandoc, 2018). However, the nuanced dynamics between individual approaches to analytics within the newsroom remain relatively unexplored. This paper contributes to knowledge about the utilisation of audience analytics by providing a nuanced perspective that delves into the inner-organisational differences and dynamics. Understanding how journalists navigate audience analytics and adapt to new tasks linked to analytics is crucial, influencing their journalistic work and the resulting media products. This exploration is particularly pertinent for media managers, as differences in analytics use can potentially lead to conflicts within the newsroom, risking an inefficient and exhausting implementation process.

Varying patterns of analytics use

While the adoption of audience analytics is prevalent in most newsrooms, Nelson and Tandoc (2018) note that the adoption of audience analytics is less universal than assumed, as many journalists find it challenging to allocate time for considering analytics. Lamot et al. (2021) reveal that although a substantial portion of journalists is exposed to audience analytics, half of them never engage directly with them. Coddington et al. (2021) contend that constructing audiences involves various approaches beyond audience data. Scholars also highlight a nuanced continuum of reactions to audience analytics, ranging from immediate responsiveness to outright ignorance (Anderson, 2011; Belair-Gagnon et al., 2020). Bunce (2017) urges paying attention to the differences

between journalists instead of assuming them to be a homogenous group, and Steensen and Westlund (2021) note that little is known about how individual journalists are affected by metrics. Effectively addressing these diverse patterns of use necessitates consideration of different editorial roles and types of journalists (Ferrer-Conill & Tandoc, 2018; Hanusch, 2016).

The primary objective of this paper is to delve into the divergent ways in which journalists utilise audience analytics, ultimately constructing a typology that categorises journalists based on their engagement with these tools. To accomplish this, the paper is guided by three key questions:

- (1) What are relevant influences shaping individual variations in the use of audience analytics and where do they intersect?
- (2) What distinct types of audience analytics users can be derived from the existing body of literature?
- (3) How do these different types of users interact within the dynamic environment of a newsroom?

To address these questions and contribute to a more nuanced understanding of journalists' engagement with audience analytics, this paper conducts a comprehensive literature review on both individual and organisational influences on journalists' use of audience analytics. By integrating these influences, it conceptualises various types of journalists based on their relationship with audience analytics. This conceptual typology not only enhances our understanding of audience analytics in journalism but also provides valuable insights for media management. Recognising these diverse perspectives within the newsroom, media managers can make more informed decisions about resource allocation and foster a more reflective and strategic use of audience analytics. In this way, the paper contributes to the broader academic discourse on audience analytics, while offering insights into its various modes of utilisation and implications for managerial practices.

Theory of planned behavior and journalistic role orientations

In order to comprehensively address the diverse applications of audience analytics in journalism, this paper adopts the Theory of Planned Behavior. Emphasising the aspect of subjective norms, it is further enriched by integrating it with journalistic role orientations, thereby providing a tailored application of the framework to the realm of journalism.

The Theory of Planned Behavior focuses on the prediction of behavioural intentions, where the strength of intention serves as an indicator for the likelihood of a particular behaviour being performed (Ajzen, 1991). Intention as antecedent of behaviour is shaped by three basic determinants: attitude towards a behaviour, subjective norm(s), and perceived behavioural control (Ajzen, 2005). This framework extends the Theory of Reasoned Action (Fishbein & Ajzen, 1975) by incorporating the concept of perceived behavioural control. *Attitude* as personal influence involves the evaluation of a behaviour. *Subjective norm*, a social influence, deals with the perceived social pressure to perform (or abstain from)

a certain behaviour, distinguishing between *injunctive norms* (perceptions of others' opinions) and *descriptive norms* (perceptions of actual behaviour by others) (Cialdini, 2003; Rossmann, 2021). *Perceived behavioral control* addresses issues of control and refers to the perceived ease of performing a certain behaviour, influenced by past experience and anticipated advantages (or disadvantages) (Ajzen, 2005; Beck & Ajzen, 1991). When determinants diverge, the behavioural intention depends on individual perceptions of each determinant, such as some journalists emphasising subjective norms over personal attitudes (Ajzen & Fishbein, 1980; Rossmann, 2021). This is particularly crucial in the context of audience analytics use, unveiling potential prioritisations among organisational requirements, role orientation, and attitudes. Notably, the determinants can, in turn, be shaped by numerous personal (personality traits, emotions), social (age, income, education) or informational (experience, knowledge) background factors (Ajzen, 2005; Rossmann, 2021)

In applying the framework to the context of audience analytics use in journalism, Tandoc and Ferrucci (2017) demonstrate that attitude as well as injunctive norms and perceived behavioural control positively influence the intention to use audience feedback, subsequently predicting the intention to use audience analytics. Notably, descriptive norms, which was operationalised as the perception of how widespread the incorporation of audience feedback is, did not impact the intention to use audience feedback. While injunctive norms may refer to organisational influences, this paper argues that journalistic role orientations also function as relevant norms inherent in the profession of journalism and, hence, also shape attitudes.

Role orientations encapsulate the construction of institutional values and are expressed in ideals embraced by journalists (Hanitzsch & Vos, 2017). As market orientation significantly contributes to explaining audience analytics use (Ferrucci, 2020), this paper draws on Hanusch and Tandoc (2017) distinguishing two fundamental role orientations: Citizen orientation aligns with the public service ideal, advocating a watchdog role for journalism that holds those in power accountable and provides essential information for political decisions. The underlying aim is to motivate citizens to engage in public discourse, fostering a free exchange of opinions. Consumer orientation, on the other hand, targets the widest possible audience and is more influenced by market logic than journalistic criteria. In this context, economic considerations manifest in coverage that prioritises entertainment, relaxation, advice for daily life, and emotional appeal (Deuze, 2005; Hanusch & Tandoc, 2017). Although citizen orientation remains highly valued among journalists, consumer orientation is gaining prominence in many editorial offices (Hanusch & Tandoc, 2017). However, its dichotomous nature is challenged suggesting that beyond the citizen perspective, service and infotainment approaches can be identified (Mellado & van Dalen, 2017). The latter two exhibit a higher tendency to cater to audience wishes and may, therefore, support analytics use. Moreover, journalists do not confine themselves to one orientation but navigate between them (Usher, 2013; van der Wurff & Schoenbach, 2014). The relationship between role orientation and audience analytics use is also not unidirectional: Audience analytics can, in turn, be used for audience conception, thus, reshaping the orientation (Lamot & Paulussen, 2020). Given the commercial goals of audience analytics, the distinction between citizen and consumer orientation provides a valuable

foundation for capturing influences on analytics use. Despite its shortcomings it serves as a basis for differentiating types and illustrating the potential impact of analytics use.

Identification of relevant literature

To systematically identify pertinent research, this article conducted a comprehensive literature review using databases rooted in both communication (Communication Abstracts) and business (Business Source Premier). The search criteria encompassed empirical findings and original concepts related to the influences on audience analytics use in journalistic contexts. Articles were first scanned for patterns of analytics use as well as respective influences, and the results were subsequently aggregated and compared to ensure a thorough examination of the field. The inclusion criteria involved journal articles, book chapters, and research reports. Building on Fürst (2020), the search terms employed were “web metrics,” “audience metrics,” and “web analytics,” alongside the primary term “audience analytics.” These were coupled with “use,” “usage,” or “utilization,” and “journalism”. Searches yielded 403 results for Communication abstracts and 1777 results for Business Source Premier. Following the mentioned selection process, 27 relevant publications were initially identified, with three later excluded due to a misalignment with the article’s focus. Predominantly sourced from scientific journals, the chosen publications served as a foundation to uncover additional relevant literature, culminating in a comprehensive analysis of 47 publications addressing audience analytics use in journalism.

Influences on audience analytics use

The conceptualisation initially aims to distill pertinent influences on analytics utilisation from the identified body of literature. Focusing on determinants outlined in the Theory of Planned Behavior, this paper primarily delves into individual and organisational influences. Individual influences on the use of audience analytics are rooted in journalists’ attitudes, orientations, and experiences and may, therefore, encapsulate all three dimensions of the Theory of Planned Behavior. On the other hand, organisational influences arise from superiors’ expectations, newsroom culture, and broader contextual factors, serving as background factors and sources for subjective norms. While acknowledging that some influences, such as newsrooms culture, can straddle both the individual and organisational realms, this dichotomy provides a nuanced lens, aligning with the theoretical framework and offering a comprehensive understanding of the various forces shaping analytics utilisation. However, it is noteworthy that technological aspects also play a role in shaping audience analytics use. Notably, some analytics companies’ dashboards are designed to show deference to journalistic authority to boost their use, at times concealing underlying managerial intentions (Petre, 2018). In a subsequent step, the distinct characteristics and significance of each influence for the typology are examined. To address interactions and potential trade-offs among these influences, they are combined in a final step, revealing different types of journalists based on their analytics use.

Individual influences

In the realm of individual influences, the (pre-existing) attitude towards audience analytics emerges as one of the paramount drivers of analytics use, aligning with the Theory of Planned Behavior. Journalists who perceive the incorporation of audience analytics as advantageous for their editorial decisions are more inclined to use them (Belair-Gagnon et al., 2020; Tandoc & Ferrucci, 2017). Conversely, those holding scepticism towards audience analytics are less likely to integrate them into their daily routines (Welbers et al., 2016). Notably, this relationship is not unidirectional; consistent use of audience analytics can enhance one's attitude towards them.

Journalistic role orientation also impacts the use of audience analytics (Belair-Gagnon et al., 2020; Hanusch, 2016) serving as an expression of both subjective and professional norms. Audience analytics are deemed more beneficial for achieving objectives aligned with consumer orientation rather than citizen orientation, although they can cater to both. Notably, social media metrics like sharing were perceived as useful for both orientations indicating a diffusion of platform metrics into newsrooms (Belair-Gagnon et al., 2020). Social media and its metrics come with new tasks for journalism such as promotion and platform-specific distribution. However, journalists attempt to integrate these demands without sacrificing traditional routines (Tandoc & Vos, 2015). Consequently, the adoption and usage of audience analytics are not static or absolute but are contingent upon journalistic role orientation considerations (Lamot & van Aelst, 2020). Conversely, a firm belief in the efficacy of audience analytics can shape the perception that consumer orientation is crucial, illustrating the intertwining of audience analytics use and role orientation (Hanusch & Tandoc, 2017).

Traditional journalistic norms are linked to orientations, influencing the selection of news based on news values. Proximity, relevance, and controversy align with citizen orientation, fostering an informed citizenry essential for political decisions. Consumer orientation tends to prioritise audience maximisation, often resulting in the production of soft news linked to news values such as celebrity and personalisation (Eilders, 2006; Fürst, 2020; Hanusch, 2016; Magin, 2019). Strong adherence to traditional journalistic norms can suppress the use of audience analytics (Welbers et al., 2016). However, both journalistic quality and audience analytics are considered in assessing story success (Whipple & Shermak, 2018), indicating a coexistence of journalistic values and audience analytics. Both mutually shape each other, with existing norms being modified (Agarwal & Barthel, 2013; Giomelakis et al., 2019; Tandoc, 2014a). Moreover, journalists employ strategies to harmonise audience analytics with journalistic norms, for instance, by customising them to their specific needs (Christin & Petre, 2020). Considering that journalistic norms and respective news values are represented by role orientations, they are treated as a unified influence for the typology. However, it is crucial to note that cultural differences may shape role orientations and influence the adoption of audience analytics. Dollah and Tandoc (2022) demonstrate in the case of Singapore how journalists' adherence to social harmony could override audience analytics. Journalists aimed at balancing market pressures, the social system and journalistic autonomy. However, this paper's typology adopts an integrated approach while recognising cultural differences in the attitudes of individual journalists.

Beyond attitude and role orientation, perceived behavioural control becomes a significant factor, emphasising the relevance of the Theory of Planned Behaviour. In essence, when journalists believe they possess the necessary skills to handle audience analytics, they are more likely to use them (Tandoc & Ferrucci, 2017). Notably, journalistic experience as possible background factor hinders the adoption of audience analytics, potentially because experience allows for more autonomy (Belair-Gagnon et al., 2020; Bunce, 2017). Diverging results can be found for the role of journalistic education: Contemporary journalistic education, which also imparts market knowledge, facilitates the integration of audience feedback into editorial work. However, this may not hold true for older newsroom members (Lamot et al., 2021; Tandoc, 2019; Vu, 2013). Acknowledging these disparities, this paper assumes a mixed influence of journalistic education. Moreover, it is presumed that a non-journalistic background, such as that of analytics experts from outside journalism, is more likely to support the use of audience analytics due to its divergence from traditional journalistic standards (Belair-Gagnon & Holton, 2018; Petre, 2018). Notably, non-journalistic players have a major role in defining the objectives of audience analytics (Slaček Brlek et al., 2017). Furthermore, one's position in the hierarchy influences analytics use, with journalists higher up in the editorial hierarchy exhibiting a greater propensity to engage with audience analytics (Belair-Gagnon et al., 2020; Christin, 2018; Giomelakis et al., 2019; Hanusch, 2016; Zamith et al., 2020).

Organisational influences

Organisational factors significantly influence audience analytics utilisation, embodying injunctive as well as descriptive norms in line with the Theory of Planned Behavior (Ajzen, 1991; Anderson, 2011; Belair-Gagnon et al., 2020). Mere access to audience analytics does not necessarily influence their use and impact; instead, how this access is accompanied by managerial guidance is crucial (Lee & Tandoc, 2017). Primarily, the expectations of superiors play a pivotal role in driving the adoption of audience analytics; when journalists perceive chief editors expecting their use, their likelihood of engagement increases (Tandoc & Ferrucci, 2017; Usher, 2013; Whipple & Shermak, 2018). However, if exposure to analytics is imposed by management, it may adversely affect their attitude (Lamot et al., 2021). This suggests a limit to managerial influence, possibly triggering reactance among journalists, a psychological state experienced when autonomy is limited by external forces causing resistance (Brehm, 1966; Hogg & Vaughan, 2018). This may even lead to counteractions against the use of audience analytics.

The various managerial approaches and resulting utilisation of audience analytics are intertwined with the market orientation of media organisations – a major component of the consumer orientation comprising a focus on need fulfilment and aiming for maximisation of audience numbers (Beam, 1998; Ferrucci, 2020). The higher the market orientation, the greater the reliance on audience analytics, especially social media metrics, in determining news content and presentation, potentially reshaping perceptions of newsworthiness (Blanchett Neheli, 2018; Ferrucci, 2020; Fürst, 2020). Market orientation not only correlates with increased usage but also favours quantitative metrics, particularly those related to audience size, over alternative forms of user feedback (Nelson, 2018; Nelson & Tandoc, 2018). These metrics

are prevalent and well-developed in newsrooms, driven by their association with advertising revenues (Blanchett Neheli, 2018; Cherubini & Nielsen, 2016; Fürst, 2020; Giomelakis et al., 2019; Tandoc, 2014b). Lamot et al. (2021), however, do not find that usage patterns differ significantly between commercial and public service media, which suggests that eventually even public service media adapt to market logic. Many scholars fear that this market-oriented logic jeopardises the public service mission of journalism, leading to violations of occupational standards (Boczkowski, 2010; Ferrer-Conill & Tandoc, 2018; Fürst, 2020; Tandoc & Thomas, 2015; Zamith, 2016).

Newsroom cultures may also impact audience analytics use: A newsroom culture aligned with technology and audience engagement encourages the adoption of audience analytics, whereas newsrooms emphasising journalistic autonomy and citizen orientation may resist their integration (Cherubini & Nielsen, 2016; Petre, 2015; Welbers et al., 2016; Zamith, 2016). Other organisational factors, such as size, representing the number of employees, resource levels, and task differentiation, are likely to positively influence the adoption of audience analytics and may even give rise to specialised roles associated with audience analytics. Smaller organisations, constrained by limited resources, may find it challenging to implement sophisticated analytics tools, often remaining at a basic level of utilisation (Cherubini & Nielsen, 2016; Giomelakis et al., 2019; MacGregor, 2007; McKenzie et al., 2011). In the typology, the level of resources and task differentiation are incorporated into the size dimension, given their high correlation. Additionally, the type of organisation can exert influence on analytics use, with online-only platforms exhibiting more openness, while legacy media outlets may be more reluctant to implement and use audience analytics (Cherubini & Nielsen, 2016; Hanusch, 2016).

Analytics-related interaction modes

The outlined organisational and individual influences inform the building of types. Given that these types do not occur in isolation, the third guiding question addresses their interaction within newsrooms. Analytics use is often seen as uniform within newsroom, overlooking its nuances and interactions between types (Lamot et al., 2021). To approximate potential interaction patterns between types, we rely on more general modes of interaction with and reactions to audience analytics, ranging from full integration to balancing with journalistic principles, to outright rejection.

The audience turn in journalism and the need for engagement facilitate close integration of analytics (Costera Meijer, 2020; Nelson, 2021), supported by tools designed to cater to journalistic needs and create habit-forming user experiences (Belair-Gagnon & Holton, 2018; Petre, 2018). This strong integration is observed for some journalists, establishing audience analytics as a new value system focusing on presentation rather than on reporting (Ekström et al., 2022; Moyo et al., 2019; Tandoc, 2014a). However, when interacting with audience analytics, most journalists try to strike a balance between audience analytics and journalistic considerations (Duffy et al., 2018; Ferrer-Conill & Tandoc, 2018; Lee & Tandoc, 2017; Tandoc & Vos, 2015; Zamith, 2018). To achieve this balance, journalists engage in relational work to match the different requirements, such as tailoring audience analytics to organisational needs (Christin & Petre, 2020). Yet, some journalists reject audience analytics and related practices preferring their gut feeling,

especially, where use is not enforced (MacGregor, 2007; Tandoc & Thomas, 2015). These interactions, though focused on the subject of audience analytics, shed light on how different degrees of integration and endorsement within a newsroom may trigger interaction patterns between types of users.

Identification of relevant dimensions for the conceptual typology

This paper employs the Theory of Planned Behavior to classify diverse influences on the utilisation of audience analytics, emphasising role orientation as subjective norm within this framework (Ajzen, 1991; Hanitzsch & Vos, 2017; Hanusch & Tandoc, 2017). Drawing from a comprehensive body of literature exploring factors influencing audience analytics use, the paper constructs a conceptual typology of journalists based on combinations of various influences and their corresponding values. Scholarly perspectives on the relevance of the identified influences vary: While some assert the predominant influence of organisational factors for the perceived usefulness of audience analytics, others emphasise the potential for reactance and underscore the significance of maintaining professional autonomy. Some influences, such as attitude towards use, role orientation, or perceived behavioural control, have been quantified in existing research (Belair-Gagnon et al., 2020; Lamot et al., 2021; Tandoc & Ferrucci, 2017). However, the multitude of the identified influences have not been considered together, complicating a precise measurement of their respective influence and a hierarchical ranking of their strength. Recognising this, the paper delves into the interplay between individual and organisational influences and illustrates potential relationships between the types.

It is crucial to note that the typology presented does not claim to represent empirically tested journalist types, nor does it strive to offer an exhaustive depiction of all possible variations. Instead, it showcases a selection of plausible types that are distinguishable, serving as illustrations of the different influences and their varying importance. While the literature demonstrated that mere access to analytics does not necessarily influence use, some form of access, such as through reports, is deemed essential. Hence, this paper operates under the assumption that a minimum level of access to audience analytics is required to establish distinct types of users. Additionally, it is important to recognise that this typology is conceptual and of a preliminary nature, intended to provide a foundational understanding and inform further research. Thereby, this paper contributes to the discourse by not only identifying these influences but also explicating how they interact to influence journalists' use of audience analytics. Through this nuanced approach, the typology seeks to elucidate the complex relationships and potential conflicts that can arise within newsroom environments. This paper distills and consolidates twelve major influences on the use of audience analytics from the existing literature. It also incorporates the level of reflection on the use of analytics as thirteenth influence, a factor that has been relatively underexplored in previous research, with reported low levels of reflection (Cherubini & Nielsen, 2016; Fürst, 2018; Tandoc, 2014a; Tandoc & Thomas, 2015). Groot Kormelink and Costera Meijer (2018) argue that, for instance, clicks can encapsulate various user considerations and should not be perceived as universal. Hence, understanding the reflection becomes crucial in estimating the affordances of analytics, as overestimation may contribute to the neglect of journalistic values (Ekström et al., 2022; Fürst, 2020). Additionally, accompanying qualities have

Table 1. Influences on audience analytics use.

#	Influence	Qualities	Key references
1	(Preexisting) attitude	Positive to negative	(Beck & Ajzen, 1991; Tandoc & Ferrucci, 2017)
2	Journalistic role orientation	consumer orientation vs. citizen orientation	(Belair-Gagnon et al., 2020; Hanitzsch & Vos, 2017; Hanusch & Tandoc, 2017)
3	Journalistic experience	high to low	(Bunce, 2017; Lamot et al., 2021)
4	Journalistic education	contemporary vs. traditional education	(Belair-Gagnon et al., 2020; Lamot et al., 2021; Tandoc, 2019).
5	Professional background	journalistic vs. non-journalistic	(Belair-Gagnon & Holton, 2018; Petre, 2018).
6	Perceived behavioral control	high to low	(Tandoc & Ferrucci, 2017)
7	Position in the hierarchy	high to low level	(Belair-Gagnon et al., 2020; Christin, 2018; Giomelakis et al., 2019; Hanusch, 2016; Zamith et al., 2020)
8	Managerial guidance	Promoting vs. restraining analytics use or indifferent	(Tandoc & Ferrucci, 2017; Usher, 2013; Whipple & Shermak, 2018)
9	Market orientation	High to low	(Belair-Gagnon et al., 2020; Dollah & Tandoc, 2022; Ferrucci, 2020; Fürst, 2020; Nelson & Tandoc, 2018).
10	Newsroom culture	High to low adherence to traditional journalistic values	(Lamot & van Aelst, 2020; Welbers et al., 2016; Zamith, 2016)
10	Size of the organization	Small to large	(Cherubini & Nielsen, 2016; Giomelakis et al., 2019; McKenzie et al., 2011)
12	Type of organization	online only vs. legacy media	(Belair-Gagnon et al., 2020; Cherubini & Nielsen, 2016; Hanusch, 2016).
13	Additional: Reflection on the use of audience analytics	high to low	(Cherubini & Nielsen, 2016; Fürst, 2018; Tandoc, 2014a; Tandoc & Thomas, 2015)

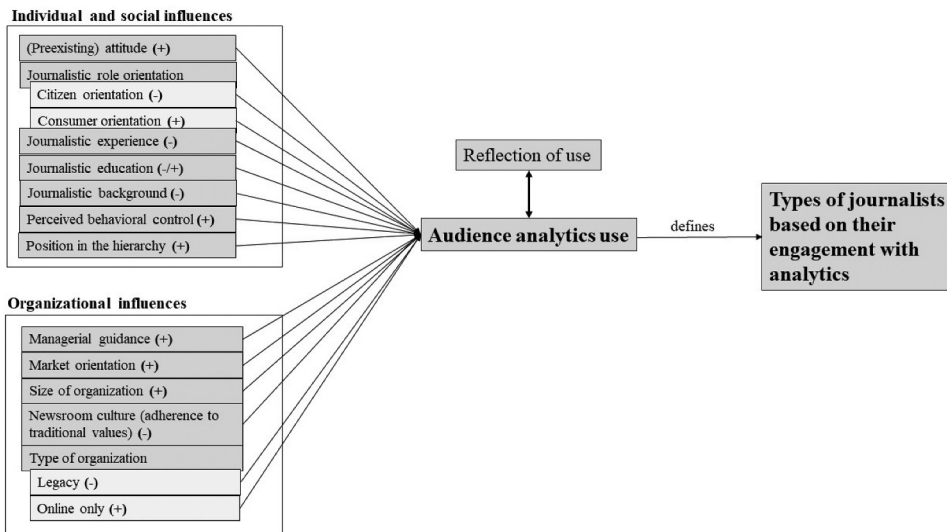


Figure 1. Individual and organizational influences on audience analytics use.

been listed in Table 1 to provide a nuanced understanding of their potential impact within the typology. Certain influences, such as attitude and perceived behavioral control, directly align with the elements of the Theory of Planned Behavior. Journalistic role

orientations, managerial guidance, education, newsroom culture, market orientation, and professional background contribute to the formation of subjective norms within the framework of the theory. On the other hand, factors like type and size of an organization, journalistic experience, and position in the hierarchy may not have a direct correspondence but play relevant roles as contextual factors (Ajzen, 2005). [Figure 1](#) provides a summary of the identified influences, using plus and minus symbols to indicate whether a positive or negative influence on analytics use is found in the literature, while inconsistent results are marked with both symbols. To improve clarity, both elements of the framework and contextual factors are presented on the same level, and interactions between the influences are not depicted.

Conceptual typology

The types are distinguished by different combinations and specifications of influences, with a focus on key components of the Theory of Planned Behaviour – attitude, role orientation and market orientation, both serving as proxies for subjective norms, and perceived behavioural control. However, it is essential to note that other influences can also be impactful, and their significance may vary depending on the type. The following descriptions highlight the most characteristic properties for each type, including possible interactions between influences. Characteristics may be presented as a range rather than fixed, emphasising their dynamic nature. Newsrooms teams encompass various functions and roles dealing with information gathering, editorial and presentation (Gade & Raviola, 2009). While this typology primarily focuses on journalists' utilisation of audience analytics, it also recognises the multifaceted nature of newsroom dynamics by including non-journalistic positions as long as they engage in the creation of journalistic products. This inclusive approach ensures a differentiated exploration of the interactions in the context of audience analytics. For a comprehensive overview, [Table 2](#) at the end of this paper (p. 26) summarises the types, showcasing their specific set of characteristics based on identified influences on the use of audience analytics. The organisational influences presented in the table are considered most fitting for each type. However, as indicated in the descriptions, many types can, at least temporarily, manifest in other organisational settings as well.

The Analytics Expert

The Analytics Expert is characterised by a positive attitude towards audience analytics, positioning them as avid users employing audience analytics to give advice for content editing and publication decisions. Within the newsroom, Analytics Experts often serve in a supportive and advisory capacity, particularly in editorial offices with a high level of task differentiation and the resources to employ specialised staff dedicated to analytics. Possessing a strong technological competence and statistical literacy, Analytics Experts exhibit a high perceived behavioural control over the utilisation of audience analytics.

However, it's important to note that the primary professional background and qualification of this type is non-journalistic, resulting in lower journalistic experience and less adherence to traditional journalistic norms. This characteristic aligns them more closely with consumer orientation and a high degree of market orientation. Despite their



Table 2. Typology of journalists using audience analytics and respective influence.

Type	Individual Influences										Organizational Influences					Outcome
	(Pre-existing) attitude	Journalistic role orientation	Journalistic experience	Journalistic education	Professional back-ground	Perceived behavioral control	Position in the hierarchy	Managerial guidance	Market-orientation	Newsroom culture)*	Size of organisation	Type of organization	Reflection on use	Use		
Expert	Highly Positive	Consumer orientation	Low	-	Non-Journalistic	High	Mostly intermediate	Promotive	High	Low to moderate	Mainly large	Both	Medium	High (various metrics)		
Integrator	Positive	Citizen orientation/ mixed	High	Contemp.	Journalistic	High	Intermediate to high	Promotive	Moderate	Moderate to high	Medium to large	Legacy	High	High (various metrics)		
Enthusiast	Highly positive	Consumer orientation	Moderate	Contemp.	Journalistic	High	Low to intermediate	Promotive	High	Low	All sizes	Online only	Low	High (single metrics)		
Follower	Mixed	Mixed	Moderate to high	Traditional	Journalistic	Low	Low to intermediate	Both	Moderate	Moderate to high	All sizes	Both	Low to medium	Low to moderate (single metrics)		
Opportunist	Mixed	Citizen orientation	High	Traditional	Journalistic	High	High	Restraining or indifferent	Low	Moderate to high	Small to medium	Legacy	Low	Selective (single metrics)		
Skeptic	Highly negative	Citizen orientation	High	Traditional	Journalistic	Low	Intermediate	Restraining	Low	High	All sizes	Legacy	High	Low		

*Newsroom culture pertains to the degree of adherence to traditional journalistic standards, spanning from low to high adherence.

tendency to reflect on the broader implications of audience analytics and to triangulate various metrics, they are likely to directly link them to audience needs. Staff dedicated to audience analytics has been found to be an integral part of many newsrooms, often wielding extensive authority over content selection (Moyo et al., 2019).

Analytics Experts can play a vital role in bridging the gap between audience analytics and the newsroom, offering valuable advice to editors engaged in core journalistic functions. In contexts where a strong traditional newsroom culture and citizen orientation prevail, they may encounter resistance and potential isolation due to their divergent approach. Therefore, managers need to exercise caution when introducing Analytics Experts to newsrooms, and it is essential to define workflows that allow them to contribute effectively to journalistic decisions while mitigating the risk of evoking reactance among other newsroom members.

The Integrator

The Integrator, distinct from the Analytics Expert, boasts a journalistic background and has acquired audience analytics skills through training or self-learning. While their initial attitude may have been mixed, it transforms over time into a positive perception, considering analytics as a valuable tool for journalistic work. Integrators align with citizen orientation and try to use audience in this sense. They exhibit a high level of perceived behavioural control, utilise diverse metrics, and engage in regular reflection on the limits of metrics. Integrators successfully balance audience demands dictated by market orientation with their commitment to journalistic values, embodying a bridge between the two. Combining editorial background with data expertise, they have been demonstrated as crucial in implementing audience analytics tools (Cherubini & Nielsen, 2016). Found in medium to large organisations, Integrators can navigate various degrees of market orientation and organisational cultures. They are, for this reason, likely to be respected by other types and are more likely to have a higher position in the newsroom hierarchy where they support collaboration among different journalistic types. While they may face challenges in strictly market-oriented settings, Integrators typically contribute to newsroom cohesion rather than causing conflict. Managers play a pivotal role in fostering the position of this type within newsrooms: Recognising the value of journalistic background and skills in using audience analytics, managers could encourage training and reflection for journalists promoting an organisational culture that uses analytics in accordance with journalistic standards.

The Enthusiast

Enthusiasts demonstrate a highly positive attitude towards audience analytics, leading to extensive use, and this inclination is further bolstered by a strong consumer orientation. While having a journalistic background, they prioritise audience analytics over traditional selection criteria, driven by an eagerness to cater to perceived audience preferences. Enthusiasts possess a high perceived behavioural control and confidence in using audience analytics but – in contrast to the Analytics Expert – the scope of audience analytics is often overestimated and seldom reflected. Moreover, their competence is confined to a few basic metrics, offering a simple heuristic for

decision-making, which can lead to an overestimation of social media metrics such as likes and shares due to their prominence and accessibility. Found predominantly in market-oriented organisations, Enthusiasts thrive in environments where newsroom culture and managerial attitudes prioritise alignment with audience wishes. In environments promoting citizen orientation and traditional journalistic norms, Enthusiasts may either restrain their enthusiasm or clash with colleagues concerned about autonomy loss stemming from the Enthusiast's approach. As outlined by Ferrer-Conill and Tandoc (2018), Enthusiasts may identify as voice of the reader and confront others, leading to further conflicts. As a result, managers should closely monitor audience analytics use and proactively anticipate potential conflicts arising among different types. Depending on organisational needs, encouraging Enthusiasts to enhance their reflection on metric utilisation could contribute to a more comprehensive understanding of the audience.

The Follower

The Follower has a mixed attitude towards audience analytics, engaging with them primarily as a job requirement rather than intrinsic motivation. While relying on established journalistic routines and leaning towards citizen orientation, they acknowledge market needs to some extent. Their utilisation of audience analytics is mostly prompted by management directives, reflecting a limited competence in using metrics and a low perceived behavioural control. While their degree of reflection is higher than that of Enthusiasts, it remains modest, with Followers being more receptive to organisational norms. This type reflects a moderate reorganisation of routines and iterative adoption of audience analytics rather than immediate acceptance or resistance (Belair-Gagnon et al., 2020; Duffy et al., 2018). It is adaptable across organisations of varying sizes and types, thriving best in an environment with an intermediate or low level of market orientation. However, conflicts may arise in highly market-oriented settings due to their passive approach to audience analytics. Managers should, therefore, engage Followers more in the process of using audience analytics while respecting their journalistic routines. Establishing detailed guidelines can enhance Followers' use and reflection of audience analytics, whereas the connection with bridging elements, like the Integrator, may mitigate barriers of insecurity.

The Opportunist

Opportunists exhibit a mixed attitude towards audience analytics, but their approach differs significantly from that of other types. With a strong journalistic background and an inclination towards citizen orientation, Opportunists seek high autonomy in decision-making, avoiding market influences. While they pretend to acknowledge the importance of audience wishes to maintain their position, they use audience analytics only selectively and instrumentally to confirm decisions already made, disregarding analytics that do not align with their own assessment. This refers to the notion of using audience-related tools to emphasise one's own legitimacy and reinforce journalistic authority (Schmidt & Lawrence, 2020). Although Opportunists may display a high perceived behavioural control, their actual knowledge and reflection on analytics remain low. When holding

a higher hierarchical position, Opportunists may employ audience analytics to maintain their status.

In organisations following a strictly market-oriented approach, opportunists may face challenges posed by guidelines favouring the use of audience analytics, disrupting their autonomy. This can lead to conflicts with superiors and other types of journalists, such as Experts, Integrators, and Enthusiasts. Managers should recognise and value the journalistic instincts of Opportunists while encouraging a more holistic utilisation of analytics. This could be facilitated through training programmes and collaborative reflections with the whole team, avoiding future conflicts.

The skeptic

Skeptics hold a highly negative attitude towards audience analytics and resist their integration into editorial workflows. This type strongly aligns with citizen orientation and rejects market orientation, illustrating findings that metrics are perceived as less useful for enacting citizen orientation (Belair-Gagnon et al., 2020). They engage with audience analytics only on rare occasions and often under protest. Skeptics adamantly defend their resistance in editorial discussions and against superiors, leading to inevitable conflicts – also with Enthusiasts and Analytics Experts, both contradicting the Skeptic's stance on audience analytics and journalism in general. Managerial guidance tends to evoke reactance rather than fostering audience analytics adoption in this type.

Skeptics exhibit a high degree of reflection on audience analytics but display a low perceived behavioural control due to their sporadic use. They thrive in organisational environments that uphold traditional values or provide a high degree of task differentiation, relieving them from the obligation to use audience analytics. In highly market-oriented newsrooms, Skeptics face challenging conditions and may become a source of tension, potentially leading to withdrawal.

Unlike other types, Skeptics are more challenging to integrate into the implementation process due to their willingness to engage in conflicts, even with Integrators. Managers should value the critical voice of Skeptics while emphasising that a reflective use of audience analytics does not inherently contradict citizen orientation. Clear and transparent guidelines across the newsroom may help reduce insecurity and avoid providing Skeptics with a platform for resistance.

Limitations

Notably due to its conceptual nature, it is imperative to recognise several limitations inherent in the typology: First, it is important to recognise the dynamic nature of the identified types. Over time and in different contexts, journalists may adapt and evolve, blurring the boundaries between the presented types. Hence, types may not be rigid but involve a blend of characteristics: For instance, an Analytics Expert could pragmatically adopt a citizen orientation to better align with the newsroom dynamics. The extent to which journalists can transition between types remains an empirical question. Future research could employ the characteristics summarised in [Table 2](#) for a combined approach. Observations of newsroom interactions, such as content selection meetings and production processes, could cover organisational aspects. Meanwhile, interviews

with journalists could capture non-observable individual characteristics, such as attitudes towards audience analytics and role orientations, enriching the ethnographic data. Second, the prevalence of these types within newsrooms is uncertain. Subsequent quantitative surveys, relying on factors identified in this study and integrating the findings from the qualitative approach, might reveal frequency and distribution of these types in newsrooms and their connection to organisational prerequisites. Additionally, the typology's scope, consisting of six types, may not encapsulate the full spectrum of variations. The interplay of influences could lead to a more nuanced portrayal, potentially encompassing additional types. While this paper assumes that access to analytics is necessary for their utilisation, it is important to acknowledge that in certain newsrooms, access may be restricted or denied to certain members. Lastly, the typology's applicability might be influenced by cultural, regulatory, or social factors (Dollah & Tandoc, 2022). These external influences can shape how journalists adopt and integrate audience analytics into their workflows.

Conclusion

This paper leverages the Theory of Planned Behavior and journalistic role orientations to discern and categorise both organisational and individual influences on audience analytics use within newsrooms. The identification of six distinct journalist types, rooted in their interactions with audience analytics, contributes to a nuanced understanding of the dynamics at play in newsroom environments building on Bunce (2015) and Belair-Gagnon et al. (2020). Employing the Theory of Planned Behaviour and journalistic role orientation has proven effective in structuring influences identified in the literature, allowing for the establishment of distinct types (Ajzen & Fishbein, 1980; Hanitzsch & Vos, 2017; Hanusch & Tandoc, 2017). The conceptual typology draws on the components of the theoretical framework varying the attitude towards audience analytics, the role orientation and market orientation, both representing subjective norms, as well as the perceived behavioural control, while using other influences to either support the components or as contextual factors building on Tandoc and Ferrucci (2017). The distinction between organisational and individual influences turned out to be valuable: Individual sentiments initiate the engagement with audience analytics, while organisational influences shape how this engagement is manifested. Accounting for the interplay between influences and adding the reflection on the use further contributes to expand the understanding of audience analytics utilisation in newsrooms.

From a theoretical perspective, the findings can be linked to changes in role orientations, contributing to research on journalistic culture and enhancing our understanding of how journalism reacts to economic pressures (Belair-Gagnon & Holton, 2019; Hanitzsch & Vos, 2017). From both a journalistic and societal perspective, the implications for journalistic products and their quality become pertinent: The identified types and their combinations may be associated with varying levels of journalistic quality, challenging assumptions about the consequences of audience analytics use. Rejecting the notion of a one-fits-all metric, future research should consider combinations of metrics as well as the reflection and interpretation of these metrics to discern their impact on news production.

From a media management perspective, the insights derived from the typology offer valuable implications to guide newsroom strategies and workflows. The awareness of different types could facilitate the development of tailored guidelines and training, ensuring that journalists are equipped with the necessary skills and attitudes based on their role orientation. Fostering collaboration and communication among different types may lead to a more harmonious integration of audience analytics into decision-making processes. Ultimately, the typology empowers media managers to develop targeted interventions that address specific challenges associated with each type.

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