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Digitalizing the Journalistic Field: Journalists' Views on Changes in Journalistic Autonomy, Capital and Habitus

Terje Lindblom^a, Johan Lindell^b and Katarina Gidlund^c

^aInstitutionen för medie- och kommunikationsvetenskap, DEMICOM, Sundsvall, Sweden; ^bInformatics & Media, Uppsala University, Uppsala, Sweden; ^cInstitutionen för informationssystem och teknologi, IST, Sundsvall, Sweden

ABSTRACT

Bourdieu-inspired journalism scholarship, and journalism studies at large, could benefit from an approach that can holistically explain how journalists make sense of technology-related change in the journalistic field. By merging key insights from field theory with philosophy of technology, and by analyzing 40 qualitative interviews with agents across a wide range of positions in the Swedish journalistic field, we uncover how journalists view technological change in relation to the field's autonomy, capitals and habitus. At the macro-level, the analysis shows how technology is constructed in the journalistic field at large, indicating a digital heteronomy. At the meso-level, findings indicate that positions become rearranged when new skills such as metrics and engagement management become collectively recognized as capital. Field-specific, journalistic, capital is supplemented with a virality capital. At the micro-level, we unravel an emerging journalistic habitus formed in relation to structural transformations in the field – the feel for engagement.

KEYWORDS

Field theory; digital heteronomy; virality capital; institutional change; journalistic field; feel for engagement; digital technology

Introduction

Journalism is changing. During the last decade and a half, the global dominance of “tech giants” alongside the increasing pervasiveness of audience metrics and algorithms, social media and smartphones, have promoted new ways of doing journalism (Boczkowski 2005; Brock 2013). Journalism studies has been keen on discussing such technological innovations and the changes they bring about (e.g. Lewis and Westlund 2015; Schmitz Weiss and Domingo 2010; Steensen 2011). We do not, however, know enough about how the digitalization of journalism is made sense of by journalists and how they describe the ways in which technology impacts the field at various levels. When probed about digital technology's impact on their field, do journalists describe an import of new values and norms from other fields, changing skill-sets and rearranged

CONTACT Johan Lindell  Johan.lindell@im.uu.se

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hierarchies between journalists, or alterations and adaptations in individual attitudes and practices – or perhaps all of these? In this study, we analyze the narratives of 40 journalists to take initial steps in addressing this gap. From this vantage point Pierre Bourdieu's field theory (Bourdieu and Wacquant 1992) constitutes a central perspective since it promotes a multi-levelled analysis that takes into account external pressures on a field, internal hierarchies and tensions, as well as practice and dispositions.

Yet, field theory was not configured to deal with technology-bounded social change. Bourdieu-inspired journalism studies oftentimes focus either on how social structures affect individuals' orientations and actions, which tend to reproduce the social order in the field, or on how the boundaries of journalism are maintained (e.g. Schultz 2007; Hovden 2008; Vos, Craft, and Ashley 2012; Craft, Vos, and David Wolfgang 2016).

However, a fast-growing body of Bourdieu-inspired research focuses on how the journalistic field is changing in relation to digital media (Eldridge 2017; Hellmueller, Vos, and Poepsel 2013; Vos, Eichholz, and Karaliova 2019; Wu, Tandoc, and Salmon 2019; Min and Fink 2021). It is still rare, however, for research to attempt to take into account all the "analytical levels" presented by field theory. In addressing this gap, we set out to account not only for external pressures on journalism, but also internal structures and journalistic practice (Bourdieu and Wacquant 1992). We rely on philosophy of technology via Feenberg (1999) to accommodate a sensitivity towards journalists' standpoints on technology – their "subject-positions" in regards to the digitalization of the field. This allows us to answer the pressing question of how digital technology is socially constructed by journalists as an agent of change. Broken down further, we set out to answer the following questions: How do journalists at different positions in the field position themselves vis-à-vis the on-going digitalization of journalism in terms of (1) the autonomy of journalism in relation to external forces, (2) the status-positions and hierarchies among journalists, and (3) journalistic practice and norms?

We put focus on the domains of struggle over how technology is understood and constructed, and how these struggles connect to various positions in the Swedish journalistic field and the sub-field of photojournalism – a sector particularly affected by technological innovation (Solaroli 2015; 2016; Lindblom 2020).

A Holistic Take on (Perceived) Change: Three Analytical Levels in Field Theory

While much Bourdieu-inspired media and journalism studies focus on social inertia a growing body of research emphasizes change. The latter category comprises, for instance, studies on how the affordances of the Internet – including many-to-many communication and the lowering of the thresholds to journalistic production – ushered new agents into the field. These include citizen journalists, the audience, and "interloper media" such as web analytics companies and technological firms (Eldridge 2017; Wu, Tandoc, and Salmon 2019). These new agents may lead established journalists to migrate to neighboring fields (Solaroli 2016), or cause a doxic shift from "objectivity" to "participatory transparency" (Hellmueller, Vos, and Poepsel 2013) which can ultimately impair or change the legitimacy of journalism (Vos, Eichholz, and

Karaliova 2019). The Bourdieu-inspired strand of journalism scholarship has mainly been concerned with how digital technology negotiates the boundaries of journalism or how technology enters the field as an external force. Supporting this contention, a recent literature review shows that Bourdieusian journalism scholarship tends to rely on isolated concepts rather than the fuller conceptual repertoire of field theory (Maares and Hanusch 2020).

Indeed, Bourdieu and Wacquant (1992, 101–102) advocated studies that would take into account a field's relation to other fields, the internal structure of the field, and the individual habitus of agents. We draw on field theory's emphasis on relations between fields (what we refer to as the "macro" level), capital (what we refer to as the "meso" level) and habitus (what we refer to as the "micro" level) to identify how and where journalists locate technology-bounded change. Additionally, we rely on field theory's focus on correspondences between positions in the field and subjective orientations, which opens the possibility to probe what Feenberg (1999; 2000) refers to as "subject-positions", that is, views and standpoints on technology. Before detailing our approach to social agents' "subject-positions" on technology we chart the dynamics at play at each analytical level (macro, meso, micro).

The Field's Relation to External Forces: Autonomy/Heteronomy

Fields are social microcosms that constitute, in the words of Max Weber, distinct *Wertsphären* endowed with their own "common sense", or *doxa* (Hovden 2012). Fields can be more or less autonomous – that is, abide by their own logics of practice to varying degrees. This analytical level has received much attention by Bourdieu-inspired journalism scholars, where focus has mainly been put on economic constraints and political influence (e.g. Champagne 2005). Rapid technological innovation may, however, imply "exogenous shocks" (Fligstein and McAdam 2012) that dramatically change the ways in which a given "game" is played. For instance, the technological possibilities in combination with certain underlying logics inscribed in technology heightened the emphasis on audience ratings in television journalism leading to a loss of autonomy in the journalistic field (Bourdieu 1998). Arguably this industrial, audience-oriented rationality is exacerbated today when "tech" competencies are imported from other fields (Wu, Tandoc, and Salmon 2019), when news outlets adapt to both platform logics (Van Dijck, Poell, and De Waal 2018) and "the market" in the search for revenue (Belair-Gagnon and Holton 2018; Bell 2018; Ferrer-Conill and Tandoc 2018). In this context it is crucial to account for where in the field resistance to exogenous pressure exist, and at which social positions the field's *doxa* is defended or transformed. According to Bourdieu (1993), attempts to preserve the field's *doxa* is primarily found in relatively privileged and established segments of the field (since they are more to lose from changes in the field). Change at this level, thus, concerns the import of values and practices to the field, which are inscribed in technology and act configuratively.

The Field's Internal Structure: Capitals and Positions

The internal structure of the field is made up of the distribution of material and symbolic, field-specific, capitals (Bourdieu 1986; Bourdieu and Wacquant 1992). Since this

structure tends to be defended by the field's dominating agents, and since new agents oftentimes have to abide by the field's doxa in order to remain- and to advance in the field, change from "the inside" tends to come about slowly. Occupational positions and other resources (which make up positions in the field) tend to shape individuals' "space of possibles" from which they act and, in effect, reproduce the order of the field (Bourdieu 1993, 64). We may here refer to agents with high volumes of field-specific capital (e.g. senior agents who have been awarded prizes for their journalism [Hovden 2008]) as the "masters of the field" since they find themselves in more autonomous regions of the field which are generally less affected by outside forces (Powers and Vera-Zambrano 2019). Changes in journalism practice, by way of how "shiny technologies" (Min and Fink 2021) such as audience metrics or high quality and easily accessible mobile photography are negotiated by actors, may nonetheless have implied relatively rapid alterations in the internal structure and the field-specific capitals of the journalistic field (Hartley and Bendix Olsen 2016), not least by emphasizing news items' increased "shareability" (Harcup and ÓNeill 2017). The collective valorization of technology, embodied in possessing the "right" or "necessary" attitudes and skillsets, may imply alterations in the constitution of field-specific capital. At this level, change concerns alterations in what constitutes resources – that is, capital – in the field.

The Field Embodied: Habitus

Fields tend to inculcate agents into certain ideologies of practice, shape embodied knowledge and ways of orienting – that is, mold individuals' habitus (Bourdieu 1990). The journalistic habitus is shaped both in the news rooms and at various educational institutions training future journalists (Hovden, Nygren, and Zilliacus-Tikkanen 2016; Schultz 2007). Since the habitus is "the social" embodied, it tends to reproduce the order of the field. The values inscribed in technology may, nonetheless, carry changes both in news rooms and at the educational institutions who seek to adapt to a changing media landscape. The relatively recent changes in journalistic educational curricula (emphasizing "multi-platform journalism", "data journalism" or "computational journalism"), alongside altogether new journalistic practices in the news rooms (e.g. data visualization and mapping audience engagement) suggest that the journalistic habitus formed today is something rather different compared to just a decade ago (see e.g. Krumsvik 2016; Nygren 2014; Wiik 2016). For instance, parts of the field now produce "content" rather than "news" (Brock 2013). This analytical level puts focus on changes in what constitutes the feel for the (journalistic) game (Bourdieu 1990) and the "journalistic gut-feeling" (Schultz 2007).

Technology, Subject-Positions and Institutional Change

Journalism scholarship has a long tradition of studying the impact of new technologies (Steensen 2011). With the digitalization of journalism, philosophy of technology further cemented its position within journalism scholarship, not least via Science and Technology Studies (STS) (e.g. Boczkowski 2005) and Actor-Network-Theory (Lewis and

Westlund 2015). Despite the many accounts on technology in relation to journalism (Steensen et al. 2019) we still need to discern how technology is “made” (translated and performed) and by whom. This implies approaching technology not as fixed or made in unreachable spaces, but as performative artefacts made by someone somewhere in a certain way (Wajcman 2010).

As mentioned above, our empirical material consists of interviews with agents in the Swedish journalistic field. We rely on these interviews in order to understand “the strategic standpoint of technology” (Feenberg 2000, 229). We do so with a specific question in mind – what kind of subject-positions in relation to digitalization in the journalistic field unfold in the interview narratives? We draw on Feenberg’s (2000) understanding of technology which mediates between “the *functional constitution* of technical objects and subjects” on the one hand, and “the *realization* of the constituted objects and subjects in actual networks and devices” on the other (Feenberg 1999, 202). Feenberg thus argues for a two-folded understanding of technology, as “technical orientation toward reality” and as “action in the world” (2000, 232). A certain orientation towards reality dominates others, i.e. what technology “is”, is intertwined with values, rationalities and normative practices and “a complete understanding of technology must show how the ‘orientation towards reality’ characteristic of technology is combined with the realization of technology in the social world” (Feenberg 2000, 232–233).

Technological innovation, we should emphasize, often-times take place outside of the journalistic field (Wu, Tandoc, and Salmon 2019) and is later “constructed”, internalized and negotiated by agents in the journalistic field. In the context of institutional change in journalism, our ambition is to begin to unpack and understand this construction of technology by analyzing translations, performances and asymmetries related to the three analytical levels in field theory: field (macro), capital (meso) and habitus (micro).

This approach aligns with Akrich’s (1992) understanding of technology as a process where values are inscribed in the design of physical artifacts and where users adapt to technological artifacts (but sometimes, agents remain blind to where the inscriptions are taking place, i.e. in decision-making spaces) (Akrich 1992). For example, research has shown that when technology is implemented in the public sector “efficiency” is more often the expected value compared to enhanced “professionalism” (Sundberg 2019). As such, the regime of efficiency (orientation toward reality) also affects, or configures, professional practices and professionalism (action in the world). Values such as legality, accountability etc. are devalued in face of e.g. productivity and performance. A key point is that the choices between for instance efficiency and professionalism are made somewhere by someone. This illustrates the struggles between what Feenberg refers to as technological masters with dominant subject-positions, and subordinate subject-positions (Feenberg 2000, x).

Technological “masters” (a category that can be illustrated with a quote from one of our interviewees, an editor, who described her journalism practice in relation to live audience metrics: *Damn, this will be clicked a lot! This is going to be fun! Let’s publish this!* (RES20)) are aligned with the orientation towards reality inscribed in the artifacts, which suggests that their interaction with technology is more seamless and

uncomplicated compared to agents with subordinate subject-positions who have to adapt, since they:

“merely carry out the plans of others or inhabit technologically constructed spaces and environments. As subordinate actors, they strive to appropriate the technologies with which they are involved and adapt them to the meanings that illuminate their lives. Their relation to technology is thus far more complex than that of dominant actors.” (Feenberg 1999, x).

Thus, subject-positions differ and are interlinked with power, and power is unequally distributed in terms of positions in the journalistic field (Hovden 2008). However, “technological masters” are not per definition the “masters of the field” in the Bourdieusian sense (as in having the highest volumes of capital). For instance, Min and Fink (2021) find that older women journalists are more prone to feel pressured by “shiny technology”, and Powers and Vera-Zambrano (2019) have shown that high-status agents can “afford” to ignore technology. We thus need to distinguish between “subject-position” (one’s relation to technology) and agents’ positions in the field, and analyze the interplay between these. This allows discerning how technology is constructed at various positions in the journalistic field and study views on institutional change at three “levels” provided by field theory: macro (uncovering the dominant orientation towards reality in the field), meso (identifying field normalization) and micro (embodiments in everyday practice).

One of the main arguments for the analysis at hand is that the orientation(s) towards reality quickly transforms “constraints into taken-for-granted internal technical specifications” (Feenberg 2000, 235) that determine technical code and performances, and frame institutional and individual action space. By analyzing the narratives from various positions in the journalistic field we are allowed to shed light on institutional change related to digital technology in journalism.

Method and Data

This study is concerned with how journalists at different positions in the journalistic field make sense of digital technology and the digitalization of the field in the broader sense (what we via Feenberg [2000] refer to as subject-positions). We relied on 40 semi-structured interviews with strategically sampled journalists at different positions in the journalistic field, originally collected by Lindblom (2020). Indeed, a key argument (and finding) in Bourdieusian sociology is that agents at different positions in the field (which is set by their access to various forms of capital) tend to be divided in terms of both attitudes and practices (e.g. Bourdieu 1993). In our approach, the agents’ access to various forms of capital was the theoretical starting point, that placed respondents into four main groups. This guided the analysis of journalists’ narratives on technology (“subject-positions”), in terms of the levels at which technology were described to bring about change to the field: the macro (the field as such, and influence from other fields), the meso (positions and hierarchies in the field) and the micro level (individuals’ dispositions and ways of doing journalism).

Our sample includes photojournalists (who are often overlooked in journalism studies [Solaroli 2015; 2016; Lindblom 2020]), multiskilled journalists working with online

publishing and production; reporters, and decision-making managers like editor-in-chief and HR-managers, as well as photo editors and social media editors. This sampling was made by selecting local, regional, and national newspapers according to their publication size and geographic location in Sweden. It is worth highlighting that the number of employed photojournalists in local and regional newspapers has decreased in recent years in Sweden, and many photojournalists have become freelancers. The sample was adjusted for this and strived to select an equal number of freelancers as the employed agents in each occupation, which explains the even numbers of respondents in each group (see below) in the study. We also strived to create a gender-balanced sampling thus the material consisting of 21 men and 19 women. All in all, interview material include the narratives from a diverse selection of agents in the Swedish journalistic field.

An interview guide with open-ended questions was designed to explore a range of topics regarding the changes in the field and the impact of technology as well as journalists use of, e.g. metrics technology or digital photography. The interviews, which lasted between 60 to 90 min, were conducted between the spring of 2015 and spring of 2018. Interviews were recorded via video calls or phone calls and later transcribed. The transcriptions were compiled into a searchable dataset to be re-analyzed with the purpose of this study in mind.

Agents' volumes of capital – conceptualized as valuable resources that individuals can acquire and accumulate (Bourdieu 1986) – was of specific interest for this study. Following previous empirical studies of the journalistic field and the capitals active in this field (Hovden 2008; Örnebring et al. 2018), agents' positions in the (1) organizational hierarchy (e.g. senior management or freelancer), (2) their seniority in the field (as in years active as a journalist) and their (3) international or national journalistic awards (if they had received an award or not), as well as their (4) economic (income) and (5) cultural capital (education) constituted the theoretical basis that allowed us to create four respondent groups (see below). This grouping allowed us to analyse the potential differences in how agents at different positions in the field make sense of the on-going digitalization of journalism.

The top group consisted of 16 agents with significant volumes of field-specific capital (seniority, high positions in the organization, awards) and the highest income and educational levels. This top group included seven media managers positioned at renowned national newspapers, five awarded and employed photojournalists at national newspapers, one investigative and awarded reporter at a local newspaper, and two senior multiskilled journalists with high economic capital. We refer to this group as *highest capital volume* group. In the interview excerpts members of this group have been titled RES01 through RES16, where the interviewee with the highest volume capital having number one, and so on.

In comparison to the top group the second group lacked in journalistic and/or photojournalistic prizes and awards. However, they had either staff positions at national, regional, and local newspapers or were freelancers with relatively high volumes of economic and cultural capital. This group consisted of ten journalists: two managers, three reporters, three freelance reporters and two young multiskilled journalists employed at regional newspapers. We refer to this second group as the *mid-high capital volume* group (interviewees RES17 through RES26).

The third group consists of ten journalists with less income and lower educational levels compared to the previous groups, and it included six multiskilled journalists at smaller local newspapers, two freelance reporters and two freelance photojournalists. This group is referred to as the *low capital volume* group (interviewees RES27 through RES36).

The fourth and smallest group consisted of four young freelance journalists, one freelance reporter and three freelance photojournalists, who were all relatively new to the field thus they largely lacked the forms of capital active in the field. This group was named the *lowest capital volume* group. Respondents in this group were given the numbers RES37 through RES40.

The data was subjected to an iterative inductive three-step coding cycle. The first cycle gathered similar and different narratives regarding changes attributed to digitalization in the field. The second cycle analyzed these narratives and grouped them into tendencies and themes regarding technology, and the final cycle cross analyzed these themes of subject-positions with the agents' positions based on their capital volume. Thus, this theory-driven study design implied that we revisited an existing interview material with a specific focus on respondents' narratives on technology-bounded change in the field.

Bourdieu's conceptual triad of field-capital-habitus was deployed in combination with Feenberg's (1999) focus on "subject positions" to describe agents' narratives on technology-bounded change in the journalistic field. At the "macro-level" we charted how agents described external influences on the journalistic field. At the "meso-level", we studied the transcripts in an attempt to close in on how technology was perceived to alter the internal dynamics and structure of the field, while the "micro-level" focused on journalistic practice and norms. All direct quotes in this article describing these findings are presented in italics and were translated from Swedish to English.

This study design allowed us to close in on how journalists occupying different positions in the journalistic field viewed digital technology as an agent of institutional change. The study is not, however, without limitations. For one, we are not, like Hovden (2008), setting out to study the journalistic field itself as a distinct social microcosm with specific hierarchies, positions and position-takings. As such, we do not make claims about the structure of the journalistic field at large, as this would require a representative survey and the subsequent use of multiple correspondence analysis. Instead, we have followed Wacquant's (2018, 651) call to use field theory first in the "construction of the object" of study – here in using the journalistic field and its manifold positions as a theoretical starting point for the analysis of how journalists understand technology-bounded change. At the later stage, in the analysis of respondents narratives, the categories field, capital and habitus were deployed to pin-point the various levels at which journalists attribute technology-driven change. This implies that we are not making claims about change as such. Rather, we are concerned with how agents in the field *make sense* of technology in regards to perceived changes in the journalistic field.

Analysis

Macro-Level: Digital Technology and the Field's Autonomy

"We have been scrambling to catch up with the technology and chase revenues."

Almost all interviewees in the material responded similarly to the question of what forces they believed to have affected the journalistic field in recent years. In our

respondents' views digital technology had significantly affected the economy of the media industry and, subsequently, the autonomy of journalism. From a theoretical standpoint, it is interesting to dig deeper into journalists' understandings of technology (Feenberg 2000) – specifically how “subject-positions” (for instance, conservative or progressive stances) might differ between agents with different volumes of capital. Below we explore each group of agents respectively before providing a synthesized conclusion.

The respondents in the *highest capital volume* group were keen on voicing their views, and they positioned technology as an outside force that had altered the field's economy and its autonomy. One of the two HR-managers claimed that *the two single most prominent reasons for the structural transformation of the media were economy and technology* (RES03). The other HR-manager *no longer* [considered] *other newspapers as competitors*. Instead, he viewed *Google and Facebook as the main antagonists encroaching on the business model of journalism* (RES07). A social media editor in this top group stated that *the technological developments are a considerable force because an entire generation [of media consumers] now takes for granted that information is accessible and free* (RES10). Finally, the highly respected investigative reporter's views reflected a loss of jurisdiction of the field's boundaries due to technological change, stating that *any idiot can mass-distribute text and images to a large number of people today* (RES04). These excerpts are indicative of reactions identified in the material, namely that technology is described as an external force impacting journalism in rapid and in somewhat uncontrollable ways.

Journalists in the next *mid-high capital* group similarly positioned technology as an outside force. However, it was mainly the senior agents who echoed the views of agents in the top group – a reporter at a local paper reiterated; *tech companies such as Google and Facebook have snatched all advertising revenue, so if you ask me what triggers the changes, it is new technology* (RES25). While such accounts connect in different ways to previous observations regarding the evaporating borders and subsequently increased heteronomy of the journalistic field (e.g. Belair-Gagnon and Holton 2018; Vos, Craft, and Ashley 2012), the younger journalists in the group responded more positive to various technologies, stating for instance that even if technological change *is unstoppable, for good and evil, it still provides means for journalism to be visible in more channels* (RES20). Another young reporter described almost with pride how his local newspaper had teamed up with Google and used *Google Street view or maps however we need, as long as we credit them with a photo byline* (RES24). Hence, the subject-positions unfolded in the narratives of younger journalists generally amounted to the contention that *technology provides a positive push forward for journalism* (RES20). A young reporter working on the foreign news desk at one of Sweden's most prominent evening papers, summarized the younger agents' views by saying that *new technologies bring about a shift to traditional media, primarily in new ways of publishing that have, for now, created a crisis but also new opportunities. I am convinced that there will be more new technical possibilities just waiting to be implemented* (RES19).

For agents in the *low capital volume* group, consisting mainly of rank-and-file multi-skilled journalists and freelancers' technology was, again, positioned as an

uncontrollable outside force. Compared to journalists at higher positions in the field their narratives seemed to reveal (even) more subordinate relations towards technology. This manifested most clearly among multi-skilled journalists and photojournalists (RES06, RES07, RES32, RES33, RES35). One example is found in a former culture editor at a local newspaper who expressed *a feeling of being left behind* (RES29) and she felt that *everything must go faster* (RES29) and was critical towards how Swedish newspapers had *been scrambling to catch up with the technology and chase revenues* (RES29) instead of producing quality journalism, which indicate a subordinate subject position (Feenberg 1999) and defensive struggle towards the industrial and techno-economic rationality brought on by the changes. A young multi-skilled freelance journalist, skilled in search engine optimization, was similarly troubled with the thought of *a company in Silicon Valley [having] the mandate to censor our stuff if we post something on Facebook* (RES35) and a young freelancing multi-journalist gave an example of how the autonomy of photojournalism had been undermined with the introduction of digital photography. He used to be regularly commissioned to cover ice hockey for national newspapers but since a few years back newspapers had stopped hiring him and instead commissioned amateur photographers that had adopted the easy and fast use of digital photography. These new entrants consisted of *hobby photographers who do not work as photojournalists full time, but they like to watch ice hockey and likes to shoot it at the same time, and they send the newspapers their cheap photos* (RES36).

Finally, the agents in the *lowest capital volume* group showcased an understanding that the media industry was struggling economically and had all experienced that editors had paid them less (RES38, RES39, RES40, RES37). But they were limited in their capacity (not least because of their relatively new entry into journalism) to reflect on the causes of the industrial and techno-economic rationality that was shaping their struggles.

Taken together, agents across various positions in the journalistic field seem to connect various manifestations of the digitalization of the journalistic field to notions of competition, numerical measurements, speed of delivery, retaining revenue, efficiency in mass distribution – what we may refer to as an alignment with a dominant, taken for granted, technological reality (Feenberg 2000, 235). In the broad sense, this is the “subject-position” (Feenberg 1999; 2000) that prevails in our interview material. Previous research has shown that managers adopting this kind of view on technology pressure journalists to produce “clickable” stories (Riegert 2021) and that the entry of tech firms brings new norms to the field (Wu, Tandoc, and Salmon 2019). This points towards a burgeoning *digital heteronomy* implying that journalists adapt to the industrial logics of digitalization, i.e. adaptation to platform logics, optimization and return of investments (Feenberg 2000). This highlights the complex interplay between the autonomy of journalism, its business models, and the fast digitalization of the field, which points to a change in the field’s doxa towards an industrial and techno-economic rationality.

There are, however, some important differences in how agents in the groups relate to this *digital heteronomy*. In line with Bourdieu’s (1993) observations on young “heretics” attempting to change a field’s doxa we observe that some younger journalists with less status embrace what they view as technology-driven change (e.g.

increased visibility in new channels and new tools for the production of news) while such change is sometimes met with resistance in more orthodox segments of the field (see also Powers & Vera-Zambrano 2019), manifested, for instance, in the refusal to adapt to digital tools and in complaints over the fact that *any idiot can mass-distribute text and images to a large number of people today*.

Meso-Level: Digital Technology, Capital and Positions

"It is not enough to have journalistic competence anymore. You must also have technical competence, a viral competence."

Agents' subject-positions in regards the digitalization of journalism seemed linked to the degree to which they had access to various technologies and software in a journalistic infrastructure. Exposed more frequently to new technology, employed agents in all groups, except for the photojournalists, recounted a regular and daily use of, for instance, audience metrics and they described how this, in different ways, sparked competition with peers.

Exemplifying the traits of a dominant orientation towards the new digital technology explored above a social media editor in the *highest capital volume* group described a national newspaper's use of *Google Analytics, Facebook, and Twitter analytical tools to monitor audience flows and engagements and software that measures articles shared per second in Sweden and tracks when articles start to blow up online* (RES10). In a similar fashion a multi-skilled journalist in the same group described how metrics on published articles were *displayed on big computer screens on the [newsrooms] walls* (RES08) at her regional newspaper. This had provoked competition amongst the journalists at her newspaper because *anyone could see the leader of The Byline League* (RES08) and who had the most engagements, clicks, and revenue on their articles. She echoed the notion of technology as an external, more or less uncontrollable, force explored above when she likened news production to *a factory. Like a conveyor belt! We have to feed the Site! It is like a continuously roaring hungry chick, and it must be fed a certain number of times a day. It is like a fucking cuckoo nest!* (RES08). Adding to this, a news editor at Sweden's most prominent news agency explained that *speed of delivery is a hygiene factor that you must have to be there to be relevant. You can have the best picture in the world, but if you publish it the next day, it is too late* (RES11).

Being aligned with this new reality of news production required, according to managers in the *highest capital* group, new a journalistic skillset. An editor-in-chief in a regional newspaper in the north of Sweden argued that this implied that every journalist had to be *flexible and prone to change* (RES06) and *ready to start working, extremely production-safe, and have the strength to do anything and be multi-skilled* (RES06). For those reasons he had furloughed all press photographers *because we can no longer afford to have staff who only takes photographs and not write. You must be able to do both, and fast* (RES06). Other managers in the *highest capital volume* group, responsible for hiring staff, aligned with view on the new skillsets and knowledge required for journalists to keep up with the digitalization of the field. One of the top HR-managers stated, for instance, that he *did not see the potential among older press*

photographers (RES03) to efficiently produce videos or live broadcasts and, as he put it, the industry will instead find that amongst younger freelancers, who are native in video and tv-production and who can supplement with occasional still images (RES03) and another HR-manager claimed that *it is not enough to have journalistic competence anymore. You must also have technical competence, a viral competence. Because of technology.* (RES07). Such sentiments are in agreement with the previously observed tendency of journalism transitioning from producing news to “content” (Brock 2013) and demands on journalists in being multi-skilled (Nygren 2014).

The interviewees with the *highest capital volume* came together in a subject-position amounting to adaptation to digitalization in terms of the perceived need for technological skills. This implies that new technology had presented journalists to new types of resources possible to exploit in order to navigate journalistic hierarchies and status-positions, as the interviews testify to.

There were two types of narratives that emerged in the material which pointed towards the emergence of this form of capital. The first deals with the reliance on metrics technology. For instance, journalists described using audience metrics to show their superiors how their articles *generated higher revenues than any other journalist at the newspaper* (RES04) or that their stories reached an audience wider than was previously known (RES08).

The second narrative concerned the increased value of digital savviness linked to employability. For instance, a social media manager admitted that his *only credentials were* [his young] *age* (RES10) and his presumed understanding of social media because of his age – despite the fact that he, when hired, did not *known anything about metrics* (RES10). Similarly, in the *low capital volume* group, we have the example of a young multi-skilled journalist who had been promoted to the position of sports editor at a regional newspaper on the basis that she had an interest in social media and metrics, although she did not have any prior skills or knowledge in the area (RES20). The multi-skilled journalist in the *mid-high capital* group and the *low capital volume* group, had “turned multi-skilled” to nurture their digital literacy in order to safe-guard their employments and incomes (RES26, RES27, RES06, RES29, RES30, RES35). For instance, a young multiskilled live web-tv journalist predicted that *the multi-skilled journalists will not disappear; they are the norm* (RES27).

The examples above show how agents with high volumes of capital, particularly managers and other renowned agents, aligned with a dominant narrative on digital technology (including the emphasis on speed, efficiency, and new way to generate revenue) to adjust news production to digital news production. Thus, a “pragmatic” standpoint towards technological change co-exists with the “resistance” described in the above section. The interviews also suggest that journalists, at least younger journalists, can circumvent traditional journalistic hierarchies to reach new positions in the organization and in the journalistic field at large by aligning themselves fully with the norms and expectations embedded in the prevailing discourse on digital technology.

The discourse and views on the digitalization of journalism have affected the set of merits, skills and knowledges that are valued in the field. Such skills and mindset are not, however, equally distributed in the field. For instance, no photojournalist mentioned metrics technology and only one, highly positioned, photojournalist (at

Sweden's most prestigious evening paper) described benefits of relying on social media (Instagram) to reach new or wider audiences and in this way cement his position in the organization (RES02). The freelancers in the sample, however, revealed a limited or non-existent familiarity with metrics technology – which they nonetheless described as having impacted the production of news and subsequently the economy of the industry.

Taken together, the interviews reveal the contours of an emerging sub-category of field-specific journalistic capital. Interviewees across a range of positions in the field speak of a new skillset and a new mindset connected to, for instance, flexibility, speed, metrics, digital literacy, and social media management. We refer to this form of capital as *virality capital*. This observation is, however, not entirely new. For instance, Harcup and ÓNeill (2017) have emphasized the changing constitution of news, whereby “shareability” seems increasingly important. The notion of *virality capital*, however, creates a link between journalistic output (“shareable” news [Harcup and ÓNeill 2017]) and changes in the skill- and mindset of journalists. Our interviews suggest, furthermore, that this emerging form of capital is valued not only in online journalism (as suggested with another related concept of “online capital” [Hartley and Bendix Olsen 2016] but across a range of positions in the field, particularly amongst managers (see also Riegert 2021).

Applying Bourdieu's (1986) theorizing we can hypothesize that *virality capital* can manifest in an *institutionalized* (e.g. as credentials or degrees in digital journalism, data journalism, social media etc.), *objectified* (e.g. as journalistic “self-branding” on social media [Hedman 2020], “shareable” news [Harcup and ÓNeill 2017] or “gamified” leadership boards [Ferrer-Conill 2018]) as well as in an *embodied* form – as skills and attitudes (e.g. in the ability to produce viral “content” at a fast pace, or to make sense of various digital technologies) or simply in being a millennial. At this analytical level (the meso-level) we thus see how the *digital heteronomy* materializes as a disruptive force at the work-place in the shape of the collective recognition of new resources in the field. To some extent this rearranges positions in the field. This provokes the question regarding how agents' subject-positions related to macro and meso-levels reflect in agents' dispositions, skills and embodied knowledge. We turn, thus, to the micro-level.

Micro-Level: Digital Technology and the Journalistic Habitus

“I must learn every move and try to memorize what to do... There's a difference in my motor skills compared to younger people.”

To further dissect the interplay between new digital technologies and institutional change in the journalistic field, we need to enhance our understanding of how agents inhabit and internalize new technology in their outlooks and practices. What new kinds of ideologies of practice become embodied and, in turn, guide and inform agents' actions?

As emphasized by agents at different positions in the journalistic field, the importance of understanding social media and metrics is paramount. For instance, the multi-skilled journalist and the investigative reporter in the *highest capital volume* group both described how they used metrics to understand how they could write better

stories. The multi-skilled journalist, for instance, read back her articles to the point where the statistic showed where audiences stopped reading her articles. Then she tried to *figure out what made them stop* (RES08) and re-wrote the article to *make it more interesting* (RES08). Similarly, the investigative reporter described changing his writing style after studying audience metrics to a more *fictional style* (RES04) that had *generated higher revenues than any other journalist at the newspaper* (RES04). In order to attract readers, the top-ranked photojournalist published his photos and videos on social media before publishing them in the paper (RES02). Furthermore, the social media manager in the top group explained an increased importance in publishing images on social media *because we get 33% more clicks and engagements if it's an image published to a report. It's hard stats! It is very, very important with images* (RES10).

The young multi-skilled sports editor in the *mid-high capital volume* group described how her newly acquired familiarity with metrics had altered what Schultz (2007) would refer to as her journalistic “gut feeling”. By studying the metrics and statistics, she claimed she had gained a better understanding what readers did or did not like, and this came *into play* when and what she published, or as she put it, when she felt; *Damn, this will be clicked a lot! This is going to be fun! Let's publish this!* (RES20).

Adjusting to new ways of evaluating and measuring journalism and replacing *what used to be a gut feeling* [with] *digital tools for measuring what is consumed or not* (RES26) was not always a seamless process. For instance, a multi-skilled journalist had begun to question the increased reliance on audience metrics *from a democracy standpoint* since these tools did not address the need for the audiences *to know about news that they themselves don't want to read* (RES26). What made the production of journalism so much more complicated since the introduction of audience metrics, according to her, was a prevailing notion that *it is stupidity to spend several hours to produce something that doesn't generate any digital revenues* (RES26).

The increased importance of visual journalism was confirmed by the young live web-tv anchor in the *low capital volume* group who explained that metrics showed how articles with images had more impact: *it is absolutely the case that with a picture you are more competitive* (RES27). For the older journalists in the *low capital volume* group, who had become multi-skilled to “keep up” with acquiring the new digital photography skills, adapting to the new ways of doing journalism was described as difficult. A former cultural editor stated that trying to learn new skills made her feel *like a dinosaur because I am old and not native to technology. I must learn every move and try to memorize what to do. I do not interact naturally with, for instance, a camera. There's a difference in my motor skills compared to younger people* (RES29). In her mind, younger journalists *who knows many programs and can promote content are the true technology heroes!* (RES29). Reporters in all groups either refused to learn digital photography (RES18, RES21) or opposed multi-skilled practices by collaborating with skilled photojournalists (RES04, RES19, RES23, RES32, RES37).

In contrast to older journalists struggling to “keep up” with technology or established reporters defending old practices the younger journalists revealed a more clear-cut alignment with new technology. They claimed to have no problems doing

everything required of them in regards to the use of digital technology (RES20, RES26, RES30, RES35, RES36, RES34, RES38, RES39, RES40)

Technology, if not resisted and refused by some senior and relatively established journalists (see also Powers and Vera-Zambrano 2019) has been internalized and embodied in both mental structures (how journalists think about journalism) and habits (i.e. motor skills and digital literacy) of journalists. With Akrich (1992) and Feenberg (1999; 2000) we have seen how a certain technological “orientation toward reality” have trickled down to professional practices and norms (as action in the world). It would thus seem that for many contemporary journalists maneuvering digital technology such as social media and audience metrics have become part of their habitus – their journalistic “gut-feeling” (Schultz 2007) and, in effect, these elements have been incorporated in their journalistic practice as a *feel for engagement*.

Digital Heteronomy, Virality Capital and the Feel for Engagement

This study set out to understand how the on-going digitalization of the journalistic field is made sense of by agents at different positions in the journalistic field. We have tackled this issue by interviewing 40 journalists with different volumes of capital in the journalistic field. The aim was to trace how technology was constructed (Akrich 1992; Feenberg 2000) by more or less established agents in relation to three main constituents of a social field: the field’s relation to external forces, its internal hierarchies, and its practices and norms (Bourdieu and Wacquant 1992).

At the *macro-level (autonomy/heteronomy of the field)*, we have, in line with previous research (Wu, Tandoc, and Salmon 2019), detailed how journalists describe technology as carrying an industrial and techno-economic rationality. Such inscriptions might impair the autonomy of the journalistic field since, in the words of an interviewee, “any idiot can mass-distribute text and images to a large number of people today” (RES04) (Craft, Vos, and David Wolfgang 2016; Eldridge 2017, Vos, Craft, and Ashley 2012; Vos, Eichholz, and Karaliova 2019). However, more is at stake beyond the fact that new agents enter the field. The import of doxa from neighboring fields and the tech-industry constitutes instances where the journalistic Wertsphären as we have known it for the last half-century might be compromised (Belair-Gagnon and Holton 2018; Cherubini and Nielsen 2016). This takes place both “from below” with the entry of, for instance, young social media editors or graduates in data journalism, and “from above” by managerial decisions and organizational restructurings (Bell 2018; Riegert 2021) and technological firms introducing automation to journalism (Wu, Tandoc, and Salmon 2019). Changes at the industrial, macro, level were by and large described by agents with both high and low volumes of capital, as driven by “big tech” and as controlled by certain “masters” in the field. A digitalization discourse, emphasizing speed of delivery over quality, audience metrics over journalistic autonomy and integrity, and dissemination through many different channels seemed to a large extent to be internalized by agents in the field. Either as dominant subject-positions aligned with the discursive order, or as subordinate subject-positions amongst those obliged to carrying out the plans of others and striving to appropriate the technologically permeated spaces. In line with Bourdieu’s (1993) observations, however, those at relatively

established positions seemed more inclined to attempt to preserve the field's doxa. Still, at the overarching level, the agents' narratives speak about a burgeoning *digital heteronomy* through which the field's doxa and ideology of practice are seemingly altered as new "ways of doing journalism" – driven by industrial, viral- and engagement-oriented construction of digitalization – prevail.

At the *meso-level (positions and capitals)*, we illustrated how the character of field-specific capital is changing. For instance, the values inscribed in photojournalism's traditional technology have been disenchanting by digital and mobile photography. Thus, positions amongst agents have been rearranged – just as they were when photojournalism was introduced in the field over hundred years ago (Raetzsch 2015). Indeed, positions in the field fluctuate when new skills such as data analysis and visualization, metrics and engagement management become collectively recognized as capital. We have referred to this emerging form of field-specific capital as *virality capital*. Virality capital manifests in institutionalized, objectified and embodied forms (Bourdieu 1986) – from institutionally sanctioned credentials, to the production of journalistic content that "engages" audiences and generates revenue online, to the skills and attitudes required to make sense of digital technology.

While we agree with Neveu (2018) that one should refrain from introducing "new capitals" to the Bourdieusian conceptual portfolio in an arbitrary fashion, the narratives uncovered in this study speak about the value of mastering new and "shiny" (Min and Fink 2021) digital technologies connected with quantifying, visualizing and making use of digital data. On the broader level this invokes the question regarding what constitutes journalistic capital today, and the extent to which, for instance, management of social media success outweighs the creation of (what was previously known as) "high quality" journalism. It would thus seem as if younger journalists are now able to accumulate capital from a less autonomous, but increasingly central, region in the field and that they are, as such, able to compete with more senior colleagues over status in the field.

Not long ago, doing quality journalism partially meant disregarding audience preferences, whereas today audience engagement has become a key part of it (Costera Meijer 2020). This, alongside the emerging inclination to produce "content" rather than "news" (Brock 2013) further raises the question regarding how this emerging *virality capital* correlates with older forms of capital, as well as normative ideals, in the field. Agents that have amassed older forms of journalistic capital may still "afford" to ignore technology (Powers and Vera-Zambrano 2019). We may, at the same time, speculate that a gradual devaluation of older forms of journalistic capital – which includes awards for certain scoops and qualitative output, seniority and affiliation with legacy media (Hovden 2008; 2012; Örnebring et al. 2018) – in favor of *virality capital* risks playing into an overall loss of the field's autonomy since it to a less extent corresponds with values historically connected to journalistic legitimacy (Vos, Eichholz, and Karaliova 2019).

At the *micro-level (habitus)*, we identified certain dispositions and values connected to digital technologies, e.g. the interpretation of measured audience engagement, "knowing" what good content is, and understanding how to work an online audience, constitute an increasingly important and prevalent journalistic "gut-feeling" (Schultz

2007). We refer to this part of the (new) journalistic habitus as the *feel for engagement*. We observed an emerging habitus-schism between the field's established agents and newcomers – who enter the field from other fields or occupational sectors, or after graduating from journalistic educational programmes emphasizing “data journalism” or “computational journalism” (Nygren 2014). The online sphere of journalism was for a long part of a dominated faction of the field (Hartley and Bendix Olsen 2016). This study shows that the structures of the field are being renegotiated around new digital technology, hence providing advantages for new entrants endowed with a habitus aligned with the dominant construction of digitalization, making them “technological masters” alongside the managers (Feenberg 1999). This raises the broader question regarding the correspondences or conflicts between “technological masters” (who are “aligned” with the values inscribed in technology) and “masters of the field” (who possess the highest volumes of older forms of symbolic capital in the field, some of which might find themselves “misaligned” with digital technology). Additionally, this evokes the question regarding what taken-for-granted, doxic, views on the social function of journalism that are embedded in the new journalistic habitus – the *feel for engagement*.

Journalism studies has been keen on discussing technological innovation (Boczkowski 2005; Lewis and Westlund 2015; Schmitz Weiss and Domingo 2010; Steensen 2011) but spent less time detailing *where* in the journalistic field that agents perceive technology to have an impact. By illustrating how the social construction of technology renegotiates the field in terms of autonomy, capital and habitus, this study paves the way for a holistic understanding of technology and change in the journalistic field. This perspective has generated the overarching conclusion that technology-bounded change in the journalistic field is constructed and realized simultaneously from the outside (via platform logics, “big tech” and the *digital heteronomy* they impose on the journalistic field) and from within (via the struggles over positions connected to an emerging form of journalistic capital – *virality capital*), from above (e.g. the prevailing technological orientation towards reality as taken for granted by managers), and from below (the entry of new agents with a new set of skills, values and habitus – *the feel for engagement*).

We have, however, only glanced at the surface. At the broader level we call upon future field theoretical endeavors across disciplines to adopt a sensitivity to which values and norms that are inscribed in technology, and how this in turn may promote change. We have, furthermore, exclusively relied on the narratives of agents in the journalistic field. Naturally, future research should supplement this study with other methods – especially multiple correspondence analysis which could locate what we have referred to as “subject-positions” towards technology in statistical representations of the journalistic field as a whole. We also encourage future longitudinal and historical studies on technology-related change across macro, meso and micro levels in the rapidly changing journalistic field. To this end, we hope that our findings and subsequent conceptualizations around *digital heteronomy*, *virality capital* and the *feel for engagement* can be of use. Lastly, we welcome studies that map and understand journalistic resistance and various “anti-programs” (Feenberg 2017) that challenge and potentially renegotiate the current technological rationality.

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