

BREAKING THE NEWS: DIGITAL TRANSFORMATIONS OF
NEWSPAPER JOURNALISM
A Labour Process Analysis

Thesis submitted for the degree of
Doctor of Philosophy
at the University of Leicester

by

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October 2018

Breaking the news: digital transformations of newspaper journalism. A labour process analysis.

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Abstract: Digitalization and the rapid incorporation of networked and data technologies into the workplace have generated debates which suggest that digital technologies will profoundly change the future of work and organizations. Newspaper journalists have stood at the centre of digital transformations of work – a group of workers who have had their industry ‘disrupted’ and their work radically transformed as it has moved online. This thesis contributes to those debates through an examination of the digital transformation of journalists’ work from the perspective of journalists as workers. The study is informed by a theoretical framework drawn from classical Marxism and labour process theory, focussing on the role of technology and the organization of work in disciplining and subordinating workers to the needs of capital accumulation, but also drawing workers together into interdependent units with potentially common experiences and common interests.

The research is based on 27 in-depth interviews with journalists working in national newspapers, union organizers, and activists, as well as ethnographic observations in the union and within the newsroom at one national newspaper in London. It highlights the changes to job design, the organization of work and to the situation of journalists during a period characterized by financial insecurity and technological uncertainty. The central argument of this thesis is that the adoption of digital technologies in news journalism has involved complex and context-specific negotiations, where an acceleration in the news cycle and so in the pace of work, has driven down the quality of news resulting in a shifting balance of forces between labour, the unions and management.

Acknowledgements

Ideas are always the culmination of a collective pursuit and, in this case, my interest in work and workers' resistance is the product of years of involvement in political and industrial struggles. My motivation to undertake this work grew out of that commitment and no doubt my ideas and the focus for this research were inspired by discussions with comrades and fellow activists, past and present. Over the past four years, in particular, I'd like to acknowledge the activists in the UCU, FACE (Fractionals Against the Casualisation of Education) and all my colleagues at the Work and Employment Relations Division at Leeds University Business School who have been inspiring, supportive and the best people to spend 14 days standing in the snow with while we held the picket lines during the USS pensions strike earlier this year. My time in the field gave me the opportunity to meet many engaging, funny and often incredibly insightful people who made researching a rewarding experience. I want to thank the many journalists and other news workers who took time out of their busy schedules to be interviewed, who invited me to meetings and who allowed me to hover around them while they got on with work. Thank you also to my supervisors, Paul Brook and Nik Hammer.

There were a number of people who had the generosity to read and comment on drafts and, with the usual qualification that I accept all responsibility for the consequences of not always taking your advice, I'd like to thank Jane Hardy, Jo Grady, Mirjam Twight, Vivian Latinwo-Olajide, my boot camp sister Kate Davison, Ulrike Marx and Melissa Tyler and also Myka Tucker-Abramson, whose tips for "getting the f***er written", were revisited regularly and were always a useful reminder. I must acknowledge particular debts to two people who went to great lengths to support and encourage me: Claire English, whose motivational voice memos outpaced Michael Johnson's ability to convince me to run 5kms by a mile, and to my study buddy, Simon Joyce.

My thinking about digital transformations of work greatly benefitted from support I received from the COST Dynamics of Virtual Work network, which gave me the opportunity to attend its training school in Dubrovnik in May 2016 and discuss my work. For this I must thank Ursula Huws and the generosity of all the participants at the training school who shared their ideas and interdisciplinary perspectives, many of which have sustained me throughout the writing of this thesis, particular thanks must go to Eran Fisher.

The responsibility for keeping me functioning as a human during this time has been shared widely. Thank you to my parents, Paul and Stevie, who, apart from the endless labour of parenting, taught me to value knowledge and education; Narz Massoumi for keeping me fed and pampered when I was in the final throes; Hanna Pylotis for providing me with an escape and Niko Vas, Janna Graham, Alice Warr, the witches of Hartley Avenue, Camille Barbagallo, Anna Kemper and the London Salimpour Collective and to Josh Hollands, for sacrificing the dining table for the last five months. Also thanks to Tanya Serisier, Kate Carr, Laura Moss and Shereen Nairne for checking in regularly. Thank goodness that Nils Frahm has a new piano and Luke Howard has an open heart, because both provided the soundtrack to many isolated hours of writing.

Finally, a special thank you to Kate Hardy whose comments on work, patience and encouraging words at critical moments really did get me over the finish line.

In the course of researching and writing this PhD I lost two of the most important people in my world — this is for you both Jackson Whittaker and Matilda Robertson.

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Introduction: Breaking the news: digital transformations of newspaper journalism

“We find news journalists engaged in the process of trying to redefine their senses of agency, expertise, and authority given the new ecology of forces that have transformed and that are continuing to transform their work environments and practices.”

(Boyer, 2013: 26)

“In the minds of journalists, many if not most of the changes taking place in contemporary journalism are essentially technology driven.”

(Örnebring 2010:58)

“traffic potential, revenue potential, edit quality and turnaround time”
(editorial values for *Huffington Post* as outlined in an internal memo, by Tim Armstrong, AOL CEO c.f. McChesney, 2013)

In 2006 digitalization – the process of moving print newspapers online– was cutting through newsrooms and taking jobs as it went, but it was also transforming the conditions of production for journalists. At that time, I was working as a journalist for a UK national newspaper when £500,000 was cut from its editorial budget. Claiming that cuts were a necessary response to declining advertising revenue, management made positions redundant across the editorial floor. No grouping was spared – there were job losses among writers, including some high-profile journalists and among staff in the post room. That was the start of a series of restructures that were significantly reshaping the newsroom but were also bringing about changes to the way journalists were working; in the four years between 2009 – 2012 the newspaper group had cut staff by almost 25 percent, from 5,000 to 3,800¹.

¹ Figures include staff working on one national paper; one London-based daily; a Sunday paper and the website.

Digitalization has resulted in broad-sweeping change to newspapers; the industry and its sources of revenue have been destabilized, with newspapers competing with much larger social media companies for advertising revenue. Newspapers have moved from operating in a fairly closed, relatively established printed news industry, characterized by high barriers to entry (Leurdijk et al, 2012), to operating in a broader digital information environment. Online, the newspaper industry has to contend with automated news aggregators, citizen journalists, and online platforms like Twitter and Facebook, which enable peer-to-peer information sharing. In some aspects of reporting, the terrain on which they compete has moved from local to global (Mosco, 2009). The financial model that had made printed news profitable was considered unsustainable in the longer term with some commentators proclaiming that, as a result, journalism as whole is in crisis (McChesney and Pickard, 2012; Siles and Boczkowski, 2012). In the UK in 2009, the media consultancy Enders forecast that seven nationals would close by 2014 (House of Commons Culture, Media and Sport Committee, 2010 c.f. Anderson et al, 2013). In 2016 Google and Facebook were reckoned to control about 90 percent of each of the search engine and social media advertising markets in the UK (Interactive Advertising Bureau, 2017).

Less fatalistic accounts have placed the technological changes occurring in journalism in historical context and suggested there have always been threats to the survival of newspapers and, after a period of adjustment, newspapers have generally found a way to endure the change, albeit with some more or less substantial changes (Breeze, 2015). More optimistic takes, while acknowledging the transformative nature of digitalization for newspapers, argue that digitalization must be viewed as an opportunity; as supporting better ways for journalists to do news and tell stories and an inevitability which journalists should embrace, even if it means cutting their losses with some aspects of the job, including decent pay or secure work (Van der Haak et al, 2012). Despite having different predictions for the future, few accounts would deny the scope or depth of the changes that digitalization has wrought on journalism.

In its 2018 *State of the News Media* report, the Pew Research Centre (Greico, 2018) found that newsroom employment in the US dropped by 23 percent between 2008 and 2017, with newspapers driving the decline; newsroom employment declined by 45 percent, from about 71,000 workers in 2008 to 39,000 in 2017. No equivalent figures exist for UK newspapers, as the information sources are diffuse and data on jobs and job losses is not routinely

collected or reported, but the journalists' union, the National Union of Journalists (NUJ) commissioned a report (Ramsay et al, 2017) which mapped local news over a 17-month period between 2015 and 2017, it found that 418 local journalism jobs had been lost. The Media Reform Coalition – a coalition of civil society groups, academics and media campaigners with an interest in public journalism in Britain – claims there has been a net loss of almost 200 newspapers in the UK since 2005 (Cox, 2016).

Overwhelmingly the focus of media coverage about the evolution of online journalism – a process which started at least a decade ago (for a good overview see Franklin, 2014) – has been on newspapers as an industry and on challenges to traditional business models. In academic studies the focus has been on the overall effect of digitalization on the content of the news (Van Hout and Van Leuven, 2016) and its role in democratic processes and society (e.g. McChesney and Pickard (Eds.), 2011), or on journalism as a profession (Lewis, 2012; Singer, 2003). Much less has been said about how these pressures on revenue have driven traditional news outlets to develop and experiment with new ways of organizing work and to investigate how this affects journalists. And none has attempted to link the changes journalism and journalists face as a result of digitalization to broader trends in the nature of work. Yet journalism—which is used in this study as shorthand for the production of news involving reporters, editors, subeditors, content editors, moderators—offers a key site from which to study the process of digitalization and the role that data technologies are playing at work. The digital information environment has been identified as driving an acceleration in the news cycle and so also the pace of work, which, in turn, is argued to have driven down the quality of news, as have pressures on news outlets' budgets, which have resulted in less resource and, in particular, less staffing resource – the 25 percent staff cuts over three years by my former employer were not an isolated incident. Journalists I was meeting at National Union of Journalists' (NUJ) events through the course of this research were frustrated at the cuts; one editor at a regional paper described how a combination of cuts to newsroom staff, combined with management redirecting journalists' work towards writing BuzzFeed-style lists for the website – because they were considered to attract more readers – had caused the paper to miss a major fire that happened on their patch. In this instance, staff were working on listicles in the newsroom and no one available to attend the scene. The fire went unreported. Other journalists described job losses which had been followed by management bullying and work intensification for the staff who remained.

At the level of news organization, the reorientation to online publication has resulted in the introduction of new technologies, work processes and practices, which have, in many cases, resulted in the wholesale reorganization of job roles. In general, those changes have been characterized by a merging of production and distribution (Randle and Culkin, 2009) and leaves journalists engaging in their day-to-day work with networked technologies that have a completely different architecture and set of possibilities than print; developed with the rhetoric, if not always the reality, of multi-way communication and interactivity. Each online story has a comment facility, so journalists also had to accommodate to having the audience as a daily presence in their work. Social media has become a constant feature of journalists' work, not just as a competing source of news, but a journalistic source for newsgathering, making contacts and distribution. As a result, journalists have contended with the requirement for new skills, such as tweeting and simultaneous interaction with readers, while new sources of news and information like Twitter and Facebook potentially pose a challenge to the status of their work and to undermine the value of their labour.

This study takes a classical Marxist approach to study the changes underway in journalism during this process of digitalization, specifically drawing on Marx's insights on the role of technology and the organization of work in disciplining and subordinating workers to the needs of capital accumulation, but also drawing workers together into interdependent units with potentially common experiences and common interests. Technological change, according to Marx, is likely to transform the way capital-labour relations are organized and reproduced within the journalistic labour process. This study examines digital transformations of journalists' work and the circumstances of digital news production, not from the disinterested standpoint of an observer, but from the perspective of journalists as agents of change, paying particular attention to workers' agency and the potential for struggle and resistance as the forces of production develop around digital technology. It situates these within debates around digital transformations of work and employment relations and considers the implications of the findings from this study for understandings of digital transformations of work more generally.

1.1 Why study digitalization in newspapers?

Web robots, or newsbots, are already making some of the news. During the EU referendum, the BBC programmed Twitter bots, which used machine learning to automate the collation

of live information about vote counts and turn them into infographics for social media². Technology and technological change are once again seen to be at the centre of profound changes in the world of work, as well as of explanations of social and economic change. Although, compared with earlier discussions, digitalization is more likely to be viewed as a threat to jobs and working conditions than as a march towards wealth and progress. So, while the Internet is not new, in recent years new aspects of networked technology have made their way into work – social networks, interactive services and mobile Internet have become embedded in the way many people work (Holtgrewe, 2014); new kinds of work have proliferated, such as crowdwork and the rise of gig work facilitated by the platform economy (Srnicsek, 2016; Scholz, 2017) and debates have emerged, or re-emerged, about the effect on jobs of robotization (Ford, 2015) and the extension of automation through algorithms and machine learning – like the Twitter bots making infographics – to cognitive and non-routine tasks previously thought to be immune from this kind of broad-sweeping technological reorganization, routinization and mechanization (Frey and Osbourne, 2013; Susskind and Susskind, 2015). Digitalization is the process of restructuring of work and life around digital technologies, including the massive expansion of computing storage and processing capacity, as well as the availability of data, which has led to advances in machine learning (Frey and Osbourne, 2013) and, on the social media side, by what has been summarized by José van Dijck as a transformation from ‘networked communications to “platformed” sociality, and from a participatory culture to a culture of connectivity’ (2013:4-5).

While there is no neat dividing line between digitalization and the social, technical and economic configurations of networked ICTs that led to earlier theorizations, it is worth attempting to provide some clarification and identify the features which are seen to differentiate them. In the early days, when the Internet was becoming widely used, it was idealized as having utopian potential to transcend time, space and power (for discussions see Mosco, 2004; Terranova, 2004), whereas recent developments in digitalization have witnessed its colonization by commercial interests (Foster and McChesney, 2011) and the rise of platforms which benefit from network effects, where the greater numbers of users on a platform increase its value for all users (Srnicsek, 2017:45). This has led to speculation that the political economy of the Internet tends towards monopoly and it is the case that the

² Details at: <http://bbcnewslabs.co.uk/projects/bots/> [Accessed September 2018]

Big Four – Amazon, Google (Alphabet Inc), Apple and Facebook – drive much technological development (Galloway, 2017) and the power they execute up and down the chain of production have required a reassessment of earlier discussions of digital utopias, towards an examination of how these large corporations exercise power to shape the digital economy. Data mining and big data are emerging as the foundation of many business models on the Internet, principally for consumer profiling and marketing, certainly in the present moment. While these technologies and technological changes are shaping the political economy of the Internet and changing the operating environment of organizations which operate on or are reliant on the Internet, we still know very little about the influence they are exerting on work and the nature of work, particularly at a workplace level.

The Internet, of course, is at least four decades old and since the 1970s theorists were predicting profound societal shifts associated with information and networked technologies, or what was coined at the time the ‘knowledge economy’ (Drucker, 1969; Bell, 1973) or ‘network society’ (Castells, 1996). This included a number of claims about the nature of work and the labour process, founded upon what was declared an increasing importance of knowledge and its centrality to value production. These discussions arose in both mainstream accounts, often drawing on Daniel Bell’s (1973) theorization of the post-industrial society, as well as more radical critiques, in particular the school of thought associated with autonomist Marxism has been influential and continues to inform understandings of digital labour and the digital economy. For mainstream commentators, the rise of information work was tied to the upskilling of work, where symbolic and analytical skills would dominate and from which a new layer of high-skilled professional, technical and managerial workers was expected to emerge (Bell, 1973; Castells, 1996). Among autonomist Marxists, similar ideas about the hegemony of the symbolic analyst, or “immaterial labour” (Lazzarato, 1996) as the model for work provided a basis for rethinking the boundaries, spaces, forms and control of work. In other social theories of the effect of ICTs and technological change, major themes included the reorganization of space and time, which was principally enabled through internet and communications technologies (Harvey, 1989; Giddens, 1991; Castells, 1996) leading to the spatial and geographical re-organization of work, generally towards the vertical fragmentation of production and its dispersal along global value chains. These macroeconomic changes were seen to correspond with new forms of labour control, based on networks and flatter organizations (Castells, 1996) and surveillance (Zuboff, 1988). The expansion of white-collar work was accompanied by a new

wave of theorization about class – the growth of an intermediate class (Urry, 1973), of new middle classes (Giddens, 1973) or professional-managerial classes (Ehrenreich and Ehrenreich, 1977) and a new petty-bourgeoisie (Poulantzas, 1975) or contradictory class locations (Wright, 1978).

In terms of theorizing digital work, recent accounts have focused on crowdsourcing platforms like Amazon Mechanical Turk or Upwork (Irani and Silberman, 2013; Bergvall-Kåreborn and Howcroft, 2014; Irani, 2015; Schörpf et al, 2017), which have become associated with poorly paid, poor quality work and work with little or no employment or social security (Scholz, 2017) and which can remove work from geographical boundaries and so potentially from labour regulation. In some instances, however, platform-mediated work may bring higher incomes and greater job autonomy to workers in low- and middle-income countries (Graham et al, 2017) and potentially gives workers agency to redefine the space of work (Graham and Anwar, 2018). Some accounts of the digital economy have expanded to include those areas of work that aren't based in ICT and creative labour in advanced capitalist economies, to include, for example, the hyper-exploitative assembly lines of companies like Foxconn (Fuchs, 2015; Dyer-Witheford, 2015; Scholz, 2017) and the role played by warehousing and logistics (Dyer-Witheford, 2015; Thompson and Briken, 2017), arguing that these are an integral part of digitalization. This recent theorizing could be summarized as a “materialization” of the digital economy; acknowledging the way the industrial is deeply implicated in the digital, whereas it previously has tended to be regarded as a parallel world and with work based in networked computing associated with a sharp post-industrial break from Fordism.

1.2 Research questions

As digitalization throws newsrooms into flux and technologies threaten to replace, displace and degrade work, what is needed is a workplace-level study that can examine those changes with reference to how journalists are understanding and responding to that change. This study applies a labour process perspective, looking at digitalization in terms of the organization of work from the point of view of labour and viewing management strategies and prerogatives in terms of the way they affect journalists and their work. Labour process studies have developed a range of theoretical resources for understanding the workplace dynamics which drive and constrain technological change, principally theorizing the

relationship between technology, skills, the organization of work and control (Briken et al., 2017) – discussed in chapter two. Analyzing the relations of production, specifically the way labour is organized by capital inside the labour process, is central to explaining the design of digital technologies and the organization of work. For example, the ways in which technology is driven by the need for capital to secure profits but also to establish managerial control over workers, or the coordination of their consent, and the tendencies for technology to be used to limit worker resistance, creativity and control over their work and the creative capacities of their labour power.

There is a long history within Marxist studies of work and employment examining how technological innovation in the labour process is social as much as it is technical (Hyman, 2006). The kinds of technological developments and transformations which have taken place at work can be seen as a reflection of the relative social and political power of different groups and interests within the production process and their imposition of, or struggles against, technology. For example, analysis by Vaughan Ellis and Phil Taylor of workplace struggles over technological development in their study of the UK call centre industry (Taylor and Bain, 1999; Bain and Taylor, 2000) or Kate Mulholland's study of collective resistance in an Irish call centre demonstrate that, even following the imposition of technologies that automated work and made it highly routinized and inflexible, workers found ways to adapt and refuse work and defy management. Similarly, the process of digitalization is more than the insertion of newly-available networked and data technologies and social media into an existing process of news production but occurs in the context of a specific set of work practices and production relations. While taking into account the role of technology in reorganizing work processes and practices, this research considers how the changed digital workplace reconfigures power relations between labour and capital, as well as examining the agency of journalists or news producers in shaping the process individually and collectively.

This research sets out to examine these digital transformations in newspapers in order to identify the changes to the scope, content and organization of the labour process of news production that have accompanied the technological developments and changes wrought by digitalization and to draw attention to the social forces and managerial choices that have informed this change. It aims to understand how journalists have perceived and responded to the technological change as well as to assess the claims made about digitalization in order

to differentiate the continuities and enduring structuring factors in work and employment relations from the genuinely novel. The main research question is to examine how journalists are contesting and negotiating the digital transformations of the labour process and the accompanying strategies of management. To answer this the main research question has been broken down into three sub-questions:

1. What has been the effect of digitalization on newspaper journalists' work?

This question looks in particular at whether, or how it has affected:

- the content of work
- the skills and knowledge journalists need and, connected to this, whether skill changes can be analyzed in terms of deskilling or changing the social relations, status or bargaining power of journalists
- the intensity of work

2. How has the employment contract changed?

This question is focused on new employment relations and the contractual elements of journalists' work as it has been digitalized. It examines aspects of digitalization such as restructuring, changed employment contracts (including the use of more insecure or precarious work) and conditions. It also considers the effect of journalists of the incorporation of 'free labour' into news gathering and editorial work.

3. How has digitalization affected management strategies in newspapers?

This question is not addressed in most studies of digital journalism, which have been more focused on looking at the capacities and adoption of new technologies into the news-making process and how they have affected journalism as a unified profession. This study and this research question in particular, seek to assess news organizations as employers operating in a commercial context where competition and accumulation drive, at least in part, the kinds of pressures and controls that managers exert on journalists within the labour process in order to ensure that the labour journalists undertake is productive and profitable. Where the reorganization of the science and technologies that organize labour have the potential to shift the locus of control and discretion, this question is directed at looking at whether, as a result of digitalization, management has adopted new or different strategies and practices for asserting control over the labour process.

All of these questions contain within them an examination of how the shifting balance of forces between labour, especially the unions, and management, have determined the way in which technology has been adopted, based on the understanding that technological change or new managerial regimes are never simply imposed on workers but emerge as a result of complex and context-specific negotiations over their adoption. While recognizing the driving force of capital in technological change, this study seeks to understand the agency of labour in the process.

Following from this, the study will also consider the extent to which the experience of journalists can tell us anything about the nature of digital work, or the digital transformation of work, more generally.

This study of news production was conducted as a case study at one national newspaper which, while still printing a daily paper, had shifted its production to a digital first strategy. The research sought to gather empirical data about the daily practices and content of journalists' work, their contractual terms of employment and managerial control of their work. Over the course of one year, between April 2015 and April 2016, I interviewed 24 journalists, as well as shadowing five of them for a day of their work and attending union chapel meetings where I listened to journalists discuss the workplace issues they faced and how they sought to address them collectively at a workplace level through their union. In addition, my study extended out to examine how unionized journalists were responding to digitalization through their union, the National Union of Journalists (NUJ) nationally. Over the year, I was involved in activist events organized by the NUJ, which gave me insight into the way journalists discussed and understood the issues around their changing work and workplaces, taking note of which issues they prioritized and how they sought to address them through their union. This also gave me a chance to meet with journalists and supplement my case study interviews with the perspectives of journalists working on other national newspapers, as well as some working on regional titles. This was further supplemented with an analysis of policy and conference documents as well as campaign materials and other union and activist communications.

1.3 Thesis structure

Chapter two evaluates theories and concepts of digital labour and the digitalization of work, examining the way in which digitalization has been linked to flexible working practices, the incorporation of free labour into the labour process and, in the particular case of journalism, user-generated content. It considers how the changing nature of skill might be understood in an industry where jobs have been fundamentally redesigned. It also examines how digitalization has been theorized in terms of 24/7 continuous connectivity, speed and intensity, and the impact this is considered to have on work, as well as the centrality of ICTs in theories of workplace control and surveillance. As labour process analysis (LPA) is the predominant perspective taken by this thesis, the final section in chapter two examines key concepts in labour process theory (LPT) which have supported this analysis and how technology has been dealt with in this theoretical tradition. It also sets out my own specifically classical Marxist adoption of labour process concepts, with its emphasis on the social relations of production and the role of the collective worker in the formation of class and collective resistance.

Chapter three outlines the case study method used in the research and how this was combined with reflective elements taken from Burawoy's ethnographic approach. It also reflects on the ethical commitments which guided the research design and practice. Chapter four looks at the content of journalists' work, outlining how the newsroom was reorganized to facilitate greater immediacy of publication for online news, which resulted in a delayering of hierarchical oversight of journalists' work but also the devaluing of journalists' skills. In chapter five I argue that the news production process has been organized around a core of production workers, leaving much of the indeterminate creative work of writing to be outsourced to freelance writers. I also argue that insecurity is fostered among permanent staff members where management have pegged staffing levels to advertising revenue, in a context where instability has already been created through cycles of redundancies and the increasing use of temporary contracts. This chapter draws the temporal aspects of digitalization into focus arguing that, to write in the "timeless time" of the Internet, journalists' working time has had to be structured in the absence of print deadlines and I identify the factors which have influenced this process. Chapter six looks at how data analytics and social media have been used as a mechanism of managerial control, aimed at reorienting journalists' priorities towards building audience and audience engagement.

The final chapter assesses how power has been reconfigured in the newsroom as a result of the changes associated with digitalization, outlining journalists' responses and resistances and considers their possibilities for collective resistance.

2 – Digital transformations of work: predictions, departures, returns

A wave of predictions has been made by scholars about the way in which digital technologies are set to bring profound transformations and challenges to the world of work (e.g. Frey and Osborne, 2013; Brynjofsson and McAfee, 2014; Ford, 2015; Mason, 2016; Susskind and Susskind, 2016). Digital technologies, it is argued, are likely to restructure the economy and labour markets, bringing job losses, structural unemployment and inequalities but also potentially recomposing remaining occupations and jobs, bringing about new skill requirements and the possibility of less routine, repetitive work and more creative, satisfying work (Brynjofsson and McAfee, 2014). Other forecasts have been more somber, with researchers such as Carl Frey and Michael Osborne (2013) forecasting that 47 percent of US jobs are at risk of automation, particularly in transport and logistics and service occupations and Richard and Daniel Susskind (2016) arguing that digital technologies like algorithms will dispense with routine tasks, leaving the creative, innovative and intuitive work for humans.

This chapter looks at how theorists from a variety of disciplines including sociology, employment relations, media and communications and political economy have conceptualized digital labour and the digitalization of work, its categories and its challenges to work. It focuses on three key areas. First, on the content of work, considering how digitalization has created the conditions for the reorganization of work, including the changing nature of skills, reskilling and deskilling, as well as the transformation of job roles and digitalization's relationship to forms such as “free labour” and “audience labour”, which have been identified as the cause of fundamental changes to work, the value of work and the nature of exploitation associated with digital labour. Second, it looks at the employment contract; how digitalization facilitates or drives flexible and precarious work, the interpenetration of work and non-working life and new temporalities of labour. Third, it examines discussions around control – new regimes of surveillance based on data collection, as well as how concepts such as technical control and customer control might relate to networked digital technologies and platform design, asking whether digitalization might lead to new worker responses and resistances.

Information and communications technologies have long been theorized as enabling flexibility both through virtual, and now mobile, work (Huws, 2014; Valenduc and

Vendramin, 2016). The fragmentation and virtual distribution of tasks has facilitated outsourcing, subcontracting and spatially-diffused production (Fuchs 2014:144), seen most acutely in the emergence of platform-mediated work³ where microtasks undertaken by crowdworkers – where a job is broken down into its smallest constituent tasks and those which require human intelligence are completed over the internet usually by many people⁴. Technologically-enabled flexibility has also been linked to an interpenetration of working life with non-working life, particularly for professional and “knowledge” workers, who are most likely to be constantly connected to work via mobile technologies (Holtgrewe, 2014; van Djick, 2013). Digital technologies appear to have eroded the regulatory binds that previously contained the employment relationship, both by moving work into a de-territorialized cyberspace and by obscuring the parties to the employment relationship via platforms (Degryse, 2016). While these two characterizations have been challenged either conceptually (Graham and Anwar, 2017) or legally (Prassl and Risak, 2015), the seeming operation of digital labour outside of regulatory norms has led to broader social concerns that digital work erodes systems of welfare and rights structured around the employment relationship (Drahokoupil and Fabo, 2016; Briken et al, 2017; Prassl and Risak, 2015) and fosters inequality, where much digital work is seen to be poor quality, poorly paid and to marginalize those workers who undertake it (Bergvall-Kåreborn and Howcroft, 2014; Scholz, 2017). Digital technologies also have been implicated in new forms of managerial control which extend monitoring and surveillance through wearable devices (Moore, 2017; Moore and Robinson, 2016), geolocation tracking and networked sensors, particularly in logistics and warehousing (Elliott and Long, 2016).

³ I use platform-mediated work to refer to all work which is instigated through virtual platform technology. This kind of work is referred to in several ways in the literature, including platform work (De Stefano, 2016), crowdwork (Huws et al, 2016) and online gig work (Kässi and Lehdonvirta, 2018; Bergvall-Kåreborn and Howcroft, 2014). There is yet little definitional agreement between different studies or indeed, about whether platforms result in distinctive forms of work. I use the language a of platform-mediated work to emphasise the way in which platforms mediate the labour market or the employment relationship, rather than making any explicit comment on whether or how platforms might affect the kind of work or how it is undertaken and managed.

⁴ While this kind of micro-work demonstrates the extent to which digital technologies can fragment and disperse the labour process, it is worth noting that it represents a small portion of platform-mediated work (about 10 percent), which is principally made up of freelance work such as graphic and web design, translation and transcription (see Wood et al, 2018).

2.1 Defining and measuring digitalization

Definitions of what digitalization is or includes are far from settled or agreed. Previous discussions of information society or post-industrial society which theorized computerization and early iterations of the world wide web, have recently given way to discussions of the digital economy (Huws, 2014; Scholz, 2017) or cybernetic capitalism (Dyer-Witheford, 2015). Concepts of knowledge work, “immaterial labour” and ‘free labour’ (see below), have been drawn upon to suggest that this has been accompanied by the rise of specifically digitalized forms of labour, or “digital labour”. These shifts are not purely semantic; they reflect an attempt to examine the effect of what Ursula Holtgrewe (2014) refers to as “new new technologies” at work and to suggest that these are a break with earlier ways of organizing work and economic activity, some which appear to be radically new. One reason why there is no single definition of digitalization is that it is a process that coheres a number of different but related technologies which have been applied unevenly and in different ways across sectors and industries, and also because the dynamism and pace of technological advance has meant that their effects are still in flux.

As for the technologies implicated in this shift, Holtgrewe (2014) refers to it as the convergence of telecommunications and information technology, identifying the key technological trends as cloud computing, data and what she terms “ubiquitous connectivity”, referring to the constant digital connections made possible through apps and other networked objects. A review of the literature on digitalization undertaken by the European Trade Unions Institute (ETUI), added to this list geolocation, the Internet of Things and learning machines and robots (Valenduc and Vendramin, 2016), affecting not just the information or service sectors but also manufacturing, sometimes referred to as Industrie 4.0 (Srnicek, 2017; Pfeiffer, 2017). In industry and business, digital information or data has become a strategic resource; firms have had to respond to digital economies driven by “network effects” – where increasing numbers of users increase the value of a platform – and shifting economies of scope and scale, where economic activities have zero or near-zero marginal costs. These trends have been made possible by advances in the power of data storage and computing and the decreasing cost of software and hardware (Dyer-Witheford, 2015).

A number of authors have attempted to measure the impact these technological changes will have on jobs. Frey and Osbourne (2013) undertook economic modelling (using a machine-

learning algorithm, no less) to forecast the effects of current technological capacities and directions, including the automation of cognitive and non-routine tasks through artificial intelligence (AI) and advanced robotics, onto existing occupation descriptions. Overwhelmingly it predicted the automation of low-skill, low-wage jobs. Such futurist studies undertaken by researchers like Frey and Osborne (2013) and Brynjolffson and McAfee (2014) have not been accepted wholly without critique. While it is clear that data and new digital technologies have the potential to automate tasks previously considered immune to automation, resulting in job losses and labour market restructure, their methodologies and underlying assumptions have led some scholars to question their findings. For example, in a review of Brynjolffson and McAfee's *The Second Machine Age*, David Spencer (2016) has argued that to assess the trajectories of digital technologies and the effect they will have on labour markets based on the current capabilities of technology ignores significant contingent factors that affect their design and adoption, in particular the politics of production. Frey and Osborne themselves are careful to acknowledge that their study identifies those occupations which include tasks that are susceptible to automation at some point in the future, based on current technological developments; they do not predict the number of jobs likely to be lost to automation, as many media reports of the study implied⁵. They acknowledge key factors such as wage levels, capital prices and labour shortages (Frey and Osborne, 2013:42) which influence whether technologies of automation will substitute for jobs and, citing Schumpeter (1962), go to some lengths to discuss the way that technological development often rests on powerful social and economic interests.

Focusing on the effect on professional work, Susskind and Susskind (2016) argue that automation will replace some aspects of all work within the professions. They arrive at this conclusion by applying a cost benefit analysis to the introduction of AI to tasks within professional work and, according to Frank Pasquale (2016), by skating over the issue that most professional work requires a high degree of ambiguity and value judgement – both things which cannot be automated into a series of binary choices around likely scenarios, which is how automation operates. They assess whether technologies will be adopted based

⁵ See e.g. Rickard Straus, Rachel. 2014. The robots are coming: One in three UK jobs are at 'high risk' of being replaced by machines in the next 20 years. *Daily Mail*; 10/11/2014 <http://www.dailymail.co.uk/money/news/article-2828370/The-robots-coming-One-three-UK-jobs-high-risk-replaced-machines-20-years.html> [accessed 2 August 2018]

on models of free market economics and the benefit of cheaper “expertise”⁶, which do not consider how social or political context, worker responses, not to mention regulation or issues associated with cybersecurity and system outages (see Miller, 2016), might influence these decisions. For example, Susskind and Susskind’s prognosis for journalism is that there is scope for automated story writing and they cite evidence of algorithms that already produce reports on finance or sports results. However this reporting is short and highly-formulaic; involving slotting numbers into generic text. This kind of automation would not necessarily be able to be simply scaled up to extend into to more complex reporting, such as reporting on incidents that involve debates and require decisions about factors like what kind of contextual information is given; how the story is framed; who might be sought for comment. These are decisions that are associated with editorial judgment and involve making decisions that have a value-base; something which doesn’t lend itself as easily to automation.

While these studies demonstrate that digital technologies have the potential to change work, they do not deal with important contextual factors such as the social organization of work and productive relations, which can have a significant influence on which technologies are used in the labour process and how. The findings of these studies have been used to make what Debra Howcroft and Phil Taylor warn against as ‘unsubstantiated conjecture regarding societal effects’ (2014:1).

A key factor with which none of these macro-level forecasting studies engages with in detail is the question of how digital technologies are likely to change the content of those jobs which remain. Examinations of how digitalization is reorganizing production and jobs at a micro- or workplace-level are few and limited, partly because the technologies they address are new and only just being implemented into work processes. Historically, the introduction of automation or robotics in many industries has required redesigning production processes in order to compensate for technological limitations, so technology has tended to be accompanied by substantial organization change. Frey and Osborne demonstrate this using the example of prefabrication: robotization is limited where constructions sites are irregular and differently laid out, so assembly is partially undertaken in the more standardized,

⁶ Susskind and Susskind equate the value of professional work with providing expert knowledge to clients.

predictable environment of the factory, enabling tasks to be simplified and routinized to the point where automation and robotics can be introduced (2013:24). This suggests that a more pertinent question about digital technologies for most workers than the number of job losses it will cause will be how will existing jobs and labour processes be redesigned and reorganized and to consider these questions with an attention to the role that different actors and interests play and in the context of the organizational, social and configurations in which it is carried out.

2.2 What kind of labour is digital labour?

Digitalization has involved a debate about whether digital transformations of work and the economy give rise to new and specifically digital forms of labour. These discussions have been informed by earlier works which theorized “knowledge work” and argued that knowledge has become the hegemonic form of production in the sense that it has unique qualities which start to be imposed on other forms of work. For example, Mañuel Castells (1996), documents in detail the economic and social transformations likely to arise from what he terms the “network society”, in which he argues social structures and institutions reorganize around a networking logic. He characterizes changes to work and employment in advanced capitalist (then G7) economies as part of an historic transition in terms of broad sectoral and occupational shifts; away from the centrality of jobs in material production and an increased role for services and towards greater occupational and employment diversity, where information and the production of knowledge are central. Parallel arguments were made by critical theorists on the left; production of knowledge and affect – the cultural content of commodities, such as style, tastes and opinions – were becoming the dominant form of production (Lazzarato, 1996; Hardt and Negri, 2000), giving rise to a unique form of labour – “immaterial labour”. “Immaterial labour”, they argue, utilizes workers’ knowledge, communication and affect and, as a result, draws activities not traditionally recognized as work – activities such as human interaction and sociability – into a productive process where value is created for capital through the creation of subjectivities and social relationships⁷. For example, recognizing a brand becomes a form of collective cultural labour

⁷ Critiques of the concept of immaterial labour have highlighted that, as a way of categorizing new forms of labour, it is fraught with problems. In particular for analyses of work and the labour process, it is limited as an analytical tool based as it is on categorising work according to its product, rather than the conditions and relations through which immaterial products are produced (see Camfield, 2006), except at a very high level of abstraction.

(Arvidsson, 2005) and, within the context of digitalization, users' presentations of self and subjectivities on social media are considered immaterial labour (Coté and Pybus, 2007). "Immaterial labour" and the theory that the informational content of work poses unique challenges to capitalist production and valorization continue to inform newer iterations of the "network society", such as "cognitive capitalism" (Moulier-Boutang, 2012; Vercellone, 2007)⁸.

In all these theories, knowledge work and information as a commodity are posited as having particular qualities which have implications for the labour process and the potential to profoundly shift the workings of the economy, although the theories differ in how they assess this. Bell (1973) claimed that knowledge work was rewarding and no longer exploitative, circumventing the older antagonisms between labour and capital which were a feature of Fordist workplace relations. These ideas have an echo in some theories of digitalization which suggest that the automation of routine work will leave knowledge workers undertaking work of higher value (Brynjolfsson and McAfee 2014; Susskind and Susskind, 2016). Labour processes associated with knowledge work, were said to have included shifts in managerial regimes, away from the more direct forms of control associated with Taylorism and Fordism, or even indirect forms such as bureaucratic control (Friedman, 1977; Edwards, 1979), towards networks and flatter organizational structures which use value-based practices (Kunda, 1992; Frenkel et al, 1995). For Lazzarato and theorists in the autonomist tradition, the informational content of "immaterial labour" is intangible and immeasurable and therefore more difficult to control, and not susceptible to deskilling or Taylorization, because it requires the cooperation of the workers who hold this knowledge (Böhm and Land, 2012). Because "immaterial labour" is seen to be immanently cooperative⁹ and its product inalienable from its creators (Lazzarato, 1996; Hardt and Negri, 2000; Moulier-Boutang, 2012), theorists claim it will lead to the breakdown of capitalist economic relations or the transcending of capital-labour relations. This will occur because labour has the possibility of producing outside of and free from the labour-capital relation (Lazzarato, 1996; Hardt and Negri, 2000), where scarcity is no longer the basis of value (Moulier-

⁸ For a critique of these theories see Thompson and Briken, 2017.

⁹ While Marx emphasised the centrality of cooperation and the socialised nature of production in his characterization of capitalist production relations (e.g. Marx, [1867]1976: Chapter 13), he observed that cooperation was coordinated by capital, whereas Lazzarato (1996) and Hardt and Negri (2004) insisted that the cooperation immanent to immaterial labour does not rely on capitalist coordination.

Boutang, 2012) or because the replication of knowledge as a commodity pushes its marginal value towards zero, therefore undermining capital accumulation (Mason, 2016)¹⁰. Other theorists have argued that digital labour simply relocates conflictual capital-labour relations into the informational realm with different challenges and resources for both labour and capital (Dyer-Witheford, 1999; Terranova, 2000; Fuchs, 2014). For others, knowledge workers not only consent to their exploitation, but form conceptions of self and subjectivities which enable the valorization process (Hardt, 1999; Coté and Pybus, 2007; Böhm and Land, 2012). Viewed in this light, social skills, emotions and the creation of worker knowledge and subjectivities required for this work have become the object of value production and occurs outside the employment relationship in the “social factory” (Virno and Hardt, 1996; Negri, 1989; Negri 1991)¹¹. Life beyond the factory was seen to be subsumed by capitalist relations, placing the concept of labour under pressure as an analytical category and well-summarized by Burston et al. as ‘a world where the boundaries between work and life are breaking down’ (2010:215). The concept has been used in theories of digital labour because its key analytical insight – that it collapses the distinction between work and life, subsuming both under capitalist accumulation – is purportedly demonstrated by the production of content by users outside the distinct relations of the labour process (see Terranova, 2000; Hardt and Negri, 2000; Vercellone, 2007).

2.2.1 Free Labour and the reconstitution of work?

Critical theories of digital media, mostly originating in media studies, have been dominated by attempts to demonstrate the centrality of “free labour” and the exploitation or appropriation of user labour to digital modes of accumulation (Banks and Deuze, 2009). Tiziana Terranova (2000; 2004) developed the concept “free labour” in an early critique of the techno-utopianism which characterized much tech industry and managerial writing about the possibilities of the Internet and digital networking, wanting to draw attention to what she saw as the Internet’s reliance on “free labour” for its development. For Terranova, “free labour” wasn’t just unpaid labour but a way of theorizing what she saw as the unwaged

¹⁰ Also see critique in Thompson and Briken, 2017

¹¹ Theories of the “social factory” position themselves within the context of a post-Fordist or “cognitive” political economy, positing the extension of capitalist relations of control and the production of value beyond the production process and emphasizing how the creative power of labour outside the directing forces of capitalist production was brought into accumulation processes (for an analysis of the development of the idea, see Palazzo, 2014).

activities of users being drawn into capitalist accumulation from outside the production process, building on the concept of “immaterial labour” and linking it to the “social factory” – it is free in the sense that it is 'simultaneously voluntarily given and unwaged, enjoyed and exploited' (2000:33). Terranova draws on the case of AOL volunteers who had hosted chatrooms, moderated message boards and policed AOL's community in exchange for access to AOL services, which she argued, demonstrated the incorporation of “free labour” into digital media where users are tied to the work because of their desire or social need to be part of the online community. She argues that they are, as a result, exploited. Terranova lays the groundwork for many of the debates today around digital labour; there is a continuing emphasis on the role of users and contributors in the production of value on digital platforms and the concept of “free labour” has been adopted, adapted and extended in many of these contributions to explain the relative role and contributions of volunteer and user activity (Cohen, 2008; Gillespie, 2010; Scholz, 2017; Roberts, 2014). More recently, these ideas have been invoked to account for and conceptualize the capture and use of data in the digital economy (Fuchs 2014; Scholz; 2017).

“Free labour” in relation to digital labour has been applied to three broad kinds of online activity: First, and similar to Terranova's discussion of the AOL volunteers, freely-given labour; for example, Ritzer and Jurenson (2010) use the example of LinkedIn, the for-profit, professional networking site, which in 2009 made an appeal to its online community to translate the site's content into several different languages, free of charge; the use of volunteer labour to undertake clearly-delineated tasks. Second, user content contributed to social networking sites, which has been theorized as a collective extension of the working day, aligning this activity with Marx's concept of surplus labour time¹² (Cohen, 2008; Fuchs, 2014; Dyer-Witheford, 2015). Third, the capture and commodification of user data or the ‘giving off data’ (Scholz, 2017:103) as a form of labour. Data as “digital labour” has been theorized by Christian Fuchs, whose work focuses on the political economy of the media, using Dallas Smythe's concept of the “audience commodity” (2012). Smythe contended that the main commodity media companies produce is their audience; the audience is sold to advertisers, this is the principal business of media and media content, whether television

¹² This is a departure from Hardt and Negri's (2004) formulation of “immaterial labour” or Vercellone's (2007) “cognitive capitalism”, which both argue that immaterial labour causes a collapse of the boundaries between work and non-work, meaning that Marx's labour theory no longer holds because value no longer has a relation to working time.

programs, news, or celebrity gossip, is the “free lunch” used to entice viewers or readers. Building on what he believed to be a Marxian political economy, Smythe cast the audience commodity as a kind of labour power equivalent, whereby media audiences convert their consumption of content and advertising into purchasing decisions. Fuchs extends this to develop the concept of the “internet prosumer commodity” (2014) – where users of social media platforms produce both content, for which they give surplus labour time and are therefore exploited, as well as the personal, networking and transactional data which can be sold to advertisers (the digital equivalent of Smythe’s audience commodity). Fuchs (2012) wants to demonstrate that, because audience time spent on social media platforms generates data to be sold, it is equivalent to labour time which produces value¹³. Although Fuchs is critical of Terranova – because she does not draw upon the audience commodity concept – like her, he wants to establish a conception of labour, value and exploitation that is not “wage-centric” (2014:111) and their theories converge upon the idea of the “social factory”. Fuchs uses this theoretical framing to argue that this use of user-generated content and data constitutes the outsourcing of work to consumers, which he contends is a tendency of contemporary capitalism.

It is clear that there are many different activities, some of which would be more readily recognized as work, being referred to in these discussions. There is labour which is solicited by organizations and would otherwise be paid for – e.g. AOL volunteers policing chatrooms (Terranova 2000; 2004) or LinkedIn members being requested to translate sections of the site (Ritzer and Jurgenson, 2010) or amateur reviews¹⁴; there is content that is freely contributed to social media sites – e.g. *Facebook* posts or photographs uploaded to *Instagram*,

¹³ Fuchs maps this activity onto Marx’s value theory to develop what he considers a “digital labour theory of value” (2012).

¹⁴ Diane van den Broek (2010) argues that free labour of the AOL volunteers was bounded by something much more akin to the traditional wage-effort bargain; rather than having given their labour freely, many of the AOL users volunteered their time and work towards building websites, moderating chatrooms and participating in mailing lists in return for the free access AOL gave them to the service they helped maintain (at a time when subscriptions were very expensive). Similar to Scholtz’s conception of “hope labour” (2017), these volunteers hoped it would give them skills and experience and open up the prospect of paid work either with AOL or other companies in a sector that was hard to break into at the time (van den Broek, 2010:126). These are themes more familiar to labour studies, particularly in recent studies of cultural labour, where breaking into jobs in the creative industries, maintaining an employment profile, or learning new skills has led to widespread use of internships and other forms of unpaid labour (Randle and Culkin, 2008; Grugulis and Stoyanova, 2011; Siebert and Wilson, 2013). Van den Broek’s point was underlined when Huffington Post bought AOL and volunteers launched a class action to establish an employment relationship with AOL, in order to seek compensation for their work.

which appear to have the potential to replace paid work with content which is equivalent to, or substitutes for, the product of paid labour; and, the most novel theorization – that of “data-giving” as labour (Fuchs, 2014; Scholz, 2017), which suggests the subordination of users to digital technologies, where platform technologies are seen to be structuring and channeling users’ online activity as a form of control and exploitation (Cohen, 2008). As a radical critique of labour under capitalism, the concept of “free labour” was intended to address the activities of consumers as instances of exploitation and so demonstrate the pervasiveness of capitalist production relations outside the factory. This reconceptualization of the production of value and accumulation raise challenges at both the empirical and the analytical level. The extent to which the capture of “free labour” through the Internet is systematic to the digital economy or advanced capitalism as a whole is partly an empirical question and requires looking at how production is organized to see whether capital in general, or individual capitalists engaged in digital media, are reorganizing in order to appropriate the labour of users and how that might reposition or devalue waged work and the employment relationship. As Hesmondhalgh (2010) has pointed out, the focus on “free labour” and consumer activities in the digital labour debates does not engage with what is happening to employment and occupations within the creative industries and, instead, tend to marginalize discussions of this work ¹⁵. Analytically, “free labour” as a concept, which relies upon a reconceptualization of capitalist accumulation based on “immaterial labour” in the “social factory”, challenges notions of labour and exploitation developed within classical Marxism and LPT. For classical Marxists, what is at stake is the value theory which is at the heart of explaining the production and reproduction of capitalist social relations. For labour process theory, which rejects the labour theory of value (see below), it raises the challenge of how to conceptualize work and exploitation and where to meaningfully draw the boundaries of the labour process as the analytical site of production and valorization (Thompson and Briken, 2017).

Classical Marxists such as Ursula Huws have been skeptical of the idea of digital labour as a discrete form “separated hermetically from the rest of the economy” (2014:157). Huws argues that the emergence of new forms of non-manual labour reflect the increasing complexity of the division of labour, where technology plays a key role in dispersing work

¹⁵ Hesmondhalgh talks in terms of the cultural industries, but his argument is about the role of content production for digital media generally.

geographically and contractually to new sets of workers. Huws suggests this results in more atomized work, where workers undertake a series of fragmented tasks that are part of the same activity but where they ‘may be barely aware of one another’s existence’ (2014:157). Within labour process theory, the argument that “knowledge work” is central or hegemonic to contemporary capitalism is largely discredited (Thompson and Briken, 2017). But implicit in the discussion of how to theorize digitalization is the question of whether there is anything unique or particular about “digital labour”. Within the labour process tradition, Paul Thompson and Kendra Briken (2017) classify digital work into three overlapping categories – the creation of digital commodities; online and offline platform-mediated work; and labour within digital sectors, such as logistics workers in Amazon warehouses. They argue that growth in these jobs makes up a limited proportion of the total workforce and the kinds of work it includes are heterogenous, with only some falling into the category of “knowledge work”. They further argue that, rather than a networked diffusion of production, there has been a concentration of capital which is partly attributed to vertical integration. This categorization is useful because it accounts for the range of new forms of work – from digital journalism to platform-mediated work such as couriership or crowdwork, to the routinized warehouse work which has proliferated as a result of online commerce – all of which are connected to, or made possible by, digital technologies. Consequently, this suggests it is more analytically precise to view digitalization as a process which appears across the economy, albeit unevenly, and not limited to one sector or as a digital economy which can be clearly extrapolated from the economy as a whole, and where there is likely to be wide sectoral, occupational and skill variation within each category.

Theories of digital work, emerging as they do from a political economy perspective, engage with the questions of capital and labour in general, rather than being informed by studies of the content of work at the level of organizations or workplaces, and focused as they are on generalizing patterns of production and how productive work is situated within regimes of accumulation¹⁶. While they take as given the need to theorize the audience in order to

¹⁶ Although, Vercellone suggests that “financial globalization” may have arisen as capital’s response to a labour process, based on knowledge, which is no longer dominated by real subsumption: ‘as capital’s attempt to render its cycle of valorisation ever more autonomous from a social labour process’ (2007:23) and, according to Dyer-Witheford, ‘in autonomist analysis, financialization is seen as a means by which capital escapes or attacks proletarian power’ (2015:94).

understand what is happening to work in the digital economy, there is no discussion of what the effect of digital technologies may be on the employment relationship or other institutions of work, even though they imply that digitalization restructures organizations. For example, Dyer-Witheford (2015) characterizes social media or platform companies as containing a small number of paid workers who work upon freely-given content supplied by the labour of users. Scant attention is paid to the production of the code and the digital architectures that capture and process user data, or the work of interpreting or selling the advertising it supports. Most often, these are glossed over as though they are automated processes, rather than industries that employ people and are giving rise to new jobs, new occupations and emerging skill sets. The way the debate around digital labour to date has developed makes it difficult to reconcile discussions which prioritize audience labour and data and theorize them as exploitation with studies focusing on the changing content and conditions of existing work or emerging work connected to, or made possible by, digital technologies. The debate implies there are characteristics of labour or the management of labour that might be understood as uniquely digital, raising the question of whether it is a useful frame to understand digital transformations of work in terms of “digital labour” and, if so, what are its characteristics. There is also the question of whether user contributions in digital media have the potential to radically impact upon waged labour in its specific form in those industries, like journalism, where user contributions and waged labour coexist on the same platforms, and in general.

2.3 The changing content of digitalized work

Digitalization, as with any major technological restructuring, has created the conditions for the transformation of job roles, changing the content of many digitalized jobs and requiring that workers adopt new skills (Ferrari, 2013; Ecorys, U.K., 2016)¹⁷. Changes to skills and the skill requirements for jobs tend to be connected to broader questions of job quality and satisfaction (Gallie, 2012) or, conversely, the degradation of work (Braverman, 1974). Digital transformations also have resulted in the reorganization of work in some sectors and the

¹⁷ At a generic level, these skills have been referred to under the ambiguous term “digital skills”; a UK government policy report defined digital skills by referring to them as a series of literacies – computer, internet, media and digital – but also including soft skills such as cognitive, attitudinal, social and emotional skills, cognitive, attitudinal, social and emotional skills.

emergence of new roles or even new kinds of work, such as online gig work or crowdwork. This section discusses these in turn, providing an overview of these discussions and how they might inform a study of the digital transformations of journalists' work.

2.3.1 The Skills Debate

Theories of the information society and knowledge work foresaw the growth of information occupations – managers, professionals and technical workers, who required higher skill levels and advanced education (Bell, 1973; Reich, 1991; Castells, 1996) and what Castells describes as a 'relatively upgraded occupational structure' (1996:220) where workers required greater autonomy in order to maximize the productive potential of new technologies. Such claims prompted a debate about the overall trajectory of skills; whether informationalization was resulting in upskilling, deskilling or a polarization of skills (Grugulis and Lloyd, 2010). Even Castells' optimistic predictions about the information society foresaw a degree of polarization in an overall picture of upskilling; he predicted the emergence of some downgraded, low-skill, low-discretion jobs; what he refers to as the "networked" and the "operated"; those workers who have little to no discretion over how they are networked or to whom or when, or whose work is largely pre-programmed (see Castells, 1996: Chapter 4). Theorizations of immaterial labour have tended to start from the assumption that workers in "cognitive capitalism" are highly educated as a result of the expansion of mass education with a high degree of abstract or scientific-technical knowledge (Smith, 2013). The characterization of technology as leading to a generalized upgrading of work and skills runs counter to theories developed by Braverman in *Labor and Monopoly Capital*, and which were central to early debates within labour process theory. Braverman argued:

The more science is incorporated into the labour process, the less the worker understands of the process; the more sophisticated an intellectual product the machine becomes, the less control and comprehension of the machine the worker has. (1974:425)

For Braverman, the tendency within the development of technology was simultaneously an act of objectifying worker knowledge and skill into machines, separating the conception of a task from its execution, and representing a general loss of worker discretion over the task, while knowledge of and control over the process amassed to management and technical specialists. While technology was designed to regularize and standardize the outputs of production— including removing the possibility of human error, irregularity or worker resistance and to improving efficiency – it made work less skilled. As discussed in more detail

below, Braverman's deskilling thesis has been widely critiqued and, while there may be a tendency within capitalist production towards the deskilling of labour, there are constraints which have placed limits on the extent to which jobs are able to be routinized or automated, such as the need for workers' tacit knowledge, creativity or competencies in production (Thompson, 1989) or worker's power and organization to resist deskilling, such as the UK print workers in Cockburn's study who were able to retain some skill in a job that had been automated elsewhere (1983). What Braverman's work did was to theorize the role that technology and work design could have on skills but also to highlight skill as a site of contestation and managerial control that affects the wages and discretion workers exercise over their work, where changes to the organization of work are not just about the loss of skills but about the subordination of labour to capital (Edwards, 1979; Elger, 1982; Littler, 1982).

This notion of skill as a social relation – or being maintained, defined, rewarded, or recognized as a result of power within production relations – has been further elaborated in Cynthia Cockburn's (1983) tripartite notion of skill. Cockburn highlights that skill can be learned or possessed by an individual (skill in the individual); jobs can be designed to limit or expand the deployment of skills (skill in the job); but also, skill has a social dimension; where the status of a skill may be determined by the status of the individual or group who are seen to possess that skill (skill in the social setting). Whereas Braverman's work focused principally on the way in which skill was organized into, or removed from the job as a result of job design and technology, Cockburn's analysis introduced the idea of skill being socially constructed, based on social factors both within and outside the labour process, which could have implications for whether work is recognized as being skillful and for the value and rewards associated with work.

The development of digital technologies would appear to be marked by the triumph of technology over human knowledge; advances in digital technology, in many cases, amount to a codification of knowledge previously thought to be tacit and predictions of the replacement of professions by algorithms and automation have changed perceptions about what kinds of work might be deemed "routine". Whereas it was previously possible to claim that there was 'a privileged band involved in the professional, high tech and creative industries who fare well in the new economy' (Bolton and Houlihan, 2009:5), this idea is seemingly coming under challenge.

2.4 Flexible and precarious: the temporal and spatial decentring of work

One of the most discussed and researched aspects of the digitalization of work has been the challenge new forms of digital labour present to the employment relationship. New forms of work arising from digitalization, such as platform-mediated work and crowdsourcing, have been classified as gig work (Graham et al., 2017; Stewart and Stanford, 2017) and on-demand labour (De Stefano, 2015; Alkhatib et al 2017), where the outsourcing of the work of permanently employed workers to freelancers or self-employed workers is seen to be a general trend with platforms. Scholz (2017) claims that digital work is usually undertaken as part of a contract for services rather than embedded in an employment relationship, which he links to the intensification of work and labour practices that lead to poorly paid, poor quality work, with poor protections for workers and unethical employer practices (2017:15). Valenduc and Vendramin (2016) also cite the erosion of the fundamental principles of work and employment status, social protections and employee representation as one of the downsides of crowdwork. This accords with early critiques of online work which pointed to its ‘punishing rhythms’ – both long and unsociable hours of work – and the casualized nature of the work (Terranova, 2000:33). Accounts of the “information society” often predicted a workforce modelled around a core of “symbolic analysts” (Reich, 1991) and a disposable or flexible secondary labour force at risk of externalization via automation, outsourcing or off-shoring (Castells, 1996; Harvey, 1990).

Flexibility and flexible working arrangements (FWA) are long-term trends in work and employment relations in advanced capitalist economies (Kalleberg, 2009; Bessa and Tomlinson, 2017). Across these economies, flexibility has been created at several levels; at the organizational level – through vertical disintegration, sub-contracting, and the division of production through GVCs; at the level of the labour process – with the reorganization of work through lean and JIT production and functional flexibility; and through employment relations, with the rise of temporary contracts and non-guaranteed hours. The role of ICTs or digital technology in this flexibilization has been one of enabling the cohering of fragmented and decentralized production processes (Huws, 2003) while surveillance and monitoring are seen to enable the centralization of control over production (Zuboff, 1998; Frenkel et al. 1995; Moore et al, 2018). In recent studies of flexibility and of digital labour, precarity for workers has become a key concern, where it refers to both insecure and contingent employment relationships, but also perceptions of job insecurity among the

securely employed (Kalleberg, 2009), and could be extended to fear associated with changes to an existing job (Greenhalgh and Rosenblatt, 1986). More recent scholarship has called for a conceptualization of precarity which goes beyond narrowly defining it in terms of the employment relationship and contract types, towards an examination of the processes and experiences in a wide range of employment contexts which might account for worker perceptions and experience of precarity (Alberti et al, 2018). Given the association between digitalization and flexible working that tends towards insecure and precarious work, this study aims to look at how, why and under what circumstances precarity has arisen and its relationship with digital transformations of work.

In order to examine this link between digitalization and flexibility, however, figures for non-standard working contracts and working hours should be approached with caution. There are a number of theorists who suggest that precarity is overstated in academic studies of work and society and are not matched by empirical evidence (Fevre, 2007; Doogan, 2009)¹⁸. Similarly, while the use of mobile networked technologies has made work which is not limited to a particular time or place more prevalent, it is important to draw a distinction between precarity and the spatial and temporal decentering of work. For example, in the five years between 2005 to 2010, the proportion of workers in the EU who spent more than a quarter of their working lives somewhere other than their place of employment rose from seven to 24 percent (Parent-Thirion et al., 2012). But ICT-based mobile workers are predominantly highly-skilled, young male knowledge workers or managers, most of whom have permanent full-time contracts (Valenduc and Vendramin, 2016). Given that virtual work requires a degree of trust between the employer and a virtual or mobile employee, as well as technical support, Valenduc and Vendramin (2016) have suggested that, in many of the professions where it has been concentrated during the late 2000s, its implementation was as a result of employee demand as much as efficiency and cost-cutting. Employers rely, at least to some degree, on consistency, security and reliability on the part of their workforce. These cautions draw attention to how studies of flexibility must be careful not to conflate flexibility with precarity and, instead, look at where the drives and demands for flexible work arise.

¹⁸ In particular, Doogan (2009) argues that figures for precarious work often include part-time workers who may be permanently employed or reflect FWAs which are introduced into workplaces to retain employees, in particular women with caring responsibilities, rather than drive labour costs and working conditions down.

2.4.1 Digitalization, work and new configurations of space and time

Flexibility and precarity are fundamentally rooted in questions of time; in working time and how time is organized in and around work. A study by the European Trade Union Institute (Spiegelaere and Piasna, 2017) cites digital transformation of work as a reason why it wants to put working hours on the European trade union bargaining agenda; particularly the effects of working hours on productivity, job quality and the number of jobs. Digitalization has been associated with a speed up of work and speed as a defining characteristic of contemporary life (Crary, 2013; Rosa, 2003, Wajcman, 2014). Networked and mobile technologies have also been found to extend work in space and time – outside the physical workplace, as well as outside the boundaries of standard working hours, with both an intensification (Felstead et al, 2013) and extensification of work (Gold and Mustafa, 2013; Cavazotte et al, 2014; Smith, 2016), and as a result of their role in enabling more flexible working arrangements (Huws, 2003 and 2014). Digitalization has been linked to long and unsociable hours, unpredictable hours – as typified in widespread concern over zero hours contracts and, often implied in these debates, the related issues of underemployment and income insecurity – and work intensification. These, in turn have been linked to issues of health and safety, specifically concerns over overwork, stress and burnout. The increased speed and expanded capabilities of communication are seen to change the way we use time; how activities and events are prioritized, ordered and sequenced in time and our perceptions of it – with far-reaching social effects.

Both Harvey (1990) and Castells (1996) have emphasized that technology has enabled time-oriented management practices, such as just-in-time (JIT) and flexible working time, which speed up turnover time. David Harvey (1989) has argued that the changed patterns of working time and the increased use of part-time, temporary or sub-contracted work are a function of what he calls “flexible accumulation”, the principle objective being to create efficiencies in production and speed up turnover time. He links this to his concept of “time-space compression” – which builds upon Marx’s observation that the development of ever-faster transport and means of communication results in the annihilation of space by time, speeding up turnover which then exerts time pressure within the labour process. Flexibilization has involved removing “downtime” – “wasted” or unproductive time – from the working day and the use of flexible working time arrangements to employ workers only when they are able to be employed productively (Bell and Tuckman, 2002; Rubery et al.,

2015), in some cases intensifying the working time that remains and rationalizing workers' pay (Hayes and Moore, 2017), or making work more unpredictable for workers (O'Carroll, 2015).

Within the labour process, new temporalities associated with digitalization are often discussed in terms of the capacities of digital technology for communications that are both synchronous (phone; instant messaging; VoIP/video conferencing) and asynchronous (text; email; cloud storage). Azad et al (2016) examine the affordances (Gibson, 1979) of the mobile phone and how management consultants use these different features to shape the temporalities and spaces of work. Within journalism studies, digitalization has often been characterized by a speed up of publication resulting in high-quality, low value news; otherwise known as "churnalism" (Van Hout and Van Leuven, 2016). In some cases, however, asynchronicity of ICTs may give workers – and particularly white-collar workers who have some discretion over their time – more, not less, control over how they manage their tasks in time; Judy Wajcman (2014) highlights that the use of technology is not unidirectional and may serve purposes that increase worker autonomy, particularly in terms of pacing of tasks. She doesn't not deny that digital technologies have transformed work and workplaces but remains skeptical about claims that link digital technologies with acceleration. She partly accepts the premise, developed within the labour process tradition, particularly by Braverman (1974) and David Noble (1984), that the design of technologies under capitalism reflect and crystallize the social and class relations of that system. But, in order to overcome what she sees as the class reductionism of this position, Wajcman is careful to emphasize, that, within these constraints, technologies evolve through practical use, sometimes in unexpected ways, and not always in the ways they are intended (2014:87-91). (A posturing which may be unfair, given that studies within LPT concede that productive relations are not always the principle motivation for the design of technology and that worker agency plays an important role in how technologies are incorporated into the labour process.) Her social structuring approach highlights the need to observe the socio-material practices around technology use and identify the differing influences that management practices and worker agency have on digital technology and its ability to structure time in the production process; one does not lead seamlessly or inevitably to the other, but the social organization of time is stabilized and habitualized through socio-material practices. Wajcman's approach is useful as it recognizes that digital technologies afford a flexibility of use which potentially gives workers a great deal of discretion over how they use and negotiate them in their

working lives and that, unlike machines and other industrial technologies, they do not necessarily pace work. Work practices are being reshaped she argues, through employees negotiating the constant connectivity which is intrinsic to digital technologies. Her conclusion that ‘employees using IT in modern work situations are largely responsible for the pace and rhythm of production’ (2015:88), however, requires critical appraisal, particularly in light of the large body of work which has documented the way ICTs like Automated Call Distribution (ACD) were applied precisely to regulate and pace the work of call centre workers (e.g. Taylor and Bain, 1999).

Castells (1996), like Wajcman, has looked at the implications of networked technologies providing “networked workers” more flexibility to order their tasks in time. This diversification of working time between workers, he argues, becomes a principle factor in the disaggregation of labour in the labour process (1996:441). Castells also contends that, cumulatively, the plural, divergent temporalities that technologies enable, undermine ‘the structuring capacity of working time over everyday life’ (1996:442). The resulting individualization of time and working time has been addressed by both Castells (1996) and Crary (2013) in terms of the rise of self-management and individualized time management, but each has a different emphasis. For Castells, workers are forced to confront many temporalities, leading to a requirement for skilled labourers to self-manage their time flexibly in a context where technologies afford them greater autonomy over work and working time. In contrast, Crary suggests that networked technologies have become an extension of capitalist control, arguing that the filtering of our lives through digital communications creates a blurring of work time with leisure time – itself a not uncommon claim – but, Crary argues, people increasingly find they must engage in, and are responsible for, practices of individual time management (2013:57).

To these theorizations of acceleration, the dislocation of time and sense of time pressure, Hartmut Rosa’ (2003) introduces the idea of “dysfunctional deceleration”. He argues that, even within the context of overall acceleration, some aspects of life experience decelerations and inertia where there are either natural limits to speed, or where speed itself gives way to inertia – he uses the example of a motorway which allows speed but, paradoxically, also gives rise to the traffic jam. Rosa argues that a social example of this “dysfunctional deceleration” would be structural unemployment caused when workers are unable to keep up with the

flexibility required by the labour market (2003:15). This idea raises the question of whether or where limits or dysfunctional decelerations might arise in digital labour processes.

Networked technologies, according to these theories, are changing the way time is used but also changing the way we perceive time. Castells argues that the ‘linear, irreversible, measurable, predictable’ time of clock time ‘is being shattered in the network society’ (1996:433) where ICTs and our access to information allows us to take time and space out of their context and create a virtual time that is simultaneous, immediate and non-sequential: ‘the whole ordering of meaningful events loses its internal, chronological rhythm, and becomes arranged in time sequences depending on the social context of their utilization’ (1996:462); what Castells terms “timeless time”. For Harvey, technology literally speeds up the turnover time of capital through increased capital flows and, in doing so, also creates a perception of capital moving unconstrained by space and time; a perception of chaos and a disconnect between present and future (Harvey 1989:164). And for Crary, our contemporary experience of time is accelerated and homogenized as a result of the 24/7 temporalities arising from the ‘uninterrupted operation’ of networked systems and the way they disrupt both natural and social cycles and rhythms. Networked systems have become an incursion into our private lives, affecting our health and well-being in what he terms ‘the wreckage of the day’ (2013:33).

While their analyses of the drives and effects differ, there is general agreement among social theorists that networked information technologies are deeply implicated in processes that change the order and sequence of work in time and have the potential to accelerate work, although there is some disagreement as to the extent to which technology and economic forces combine to create a general trend towards acceleration. There is also the question of the role of digital technologies in diversifying time within the labour process and the potential to make work and workers more atomized and individualized. Similarly, work quality also may have a bearing on workers’ perception of time (Roy, 1959; Sturges, 2013; Bailey and Madden, 2017).

Studies in the LPT tradition have tended to examine time from the point of view of working time or work intensification, rather than examining how different ways of organizing the labour process result in differing perceptions of time or are influenced by, or influence, the social organization of time. This is curious given that social theories have generally theorized

time as being socially negotiated, at least in part through institutions like the employment relationship and working time, for example the imposition of clock time (Thompson, 1967) and through struggles between labour and capital over the general conditions of work, including the length and substance of the working day (Marx, [1867]1976). Just as the process of work is at the core of social structure (Castells, 1996:201) so work is at the core of time, or of the multiple temporalities that make up our digital existence. Theorizing digitalization requires identifying how different temporalities are situated within, structured and normalized through the labour process and the employment relation. If, as Thompson (1967) highlights, workers learn to internalize the temporalities enforced through work – a process that is neither smooth nor unchallenged – what is the process through which this occurs? And, do we end up in a situation where the distinction between work and life have collapsed and yet the commodification of time continues to be upheld?

2.5 From control to capture? Coordinating labour in “cognitive capitalism”

While studies within the labor process have rejected the claim that knowledge work is hegemonic, there are technical and professional labour processes, as with journalism, where knowledge is key and where worker knowledge and creativity do present specific issues for management control. Knowledge work is both more difficult to physically discipline in space and time, as well as more difficult to quantify — and hence control (Smith and McKinlay, 2009; Bélanger and Thuderoz, 2010). Theories of cognitive capitalism are based on the assumption that knowledge work utilizes implicit knowledge which cannot be separated from its owner and, following from this, that management must secure a high degree of cooperation, trust and “involvement” of the person’ (Moulier-Boutang, 2011:78), alternatively, value is secured through externalities (i.e. knowledge from outside the labour process) where capital’s focus is on capture, or appropriation. Explanations among the proponents of “digital labour” as for why users or consumers would contribute their surplus value, or surplus time (Dyer-Witheford, 2015) rely on repurposing Marx’s concept of subsumption¹⁹, whereby the subordination of labour to capital is objectified through science

¹⁹ For Marx, formal subsumption was a phase in the development of capitalism when the individual worker ceased to be an independent commodity producer and worked for a wage under the command and supervision of capital but their craft skills and ways of working remained largely intact. Real subsumption occurred when capitalist development of machinery started to reorganize production, and, in doing so increased relative surplus value, simultaneously transforming the labourer: ‘With the transformation of his labour capacity into

and technology; machinery and the organization of work (BLPG, 1977). Vercellone (2007) argues that the subsumption of labour to capital gives way to the “general intellect”. The subsequent inability of capital to subsume immaterial/intellectual labour through machinic/technological pacing and reorganization has created a crisis for capital where labour is only formally subsumed and labour’s dominance by capital is based only on its reliance on a wage and therefore more fragile, what he terms ‘the ‘tendential fall of the capital’s control of the division of labour’ (2007:18). At the same time, the knowledge which Vercellone argues has become the source of all power is produced by the worker at all times, not just within the confines of working hours, and so the measurement of value through time breaks down. Terranova similarly discusses the development of intellectual and cultural capacities outside the production process which are then appropriated by capital as “free labour”. These theories of “free” or “immaterial labour” in the digital economy leave unexamined the mechanisms by which work might be directed or controlled (Caraway, 2011). If the locus of value has moved outside direct capitalist control, we would expect to see organizations grappling with the issues of managing or coordinating particular types of labour power with specific skills and knowledge within this indirect, dislocated relation between capital and consumer and to see capital reorienting in order to capture this value.

Securing surplus value, even within the much more institutionalized and regulated realm of the labour process, requires effort on the part of management, acting on behalf of capital, to both coordinate and control the efforts of labour. Chris Smith (2016) argues that management of workers is required inside the labour process because the forces of capital and the market do not, by themselves, create the conditions for efficient, productive work. Labour process theory since Braverman has contended that there is a generalized “control imperative” (Thompson, 1989) within the labour process, whereby the role of management is to act upon labour to discipline and direct worker efforts in order to produce a surplus; a function which requires ongoing efforts and will potentially create conflict or contestation by workers. Management strategies also tend to be partial and contingent (Hyman, 1987) because they seek to respond to contradictions that exist within the capitalist system which can never fully be resolved within the labour process (discussed below in section 2.7).

what is only a function part of the complete mechanism...[the worker] has altogether ceased to be the producer of a commodity. He is only the producer of a one-sided operation.’ (Marx and Engels, 1988: Marx and Engels, 1988:262).

Consequently, the subordination of labour to capital is never a stable or completed process (Thompson and Briken, 2017); labour is never totally or permanently subordinated within the labour process for example, even where workers become interchangeable parts of mechanized production lines, they still have the capacity to create stoppages and create a space for negotiation (Silver, 2003) or where call centre work is paced by Automated Call Distribution systems, workers are able to work to rule, for example, by refusing their best sell strategy (Mulholland, 2004).

Labour's potential to challenge management control forms a key antagonism that underlies the dynamics of the labour process (Edwards, 1986). Further, worker knowledge under capitalist production relations has always been a site of control and contestation between capital and labour; in his theory of the development of productive forces as the separation of conception and execution (1974:113-8) Braverman argued there is a tendency within the capitalist labour process for management to supplant workers' control over their work; embedding worker knowledge and control over processes within machines or technology, automating decisions, removing workers' autonomy and centralizing decision-making with the management and technical staff who design and calibrate those machines. This is similar to, but not the same as the separation of manual and mental labour, as mental labour can equally be separated into its conception and execution functions through the division of labour.

Strategies based on manager efforts to secure high commitment from employees are more likely to employ normative controls and reward performance (Causser and Jones, 1996; Kunda, 1992). Journalists would fall into this category, where the connection between the process and outcome of their work may be indirect or not immediate and where outcomes may be unpredictable; what Causser and Jones refer to as the "indeterminacy of work activities and outcomes" (1996:119-20); making it more difficult for managers to formalize or routinize tasks. This has tended to lead to output or outcome-focused controls and, where outcomes are qualitative or intangible, to proxy indicators or measures. As forms and organization of labour have developed, management has devised new ways to discipline labour that operate on the same immaterial or knowledge basis and it is precisely these forms of labour which have been increasingly subject to measurement and targets (Taylor, 2013:17; De Angelis and Harvie, 2009; Moore and Robinson, 2016).

Moreover, Thompson and Briken (2017) argue that it is demonstrably not the case that tacit employee knowledge cannot and has not been separated from workers, citing the widespread use of IT systems in knowledge management, which has the express purpose of capturing, converting and codifying the tacit knowledges of expert labour. If anything, digitalization is accelerating that process. Mascha Will-Zocholl's study (2017) of high-skilled automotive engineers demonstrates how management have codified knowledge and the processes of knowledge work, in order that virtual prototypes could be distributed among a global workforce using computer-aided design (CAD). This process was technologically limited because virtual designs could not be tested with the same accuracy as physical designs, but virtualization was pursued, nonetheless, in order to facilitate the global division of labour. The standardization and rationalization of work that virtualization entailed replaced some aspects of creative work with administrative work and created a higher level of competition between engineers because of the insecurities associated with the outsourcing which virtualization has enabled. Will-Zocholl's study also shows how the capitalist imperative to control production can create contradictions within the production process which undermine the fullest utilization of technology and human ingenuity.

2.5.1 ICTs and control

ICTs have been used to extend and intensify surveillance and performance monitoring of workers; through feedback mechanisms these technologies can provide information about how work is performed and extend technological control into the evaluation process in precise and individualized ways (Zuboff, 1988; Taylor and Bain, 1999; Tansley and Watson, 2000; Sewell and Wilkinson; Elliot and Long, 2015). This has been theorized as “informative control”, characterized by the objectification of data into performance indicators alongside employee internalization of these measures (Frenkel et al, 1995). This kind of conceptualization sits closely alongside Foucauldian approaches which focus on relations of micro-power in workplace control but also on techniques of domination and governmentality (Foucault, 1977) and which extend the notion of control to self-control and the self-disciplining effects of control regimes (see Zuboff, 1988; Sewell and Wilkinson, 1992). While performance monitoring and evaluation is an increasingly important tool in the hands of management (Taylor, 2013), labour process theorists have contributed some important correctives to these often-totalizing accounts of workplace surveillance and control (Bain and Taylor, 2000; Townsend, 2005; Barnes, 2007). Where these theories draw on the concept

of the Panopticon, Bain and Taylor (2000) assesses the actual nature, efficacy and effects of surveillance in the call centres they study, finding this form of control far more contingent and fragmentary than all-pervasive. They also insist upon a consideration of the importance of worker agency in response to surveillance, analyzing where and how workers can avoid, resist and refuse the monitoring of their work. Digital data have been enabled by new and more powerful network, storage and processing technologies and their entry into the labour process poses questions of whether the extended technological capacity to measure, combined with a new orientation towards data and their predictive capacity, changes the nature of surveillance and managerial control.

Employment strategies which outsource risk have also been used to solve the issue of managing work that is not subject to standardization or routinization, what Thompson and Smith (2010) describe as the collectivization of effort and the individualization of risk. This strategy has been applied particularly in creative labour processes, for example Birgitta Bergvall-Kåreborn and Debra Howcroft (2013) have shown how software developers working on mobile application development and distribution have seen their work moved from salaried employment to companies crowdsourcing apps through an external market of competing contractors. Networked ICTs, combined with control over information and data, have allowed capitalism to be more centralized and tightly organized, aided by the weakening of labour through ‘dispersal, geographical mobility, and flexible responses in labour markets, labour processes and consumer markets’ (Harvey, 1990: 159).

These forms of control require managerial oversight, but digitalization appears to be utilizing surveillance and technological design to extend managerial control even where work is outsourced and physically distant and potentially undertaken by workers who are unknown and have no prior relationship with their employer. Schörpf et al (2017) outline the way online platforms for the crowdsourcing of creative work can be designed to structure and discipline the work of creative crowdworkers by exposing them to customer control (Fuller and Smith, 1991; Korczynski et al, 2000; Bélanger and Edwards, 2013). The publication of workers’ performance statistics and the use of customer rating systems create online reputations for platform workers which determine their access to future work. Schörpf et al (2017), demonstrate how online reputation systems exert pressure on the creative crowd workers they studied, to find ways of working that avoid poor ratings, prompting them to respond quickly to new job requests, be constantly available for work and ensure a quick

turnover. The use of reputation systems based on worker profiling and ratings have been identified as a key disciplining mechanism for online work (Silberman and Irani, 2016; Gandini et al., 2016; Scholz, 2017) and as an attempt to deal with issues of quality of work and product in a context where workers may be otherwise anonymous, and no trust relationship exists between worker and employer. Customer control was originally theorized in relation to service work, as a form of control which allows for worker discretion to adapt to the idiosyncratic needs of the customer and where direct control would be invasive or undermine trust and where bureaucratic control is insufficiently flexible (Fuller and Smith, 1991). The use of customer input is structured into the employment relationship to reinforce management control; as Bélanger and Edwards note ‘the question is not whether customers are involved, but their role and influence and how these features are mediated by relations within organizations’ (2013:438). In the case of platforms, forms of customer control are utilized in the absence of the means for direct or bureaucratic control. Like with other forms of control through technology, this structuring of customer feedback to discipline work gives the appearance of being objective data (Fuller and Smith, 1991), while obscuring the way in which it directs worker effort in accordance with management objectives (Edwards, 1979; Callaghan and Thompson, 2001).

In summary, studies of the labour process have demonstrated the way in which knowledge work presents particular issues for managerial control, yet knowledge work is broadly subject to the same underlying dynamics as other forms of work. If anything, rather than presenting novel challenges to the management of knowledge work, digital transformations at work appear to be making information more like other products and bringing knowledge work under pressures of standardization, direction and disciplining as other forms of labour, particularly through directing worker activity through technological design and the monitoring of performance.

2.6 Shifting terrains of resistance

Theories of digital transformations at work have led to divergent conclusions about both the propensity and ability of knowledge workers to resist; they have removed or displaced conflictual relations of capitalism, so the resistance associated with industrial capitalism is no longer necessary, or the division of labour and the fragmentation of labour processes combined with worker precarity, makes resistance unlikely, if not futile. In Bell’s (1973)

account of the economic restructuring of post-industrial society, conflictual industrial relations were bound up with industrial capitalism and, in particular the repetitive, dehumanizing work of mass manufacturing, in contrast to the upskilled and satisfying professional and technical work of post-industrialism. In the “network society”, the diversification of work has led to fragmentation and stratification which erodes the commonalities that had historically led to worker cohesion and solidarity (Castells, 1996). In contrast, theorists in the autonomist or post-operaismo tradition have contended that digital networks have become the new grounds for contesting capital (Dyer-Witheford, 1999; Terranova, 2000) where the object is control of knowledge (Lazzarato, 2004; Vercellone, 2007; Moulier-Boutang, 2011).

I have already stressed that technological change in general, and so digitalization, is conditioned and constrained by the social organization of work and productive relations within the labour process and so worker agency is a key factor in understanding which digital technologies are adopted in the workplace and with what outcomes. As capitalist production gives rise to a divergence of interests between capital and labour, worker resistance has been a key concern within studies of the labour process; the counterpoint to control, worker resistance has been theorized as in dialectical relation to the managerial control imperative where the labour process becomes a “contested terrain” (Edwards, 1979) and workers find ways to divert, evade or directly confront management controls. There are historical instances where technology and the organization of work have been introduced to assert management control or constrain worker resistance (Braverman, 1974; Nobel, 1984) but even where technologies are utilized for reasons other than controlling labour, such as for new products or services or to create efficiencies, the accompanying restructuring of production has the potential to affect workers’ bargaining power and so their ability to negotiate changes in the labour process.

Erik Olin Wright’s (2000) concepts of structural power and associational power are useful to assess whether or how digital transformations have affected worker’s bargaining power or shifted the terrain upon which workers can resist in a digitalized labour processes. Structural power is the power afforded workers as a result of their position within the economic system and can be further divided into market-based bargaining power, which arises in tight labour markets, and workplace bargaining power, where workers are located in strategic positions within a tightly-integrated production process and where any stoppage

or industrial action they take has effects beyond their immediate process of production. Associational power arises from the collective organization of workers through trade unions, political parties and other forms of institutional representation. Digital transformations of workplaces and industries have the potential to limit or augment workers' capacities to resist, realigning the structural and organizational power of different groups of workers. Beverly Silver (2003) has used Wright's concepts of structural and associational power to argue that the reorganization of production away from mass production and towards services, the vertical disintegration of the labour process and a more highly-diversified labour force has placed a greater emphasis on associational power for labour organizing.

Where digitalization leads to new forms of labour, it is likely to be ununionized. Digital restructuring of the economy has shifted jobs from industrial workplaces with a strong union presence into new sectors in which workers have not yet organized. In telecommunications, for example, technician jobs in large manufacturers or former public companies, which were historically well-unionized, have moved to smaller, more individualized sub-sectors without unions or traditions of worker organizing (Holtgrewe, 2014). Digital transformations of news production have displaced the traditionally highly-unionized and industrially powerful print workers and placed journalists at the centre of the labour process – who have historically organized as professionals around issues of editorial content and who have rarely mobilized for collective workplace action (Gall, 2011) – and with marketing and technical professionals (Hardy, 2015) who are less likely to be unionized. Platform-mediated work, at both the highly-skilled professional and technical end of the spectrum and the low-skilled micro-tasking end, tends to be gig work undertaken by freelancers or other forms of self-employment (Scholz, 2017). This creates barriers to organizing where competition is the organizing principle for the allocation of online work (e.g. Boes et al, 2017) and where virtual work is geographically dispersed and non-synchronous, creating workers who are likely to be atomized and, so, unknown to each other (Huws, 2013).

Despite these challenges to workers' structural power through digitalization and the emergence of new jobs in unorganized sectors, none of these forms of work have been untouched by at least some attempts at organizing and resistance. Platform-mediated work, despite the atomization of workers, has given rise to forms of organization developed through online communities and structured by social media among some online gig workers (Wood et al, 2018). Activist crowdworkers at Amazon Mechanical Turk (MTurk) have

designed the ‘turkopticon’; an online system for workers to rate employers on the MTurk platform and deal with issues of non-payment and poor-quality work. There are now several accounts globally of couriers and drivers whose work is coordinated through platforms – non-digital labour that is geographically-bounded – taking coordinated action against their employers (Hook, 2016; Tassinari and Maccarrone, 2017; Moore et al, 2017). In an example of economic restructuring creating new structural capacities for groups of workers, “behind the click” workers (Thompson and Briken, 2017) who carry out the routine tasks involved in warehousing, logistics and transport of e-goods have become the focus of a renewed interest in “choke points”, where transport and logistics workers are strategically located to disrupt the weaknesses created by just-in-time (JIT) production techniques in global distribution networks (Chua, 2014; Burgmann, 2016; Alimahomed and Ness, 2018).

Finally, not all resistance is collective and organized; structural conflict in the labour process and responses to managerial control can be highly individualized and may not necessarily be targeted at challenging or realigning the frontier of control within the labour process. Activities which fall outside of the behaviours and actions proscribed by employers and organizations but which do not constitute resistance have been theorized as “organizational misbehaviour” (Ackroyd and Thompson, 1999; Taska and Barnes, 2012; Ackroyd, 2012). Examining the oppositional activities that constitute misbehaviour in organizations provides insights into how workers position themselves, particularly in response to current management trends around performance management and cultural and normative forms of control (Ackroyd and Thompson, 1999) and these activities form an important part of the informal life or culture of an organization. Mapping how digital transformations of work relate to new worker resistances and examining how and where tensions and conflicts occur can illuminate the ways in which capital organizes work. It also draws attention to the importance of studying the experiences, responses perspectives of workers in order to understand technological change in the workplace. Even where the challenges these changes bring to labour organizing or resistance appears, at least at first, insurmountable, workers look for – and sometimes find ways to negotiate – accommodate or undermine new technologies. An important contribution that labour process studies has made to our understanding of work and the dynamics of workplaces is how they can reveal workers’ resistance to attempts to curb their power or autonomy. Or, where there appears to be no sign of resistance, to ask, as Burawoy (1979) did, why workers work as hard as they do; to search for the mechanisms through which consent is structured within the labour process.

2.7 Digitalization and Labour Process Theory

The primary analytic focus of this study is to identify the social relations of digital technology and how these are playing out in the labour process, in particular, whether they change the nature of work, of management control regimes and worker responses, especially where they realign workers' bargaining power and potential for resistance. While the study examines a determinate form of work — the labour of journalists producing online news — in order to document the changes to the concrete labour involved in that process, analytically, it treats labour as a social form (Braverman, 1974: 362); all forms of wage labour, regardless of the particular content of that labour, have in common the fact that they are also value-producing activity within a capitalist system of production, which is driven by a logic of accumulation. This set of research interests makes the study recognizably part of the labour process tradition, concerned as it is to talk about journalists' work as a labour process and labour as principally a social form, rather than focusing on work principally in its determinate form, or as an individual pursuit or the basis of identity. This chapter explains the key concepts of labour process analysis (LPA), how it has theorized the role of technology in capital labour relations and how these have been applied in this study, which takes a classical Marxist route through LPA.

The labour process tradition developed in response to Harry Braverman's *Labour and Monopoly Capital* (1974), which studied of the way in which technological change and the organization of work had changed the nature of work and the structure of the working class. Braverman intended to bring Marx's theoretical account of the labour process, developed in volume one of *Capital* ([1867]1976), out of the factories of nineteenth century Britain and into the offices of US white-collar workers. Braverman's study provides a useful theoretical foundation for a study of digital transformations of work, given his emphasis on the role of technology, the organization of work and management strategies as dynamics which underlie general changes to work (1974:4).

His analysis starts from the capitalist nature of the labour process, situating developments in the labour process in relation to regimes of accumulation and the circulation of capital in order to develop his broad thesis that new forms of cleaner, safer, more mental forms of labour, which had accompanied the expansion of large bureaucracies and administrative work were subject to the same antagonisms, job dissatisfaction and tendencies towards

general degradation as industrial blue-collar work, which had been long – and, arguably, is still – associated with Marx’s critiques of the general conditions of work under capitalism. In addition to developing a study of the contemporary labour process that would complement Baran and Sweezy’s (1966) Marxist account of the monopoly phase of capitalism, Braverman’s arguments were aimed at refuting claims that new forms of white collar labour were privileged, more humanized and constituted the development of a new middle class (1974:24-39). Instead he argued that management organized work systems and used technology to remove conceptual control over work from workers – the “separation of conception and execution” – and there was a similar tendency in white- as with blue-collar work to use job design and technology to homogenize work so that the worker became an interchangeable part of the labour process (Braverman, 1974:24). Braverman identifies computers as playing the role of mechanizing routine tasks in the office but, further, he argues that automation of design and basic decision through computing was even routinizing and degrading work in the engineering profession which had developed as the ‘conception’ side of automation, for example creating divisions between the work of systems analysis from the more routine work of programming (1974:330).

Hyman (2006) suggests that Braverman may have had an exaggerated understanding of the capacity of technology to discipline workers (2006:41), arguing that subsequent studies have demonstrated that, even in labor processes where work is under technological control, there is a need for management to attain worker cooperation and that worker resistance and capacity to disrupt production can never be entirely eliminated. Subsequent studies that specifically examine the effect of ICTs on work have generally shown their role in the labour process to be ambiguous and highly contingent on other forces shaping employment (Rubery and Grimshaw, 2001).

Many similar concerns and lines of enquiry have reemerged in recent times as digital technology is poised at the centre of emerging forms of work and changes to work. The potential for knowledge work to be automated suggests the possibility of broad occupational shifts, as at the time of Braverman’s study, some commentators have suggested that it could result in less standardized, mundane work and more analytical, value-adding work. This time around, in contrast to the optimistic accounts of office work which Braverman was responding to, the expansion digitalized forms of work following, as they do, a period of financial crisis, the expansion of low-paid service work and wage stagnation in general (Dyer-

Wittheford, 2015:11) mean that theories have been much more likely to identify digital technologies with their potential to create inequalities or to degrade work and as reorganizing or decentering capital-labour relations, around more precarious work, drawing new groups of people into waged work but also creating a more segmented and fractured working class (Dyer-Wittheford, 2015). With the enclosure of the world wide web into a series of powerful networked platforms there has been the reemergence of discussions of technical control; about the pacing or, more often, the directing and engineering of particular activities through the design of technology, for example through the notion of “protocological control” which allows ‘control at a distance through (digital) code, algorithms and protocols’ (Beverungen, Böhm and Land, 2015:476).

2.7.1 Contemporary LPT and Core Theory

While Braverman had an immense impact on Anglophone studies of labour and industrial sociology (Smith, 2016), labour process theory has been developed and refined in response to critiques from inside and outside the labour process tradition. Those studies which were broadly sympathetic to Braverman’s approach have provided correctives to aspects of his characterization of the development of work systems, such as the role of craft skills as an obstacle to capitalist control (Elger, 1979) and challenging his presentation of Taylor’s scientific management as the logical and defining theory and practice of management control over production in capitalism (Littler and Salaman, 1982), and there have been many challenges to the idea of deskilling as a tendency (e.g. Wood, 1982). Of the critiques that were more hostile or sceptical of the usefulness of labour process as an approach to the study of work and organizations, a major criticism was Braverman’s omission of the role of agency, subjectivity and worker resistance in understanding the development of the labour process and workers’ experiences (Knights 1990, 1995; Knights and Willmott, 1989; Thompson 1990; O’Doherty and Willmott, 2009). LPT was further developed to address some of these perceived shortcomings – the production of consent through the labour process and the role of worker agency and consciousness (Burawoy, 1979) and worker resistance (Edwards, 1986). In addition, new areas of study have been elaborated – aspects of labour power such as emotional labour (Bolton, 2010; Brook 2010) and aesthetic labour (Warhurst and Nickson, 2009) as well as the factors that impact upon the dynamics of production relations which accompany the embodiment of labour (Wolkowitz et al, 2013). Labour process theory has developed as a materialist perspective that, while drawing together studies from “Marxist, post-Marxist, neo-Weberian, and other materialist-pluralist

perspectives' (Brook, 2013), tends to cohere around a basic set of 'core' insights and concepts developed by Paul Thompson (1989).

Thompson defined the task of LPT as one of developing 'a credible account of the relationship between capitalist political economy, work systems and the strategies and practices of actors in the employment relationship' (Thompson and O'Doherty, 2009). Drawing on Braverman and early theorizing in labour process studies, he distilled a core set of concepts at a level of abstraction that outlines the general structure of capital-labour relations within the labour process and which could guide and cohere a research agenda for studies of the labour process. His starting point was the classical Marxist distinction between labour power and labour in capitalist production (Marx, [1867]1976 : 274), described by Craig Littler as "the unique character of labour as a commodity—its indeterminacy—and thus 'the conversion of labour power (the potential for work) into labour (actual work effort) under conditions which permit capital accumulation' (1990: 48). Following from this, labour process analysis is the study of how labour power is transformed into useful, productive labour and Thompson (1989: 241-250) built core theory around what he saw as four key elements of this process:

1. The primacy of labour-capital relations for studies of the production process, where the capitalist labour process is also the site of the production of value and of the exploitation of labour. Although despite this, Thompson explicitly rejects the necessity of Marx's labour theory of value to explain exploitation (Thompson, 1989: 242-3); instead he justifies LPT's focus on the point of production in terms of work being central to human activity, which give producers a particular insight or standpoint.
2. The competition between capitals as well as the antagonism between labour and capital drive the constant revolutionizing of the labour process; these competitions are created within capitalism because the objective of production is accumulation. This explains the adoption of new technologies, the organization of work and design of jobs, which result in changes to the conditions of work for the labourer, such as the division of labour and the requirement for skills, acting as constraints which expand or limit worker creativity and discretion over their work.
3. In order to convert labour power into useful and productive labour, management must direct and discipline labour — what Thompson refers to as the "control

imperative” (1989:243). Labour process theory tends to see the role of management as primarily aimed at controlling labour, particularly given the subordination of labour to capital is never complete; the revolutionizing of production requires that control must be continually established or secured. Control has been as a central theme in LPT (Thompson and van den Broek, 2010) and many LPA studies have focused on the issue of managerial strategy and the means of control, or particular workplace regimes. Thompson makes a distinction between workers being under the general directive of the enterprise and the question for management of its immediate control over the indeterminacy of labour. It is this second kind of control which he infers is the realm of management strategy and more subject to negotiation and accommodation.

4. Because of the exploitative nature of the labor process and the management imperative for control, antagonistic relations are structured into the labour process, what Edwards (1990) refers to as a “structural antagonism”, whereby latent and outright conflict is a rational outcome. This can lead to struggles around the use values (skills and knowledge) of workers; working time, pay and rewards of work, the content of work and, in more recent theorizing, the body, which can take the form of inclusion of different body types, genders or races (Smith, 2016).

These dynamics are extended to the conceptualization of the wage-effort bargain which rests on the idea that the capitalist employment contract is necessarily incomplete (Smith and McKinlay, 2007) in order that it can deal with contingencies in the production process; contracts are a continuous or open-ended relationship, where wages and labour time may be agreed in advance, but effort is not (Blyton and Turnbull, 1999:38). Within the labour process, this ‘indeterminacy of labour’ becomes the management issue of converting labour power, or capacity, into productive labour; employees are required to work under the direction of their employer – or management – and what constitutes a fair exchange of wages for effort – the wage-effort bargain – becomes the source of open or latent struggle and negotiation in the asymmetrical power relationship between employer and employees, either individually or collectively.

“Core theory” has been classed as “post-Marxist” (Thompson, 1989; Jaros, 2005), whereas Brook (2013) argues that it would more accurately be deemed *sub-Marxist* – while core theory

distances itself from specific Marxist concepts and formulations, the basic concepts which have been distilled to form core theory can still support a Marxist analysis of the labour process and studies undertaken from “core”²⁰ and classical Marxist traditions can be meaningfully brought into conversation with one another. The next section identifies those departures of core theory from a classical Marxist perspective²¹ on theorizing work which have informed this study and how they change the general analysis of work.

2.7.2 A classical Marxist study of the labour process

One of the key and most explicit departures of “core theory” from classical Marxism was its rejection of Marx’s labour theory of value (LTV), which has the effect of severing the theoretical link between analyses of the labour process and the wider movement of capital, as well as repudiating the primacy of production for understanding capitalist relations generally and the role of labour as a social category within that²². For Marxist theory, the LTV places labour, as the source of new value, at the centre of capital accumulation, with all of the attendant political implications which flow from that. The theory also establishes the basis of exploitation as the appropriation of surplus value and as systematic within the labour process, even where labour exchanges at its market value²³. Marx’s conceptualization of value and the way in which it is determined through socially necessary labour time also provides the key conceptual link between the labor process and wider dynamics of accumulation; where value operates to make use values commensurate for exchange, the magnitude of which is determined by abstract labour as a part of universal social labour (Callinicos, 2014:159-169). In contrast, “core” has insisted on the ‘relative autonomy’ (Edwards, 1986) of the labour process from the relations between capital and labour at a general societal level and consequently narrowed the focus to the “capital-labour relation in production” (Thompson, 1989:248), whereas LTV insists that, through abstract labour and socially

²⁰ Where I discuss core I am generally referring to explicit attempts to outline it (Thompson, 1989; Thompson & Smith, 2001; Thompson & Newsome, 2004); but also occasionally use it to refer to studies in the mainstream of the labour process tradition which do not explicitly mark themselves as operating under a different framework.

²¹ While Marx’s own work does not comprise an unambiguous body of work (Hyman, 2006) and subsequently has been applied an interpreted in divergent ways, this chapter aims to make my own Marxism clear, while insisting on how it diverges from core LPT.

²² Leaving aside the fact that core theory adopts the notion that exploitation is surplus value without a theory of how value might be determined or, specifically, determined to be “surplus” thus leaving a theoretical gap.

²³ As opposed to exploitation having to do with the qualitative nature of particular concrete forms of work.

necessary labour time, wider social relations are already present as internal, or dialectical, relations within the labour process.

Stephen Jaros (2005) explains this difference between Marxist and “core” approaches to studying the labour process as one of differing objects of analysis; where Marxists are interested in understanding work from a system-wide perspective they tend to emphasize commonalities in managerial control strategies and worker responses and how these are driven by macro-level dynamics. Core theorists, focused as they are on the micro-level, are more interested to emphasize difference. Jaros argues this has often led to an emphasis in “core” studies on trying to “taxonomize” managerial control regimes or resistance responses. Thompson, in his defence of “core” has rejected the macro-level approach on the basis that it leads to “totalizing” explanations, implying that studies that engage with general social production cannot appreciate the complexity or “interrelated layering” of social experience (1989:248). This is a charge which may apply to some Marxist accounts of the labour process, but is neither limited to nor, more importantly, a necessary outcome of taking a classical Marxist approach. But Brook (2013) suggests that core theory potentially de-emphasizes the role of the “collective labourer” – Marx’s notion that the individual worker labours within a division of labour as one part of a collective whole under the direction of capital. Martinez Lucio and Stewart explain:

‘work is never an individual process despite worker experiences to the contrary. It is the appearance of individualism, given precedence over the reality of collective participation in the capitalist labour process’ (1997:53)

While both Marxist and core approaches give analytical primacy to labour’s social, rather than its determinate, form, this concept of the “collective worker” informs the ways and extent to which studies of the labour process focus on identifying how the labour process brings workers into proximity but also how individual experiences of exploitation and domination are structured through the labour process and so are collectively shared, with the potential to become the focus of a shared worker subjectivity (Brook, 2013) and of collective resistance (Martinez Lucio and Stewart, 1997). Marginalizing the collective worker in studies of the labour process severs its connection to the working class, which is the intention of radical pluralist approaches with concepts such as ‘relative autonomy’. The Marxist focus on the collective worker emphasizes the primacy of the production process for the positing and reproduction of capitalist-labour relations as well as the persistence of

capitalism as a mode of production (Callinicos, 2014:199-205)²⁴. This Marxist view of the production process takes within its purview, not just the direct and immediate relations of production and the means by which capital, through managers, makes labour-power productive, but examines the form and nature of capital's general control over the creation or restructuring of branches of production and, in developing the productive forces, how it intensifies the productivity of labour and changes the nature of work²⁵; Marx's concept of real subsumption. The question of the extent to which different kinds of labour are subsumed by the social relations of production in a formal or a real sense has a bearing on analysis because the position of different actors within production relations lead to the development of particular interests and determine their objective power and ability to resist.

Contrary to the teleological view often attributed to Marxists whereby, as Jaros argues, 'the "laws of motion" that govern human history lead inevitably to the revolutionary overthrow of capitalism and the establishment of socialism' (2005:12) – what Thompson refers to obliquely as the "gravedigger thesis" and rejects (Thompson, 2009); acknowledging that capital and labour are mutually dependent and that workers generally have a key role to play in the accumulation of capital and the reproduction of capitalist social relations doesn't lead to any necessary conclusions about how that relationship might unfold. But it can lead classical Marxist studies of the labour process to undertake research that pursues answers to questions that will inform workers struggles or address labour's power on a more systemic level. This question is taken up in the next chapter in the discussion of partisan research.

²⁴ This is where value theory might provide a theoretical buffer to more ontological approaches to the nature of value, as raised in theories of 'immaterial labour' and 'free labour', which suggest that accumulation occurs through the appropriation of value from outside the production process, rather than through the systematic exploitation which happens within it. Marx's idea that new value is brought into the system because labour power is a special commodity which can produce more value than is necessary for its reproduction indicated that workers could receive wages equal to the cost of reproducing their labour power (i.e. a fair exchange) and yet a surplus of value would still remain, appropriated by capital; the workings of the 'hidden abode'. For Marx, this argument was intended to demonstrate that exploitation was part of the normal functioning of capital and systematic; not the result of the opportunistic dispossession of labour by capital. In Marx's terms 'Capital is productive of value only as a *relation*, in so far as it is a coercive force on wage-labour, compelling it to perform surplus labour' (Marx, c.f. Callinicos 2014:200). Value theory depicts a social relation which emphasizes the relationality of the capital-labour relationship and the interdependence of capital-labour relations as embedded in exploitation, with the implication not just that exploitation occurs and is concealed beneath the exchange of wages, but that workers are structurally positioned with the capacity to disrupt that process.

²⁵ This is the subject of Marx's ([1867] 1976) Appendix to *Capital* Vol 1, 'Results of the immediate process of production'.

Class is present throughout Marx's work and is a central element of Marxist analysis (Hyman, 2006) and while Marx never outlined a coherent theory of class, his class theory is distinct from many sociological approaches in his insistence that class is relational. As Hyman observes, 'it is the conflicts and alliances between different economic groups which give them a social meaning and identity, bridging the "objective" and "subjective" dimensions of class structure' (2006:33). Bob Carter (1995) argues that labour process theory lacks a framework which can connect the labour process with theorizations of class and, while recognizing exploitation – a class relation – is a driving force of labour process control, key writings within LPT do not explicitly engage in class analysis. Not only does this mean that labour process cannot contribute to class analysis, but, Carter argues, it means that LPT doesn't have a clear conceptual basis upon which to understand control relations within the labour process nor determine where the structural antagonisms that make up a central explanatory dynamic within the labour process fall – it does not provide a basis from which to answer the question of from where does management strategy and the control imperative derive and who is their bearer? Although the class analysis dimension of Braverman's work has been abandoned in labour process analyses, implicit in much theorizing within the tradition is a notion of class as determined by an individual's structural relationship to the means of production (Carter, 1995), a position which reduces class to ownership or non-ownership of the means of production and where managers are seen to undertake the function of capital in the labour process. Such a framework cannot account for the complexity and contradictory relations within the labour process.

Carter (following Carchedi, 1977), argues that management has a dual role; the function of the capitalist to ensure the production of a surplus – the control and surveillance function – which stands outside the labour process, and the function of the coordination of the complex organization of the labour process, which makes up part of the collective labourer. This perspective on class, which draws on both social relations of production and function in the production process, recognizes both the dual nature of management – whose role is both control over and coordination within the labour process – and allows for a more dynamic analysis of the role of middle management and professionals, who hold contradictory class positions as a result of their function in the labour process. This theorization is able to link structural location and function with the conflicting interests they can lead to and inform a more detailed understanding of the barriers that may exist to labour organising and why and how collective interests might be identified and mobilized around

workplace grievances (Kelly, 1989) from differing and potentially conflicting interests of individual actors within the labour process²⁶.

The purpose of this section has been to highlight the concerns of a labour process analysis to examine the concrete forms of labour in their own right but also in relation to labour's social form and the social relations of capitalist production. The emphasis for mainstream studies within the labour process and for "core theory" is the way in which labour power is directed and made productive within the immediate process of production, through control, accommodation and consent and also the way in which competition and the development of the forces of production around the needs of capital will change the conditions of work for labour as well as the particular concrete forms labour takes. Labour process theory is also concerned to examine the ways in which the exploitative and dominating aspect of capital leads to antagonism and worker resistance. I have demonstrated the way in which the classical Marxist approach I have taken adopts these concerns while placing greater emphasis on the presence of wider social relations of capital within the labour process and expanding the collective worker in accordance with this. In the spirit of Braverman's theorization of the labour process, this study does not separate class analysis from studies of the labor process, but extends Braverman through the incorporating theorizations around agency, subjectivity and worker resistance which draw on the range of class positions which emerge from the labour process.

2.8 Chapter Summary

Digital technologies clearly have the potential to transform work; at present much of the research about what these transformations will look like has been predictive or speculative and aimed at analyzing their effect on the macro level of economies or labour markets. This can lead to what appear to be technologically-determinist assumptions about how technology may be applied to work. In journalism, digitalization has principally involved the shift from print to online production and has radically altered the jobs undertaken in news production. Theories in the mainstream, as well as from more critical approaches, identify a

²⁶ This position also runs counter to theorizing within labour process analysis which has rejected the idea that class interests might arise from the objective conditions of the labour process. (Edwards, 1986; Thompson, 1989)

key role for knowledge in their analyses of digital labour, but differ markedly in their analysis of how that will impact upon the future of work.

This study contributes to the debates around the digitalization of work through an empirical study of journalists in the UK national press to examine who is producing content and under what circumstances. While the study is situated within the labour process tradition, I use analytic tools developed within the Marxist tradition (Carter, 1995; Martinez Lucio and Stewart, 1997; Brook, 2013) rather than a mainstream ‘Labour Process Theory’ (Thompson and Smith) with its ‘radical pluralist’ approach (Edwards). I extend this debate within labour process theory to bring it into conversation with concepts developed around “digital labour”, in particular to look at what the concepts of “free labour”, “audience commodity” and “data labour” might add to an understanding of digital technologies at work.

Finally, while this investigation is concerned to identify the ways that capital shapes labour in the labour process – physically; cognitively and ideologically – through the use of technology and other managerial techniques of control and coordination, it is also interested in finding the ruptures and the discontinuity; what and where are the moments in which labour struggles against technology and against capitalist relations of domination in its own interest? In doing so, this study contributes a workplace level study of digitalization that takes into consideration the experiences and perspectives of those journalists who have been involved in processes of digital transformation.

3 – Methodology

Nicole Cohen (2016:32-37) argues that the study of cultural or creative work, in which she includes journalism, has tended to focus on its peculiarities, which has the effect of downplaying both the similarities between “creative” and other forms of work, as well as obscuring the tendency for all work to be divorced from its creative, or conceptual aspects, as a result of managerial attempts to assert control within the labour process (Braverman, 1974; Smith and McKinlay, 2009). Similarly, studies of new technology and work have tended to focus on novelty, rather than examine how new technologies may be a continuation of, or contribute to, existing dynamics and tendencies within the labour process (Moore et al., 2017). In contrast, this research documents and describes the process of digitalization through a case study of one newspaper newsroom, which extended out to compare these findings with the experience of journalists in other newsrooms and examine news workers’ collective responses to digitalization through the journalists’ union, the National Union of Journalists (NUJ). It examined how new technologies in newsrooms are implicated in the dynamics that structure the labour process — accumulation, managerial control, exploitation and the antagonism between capital and labour — identifying continuity as well as change and explain why features of the labour process change or why they endure, even in the face of significant technological change.

The research pays specific attention to the role news workers, as agents within the production of news, play in bringing about the particular form taken by digitalization. The research is informed by a critical realist philosophy. It draws upon Margaret Archer’s morphogenetic approach to the relationship between social structure and individual agency, where structures have emergent powers independent of the individuals who constitute those structures, and on the method developed by Karl Marx in his study of political economy. Both will be discussed in this chapter with reference to the critical realist ontology that, in the case of Archers’ work, forms the basis of her approach and, in the case of Marx, can helpfully underpin some of the less articulated aspects of his method. This chapter provides an explanation of those commitments and a justification for how they align with the qualitative case study approach and methods undertaken for the study and concludes with some reflections on the overall process.

3.1 Critical realism: the study of dynamics, tendencies and mechanisms

Critical realism has been increasingly applied and elaborated in studies of work and organization (Fleetwood and Ackroyd, 2004; Reed, 2005; Edwards et al, 2014). It informs this piece of research as a philosophy of science which separates out what is under study from the conceptualizations of those things and sets out how theory can be developed from empirical observation. Critical realism is a complex and, by no means, homogenous philosophical movement and its use in this study contrasts with some of its other applications within the study of organizations, which view it as a mode of social inquiry or principally as an approach for ordering hierarchies of effects (e.g. Ackroyd, 2000). This section will outline those concepts which have usefully informed this research — in particular stratified ontology, emergence and abstraction — and discuss these in relation to debates within labour process studies.

The objects of study in this research are the dynamics and effects of technological change (summarized as digitalization) in the labour process. Unlike with positivist or empiricist accounts of social science, it is not the relationships between observed events or experience which are under investigation, instead, the purpose of research is to identify and explain the mechanisms that give rise to events and entities:

Such mechanisms combine to generate the flux of phenomena that constitute the actual states and happenings in the world. They may be said to be real, though it is rarely that they are actually manifest and rarer still that they are empirically identified by men [sic]. They are the intransitive objects of scientific theory. (Bhaskar 2008:47)

This implies an ontological realm that is distinct from our representations of it — a precondition that Roy Bhaskar argues is necessary to maintain a sense of scientific progress and change (2008), where scientific theories are ways of representing real causative entities that operate regardless of whether scientific enquiry has identified or articulated them (Sayer, 2004). Similarly, for Marx, ‘all science would be superfluous if the outward appearance and the essence of things directly coincided’ (Marx, [1894] 1981:956). For critical realists, for a thing to be real it must have causal efficacy; it must have the potential to act on the world. So, along with material objects, social and ideal entities can be equally real (Fleetwood, 2005).

The following discussion will draw out the implications of this ontological approach for studies of the labour process, and for this study, by way of an engagement with Paul

Thompson and Steve Vincent's (2010) attempt to link critical realism with labour process analysis.

3.1.1 Critical realism and labour process theory

In their discussion of critical realism, Thompson and Vincent (2010) rely principally on its “layered ontology” to explain the relationship between the labour process and different strata which may act on it, in particular the political economy and the politics of production. They also site the four principles of “core theory”²⁷ as identifying tendencies, which they equate with “event regularities” (2010:55) in the labour process. In outlining these tendencies, they establish what they see as ‘a materialist framework for considering the dynamics and development of workplace social relations’ (2010:64-5), which, they argue, is useful to defend LPT against contingent and counter-contingent claims (2010:47). In making this argument, they dismiss the deskilling thesis — Braverman’s argument that there is a tendency in the capitalist labour process towards the deskilling of labour — arguing that deskilling is contingent (2010:47).

Without entering into the deskilling debate here, this dismissal raises two important issues that are addressed within critical realism: firstly, how are we to understand tendencies; and secondly, when we theorize tendencies or mechanisms, how do we determine which are necessary features of an entity and which are contingent? I argue that, in making their claim, Thompson and Vincent pay insufficient attention to the depth ontology of critical realism, in which, as Bhaskar’s quote above contends, mechanisms can exist as *potentia* or may manifest in a way that is not empirically observable. In relation to the second issue, I outline the role of empirical studies and abstraction in critical realist studies to differentiate between the necessary and contingent features of phenomena, then argue with Andrew Collier (2002), that Marx’s notion of contradiction offers a stronger, more historically-rooted explanation of the dynamic of change than that found in Bhaskar’s critical realism. Critical realism, as a “depth” ontology, is discussed below as separate from the concept of stratification, which is rooted in the idea of emergence. The importance of this distinction is that leads to a notion of tendency that need not be demonstrated by statistical trends, which is the basis for Thompson and Vincent’s (2010) rejection of the deskilling thesis.

²⁷ Outlined in the previous chapter.

For critical realists, the ontological realm is stratified and complex. Dave Elder-Vass (2008) has noted that the idea of stratification, or “layered ontology”, is used in two ways by critical realists: 1) as the division of ontology into domains — the real, the actual and the empirical; and 2) as the division of the world into emergent explanatory levels (stratification). Thompson and Vincent focus on the later, neglecting the former and, as a result, provide what appears a more empiricist understanding of tendencies. In the former version of stratification, reality is divided into three domains of the empirical, actual and real; and our access to them in terms of knowing or identifying the entities within them differs (Bhaskar, 2008). For critical realists, tendencies are not event regularities that trend over time; they are powers that may be possessed, exercised or actualized (Brown et al., 2002) where the absence of an empirically observed event or experience does not falsify or negate the existence of a tendency. For example, this multi-layered notion of reality could explain deskilling as a tendency that is the actualization of relations of domination within the labour process and linked to the abstraction of concrete labour into abstract labour, the drive to extract surplus value, and competition between capitals, but a tendency which may be mediated or countenanced by, for example, labour market dynamics or through the activity of workers to resist it. Contingency can help us to understand why mechanisms manifest in the particular way they do or why they don’t manifest at all, but deviation from a general trend does not necessarily imply contingency — the absence of a tendency can also be explained by counter-tendencies and contradiction. Our empirical studies of the labour process are an analysis of the determinate forms the labour process takes and the importance of this conceptualization of tendencies is that we examine those mechanisms which act in any given situation, but should also consider the mechanisms which may be counteracted or may act in ways that do not manifest.

In contrast, the notion of emergent explanatory levels is a very different concept which deals with the way in which some phenomena are emergent from the parts which make them and are not reducible to those parts (Sayer, 2004). The implication of this is that emergent phenomena need to be studied in their own right. Emergence can explain how the political economy has dynamics of its own which affect the labour process, are separate from what happens in any individual workplace even though the dynamics of the political economy emerge partly out of the collective movement of the productive process. For example, fragmentation of the labor process through outsourcing, or the creation of GVCs, which

segment a production process into several processes and between multiple capitals, will create dynamics at the level of political economy. But this effect cannot be understood simply by recourse to the individual firms that have outsourced or the processes that have been segmented. In contrast, Thompson and Vincent (2010) use the concept of emergence to argue that the capitalist political economy is made up of separate strata — workplaces; value chains; regimes of accumulation — which intersect with the labour process (2010:63), rather than each of these strata having aspects which are embedded in, but not reducible to, the labour process. Despite Thompson and Vincent's presenting emergent strata as intersecting elements, there are aspects of emergence, as it is understood in critical realism, which are built into core theory — for example, the acknowledgement that the logic of accumulation creates competition between capitalists and between capital and labour which compels and constrains activity in the labour process. Although, in core theory, Marx's explanation of the mechanism which drives this compulsion — value — has been removed.

Finally, identifying generative mechanisms in social events is complicated where human agency, reason and intentions play an important role in the actualization of tendencies. Archer (1998) views structure and agency as mutually constitutive while seeking to avoid, on the one hand, methodological individualism — where structures arise from the unintended actions of individuals and so are secondary to an analytical focus on the actions and behaviours of actors — and, on the other hand, avoiding the conflation of structure and agency, as she argues does Giddens in his structuration theory, and which results in dealing with neither in a substantive sense (Archer, 1998). Archer emphasizes emergence and relationality in her understanding of structures, as well as highlighting the temporal dimension to their endurance or change. According to Archer, structures exist through interrelations, but they are not reducible to the actions of individuals who reproduce or transform them and they tend to pre-exist the current agents, who can 'maintain and transform [structures], rather than creating them, but whose strategic actions are conditioned by their inherited structural and cultural context in so doing. Moreover qua agents they are shaped and reshaped in their sequential attempts to remould the structures they confront but did not create' (Archer, 1998: 201). Research must be able to analytically separate structure and agency in order to identify and analyze the ways in which each shapes and is shaped by the other.

3.1.2 Abstraction, retroduction, explanation

Because generative mechanisms are the object of discovery but do not always reside in the realm of the empirical, moving from observations to causal explanations requires abstraction. In the complex open systems social scientists study, it is usually not possible to isolate and experiment upon the causal mechanisms that our social theories outline (Bhaskar, 2008: 246), as in deductive approaches. This places a greater burden on our theories to provide plausible explanations for complex social phenomena; it requires isolating causal mechanisms through a process of theoretical abstraction or, in critical realism, “causal analysis”. Marx described this process as a movement from the abstract, most universal categories to the concrete ([1857]1973:100). This movement from the abstract to the concrete is not a movement from the theoretical to the empirical, rather the concrete is a synthesis of the many abstract determinations that make up the whole. Marx’s movement between determinations has its parallels in critical realist analysis with the double movement made up of abduction and retroduction (O’Mahoney and Vincent, 2014:17), which involves both describing observable events and experiences then postulating a possible causal mechanism – usually by posing the question ‘what would the world have to be like for this mechanism to act in this way and not another’ and usually together with a close reading of existing theory – then gathering further evidence that supports the existence of this mechanism and which rules out any alternative possible explanations (Outhwaite, 1987).

Thompson and Vincent refer to LPT as a theoretical tool or resource (2010:55), but it would be more accurate to see it as an abstraction — the holding of one section, or one moment, in the circulation of capital, of which it is a part — separate, in order to identify all of the determinations that constitute it. As Andrew Sayer argues, when we theorize ‘we are typically involved in making such distinctions between objects’ necessary features and the various forms which they can contingently take’ (2004:10). Theory sets out a conceptualization of necessary relationships; internal relationships where one category could not exist without the other — for example, the relationship between a slave and a master or an asymmetric relationship such as that between the division of labour and mass production, where the former could exist without the later, but not vice versa. This is opposed to external relationships, which are contingent. Contingencies may form an important consideration in our explanations, but they do not necessarily alter theoretical claims (Sayer, 1981). So, if some theorists argue that the labour process is becoming more fragmented or that the production of value is moving to outside the labour process, it is an empirical question as to

whether the labour process — an abstract entity — is like our definitions. Central to any assessment will be an examination of the empirical conditions of work, but studies will also draw upon theoretical questions about what are the necessary features of the labour process as a category, and as part of a broader determination within the organization of capitalist production, and which features are contingent. Empirical observations may require a rethinking of the conceptual system or the ordering of abstract determinations within the theoretical framework — in this example, the creation of value in accordance with the labour theory of value.

Often there may be alternative explanations for the same social phenomenon and philosophers of critical realism have theorized this in a number of ways – that events or effects can be determined in multiple ways and that most events are conjunctures or two or more mechanisms (Bhaskar, 2008:119; O’Mahoney and Vincent, 2014:10); or to view alternative explanations not as competing theories but, rather, as examining different aspects of what are always complex, multi-sided processes in the social world (Sayer, 2004).

3.1.3 Contradictions

Diane Elson explains how Marx used the concept of contradictions to explain continuity and change, where the form an entity takes is determinant yet transient. Rather than search outside the form to explain it, Marx’s method is to probe beneath its immediate appearance; ‘going inside the form is achieved by treating it as the temporary precipitate of opposed potentia...But these opposed potentia are not discretely distinct building blocks; rather they are different aspects of the continuum of forms in process, they share a continuity as well as a difference. It is in this sense that Marx treats determinant forms as embodiments of contradiction’ (1979, 142). Marx’s notion of dialectical contradiction is historically specific to capitalism — where he used a realist understanding of contradiction as structural, or internal, to the system and as having the potential to undermine the system — for example class antagonism, crisis or environmental destruction. This kind of contradiction is noted in LPT, albeit in a limited way, with the adoption of Paul K. Edwards’ concept of “structural antagonism” (1990). Collier (2002) argues that this is the fundamental insight of Marx’s theory; to see that these dysfunctions were not just dysfunctions from the point of view of the critic, but they arise from the system itself. It is through the antagonisms between contradictory parts of the whole that we can examine the tensions that either hold the structure – in this case capitalist relations – in stasis or impel it towards transformation.

3.2 Research design and strategy

Henry Wai-chung Yeung has referred to critical realism as a “‘realistic’ philosophy in search of a method’ (1987:55). Because the objects of critical realist study are forces, tendencies or mechanisms that must be theorized through analysis of observable data, this requires research designs that can capture rich, contextualized data. While there are some designs that are more predominant in critical realist research, the focus on identifying and understanding mechanisms tends towards those that are flexible and can be eclectic and may engage a number of research techniques (Ackroyd and Karlsson, 2014). Most critical realist studies are iterative and require designs that allow for changes in the direction of research in order to pursue evidence about the way a mechanism operates and rule out alternative explanations.

Secondly, because of the importance of actions and intentionality in the manifestation of social events and phenomena, most critical realist research engages with the beliefs, understandings and reasons of agents in a detailed way. Generally, critical realist research makes use of qualitative methods in order to examine the contingent and the contextual, which is not to say that quantitative methods cannot inform critical realist research questions but rather, where quantitative studies can gather information about frequencies and co-incidences of events and phenomena, qualitative methods are better placed to answer questions about “how” and “why”. The ethnographic approach used in this research is consistent with critical realist concerns in as much as it takes up a concern with the way in which agents are involved in reproducing or transforming (Archer, 1995) the structures which pre-exist them.

3.2.1 Case study design

The labour process in one workplace, referred to as *Digital Newspaper*, was chosen to gather as much detailed data as possible about how the news-making process operated. A case study was designed that might examine the specific ways digital technologies have been designed, adopted or put to use in the labour process and how these are conditioned by external factors — including the changing organization and composition of the news sector — or internal factors, such as business models, organizational forms and particular management regimes or objectives specific to the organization under study. These were studied principally through an ethnography; where the focus of ethnography is to study ‘from the standpoint of

participant observation’ (Burawoy, 1998a:6) which combined interviews with participant and non-participant observations, to examine how different actors within the news-making process — editors, managers, reporters — have engaged (or otherwise) with digital technologies and with what rationale. The aim of the research was to develop this data into a description of the features of a process of digitalization in one workplace — ‘to understand a phenomenon in depth and comprehensively’ (Easton, 2010:119) and to use this to theorize about the process of digitalization generally.

The case was an instance of digitalization — viewed as a broad social process — as it applies to work in a specific sector — news production — which has been restructured by this process, and the study aimed to theorize digitalization from observations of how it has manifested in *Digital Newspaper*. The ethnographic approach to the research was informed by Michael Burawoy’s (1998a) extended case method (ECM), which provided a guide to systematically linking “situated knowledges”²⁸ (1998a:21) with what Burawoy describes as social processes and structuration – and which critical realism refers to as emergent strata (see Archer, 1995). ECM also provided principles of reflexivity, which informed my orientation to the politics of research, the effects of power and the relationship of researcher to participants and the field. To date there has been little dialogue between Burawoy’s ECM and critical realism. Stephen Ackroyd and Jan Ch Karlsson (2014), in their discussion of research design, refer to several of Burawoy’s studies, suggesting critical realist principles are implicit in his approach, whereas Burawoy has developed his ECM and the dual science that underpins it almost exclusively outside discussions of critical realism²⁹. This section will briefly outline where, from a critical realist perspective, arise some of the problems with Burawoy’s model of science and how critical realism can elaborate Burawoy’s method, as well as the way in which the reflexive aspects of ECM can inform critical realist research practice.

²⁸ The idea of ‘situated knowledges’ as used by Burawoy derives from Haraway (1991) and Harding (1998) who used it to discuss the way that gendered (or other) subjectivities can affect a person’s experience and knowledge of the world. I use it in a slightly different way, closer to Lukacs’ standpoint theory, to mean that, because workers occupy a position within the labour process and within divisions of labour, as a result their knowledge of the world is necessarily partial and the role workers play in the maintenance of social structures is not always apparent.

²⁹ There is one reference to Bhaskar in a footnote to Burawoy’s essay on ECM; a reference to the role of intervention and experiment in science in a discussion of the relationship between scientist/subject and object in research and which does more to obfuscate than clarify Burawoy’s position in relation to critical realism.

Like critical realists, Burawoy (1998a) develops an explanatory science whose object of study are social forces, but unlike critical realists, such as Bhaskar (2008), he develops this through an epistemological position derived from post-positivist research and which he credits to Karl Popper. Burawoy (1998a) develops a dual model of science as a way of drawing together ethnography, which he equates with the situated and partial knowledge gained through participant observation, with empiricist, objectivist science, where the researcher is detached from the object of study, their subjectivity removed. Whereas Burawoy views the problem of how to reconcile or respond to these different approaches as one of epistemology and method, which he defines in terms of process, critical realism establishes the ontological basis for science, viewing scientific pursuit as an inherently social process, where empirical questions are necessarily rooted in moral or political programmes (Bhaskar and Collier, 1998). Explanatory critique in critical realism, as a study of society and the ideas that, in part, produce and reproduce society, cannot make a separation between fact and value; critique is involved in revealing the contradictions in ideas about society and the intended or unintended ideology and falsehoods that perpetuate it, where the critique of ideas about society become a critique of society (Edgley, 1998; Bhaskar, 1998; Collier, 1998). In contrast, Burawoy separates objectivist and reflexive science.

Ethnographic studies tend to have weaker notions of structure than realist research (Porter, 1993) and structures and social forces are often treated as something “out there”; something external to and acting upon events and situations. Burawoy’s ECM is an attempt to link specific, local contexts to the wider social structures that influence them – for example to see how racism or labour markets affect the labour process (see Burawoy, 1998a: 21-22). Two of Burawoy’s extensions – process, where different multiple and situated participant knowledges are aggregated to understand localized “social processes”; and structuration, which connects these social processes to “social forces”, and which Burawoy refers to as “extra-local”, are concerned with identifying these linkages between what Burawoy terms the “micro” and the “macro”. But for critical realists, this creates a false separation where the “micro” exists at the level of interpersonal interaction, the local and the everyday and the “macro” are forces or structures that are outside and act upon the micro. Archer explicitly rejects this where she argues ‘[w]hat justifies the differentiation of strata and thus use of the terms 'micro' and 'macro' to characterize their relationship is the existence of emergent properties pertaining to the latter but not to the former, even if they were

elaborated from it. But this has nothing to do with size, site or sentiment' (1995:9). This notion of social structures or forces that can act on the world and on localized situations, while being constituted but not reducible to the actions or beliefs of individuals, suggests that empirical research must be able to identify, describe and theorize these structures as entities in their own right. Immo Tavory and Stefan Timmerman argue that in ECM '[t]he narrative closure that eludes the empirical world is provided by theories ordering social life and providing it with direction and (as is often the case) moral valence.' (2009:257); they view ECM as a theoretical imposition onto empirical situations – a charge that Burawoy, with his modes of science that operate at the level of epistemology and method, would find hard to refute. In contrast, Archer's more developed social ontology that sees these structures as real things, rather than theoretical constructs, obviates the need to take them into account in our descriptions of the world as well as our theoretical explanations. This is precisely the issue taken up by Thompson and Vincent (2010) in their discussion of critical realism and the labour process.

While ECM has theoretical and ontological weaknesses which can be addressed by applying critical realism, the reflexive aspects of ECM, such as its systematic consideration of the role of the researcher and the power effects in the field (Burawoy, 2013) can helpfully inform critical realist research practice. Later sections in this chapter incorporate a discussion of how these power effects – domination; silencing; objectification; normalization – identified by Burawoy (1998a) were considered and served as a departure point for analysis.

3.2.2 Case selection: Purposive selection of workplace

Selecting a case study in critical realist research is less about finding a representative case that can stand as typical and from which generalizations might be made, than about designing a case that can provide scope to explore a phenomenon, event or theory in detail. The process of digitalization was occurring in all national newspapers; all were producing content for the internet, although with different business models — some with paywalls, some catering for niche audiences, some that had adopted a “digital first”³⁰ strategy — all had experienced a loss of advertising revenue; all had been through processes of restructure over the past five

³⁰ Where the news-making process was organised so that new stories would appear online before being published in the print edition.

years, and two outlets, the *Daily Mail* and *Guardian*, were focused on extending their audiences internationally. Any or all of these outlets could have served as a case to study digitalization. I decided not to study the news outlet where I had worked in-house as a journalist to avoid problems with this from a research perspective; being overly familiar with the workplace and work practices, so as to miss important details, and from an ethical perspective; where my friendships and ongoing professional relationships with staff might have had a coercive effect on people's decision to participate or disclose information. Instead, my search for a case was opportunistic — I made approaches to all my editorial contacts from outside my former workplace, interviewed all who agreed to be interviewed, and then developed the case around the workplace where I gleaned the most snowballed interviews.

There were 29 interviews undertaken, with 27 included in the study, 16 of whom were media workers — content editors; reporters; editors; subeditors; managing editors, and a technical manager — involved in producing content for the website at a London-based national newspaper. Interviews lasted between 60 and 150 minutes. Data from interviews were complemented with field notes taken from my visits to the newsroom during the interviews and, in particular, while shadowing five interviewees prior to their being interviewed; a total of 25 hours. As digitalization had become an issue that journalists were organizing around collectively through the NUJ, I sought participation in union chapel (branch) meetings and NUJ-organized training and organizing events. Field notes and some documentation were collected from these. This was further supplemented with interviews with five journalists from other national newspapers, two from regional papers, interviews with three national organizers from the journalists' union, the NUJ, and one with a representative on the NUJ's Newspaper and Agency Industrial Council (NAIC), which supervises negotiations between members and employers and advises the union's national executive committee (NEC) on sectoral issues.

Interviews were conducted over a twelve-month period April 2015 and April 2016 and I had ongoing contact with five participants who kept me informed of developments, such as redundancies and reorganizations, subsequent to their interviews. Most participants were followed up after being interviewed, mostly via email, to seek clarifications or to request documentary data and two participants contacted me, independent of each other, to request that their interviews be withdrawn from the study.

3.3 Data collection

The types of data that were sought and collected changed over the course of the study for two main reasons; firstly, as it became clear I could not secure access to a newsroom to undertake long stints of participant observation as originally planned, interviews with news producers became the primary source of data; and secondly, as my knowledge of the process of digitalization increased and my theories and understandings about the mechanisms at play were advanced. This was assisted by the use of a research journal where I documented my changing attentions and emerging concepts and theories.

3.3.1 Interviews

The interviewees selected were all involved in the process of producing news and other content at the news organization under investigation and were considered to have experience of digitalization and workplace reorganization and so could potentially describe and reflect upon the nature and dynamics of both (Ackroyd and Karlsson, 2014:24). The use of interviews in social research is predicated on the recognition that events and social processes, as well as the creation and re-production of social structures are the result of human activity and interviews are particularly useful for revealing the attitudes, beliefs and explanations behind social actors' own roles in the events and processes of which they are part.

As a reflection of social reality, the structural positions that people occupy, combined with their knowledge of the processes of which they are a part, will necessarily render their accounts partial. This was reconciled in this research by gathering and comparing multiple viewpoints as well as critically assessing accounts to look for patterns and inconsistencies. Burawoy describes this process as reconstruction, where the individual account is integrated into a social situation to reveal the structures of power that reproduce social relations (2009:46-49). For this research, it included interviewing people from across the sections of the organization and at different hierarchical levels to allow for consideration of how practices, experiences and views are informed by the differing perspectives and priorities that attach to positions within the division of labour and organizational hierarchy.

3.3.2 Sample

Initial selection was through a combination of “snowball sampling” (Emmel, 2013:130-4) that utilized my professional journalist network and key informants – predominantly Mothers and Fathers of the NUJ chapels – then via referral from each interview, and “opportunistic sampling” (Emmel, 2013:42); one interviewee was met on the platform at Birmingham New Street station after striking up a chance conversation and another contacted me for a quote about another research project, both offered good opportunities to test developing findings with journalists outside the networks I had drawn from pre-existing contacts. Further key informants (Bryman and Bell, 2015:455-6) were sought for interview on a targeted basis, where it was considered they could offer insights or perspectives not gained through fieldwork observations and interviews, for example, technical staff working in the organization but not directly on the editorial desks and union organizers who had experience supporting the collective organizing of journalists at the case study site and other newspapers.

All interviews, except two with national officials, were recorded and transcribed. Notes were taken during the interviews as well as immediately after and documented questions that arose as a result of the interview, initial analysis and theories, as well as observations and impressions from within the workplace and from interactions between the interviewees and myself or others.

Interview Schedule

The interview schedule was designed to encourage journalists to describe and reflect upon their day-to-day experience of work and was structured around six main themes:

- work practices and job design;
- control and autonomy/managerial regimes;
- work intensity and time;
- metrics and measurement;
- meaning of work (including professionalism and skills); and
- agency and strategy.

Each theme had some prompting questions, which were not always needed or adhered to. The interviews were an iterative process; early interviews became the basis for reorganizing the emphasis of subsequent interviews as pertinent phenomena were identified and analytical

categories were developed. For example, metrics, or audience data analytics, were a phenomenon that emerged from early discussions with journalists but did not figure in the literature. The schedule was also adapted according to the type of respondent; freelancers were asked slightly different sets of questions than permanent staff; discussions with managing editors differed from those of reporters or with technical staff.

Conducting the interviews

Discussions of critical realist interviews in both the works of Ray Pawson (1996) and Chris Smith and Tony Elger (2014) emphasize that they are theory-driven and that this is a feature of critical realist interviews. Pawson goes so far as to argue that theory is the object under study in the critical realist interview, whereas Smith and Elger suggest that placing theory as the object of inquiry overlooks the loose nature of the conceptual frameworks or the lack of clarity with which many researchers approach interviews. Participants reflected on aspects of their work or the events they recalled, often in a way that was assisted and organized through the categories or the framing of the questions according to the theories and research agenda I was pursuing. For example, these are quotes from two of the case study interviews:

There's definitely a lot of being impressed by big traffic or judging things as a success by the traffic they get. *I'm only talking about that because that's what you're asking*, but it's not the only thing that people would say is a success. I mean people talk about "Oh this has had a strong response on Twitter" or "Facebook" or made some sort of impact.

— Interview, 15/07/2016 [my emphasis]

I suppose you're thinking of the fact that [user-generated content] felt quite threatening to journalists, I think, in the beginning.

— Eddy*, managing editor, 15/10/2015

Both these quotes highlight the way in which interviews are a peculiar kind of "communicative interaction" (Smith and Elger, 2012:7) where accounts are drawn from the interviewee in a way that is driven by the theoretical enquiries of the researcher. Cilla Ross and Sian Moore (2016) describe the interview as a "democratic conversation", where

* All participants in study have been given pseudonyms.

respondents may ‘reflect upon or even recast events in the light of the dialogue or the frames of reference introduced’ (2014:5). The second quote especially reflects a point made by Pawson (1996) that a meta-conversation is had within an interview, where the questions asked by the interviewer either implicitly or, ideally, in critical realist research, explicitly outline the theories she is positing and where the role of the respondent is to confirm, refine or negate the theory; what Pawson refers to as the “I’ll-show-you-my-theory-if-you’ll-show-me-yours” (1997:307) strategy. The interviewee is seen as having a particular expertise with regards to knowledge of the mechanisms under examination, particularly in terms of how motivations or reasons lead to outcomes (Pawson, 1996). Through this approach, the interview ‘involves the mutual construction of meanings and the possibility of the joint construction of knowledge about experiences, events and activities’ (Smith and Elger, 2011: 6). For example, as this research was aimed at discovering the details and dynamics of digitalization, I discussed with interviewees their theories of digitalization; what they understood it to entail, its drivers and effects. Rather than superimpose a theoretical narrative on the data retrospectively, which Smith and Elger (2014) identify as a limitation of ethnographic and case-study research, theories were developed concurrently with the interview process and were addressed directly as questions and conversations within the interviews.

In his discussion of oral history, Alessandro Portelli argues that interviews ‘tell us not just what people did, but what they wanted to do, what they believed they were doing, what they now think they did’ (1981:100) This is similarly the case with interviews about current events and processes, although official narratives, and counter-narratives, may not have settled with the benefit of retrospect in the way Portelli describes the collective processes of symbolization and myth-making that create memories of events. The interviews I conducted were useful for piecing together factual details of events and the workings of the labour process but were also key for identifying how those processes are understood, theorized and justified from the perspective of the people who are not just affected by them but, to an extent, and not within circumstances of their own choosing, contribute to bringing them into effect. In labour process studies, where theorizing explains and interprets phenomena and events in terms of the dynamics of labour and capital, interviews help to view workers less as abstract entities but to see the ideas, narratives and ideologies that animate a process like digitalization. In this situation where workers appear to accept the degradation or

intensification of their work, interviews helped to understand how that process takes place, how workers resist and why and, when they don't, why not.

3.3.3 Access

Email, 11 May 2016:

Hi Xanthe,

Sorry for the slow reply to this, the reason is that [the paper] is doing a consultation at the moment on job cuts after announcing it needed to make savings this financial year so most are not keen to chat to someone external about work at the mo! Sorry about that.

Hope the rest of the research goes well,

Best wishes,
H.

Every ethnography – or, in this case, attempted ethnography – is partly a story about gaining access; about the difficulties of building trust, demonstrating the worthiness of the research and the competence of the researcher to carry it out; about convincing gatekeepers that the research will do no harm to the organization or individuals in it, or at least that the researcher won't get in the way. As Chris Paterson and Anna Zoellner note, resistance to being studied is likely to be strong in commercial media organizations in which 'the *raison d'être* – the profit motivation – is bound up in the control structures governing production which a researcher would typically seek to reveal.' (2010:106). Patricia Adler and Peter Adler also talk about the changing context of research, where financial constraints, work intensification, a culture of surveillance and fear of litigation can influence both the ease of access as well as the kind of research that can be undertaken if access is granted (2003).

The short version of my access story is that I didn't gain access. The longer version would weave through a series of approaches and negotiations where I built on relations I already had in the national press; discussing my research with editors I knew, only to be gently let down by their managers; emailing managing editors requesting to meet only to receive a stock standard reply from a PA; or making an agreement with one managing editor that I could join the news desk as an observer and then emailing, repeatedly, to request the confirmation that never arrived. After six months of this I was painfully familiar with the

‘prolonged and surreptitious power struggle between the intrusive outsider and the resisting insider’ (Burawoy, 1998a: 22). Burawoy describes the moments of entry into research as “seismic interventions” (1998a:17), where access is likely to be resisted by the group – or organization – under study. He argues that examining these resistances can reveal much about the values and interests of the group as well as its power to refuse or curtail entry. As part of the ethnographic approach I took to the research, I took a cue from Barbara Pini, who suggests extending data to ‘the negotiations to conduct the interviews, the silences in an interview and the interactions we have with interview participants outside an interview’ (2009: 95).

I had been corresponding with a senior technical editor at *Digital Paper* who had agreed to meet and subsequently cancelled twice. I was eventually contacted by the PA to the senior editors:

Thank you for your understanding (current events are playing havoc with all my Editor's diaries!).

[Senior Editor] really does want to meet with you, perhaps you could contact me again in January next year, and we can try again.

(Email correspondence, 10/11/2015)

Aside from the frustration of having my meeting pushed back two months, this chimed with my own experience working as an editorial assistant, where my job was as much about managing access to myself and other journalists – from PRs, freelance writers and, to a lesser extent, readers – as it was about preparing articles and pages. It also reminded me of the way in which the appearance or excuse of busy-ness was conveniently mobilized as a bulwark against the constant demands on journalists’ attention and time.

Adler and Adler (2003) make a useful distinction between “access”, which is gaining agreement to participate, observe or interview, and “resistance” where, once access is granted, participants may withhold certain information from the interviewer. With access, it is generally acknowledged that organizations, with their carefully-crafted public visibility, are reluctant to be researched and, like senior managers and elites, are more able to create barriers to access, just as in ethnographic studies generally, those with less power and less resources to make themselves inaccessible are more likely to be studied and more likely to see advantages to consent (Nader, 1972; Adler and Adler, 2003). All of the interviewees who

I knew personally or met through personal contacts were editors or held senior positions (confounding Paterson and Zoellner's (2010) contention that professional media production experience is a prerequisite for gaining access to news organizations), but of those participants who were solicited from outside my personal and professional networks, and who were most likely or willing to put themselves forward, most were new to journalism – had entered in the last four years – and were on casual contracts. It was useful for me to reflect about why this might have been the case. I had cultivated trust with journalists outside the workplace at NUJ events, demonstrating I had an interest in working to preserve journalists' conditions and tell their story, this combined with the fact that many of the interviewees felt they were not adequately represented by the union, so I may have become an alternative conduit for their legitimate grievances about their work and working conditions.

Resistance took on a complicating dimension when interviewing journalists who, by the nature of their craft and skills, are very adept at managing information. Not unlike Susan A. Ostrander's elites, they are 'used to being in charge, and having others defer to them' (c.f. Hammersley and Atkinson, 1995:141-2). In response to this, I utilized my background as a journalist to justify and equalize my role in the conversations, but equally, I was able to put my own journalistic skills to work during the interviews, using tactics like rephrasing something a recipient had said to gain clarification or nuance; making slightly exaggerated suggestions that would encourage the respondent to correct me, or asking naive questions that removed the possibility that the respondent could make assumptions about any shared knowledge or values. My background as a journalist most clearly came into play where interviewees would [enquire] about whether I had faced similar situations or conditions at work and there would be moments of conspiring or mutual commiseration. Building this kind of rapport — particularly with the initial interviews, which I had hoped would open the way to access — was useful for getting interviewees to speak openly, especially about conflict, resistance and subversion at work, but it could also act as a barrier to me pursuing some discussions more doggedly or questioning comments or claims that didn't seem to add up.

Validation of data and triangulation

This section outlines how the data was tested and validated. Principally this was carried out through triangulation; through comparing different accounts from the interviews with each

other and against other sources, outlined below. But divergences in accounts of events or the process more broadly were not always treated as untruths and instead were considered sociological phenomena in need of explanation.

The analysis of data in the first instance involved contrasting the views of different research participants and following up inconsistencies both within participants' own accounts, which usually took place during the interviews or through follow-up emails; and between different participants' accounts, which were analyzed by comparing the interview transcripts. This was assisted by the use of standard methodological procedures such as asking interviewees questions that, if not exactly the same in every case, built upon the same themes; focusing on particular key events, to gather a fuller picture from a number of perspectives; reviewing the interview recordings and then cross-referencing different accounts or comparing them to records kept in documents such as work contracts, newspaper or union reports and organization policy.

Comparing stories was less useful in terms of arriving at a true account, than it was at illuminating where there were different interests reflected in the accounts. As Portelli notes of oral sources:

The credibility of oral sources is a different credibility ... the importance of oral testimony may often lie not in its adherence to facts but rather in its divergence from them, where imagination, symbolism, desire break in. Therefore there are no 'false' oral sources. Once we have checked their factual credibility with all the established criteria of historical philological criticism that apply to every document, the diversity of oral history consists in the fact that 'untrue' statements are still psychologically 'true', and that these previous 'errors' sometimes reveal more than factually accurate accounts. (1981:100)

Where Portelli, an historian, cites established criteria of historical philological criticism, similar steps are available to social science; the investigation of facts through the categorization and study of documents but an important source for sociological research, which is unavailable to historians, is the use of observation. While the main source of data for this research was derived from interviews, additional methods which were used to contrast and complement interview data are outlined below.

3.3.4 Shadowing

Gaining formal access to the case study newsroom proved to be fraught with delays and obstacles which, eventually, became insurmountable. As a conciliation, I shadowed five of the journalists on the days I interviewed them – a form of non-participant observation that found me perched with my laptop at the edge of desks or hot-desking while I observed journalists at work, and tried to stay on the right side of the fine line between not getting in the way and finding out what was going on as journalists sat at their computers staring into their screens for seeming hours on end. Shadowing required less formal approval from gatekeepers and allowed me to pick up on aspects of journalists' everyday work that might seem mundane or normalized to journalists such that they wouldn't mention them in interviews and allowed me to take note of factors in the production of news that I hadn't considered, particularly the individual nature of the work for all of the workers I shadowed and that it was quiet and screen-based, occasionally interrupted by phone calls, and with very little face-to-face contact.

3.3.5 Observation and field notes

During the twelve months in which I was interviewing participants at *Digital Paper* I also attended NUJ chapel meetings as well as events on digitalization hosted by the NUJ for its members working in newspapers. These meetings gave me insight into how journalists defined their industrial issues; how these intersected with digitalization or whether they were defined as such by journalists, as well as what journalists felt were the parameters within which they could collectively shape the process through the union.

These meetings became important places for me to gain background knowledge about what was happening inside *Digital Newspaper* and other newspapers that were digitalizing. I kept field notes which tended to be accounts of the main issues discussed and arguments made in the meetings and, occasionally verbatim remarks, that were taken in a combination of short- and long-hand in a reporter's notebook, which meant I was able to simultaneously take notes and blend in with the journalists around me. Notes were transferred into a research diary at the end of each day, which also included the questions, theories and ideas that emerged as my observations and studies progressed. The research diary was not as systematic as I hoped, but it was useful for documenting my evolving understanding of the research and the possible theories. For example, I kept a record of the synopses of my research that I used when introducing myself to prospective interviewees. In the analysis

stage I used these to see how my conception of digitalization had changed from discussing what was happening in the workplace with participants as well as direct attempts to engage respondents in discussions about what digitalization meant to them.

3.3.6 Documentary data

Organizational documents were used to build a description of *Digital Paper* and its employment relationships. These included annual reports and financial statements, 'house agreements' between the employer and the NUJ, individual employment contracts as well as email circulars, guidelines and reports. Some of these, such as annual reports and financial statements, were in the public domain, others were passed onto me by interviewees. Records of NUJ campaigns and minutes from meetings and delegate meetings³¹ were retrieved from the NUJ archives, as were editions of *The Journalist*, the NUJ's bimonthly members' magazine, which carries details of union campaigns, reports on industrial issues and commentary from union representatives and activists.

These documents, all of them official, were useful for building a picture, if partial, of *Digital Paper* and some of the history of the industrial relations within it. But they had to be assessed in terms of their status, their purpose and their meaning to different audiences. For example, house agreements were understood to be the result of detailed negotiations, or even disputes, between management and the union and so it was helpful to discuss the details of these documents with interviewees to find out which aspects had been most contentious; what claims had been made in the course of coming to an agreement and how these were reflected in the final document. With documents such as company guidelines, while they revealed something about the guiding principles or assumptions and management desires behind, for example, the use of social media by employees, it was useful to discuss with interviewees how they were implemented or the extent to which journalists actually abided by them.

Newspaper reports, including stories in the *Press Gazette*, a news outlet dedicated to reporting on journalism in Britain, and in the national press were particularly useful to gather facts and figures on the financial situation, job losses, disputes and major restructures in the news outlet under study.

³¹ The NUJ's delegated members' conference held every 18 months to determine union policy.

3.3.7 Data from other studies

As I wasn't able to spend as much time observing journalists at work as I would have liked, I relied on comparing my interview findings with similar studies, such as Nikki Usher's (2014) study of digitalization in *Making News at The New York Times* and Dominic Boyer's (2013) *The Life Informatic: Newsmaking in the Digital Era*. Both were conducted with different theoretical lenses to my research but were able to cast light on my findings and draw my attention to aspects of the labour process that were more accessible through observation and participation than through interview. What these comparisons also drew my attention to were the limitations of observation as a way to understand journalists' work. Dominic Boyer, in a beautiful ethnographic study of journalists (2013) was able to examine how they spent their time; how they prioritized information and tasks, but he also notes the limits to ethnographic studies of what he terms "screen workers" — where much of the work is screen-focused and workers sit silently, conducting their work on their screens and communicated mostly through email. Similarly, Jonathan Ilan noted that the silent and isolated work that most journalists do while sitting in front of their computers means it is not possible to understand 'without asking questions, and one soon discovers that there is a very thin line between a healthy curiosity and an irritating presence' (2015:159). In all these ethnographic studies, interviews were pivotal to understanding, not only what journalists thought they were up to, but what they were up to.

3.4 Data analysis

We are simultaneously free and constrained and we also have some awareness of it. The former derives from the nature of social reality; the latter from human nature's reflexivity. Together they generate an authentic (if imperfect) reflection upon the human condition in society... the adequacy of social theorizing fundamentally turns on its ability to recognize and reconcile these two aspects of lived social reality. (Archer, 1995:2)

My analysis was already taking place in the interviews as I sought to identify key aspects of digitalization and discuss and define theories with the interviewees. My role as researcher

was to stage manage interviews in order to organize the respondents' answers into data that was useful for my study. Once the interviews were complete, I listened to the recordings several times, to immerse myself in them; to re-live the interviews, but from the slightly removed perspective of simply listening and not having to formulate questions or concentrate on picking up cues and themes to pursue, I was able to hear those things I had missed in the real-time of the interviews — gaps, hesitations, inferences. I paid attention to the way journalists constructed the narrative about digitalization and how it is affecting journalism, asking: what do they emphasize, what are their frames of reference, is it possible to identify where those ideas come from and what kind of assumptions and expectations they presuppose? Listening to the interview recordings, some of the most fruitful places for analysis were where misunderstandings arose between myself and the interviewee or where interviewees gave me what I felt were incongruent responses to questions; what Burawoy describes as “respondent effects” (1998:12). These gave me greater insight into what my own assumptions were or where my understandings of processes or events departed from those of the people I interviewed.

Interview transcripts were then thematically coded using NVivo and themes I had largely developed and refined through the course of the interviews and other data collection. As Archer suggests in the quote above, when interpreting and analyzing interviews data can be subverted by the meanings that people attach to that experience; the best available explanation that links lived experience and events with causal mechanisms will require looking beyond merely what has been observed. Similarly, Bhaskar highlights this tension in quite ominous terms: ‘by ignoring the possible constraining nature of social structures, commentaries are in danger of giving consent, through silence, to their oppressive effects’ (2008:596). While care was taken in the writing up of the research to preserve the voices of the interviewees and reflect their experiences, the data was also subject to causal analysis. This involved breaking down the process of digitalization into its components – in this case, abstracting the data by organizing it into thematic codes – followed by theoretical redescription where ‘the theories of the various kinds of mechanism at work in the generation of the event can be brought to bear on the event’s explanation’ (Bhaskar, 2008:115).

In critical realist research, knowledge is understood to be partial and fallible – it always builds upon, and is one part of, a wider body of knowledge that should be subject to the scrutiny

of a community of scholars, and to critical reflection on the processes by which that knowledge is gained (Porter, 1981; Burawoy, 1998b). Validation was sought from those marginalized, exploited and oppressed groups that the research addressed — similar to notions of authenticity in constructivist research where researched is judged by the extent to which it fairly represents the viewpoints of those researched, provides participants with a better understanding of their situation or empowers them (Bryman and Bell, 2015). An important test of the theories that come out of this kind of pro-worker partisan research is whether it they have uptake and are useful in the course of worker struggles within their workplace or in the broader social struggles they enter into (see Castoriadis in Haider and Mohandesi, 2013:33). To this end, the research was designed as far as possible to be in conversation with journalists who were organizing around digitalization. I started by attending a summit on digitalization in newspapers organized by the NUJ with union representatives, officials and activists. Throughout the course of the research, I was invited to speak at NUJ branch meetings, which were a useful source of feedback; journalists could confirm whether my data and analysis reflected their experience and were given the chance to highlight omissions and disagreements. I made several approaches to the NUJ – to its research and policy department, to organizers and elected representatives on the Newspaper and Agencies Industrial Council – to gauge the union’s interest in the topic and seek opportunities for collaboration or co-research (Malo, 2004). My efforts here were limited though; while I gained access to the union’s archive material and was able to interview organizers and reps as part of my research, that was the extent of collaboration. I put this down to under-resourcing in the union’s research department – digitalization just wasn’t a priority area (a useful point for me to note) and maybe it seemed a topic removed from the immediate struggles that different groups of journalists were having in their workplaces at the time – mostly struggles against redundancies and negotiations over pay.

3.5 Reflections

For Marilys Guillemin and Lynn Gillam, reflexivity in research is ‘a process of critical reflection both on the kind of knowledge produced from research and how that knowledge is generated’ (2004:274) based on the idea, highlighted in feminist discussions of research methods, that our social locations and political positions affect our research (Harding, 1986). I have previously discussed how my prior work as a journalist and contacts within newspapers and the NUJ helped me to gain access to news organizations and interviewees.

It also provided justification to some interviewees as to why I was interested in pursuing these research questions, rather than as a purely academic exercise. But it is also worth considering how much the data I was able to collect reflected who I was – both how I shaped the data through the kinds of questions I asked, but how as a woman trade unionist and socialist who had formerly worked as a journalist and was undertaking doctoral studies, I might have tapped into particular sympathies or created antagonisms with those I interviewed. Would I have received the same slightly bemused response to some of my questions from male managing directors if I too had been male? It is certainly the case that in my interviews with reporters and younger journalists, they would often make parallels between their own experience and what they imagined was mine as either a journalist, an academic, or both. During interviews, I spoke openly about my frustrations with work and about the industrial campaigns I had been involved in and to some interviewees this was an invitation to be more open to relating similar experiences, whereas others were at pains to differentiate theirs.

There were also clear “field effects” (Burawoy, 1998a:12), which drew attention to the way in which the research was bound up with the social, political and economic context of the news organization at the time of study. Digitalization represented for many journalists the difference between older journalists and roles, and younger journalists entering the field with different sets of skills and different expectations. In a number of interviews, I sensed that longer-standing journalists were wary about critiquing new technology and its use or dismissing it out of hand and that this was bound up with reflections on their own relevance and the potential for their roles – and them – to be made redundant – the fate of many in the years preceding this study.

Power effects

With any research, there is the potential for the researcher to affect existing power relations within the organization or field or study, both during the course of research as well as after she has left, and through publication of materials drawing on the data. While researchers should avoid harming participants in the course of their research, it is neither realistic, nor necessarily desirable, to expect that the researcher’s presence in the field will not, in itself, change the field — from disrupting or realigning power arrangements to raising questions that cause participants to formulate or change their views on particular things that are raised as a result of the research. I was surprised at the large proportion of journalists I interviewed

who spoke articulately about digitalization and then advised me – usually at the end of the interview – that they had not thought about the effect of digitalization on their work until discussing it with me. ECM encourages the researcher to systematize these effects in analysis of the contexts we study. So, for Burawoy, the act of researching is an intervention into the lives of those people being researched – through studying the way in which research or the researcher affects power relations, we come to better understand the way power operates in the situation under study (2008a).

Burawoy also identifies that for each of the four extensions of ECM there are limitations which create power effects (2000: 27-8) and which the researcher needs to be aware of and reflect upon. Firstly, the extension of the observer into the world of the participant can create relations of domination (2009:56). In this research, where I was studying sideways (Hannerz, 1998), or occasionally studying up (Nader, 1972), my enquiries were always in danger of being subverted by the logic and power relations of the organization; senior managers were difficult to access; they were much more able to hide behind PAs or, when they did agree to be interviewed, were well-versed in the official or public relations narrative of the organization. I got the sense that even the NUJ Father of the Chapel had an agenda, needing to present the union, and his role in it, as exerting influence on the organization and its/his bargaining strategies and negotiations as successful. The interpretations of power within the organization they gave were different again from the accounts of journalists who were un-unionized and not covered by union-negotiated agreements. This resonated for me with Tara Schweleger's (2013) discussion of her interviews with Mexican government officials, in which she felt she became a mechanism through which they could voice their competing accounts. Schweleger used Bahktin's (1981) theory of dialogue to think about how her interviews were opportunities for participants to recast the past in order to shape narratives and realign power in the present; 'to assert the primacy of one's interpretation of the past is to simultaneously project and image of future power relations and thereby to explicitly transform them' (Schweleger, 2013:230). While, it is unlikely that the interviewees felt my research would have any real purchase on power struggles in the organization, these interpretations were rehearsed for my benefit. This highlighted for me the need to consider how each interviewee might be using the interview as a way of positioning themselves and to consider the implicit intentions behind those answers. Further, I had my own academic agenda, which I discuss below.

Secondly, with extensions of observations over time and space (Burawoy, 1998), there is a danger of silencing. I had to think about how to include the experiences of those workers whose interests and viewpoints were not represented equally within the organization, and which threatened to be overwhelmed by the official narrative of the organization and, to a lesser extent, its union. Burawoy argues that to avoid silencing, researchers must search for repressed or new voices (2009:58-9). Given that my research was purposely focused on workers who were physically based in the news organization's main offices, there was a danger that the role and experience of the growing number of contingent workers who are part of the production of news would be sidelined or silenced.

Despite the earlier critique of Burawoy's (1998) third notion of structuration, where he extends out from micro-processes to macro forces, I take his point that the reduction required by analysis and the abstraction of multiple views and experiences into a coherent explanation of the role of forces and structures always runs the risk of objectification, or 'hypostatizing social forces as external and natural' (Burawoy, 1998:23). This objectification is not just a theoretical one, but a result of real relations of domination. Objectification was partly addressed in the research by using people's own words to describe ideas and processes where possible. But also, it is addressed through the emphasis in labour process theory on studying workers' agency, as well as the emphasis in critical realism and, in particular Archer's theory of morphogenesis, on both the role that agency plays within structural forces as well as in the moments and possibilities of rupture.

Fourthly, with the extension of theory – the movement from identifying forces to reconstructing theory – comes the danger of normalization (Burawoy, 1998: 24-5), where certain forces are taken for granted or reified. Theories about the process of digitalization may seem inevitable, rather than a set of contexts within which decisions are made and actions taken; or parts of the context held static and normalized, rather than being attributed to a shifting set of political, economic and historical circumstances into which various actors respond. These theoretical oversights are always a danger and, while careful analysis and a preparedness on the part of the researcher to challenge the theories she ascribes to can minimize this, it reinforces that data and analysis must be shared with, and theories developed in conversation with, the communities studied, as well as academic and other audiences for their consideration critique and interpretation. 'We need first the courage of

our convictions, then the courage to challenge our convictions, and finally, the imagination to sustain our courage with theoretical constructions' (Burawoy, 2009:53).

Ethics

The research required a careful negotiation of my personal and professional relationships. A key ethical consideration was to minimize any potential harm to participants, particularly those on precarious work contracts. In workplace-based research, hierarchies and the conflict that characterizes industrial relations can create mistrust or wariness of participants towards researchers (Fantasia, 1988:247-8), but also publishing details of workplace resistance, or even everyday practices, can leave workers – and especially precarious workers – vulnerable to recriminations from management. Even outside of industrial relations, organizations take great care to erect barriers that protect inside information (Garsten and Nyqvist, 2013). This proved to be a risk, not only perceived by myself, but shared by participants – some months after I had completed the research, the news organization announced a large round of redundancies among its editorial staff and, in response, two participants contacted me, independent of each other, to request that their interviews be withdrawn from the study. Both were employed on casual contracts and worried about how publication of their views might affect their chance of surviving job cuts. Without placing pressure on the participants, I encouraged them to reconsider; I made assurances their data would not identify them and explained to them how I would do this; I gave them the opportunity to redact their interview transcripts. In both cases the pressure and fear around redundancies proved too great and the transcripts were withdrawn.

I was also determined to respect the autonomy of those people who chose to take part in my research, through honestly explaining the purposes of research, how it would be undertaken and then how the data would be used, in order to gain informed consent. But it also went beyond this; my commitment to working closely with journalists who were organizing, to seek co-research opportunities and to take the side of workers was an ethical commitment about sharing my time, resources and skills to build knowledge that might be of service to their resistance and organizing. While this was a potential indirect benefit of the research to participants, what I could not have anticipated was that the chance to talk about their work was a direct benefit for many participants; they claimed to have enjoyed the interviews and the chance to speak about their work. After being interviewed, one participant said it had been 'fun', another described it as 'like therapy'.

Finally, my ethical undertakings created limitations to the research. To gain access, I had to make assurances that the organization would remain anonymous – to avoid any reputational damage – and that any commercially sensitive details would be kept confidential. I would have liked to include discussion and analysis of a major organizational feature of *Digital Paper*, which reflected changes brought about with digitalization, but it has not been discussed in this work as the feature is specific to the organization and so writing about it would make the organization identifiable. It has been referred to obliquely, but this no doubt affects the kind of analysis that was possible and my decision to not write about it is less to protect the organization than to protect the identities of journalists who contributed so much to my understanding of their situation and with whom I would seek to give solidarity in other ways.

3.6 Partisan scholarship, public sociology

Social science is a collective pursuit. This is implicit in critical realists' acknowledgement that our theories are fallible and that our starting point for research is usually everything that is already known about a subject; we are always extending, refining or refuting the knowledge of others. Further, the most robust forms of reflexivity arise through developing theories and knowledge within communities of research. Here, a research community is made up, not just of academics in a disciplinary field, who have the social function of being intellectuals (Gramsci, 1971), but draws upon the knowledge, theorizing and reflections of those people who are participants in the context under study and, in particular, its organic intellectuals – those thinkers who are linked to the class as members of that class and through their role as political mediators and class organizers (Gramsci in Thomas, 2010:416-21); a stance that recognizes all people have the capacity to intellectualize their experiences (Gramsci, 1971:9). This commitment to a research community comprised of research participants is part of an epistemological approach that seeks the detailed, if partial, knowledge of workers gained through their structural positions in organizations and the labour process but it is also, and for different reasons, a political and ethical commitment.

The degree to which researchers integrate into the communities or groups they study, and the stance they take towards the subjects of research, continue to be debated among social scientists. On the side of “taking sides” (Becker, 1967), there have been arguments made for committed, public or partisan scholarship: connecting sociological research with different

publics (Burawoy, 2008); of conducting research that takes sides with the dominated or oppressed (Darlington and Dobson, 2013), or using research as a tool for organizing workers, as with the workers' inquiry (Haider and Mohandesi, 2013). These positions sit comfortably with labour process studies, which take a critical approach to the study of work and the employment relationship. In part, partisanship is about what kind of knowledge we produce and for whom (Burawoy, 2005) and is implicit in the kinds of questions researchers ask, the approaches we take and the research participants we chose. For example, this research pursues "worker problems", around work intensification, the degradation of work and possibilities for worker resistance, as opposed to "management problems" (Darlington and Dobson, 2013:288-9), such as the spread of unionization, labour productivity or – a current preoccupation – barriers to dismissal. In terms of my approach, I share with Stewart and Martinez Lucio (2011) and Brook and Darlington (2013) the desire to find new ways to engage workers as participants in research and, in particular, that of Brook and Darlington, to democratize those relationships.

Official reports and narratives about digitalization have focused on technological progress and possibilities or have reflected concern about the fate of media businesses while neglecting an examination of the effects on workers, other than from a managerial perspective. Through gathering and analyzing worker narratives and focusing on collective resistance to digitalization, this research has several aims, the most basic of which is to give workers, as the subordinate in an unequal relationship, a voice. Beyond that, it looks at individual experiences, ideas and responses to digitalization to determine the extent to which those experiences are collectively shared. This is a task in labour studies that has taken on renewed importance with the decline of collective organizing, as well as characterizations of work in both mainstream academic and leftist accounts, as fragmented, isolated and individualized. In this instance, research can be useful to determine the extent to which fragmentation has actually occurred, but it can also play a role in supporting workers' struggles; where identifying what are perceived to be individual circumstances or grievances and revealing them to be collective problems plays a part in constituting the collective worker as a political category in the midst of individualizing fragmentation. Tonkin (1992) suggests that, for a sympathetic interviewer, the interview may form the early moments of worker organizing, to raise consciousness and make the respondent aware of their agency. In addition, this research is conducted from a standpoint of documenting where and how workers have power and where they have used this to their collective advantage; it seeks to

identify the weaknesses in systems of domination and the potential for workplace resistance or organizing – knowledge that could inform and aid workers in their defence against the degradation of their work as a result of digital technologies or in their challenge to dominant power structures.

While partisan research sympathizes with the interests of workers, prioritizes their experiences in order to give them a voice and provides an analysis that seeks to inform worker struggles and promote worker interests, this doesn't necessarily equate to research that is limited to a study or sociology "from below". While workers are best placed – structurally within the system – to understand how the labour process works and how it differs from management narratives and mystifications, subjective accounts are necessary to understand social structures, but they are not sufficient and to base research purely on these would lead to superficial analysis, especially where subjects may not be fully aware of the structures that constrain and enable them. Rather, this research places the analysis of digitalization and the resulting work and employment relations within the totality of capitalist relations, seeking to understand the situation of workers through combining sociology from below with "capitalist science"; dominant understandings of the system in order to unveil the limitations of fatalistic and naturalistic interpretations of digitalization and so avoid normalization or reification.

Partisanship can have implications for who we talk to; it can assist with access to some participants – in this case my involvement in the NUJ gave me access to networks of activists and several interviewees – but it may also restrict access to others; managers may be wary of granting access or sharing knowledge with researchers who are openly partisan on the side of workers (Fantasia 1988; Darlington and Dobson, 2013). And siding with the oppressed and marginalized does not necessarily mean that research does not risk silencing or marginalizing the experiences and needs of the excluded (Burawoy, 1998a). Stewart and Martinez argue that academics studying new management practices³², who aligned their research aims with the conciliatory or accommodating stance of the trade union officials, effectively normalized these practices and marginalized those workers who had developed

³² By new management practices Stewart and Martinez refer to the new management agenda which started in the 1980s and which resulted in workplace changes including lean production, teamwork, performance measurement, and evaluation of individual performance.

political and ideological opposition to them (2013). They argue that to avoid marginalizing unofficial voices, researchers should seek to make use of materials produced by worker activists and draw on the knowledge of communities and networks of activists. This enables critical research to ‘capture the richness of workplace and worker debate and experiences’ (Stewart and Martinez, 2013:338). This research made use of official NUJ and personal archives that documented worker discussions and campaigns related to digitalization and I sought the opinions of activists and interviewees on my interpretation and analysis of data. Because this study was conducted in the context of precarity and the outsourcing of journalists’ work to freelances, there was a danger of silencing the voices of those who, because of this trend, have been excluded through job losses or precarious work. Precarization was examined through its effect on workers who were based onsite and who, some of whom had permanent employment and workers with causal contracts whose work is located in the newsroom. I am aware that the voices of freelance journalists solely working off-site – despite the increasing role they play in news production – are not reflected here³³.

Studying labour in a period when labour movements are at their historically weakest has implications for research, as well as for the possibility of partisan sociology. In the current context, which has witnessed restructuring in many industries that have left unions weakened and underrepresented, where there have been sustained attacks on organized labour as well as generalized wage stagnation and work intensification, working alongside groups of workers to produce research or to co-research, is challenging; workers are pressed for time or insecure conditions make them wary of taking part in research; unions are under-resourced and underfunded and often focused less on industrial campaigns than on managing grievances and redundancies. All these factors make the democratization of research difficult; while I sought co-research opportunities with the NUJ and with individual activists, these were not forthcoming. In the end, I had to rely on taking my cues from union meetings I attended and from journalists I spoke with, hoping I understood and faithfully represented their ideas, experiences and concerns. I maintained a commitment to seek marginalized voices and to put my theories to the test with those people whose experiences they drew from but, in the final analysis, the work is my own.

³³ Cohen’s (2016) excellent study of freelance journalists and their efforts to organise in Canada may give us some indication of the situation for freelance journalists in England and the UK.

Finally, Burawoy (1998b) reminds us that studies carried out in research institutions are always bounded by scholarly concerns; part of a private project of the researcher driven by tension between, on the one side, the researcher's own interests and commitments and, on the other, the requirements of academia – in this case of the doctoral thesis – and, as a result, there is a degree to which researchers are always on their own side. This research is a modest contribution to a small, but hopefully gathering, wave of research in recent years (e.g. Woodcock, 2017) that seeks to, once again, enter the hidden abode of production and look for signs of worker organizing and the potential for dissent and resistance, or at least an understanding of what prevents it.

4 – The labour of journalism

‘it only takes two men and a dog to produce a newspaper now’

— Alan, subeditor, Interview, 11/02/2016

It’s a 7:30am start and there is no time for chat. Stephanie begins by looking through all the newspapers – the broadsheets and the tabloids. Every journalist on the desk has to come up with five stories by 8.15am. The first 45 minutes are spent searching for stories – she searches in other newspapers but also on social media like Reddit, Twitter, Facebook and Snapchat. ‘It is actually quite a tricky thing to do’, Stephanie tells me later, ‘because the nature of [this publication] is that they cover everything, and they’ve been covering it all night. By the time you get in in the morning, you’re kind of scrabbling around a bit for ideas’. Once the five ideas are compiled, they are emailed to the editor. An email comes back with a line of feedback on each suggested story:

‘Yes.’

‘No.’

‘I think we’ve done it already. Check!’

And then the work of compiling the stories begins. Stephanie works closely with the other desks – other sections of the news desk, entertainment, health – mostly via email, to make sure there is no overlap. She sums it up:

It’s just a writing machine, pretty much. I think the biggest thing for me at the moment, with the online stuff, is that it’s just changed so much. When I first became a journalist, I’d literally write an article and not sleep at night if I’d made a typo. It’s that kind of thing. Whereas now, I don’t need to worry about typos. I just need to get it out in forty-five minutes. That’s pretty much the deadline I have. And with that, you need to think so much more about the video, pictures, you know... You’re building something that is so much more than the words. In fact, the words are often the least important thing about it. I mean, the first three parts are, we’re always told, the thing that people read. And then after that, it’s a picture-led experience. So, if you have a story that requires video, you would pretty much basically be thinking, ‘right, I need to get the video for that. I need to get the picture for that.’ All that sort of thing. And that’s the kind of process that goes on five times in the day, because that’s the expected amount of stories you’re meant to write. Five or six, maybe. And it’s pretty much fast-paced. I guess that I’ll nip to the loo in the morning and then I don’t come up for air until about one thirty. Then I’ll go and blink into the sunshine...for about half an hour. And then I leave at four thirty in the afternoon. So up to four thirty is my standard shift. And I’ll probably do one to two more stories in

the afternoon. So, that's a typical day, but it is a world away from ten years ago, when I first started journalism and I'd have two hours for lunch. That old school Fleet Street experience, I guess.

This small view into news production at a paper other than *Digital Paper* captures much of the fast pace associated with digital journalism, the shift of focus towards multi-media and away from accuracy, spelling and grammar, and the social media scouring, which has become an indispensable part of newsgathering (Paulussen and Harder, 2014).

When my fieldwork commenced in 2015, *Digital Paper* was in the early stages of implementing its digital-first strategy; while development on the newspaper's online site had started in 1995 and a unified site was launched in 1999, in 2015, for the first time in the website's history, news and features were being written for publication first to the web and many exclusively for online publication. Until that point, the requirements and timelines of the print edition had primacy for organizing the production of news and features – news and stories would be prepared for a print deadline and appear first in the paper edition, then uploaded to the website subsequently. Digital convergence, which happened in 2007-8 at *Digital Paper*, had involved a fundamental restructuring of the organization; previously separate print journalists and those working online – who were not at that point classified as journalists – were brought together into the same building and into integrated production teams. 'Digital-first' involved a part-reversal of convergence; a group of print subeditors and production journalists were taken off the fast-paced production for the web and their remit was to extract stories from the website, cut them to fit the space requirements of the paper and give them a new headline. So, what those two men and a dog at the opening of the chapter were doing was not producing a newspaper from scratch, but repurposing web material for print – a 180° turn from the shovelware of the very early online news days, when stories written for print were uploaded to the website with little consideration for the particulars of the medium. The digital-first strategy both consolidated and extended changes to the conditions of news production which had been brought about by digital convergence. Principal changes to journalists' work which had accompanied digitalization included greater exposure to a 24-hour news cycle, journalists were working with new content management software and were increasingly using social media and other apps for newsgathering and distribution. Digital publishing also allowed journalists to modify articles after they had been launched.

This chapter is divided into two parts. The first focuses on the content of work – the labour of journalism and news production – examining how each of the above-listed factors affected the conditions of producing news for journalists, including skills, job design and the organization of the labour process. It is intended to provide a broad overview as to how the labour of journalists has changed as more digital technologies are incorporated into their work and considers whether there are pressures towards routinization or changes to the pace of work and work intensity, job autonomy, and quality. I take as my starting point the idea that journalistic labour, as knowledge work and creative work, is subject to the same pressures towards routinization as other, more industrial forms of work associated with commodity production for mass consumption. While journalism is rooted in craft production. Chris Smith and Alan McKinlay describe the way in which craft-like or creative work are standardized to an extent:

Creative labour in the sense of work that is non-standard, non-repeatable, innovative or newly imagined is rare. Improvised jazz might be an exception, where conception and execution are united and sound is created spontaneously and instantaneously. While each product of the creative labour process is a one-off, the degree of variation and individuality of the product can be inhibited but it is fitting with a style, structure, genre or particular musical or artistic school, which has the effect of *institutionalising the unique*. Most labour, even that of an artist has a routine or familiar component...creative labour is craft like, it requires working within a tradition or established form, which acts as an externalized and institutionalized set of normative rules that the individual is required to learn and follow. (2009:32-3)

Newsroom ethnographers of the 1970s demonstrated the way in which organizational, bureaucratic and professional institutions were developed around news production in order to standardize the work and make it more predictable (Cottle, 2007). Gaye Tuchman (1973), for example, demonstrated how the use of scheduling and the division of labour into specialist areas to deal with different kinds of news and the use of decision-making hierarchies removed some of the variability from the work of making news; it was not industrialized but institutionalized. Smith and McKinlay outline other ways in which the process of creative labour can be standardized through means other than deskilling and industrialization, including through training or working within a genre (2009:32). An example of this in journalism would include the use of writing conventions such as the inverted pyramid; a formula used to structure news stories so that key information leads in the first

sentences of an article, followed by important details and with general background information at the end, which journalists learn as part of their professional training or through newsroom socialization. Practices like these provide a standard structure for the way reporters write and facilitates the editing process, where words will be cut from the bottom upwards (see also Salcetti, 1995). Journalists' labour is made up of these routinized aspects as well as creative elements, which are more indeterminate in either product or process (Causer and Jones, 1996) and where management efforts to direct and contain their work requires strategies that allow journalists the scope to deal with the unpredictability of news events outside the newsroom.

Stephanie's story, which opened this chapter, demonstrated something of the activities and pace of news reporting in digital journalism but it is also punctuated with evidence of a particular management approach – the quota of stories that must be selected by an 8.15 deadline; the 45 minute timeline for writing a story; the emphasis on picture-led stories, which has expanded reporters' role to include tasks of sourcing images and video. In this chapter I argue that the imperative for a fast turnaround for news is an industry-wide effect of digitalization and this has been accompanied by a loosening of quality standards in reporting, but the way managements have facilitated this and its effects on journalists has varied depending on organizational context and managerial strategies and is embedded within the institutions of print journalism. In relation to the content of work at *Digital Paper*, I make three key points; firstly, that digital journalists have enlarged roles and greater autonomy over their work but, second, this is partly facilitated by the perceived lower quality of the product and moderated by the third point, that digital journalists have inherited a lower status in the news organization as a result.

The second part of this chapter turns on the question of user-generated content (UGC) and the reliance of digital journalism on the product of free labour. I use Örnebring's (2008) typology, which looks at the scope which users are given to freely produce as well as the degree of centralization of production to think about the way in which UGC is structured into or around organizational practices and needs, as well as the extent to which it is enabled, directed or limited by the kinds of technology in use. I argue that UGC fulfils an ideal of user participation, or is used as a route to niche advertising, rather than being used as a source of free content, where there are significant costs involved in the soliciting and processing of user content. At *Digital Paper*, journalists' practices have not been altered by the incorporation

of UGC and the majority of content which is not produced by in-house journalists is produced by paid freelance journalists.

4.1 Constant connectivity as a 24-hour news cycle

One of the biggest impacts the constant connectivity of digitalization has had on most journalists is that there is no longer any building up to a daily deadline in contrast to previously, when the print deadline had provided the foundation for how journalists' work routines were structured. In print production, the first edition of the newspaper was at 8:30 in the evening and, while each desk would have specific deadline so that they were staggered towards the first edition final deadline in order to pace the workflow for subeditors, the first evening edition was a common focus for everybody on the news desks, followed by discrete deadlines for the second and third editions at 10pm and 1am.

In contrast, digitalization brought with it a pressure in the newsroom for journalists to get as much news online as quickly as possible, what one reporter who had worked at *Digital Paper* during convergence described as an 'insane pressure to just keep pumping words out' (Interview: Sarah, reporter, 09/22/2015). Now, on most of the desks there is the potential to respond to what a production editor described as 'a constant wall of material coming at you...and you're pushing it on and pushing it on and pushing it on'; rather than the working day being structured around the print deadline, where activity builds pace throughout the day and hits a peak immediately before that deadline, constant connectivity has given rise to the feeling of constant work:

It's just the churn on a story; it just keeps going and going and you probably think, "Well, I'll need to be in again at 7 o'clock tomorrow morning to update that because—" It's not like, "Phew. Now we've got another 24 hours until we have to do another version of the same thing in the next day's papers".
— Eddy, managing editor, 15/10/2015

This sense of churn has led to the widespread idea that there is a constant 24-hour news cycle (Usher, 2014). Journalists seem to be working under what Nikki Usher (2014), in her ethnographic study of news-making at *The New York Times*, refers to as, "conditions of immediacy" where the rhythms of print and online journalism are based around different and competing notions of immediacy. News for the web is expected to be collated and

reported as soon as possible, with online newspapers operating more like wire services³⁴, whereas print newspapers are publishing yesterday's news, the priorities of which are debated and reordered at editorial conferences throughout the day. Decisions about which news will appear online, in contrast, are not subject to the same degree of discussion or scrutiny but are more reactive to news and events as they happen. In addition to immediate reporting, the web editors in Usher's study felt that the site should always look "fresh", entailing the constant updating of stories, particularly on the "network front" – the newspaper's home page. The association of online news with immediacy or constancy fits with the idea, common to social theories of the Internet, that it exists as vast unbounded flows of information (e.g. Castells, 1996), where journalists are positioned to try and capture and filter these flows into what will become the news. Many online journalists feel, as a result of the constancy, combined with the requirement of immediacy, that their shifts were more intensive, with no downtime in the day leaving them exhausted and feeling like they lacked the time for reflection:

Now, you don't have time to revise, so you're literally just putting your stuff out there. Sometimes on the train on the way home, I just think, 'better just check. Better just check.' Because we deal with quite big topics. Obviously, we have a legal team. So, I don't put anything out unless I've talked to the lawyer if I'm not sure. But it's incredibly fast-paced. And you can easily offend an entire nation, just because you don't have the time to think properly about stuff.

— Josh, digital reporter, 15/10/2015

Chapter five deals in much more detail with the specific factors and socio-material practices that that pace work and order and prioritize the working time of digital journalists, but it is important to note for this overview that not all news is breaking news or required immediately. On the news desk there are stories which are "on diary"; stories or events, such as press conferences or annual events, which are known and planned for in advance, and similarly, with the features-led desks. The content coordinator I shadowed at *Digital Paper* was working on a specialist desk staffed by three people where multiple timeframes structured the work. The workday began in a similar way as that of the news desk – with a scan of the news and social media, looking for new stories as well as reviewing emails and

³⁴ A wire service, also known as a news agency, is an organization that gathers news reports and sells them to subscribing news organizations, such as newspapers and broadcasters.

ensuring that that topics in the news would be covered as features. This scanning happened at a more relaxed pace than on the news desks because all the stories were planned – tabled into a grid outlining everything that had been commissioned; whether it had been filed; when it was due for publication, even many of the tweets were scheduled in advance. The role of content coordinator was more varied also, so involved less intense screen work. Featured stories were commissioned to freelance writers and the editing process on these would start at least three days before publication. The only publishing role on this desk that involved any immediacy was responding to social media, an aspect of the role that has arisen with digitalization.

For all desks, those dealing with breaking news and those not, once a news item is launched online both the story itself and the news item³⁵ are monitored by the reporter and news editor. This is undertaken for a number of reasons – to see whether the story develops, whether there are any inaccuracies or other issues with the item, and whether it is performing as it should (an aspect of digital news production that will be examined in detail in chapter five, which discusses audience data and analytics in the newsroom). A first take on a developing news story will be rushed online and then that take will be updated as the story develops or as more details or elements, such as photos, become available.

You can put up a story just saying, “British Gas are putting their prices up. It’s going to affect so many people. It’s coming into effect on the first of December” and that’s kind of okay to put that up and then add later on when you’ve got *Which* saying, “Oh yeah, you’re better off with *so and so* now” or the opposition going, “This is outrageous, they should all be nationalized”. You feel like you can add all that in later on. You can go for the straight story, whereas with print you would do all that to begin with.

— Gillian, online editor, Interview, 16/09/2015

The expression “back-revising” had entered common parlance among news reporters at *Digital Paper* in response to web production and came up in several discussions with journalists. Alan, a subeditor who has worked at the paper for over 20 years, explained: “Back-revising means, “Bloody hell, we’ve dropped a right clanger here. We’ll put it right.” (Interview, 11/02/2016). Some journalists felt this had an effect on the quality of work;

³⁵ I refer here to story as the incident or event that is reported on and the news item as the reportage on that incident or event.

where journalists paid less careful attention to inaccuracies – where accuracy is considered a key journalistic skill. Although this should not be overemphasized; journalists at *Digital Paper* were quick to point out that checking facts and gaining advice on any potential legal issues were still undertaken by journalists as a core part of their work and almost everything published was subedited or copy edited by another journalist, but the pace of work and the ability to change stories once they had been launched had probably led to more inaccuracies. There are, however, online publications where stories are not being copy edited before launch; a senior reporter from a competitor newspaper explained how web news was not subedited or revised where she worked, but copy was basically written online and the process of quality checks had essentially been outsourced to readers via complaints or corrections which came to directly to journalists, ‘No one internally ever spots errors. It’s the public that is coming to us.’ (Interview, reporter, 10/09/2015)

These changes to the way journalists produce stories has meant that the labour process no longer stops once a story is published or launched. The monitoring of stories after they have been launched adds to journalists’ sense of time pressure and a sense of endless production where a story is potentially never finished with because it needs updating, revision or to be repackaged or retagged to provide context to newer material. This has also contributed to a reprioritizing of skills and reallocation of tasks within the newsroom, as discussed in the following sections.

4.2 New technologies, new working practices

Print journalists have generally welcomed the storytelling possibilities that digitalization brings, where they can make use of different media previously unavailable to them – for example interactive data visualizations, and video and audio, which has placed an emphasis on multi-media skills. Journalists are increasingly expected to be able to record and edit audio and video, as well as having knowledge about how a story can be enhanced by drawing on a range of media. The accessibility of HD cameras and editing apps on mobile phones has led to greater use of mobile newsgathering and production.

I suppose you feel like you need more skills. I think you can’t really be very set in your ways, I think you have to be quite open about what your job involves and that you probably are a better journalist if, when you go to something you can tweet it and take a photo and I think there are good reasons to do all those things.

— Gillian, online editor, Interview, 16/09/2015

This need for more skills is at least, in part, a result of the way journalists' jobs have been redesigned with digitalization. A *Reuters Institute of Journalism* survey (Thurman et al., 2016) discussed in chapter two, found that jobs within journalism had changed to the extent that one quarter of journalists were not able to define their role in accordance with historic categories. Redesign has principally involved the integration of tasks from what previously were distinctly demarcated roles in journalism and might be classified as job enlargement; part of a management strategy combining high trust and low managerial oversight (Friedman, 1977), giving employees greater control over their immediate labour process and enabling some degree of functional flexibility. In digital newsrooms, individual journalists are often responsible for a story from its inception to its collation and then publication.

I think that people have to do a lot more varied stuff now, than they did. I think peoples' functions were much more narrowly-defined. If you think about the sub-editor in print, they literally only had to think about word – fitting copy to length and then writing headline for that copy. That was all that they did.

— Gillian, online editor, Interview, 16/09/2015

My actual job title is 'Content Coordinator'. But basically, that just means that I'm a journalist... It's kind of new. Well, I don't know... a new version of a junior role in journalism, I guess. Because I'm not... I do a combination of reporting, editing, commissioning and scheduling. So, it's quite... And also, you know, I also help to write kind of newsletters and stuff for the community, so it's a very kind of mixed role. It's not just one role. But because I'm junior, there is someone else who does all of those roles as well. But she has a little bit more say on commissioning, and will probably be the second edit of what I've done – if that makes sense? So, it's like we work together, but the role is very mixed.

— Ruth, interview, 27/02/2016

The scope of digital journalists' roles now requires flexibility across a range of tasks; the mix of skills undertaken by this content coordinator include activities that would traditionally be associated with journalism, combined with activities closer to project management and reader "community" management. This broad range of requirements is reflected in job advertisements for journalists, not only in national newspapers, but across the industry (Sandt, 2009). For new entrants into digital journalism it was not uncommon to have roles that were not bureaucratically proscribed through reference to job descriptions:

I've never been given a job description, but when jobs come up and you apply for them, there's a job description that gets given. So, I guess, it's not that defined, but it is just a mix of all those things. Social media, editing, commissioning - that's it really. I've never really been given a job description. — Ruth, content coordinator, interview, 27/02/2016

As the two previous quotes suggest, as does the job title “content coordinator”, many journalism jobs are focused on commissioning and editing the work of others, principally that of freelance journalists, rather than writing and researching their own stories. Online features sections in *Digital Paper*, where stories are less time-sensitive, operate like production hubs, where staff journalists write some of their own stories but, predominantly, their work involves processing the product of freelancers to prepare it for publication. One content coordinator compared her expectations of working as a journalist with the reality: ‘I like publishing something that I think has made an impact and that people... I would like a little more writing. I don't feel like my job involves as much writing as I would have wanted.’ (Katie, content coordinator, 28/04/2016).

The use of social media has become embedded within the daily routine of journalists. Four of the five journalists I shadowed for the project had their Twitter feed open on their desktops as they worked and used it as a way to monitor news, as well as tweeting on issues, publishing links to their stories and interacting with readers. For many, Twitter has become an indispensable work tool; for sourcing case studies, as a stream onto breaking news, for live tweeting from press conferences and events and to distribute stories. At *Digital Paper* journalists were encouraged by management to make use of Twitter and other social media like Facebook and would publish stories using both official social media accounts and their personal accounts.

To be honest now I use it as a news feed. I use it more than I use PA³⁶. I used to go on PA and search on PA all the time. I don't because I follow Sky breaking news but also, I follow people in the sectors that I cover. Other journalists sometimes but just sometimes the kinds of people working for different organisations that actually I kind of get more stories out of that than I do of PA. So, I use it to see breaking stories. I use it to get ideas of stories. I use it as a bit of a test.

— Gillian, online editor, Interview, 16/09/2015

³⁶ PA (Press Association) is a news wire service.

In addition to using social media to find and verify stories, leads and sources, journalists have had to learn new skills to write for the web, many of these techniques are aimed at keeping readers on a story and on the site for longer. Techniques like the inverted pyramid, discussed above, are applied to web stories as in print, so news is stylistically similar, but the techniques are used for different reasons – now the aim is to bring a story or subject into the top of the search engine rankings. More of the work of journalists involves organizing, ordering and archiving stories and other published material, so it can be searched for and found in internet search queries. Journalists do this principally through tagging, through the use of high-ranking words, as well as through packaging and re-packaging content. Stories tend to be written with search engine optimization (SEO) as a guide, particularly when deciding which words will go into headlines. This has led many journalists to feel that, in general, their roles have a greater production, as opposed to writing, element, combining the craft aspects of journalism, like newsgathering and writing, with production and technical aspects.

This production aspect requires digital journalists to work with content management systems (CMS) and journalists contribute their knowledge of the editorial process to inform the design of this technology. At *Digital Paper*, editorial staff collaborate with technical specialists to develop new specifications for the CMS and other apps they are using when they run up against the limits of the software. This has been institutionalized at *Digital Paper* where developments to the website and its supporting technology are discussed and prioritized at annual “hacker days”, which involve technical and editorial staff working together to identify technical issues and limitations with the current technology. This could be viewed in terms of journalists’ knowledge being drawn on and then objectified into technology. The design of the in-house CMS is indicative in terms of thinking about the role technology design plays in job design and journalists’ skills, or skill in the job (Cockburn, 1983). The CMS is designed for speed of use and publication and for its user-interface to be as “friendly” and “intuitive” for journalists as possible. The system is a rich text editor, which works very much like word processing software; editors can control content, but they cannot control the presentation – how a news item or feature will appear on the site once launched. They can influence presentation through the metadata (“the furniture”) they attach to their work, but developers

have designed the system with a rule that they ‘don’t let editors write HTML³⁷ ever’ (Fieldnotes, tech developer comment, 16/09/2015). The system is designed with the assumption that editors will break it – use it incorrectly and take sections of the site down – and so it is designed to anticipate and correct mistakes; digital or coding skills are deliberately designed out of the technologies journalists work with. The resulting change to journalists’ work means that their existing craft skill skills remain mostly unchanged, but they are effectively locked out of the technical aspects of the system that publishes their work.

One of the charges made by Davies (2008) and other critics of “churnalism” was that journalism was becoming more desk-bound, focused on repurposing press releases and wire copy in a context of increasing commercial pressures, staff cuts to newsrooms and journalists producing a greater volume of news. The concept of “churnalism” has highlighted some important realities of the current state of journalism, such as the cost-cutting and the pressure on staff and resources in newsrooms, but it also obscures other aspects of how new technologies are changing journalist’s work. There is little disagreement among journalists that, for many, their work is more desk-bound. But the reasons for this and the effect it has on journalists and the product of their labour is more ambiguous.

I think there are more people in the office more of the time and I guess that is, in part, due to the need to keep putting stuff out there. But it’s also to do with how much easier it is to research stuff from your desk. People still have to go out to interview other people and they might do more of that on the phone than they did, but again, that’s partly because everybody’s obtainable by phone all the time now, whereas a few years ago, not so much.
— Gillian, online editor, Interview, 16/09/2015

Networked and mobile technologies, as described by this news editor, offer what could be interpreted as straightforward efficiencies for journalists carrying out their work; the same work can be done remotely and with desktop access to vast databases and sources of information, including the Internet. Other journalists described going to press conferences only to find that, while they were out of the office, someone else had written the story at their desk and put it online, so it was only worth leaving the office for press events if the journalist could get an exclusive line or angle on a story: ‘unless it’s something that is embargoed...on [the business desk] they send people to the lock ins at the ONS, they send

³⁷ Hyper Text Markup Language is used for coding the structure of web pages.

people to the corporate things if there is something that is interesting. But that is often when the story is not going to be so much what they are saying – it's going to be the shareholders revolting' (Gillian, 16/09/2015). Having access to information via the Internet and to sources via mobile communications has changed the kinds of knowledge that journalists privilege, which has subsequently had an effect on the way they carry out their work in ways which cannot only be explained by the constraints of staff shortages. Ironically, mobile technologies have made some journalists' work more sedentary.

4.2.1 Lost jobs, lost roles, lost skills

While skills have been gained and journalism jobs enlarged, job losses among journalists have been a feature of the period during which digitalization has occurred – between 2011 and 2016 there were an estimated 5,000 editorial redundancies in UK local and regional press with 150 titles closing (Sharman, 2016). In national newspapers, the decline in employment of journalists has been difficult to quantify; a major report on journalists in the UK by the *Reuters Institute for Journalism* found that between 2012 and 2016 the proportion of journalists working in newspapers – national, as well as local and regional – had fallen from 56 to 44 percent, but the overall effect on editorial jobs in national papers has not been calculated and is complicated by the shifting mix of roles in national newspapers (Thurman et al., 2016:25). At *Digital Paper* the number of production staff (which includes editorial) has fallen from 1963 in 2008 to 896 in 2014 but this reflects redundancies among editorial staff as well as employment of additional online journalists and technical specialists. While news managers have most often attributed redundancies to the financial pressures of lower revenues as a result of competition for digital advertising from social media companies (see e.g. Bond and Bond, 2017), there has often been a close connection between the restructuring of newsrooms, job redesign and loss of specific roles within journalism, in particular, those of subeditors and photographers.

Across the newspaper industry many subediting roles have been replaced and key tasks of subeditors, such as copy editing and writing headlines, subsumed into broader “content coordinator” roles, with some tasks, such as revising, foregone entirely. New technologies have played a direct role in this and some journalists are making use of web metrics programs

such as Omniture³⁸ and search engine optimization (SEO) keyword software to decide which words to include in headlines and articles, rather than relying on subeditors for headline writing. As suggested in the description which opens this chapter, digitalization of journalism has resulted in more self-publishing, where the subediting role is removed. Although the extent of self-publishing was limited at *Digital Paper* – most items would be copy edited before being launched online – in some sections this task was carried out by editors or co-workers, rather than dedicated subeditors. The sports desk was using live blogging for coverage of games and the news desk had started live blogging its politics reporting, covering major events, such as inquiries and incidents, neither of which was revised or subedited before publication.

Discussing self-publishing, the Father of the Chapel at *Digital Paper* said: ‘it’s not something that the chapel would be crazy about, but we know which way the world is going and it’s something we feel we’ve contained to a reasonable level and we can live with’. There were some subeditors working on *Digital paper’s* print edition, but these jobs were increasingly seen as undesirable as they lacked the wider skill development that would give workers in these roles job mobility and the decline of subediting was met by journalists and the union chapel with a degree of inevitability. In some instances where subediting was not subsumed into other roles or done away with, it was being outsourced. Two UK regional publishers, *Newsquest* and *Trinity Mirror*, had removed subeditors from their newsrooms and consolidated the subediting work for all of their titles into regional production centres.

Subeditors and former subeditors lamented the loss of what they saw as the artistry of their language skills.

There’s a way of structuring headlines in print. There’s a sort of code that you don’t use the word - let alone twice in the same headline – you don’t use it in the rest of the furniture either. It’s not in the standfirst and it’s not in a pull-quote. You try to find... The beauty of the English language is that there are lots of different words that mean the same thing.

— Alan, subeditor, Interview, 11/02/2016

³⁸ Omniture is web analytics software which collects usage statistics on online products.

Subeditors felt that the scientific approach of using words which would maximize search engine returns did not account for the subtleties of language or allowing space for humour, wit or delicate turns of phrase – aspects of their craft which they clearly derived pleasure and pride from. While subeditors possessed considerable knowledge of language and the ability to deftly apply it within the time and space constraints required by print publication, in the context of web publishing, that knowledge was less valued.

Photography has also been transformed by digitalization and staff photographers have been one of its casualties. Digital images can now be accessed via online picture libraries, such as *Getty* and *Alamy*, and the high-quality cameras available cheaply on mobile devices allow journalists to capture photo and video footage if they are reporting on location. This camera technology has also given rise to a proliferation of user-shot images. *Digital Paper* still employed some staff photographers, unlike most other national newspapers, but their number has declined, and this reflects a trend across UK national newspapers with the British Press Photographers' Association (BPPA) (Wolmuth, 2014) claiming that there were only 20 staff photographers in the UK in 2014, down from 60 in the 1980s. 'When they go, they tend not to be replaced,' the FoC at *Digital Paper* said.

While reporters at *Digital Paper* were not expected to shoot their own pictures or video, as is increasingly the case with local and regional newspapers (field notes, *NUJ Newspaper Summit*, 25/04/15), the use of agency photographs had undermined access to secure work for photojournalists – a discussion taken up in the next chapter. Photojournalists who were active in the NUJ were engaged an attempt to argue with employers that using images shot by unskilled reporters or users was no substitute for their knowledge of photojournalism; the technical capability of cheap HD cameras in phones, they argue, cannot replace the knowledge and training that makes good photojournalism. They were also involved in a #useitpayforit campaign³⁹ to impress upon amateurs that, when providing work free of charge to news organizations, they are undermining professionals. Some photographers had also taken aim at their own union whose stance of ensuring journalists were provided with training in digital skills were running a 'How to shoot and edit video with an iPhone or iPad'

³⁹ See: <https://www.nuj.org.uk/campaigns/useitpayforit/> [Accessed August 2018]

course as part of its professional training and effectively facilitating the role expansion that was putting photojournalists out of work.

In addition to job losses, there was also a change in *who* was carrying out jobs. Historically, routes into journalism were through cadetships or on-the-job training (Koch and Wyss, 2010) and careers were structured differently with journalists starting out in local and regional press and moving upwards to national newspapers. Now journalists are graduating from specifically “digital journalism” courses and being employed in national newspapers in roles which have not traditionally been considered entry-level:

You certainly didn’t get any young subeditors, because almost entirely, subeditors were people who had been reporters and have decided, in their thirties, or maybe even in their forties, that they could do with a more fixed working life and fixed hours and stuff like that. Therefore, “I’ll go and sit behind a desk and I’ll edit other peoples’ copy rather than actually going out and writing my own.” We’ve now got people coming into subbing who may have been out of City University for a year or two years. I don’t think that it should be, but, I think, for quite a lot of people subbing is an entry-level job from which you might hope to be promoted to being a desk editor, or whatever. That wasn’t how it was viewed, really, 20/30 years ago. Then it was a job that you moved into in the middle of your life rather than starting out your working life in journalism as a sub.

— Eddy, managing editor, interview, 15/10/2016

For many journalists, digitalization and the fact that junior journalists could undertake more senior roles was perceived in terms of a lowering of the quality of output. In addition to feeling like their jobs involved less writing than they would like, which for reporters was attributed to repurposing and for content coordinators was a result of processing other journalists’ writing, journalists I spoke with feel that the work routines for digital omit key aspects of journalistic work:

There’s definitely churnalism. I do churnalism, like now, I when I do a reporting shift at *Digital Paper*, there’s always a certain amount of churnalism in it ...it’s not uncommon for me to write a story where three-quarters of my facts have come from PA or Reuters. Now, I guess I wouldn’t really classify that as terrible journalism, it’s kind of, a level of churnalism. But if it’s PA, PA are a very good, very reliable source. If they’re reporting on what David Cameron says in an interview, then for them to be wrong on that, it’s just incredibly unlikely. So, for that kind of thing, I don’t think it is good journalism, but I don’t think it’s awful. I think it’s fair enough for people to do that. But then, there’s like copying of press

releases, or rewriting a press release, which I don't really do. But that goes on.

— Chris, news reporter and freelance, interview, 28/08/2015

Journalists were less able to develop sources, draw new angles into stories or undertake thoroughgoing fact checking due to time constraints and opportunities to undertake investigative work were limited due to resource constraints. A reporter described her frustration at 'not doing things properly and things that you probably should spend a bit more time on, like subbing something properly, because you have to sub everything even though you're not really a sub. Or, "Just put it online – there isn't time – it needs to go online"' (Leah, reporter, interview, 15/07/2016). These aspects of journalists' work, they felt, affected the quality of the work they produce. An editor confided: 'I think [a story] has got to be pretty rank not to appear in some form or another'.

Changes to the subeditor role tended to be put down to the lowering of standards for the web:

Yeah, I think it's a different, in production terms, it's a different... a whole different practice for web-subbing. It's much more, 'get it up, tick it up.' Far more akin to... Well, I was going to say the days when I worked on an evening paper, thirty years ago, but I think the actual subbing standards then were far higher than are often required for the web. You've got... People have come in and maybe not had the same sort of training that they would have had over the years. No fault of their own, but the traditional training grounds are no longer there.

— Alan, subeditor, interview, 11/02/2016

4.3 Deskilling with discretion: the social value of skills

In this section I draw from the information outlined above and analyze the effect digital technologies have had on journalists' labour and identify how managerial choices have influenced the way newsrooms have transformed to facilitate web publishing and the way technologies have been adopted into the newsroom. I argue two main points; firstly, that most of the newsroom changes – the reorganization of work and the redesign of jobs has been to facilitate speed; this has included a delayering of the process of production in terms of certain functions, such as subediting, but also in terms of managerial oversight, giving

journalists greater discretion over their work, which is partly a function of the technology; but also of the changing requirements of a changed news product. Second, I argue that digital journalists' skills have been devalued as a result of factors within the newsroom as well as changing general skills in society.

To place what is happening to journalists' labour in terms of an overall trajectory towards upskilling or downskilling is not straightforward, given that jobs have been so dramatically reorganized. A complex picture emerges of digital journalists as highly-educated graduates who undertake a wide range of activities in their roles and, in some cases, junior journalists and graduates are entering jobs which would have traditionally been reserved for senior and experienced journalists. They also exercise a high degree of discretion over their work, particularly in roles where there is less time pressure associated with the immediacy of news. But even within the more closely-monitored processes of news reporting, there are less phases in the process than with print, which has removed some hierarchical oversight. Journalistic skills remain similar to print – the ability to 'know a story when they see one', source and gather relevant details and write – but this aspect of the job has been minimized and journalists undertake more production work. There is greater call for digital literacies; skills which journalists feel are diffused throughout the general population as a result of the widespread use of social media. While the technical design of online publishing systems and tools have drawn on journalists' understanding of audiences and editorial needs, they limit and direct the way journalists can arrange and present their work and exclude their need for more technical digital skills and knowledge. So, while the delayering of production has given journalists greater discretion over their work, it is not clear that this amounts to greater skills or valuing of the work. To assess how these changes relate to the skill content of journalists' labour, it is useful to return to Cynthia Cockburn's (1983) tripartite notion of skill to think about how journalists' skills have been determined through the design of technology and job roles as well as constructed through production relations.

Digital journalists at *Digital Paper* now have a wider range of skills, or skill in the person, that include technical skills, which might be considered "digital skills"; editing video and audio, a growing knowledge about how to present stories in multiple formats and social media and SEO literacy. Some of these technical skills do not differ extensively from print production, where journalists were already working with content management systems and organizing and receiving stories through wire services whereas others, like video or audio editing are

new. But this may be viewed as journalists requiring digital literacy skills that have been generalized through society (Braverman, 1974:436) and, so not valued. Certainly, journalists felt that these skills were not necessarily specific to journalism – mobile phones; Internet browsing, and social networking sites do not only confront people at work; they are deeply embedded throughout our lives – or could easily be learned on the job:

But I don't think it's impossible to learn those things, and I don't think I could justify my existence by saying I know how to use the uploader function or whatever, because they're all quite easy to use...I do know how sales works, how to pay freelancers, how to fix the copier and all the other things.

— Rachel, reporter and freelance, 20/11/2015

There is clearly a relationship between new technology, the kind of skills journalists utilize and the changing product of journalistic labour. This has been embedded within changes to job roles and the organization of work, but key to understanding the changing roles and responsibilities in the digital newsroom is the way the value of journalists' skills and their status in *Digital Paper* differed between print and digital and are heavily socially inscribed. In the early days of digital news, the lower status of online journalists compared with print journalists was embedded institutionally in many news outlets; in the physical distance of digital journalists' desks or offices from main editorial floors and in digital journalists' lack of representation in editorial meetings (Cawley, 2008; García, 2008). This was further reflected in lower pay; fewer benefits and fewer permanent positions (Cawley in Paterson and Domingo, 2008). At *Digital Paper*, the formal separation between print and online journalists had ended in 2008 and digital journalists were technically equal within the framework of *Digital Paper's* house agreement with the National Union of Journalists. Despite this, a difference in status persisted at a cultural level:

The feeling from other parts that we're less skilled because we're working on digital. You know you get young journalists who are starting and are like "Yeah, I'm at *Digital Paper* and I have some journalism background and I've spent ages to get here" and then having everyone in the building look down on you - or feeling like they do; I don't know how much people do or not, but no...that can weigh on you as well.

— Katie, content coordinator, 28/04/2016

Pay differentials between print and online journalists are a well-established feature of digitalization (Thurman et al 2016) but they persist at *Digital Paper*, despite equalization

through the union-negotiated house agreement and a pay audit aimed at closing the gap between online and print journalists' pay. Journalists who had worked for both the print and online sections claimed that they could earn twice as much for a shift in print. This differential status partly reflects the perception that digital news is a different product than print – regardless of whether it is or not – and is not valued as highly by managers in the news outlet; a sentiment echoed in the tensions between old-school print journalists and younger digital journalists, but also in the public domain generally. This was well-illustrated in 2012 when Boris Johnson dedicated one of his columns in the *Telegraph* to warn against the perils of over-regulation of the press. The column was written in the midst of the Leveson Inquiry, so this line of argument from the Conservative then-Mayor of London was unsurprising. What was surprising was his lament at a rumour that the *Guardian* should consider closing its print publication and publish online only – a newspaper which, by Boris' own reckoning, had never supported a thing he had done. A digital-only publication would get 'lost in the morass' he argued; 'Take it online and you will lose all impact' (Johnson, 2012). Johnson's comments act as a reminder that there is a political, as well as economic, value to print news, which is not always captured in discussions around digitalization and the "death" of printed newspapers. This political element gives greater prestige to print over online news and has legitimized the different status of print and online journalists.

As suggested by Cockburn's (1983) skill in the social setting, the lower status of digital journalists might also have reflected the journalists who were doing the work. Those journalists working exclusively online were younger and more likely to be ununionized. There was a general narrative among journalists that 'young' – which was often a byword for digital – journalists and 'old' represented different approaches to journalism and different ideas about what journalism is.

In lots of ways you're kind of seen as not an authentic hack. The newer generation, the younger generation that have come up or are coming up are seen as not as hardcore. You get a lot of that old school sort of, "Back in my day we didn't have the Internet," sort of thing, especially from older news reporters.

— Yasmin, commissioning editor, interview, 22/10/2018

Digital has sort of an age divide thing. I mean there's a lot of ...our department is more young and is more commercial, more digital [laughs] and it's more looked down on.

— Katie, content coordinator, 28/04/2016

While skills and knowledge have currency in organizations, they can also be mobilized as power resources, where workers in possession of valued skills can use them as leverage for higher pay or other work premiums (Grugulis and Lloyd, 2010). In the case of subediting, subeditors have been deskilled in the sense that their skills are no longer needed or valued as a result of a number of factors that are both technological and organizational, where the stories that are posted online are not the final product and can be ‘back-revised’. As one former-sub noted: ‘I’ve seen things put up [online] supposedly that have been subbed for the web - and that is another story of what constitutes quality subbing and what’s good enough for the web and what’s good enough for print’ (Interview, 29/04/2015). From an organizational perspective, there is an imperative to design work routines which speed up, and so remove, layers of the process. The combination of these factors has resulted in the copy editing and revision aspects of the role being subsumed into other editorial roles. Historically, the subeditor role also held power within the hierarchy of news production – subeditors had oversight of the process and responsibility for “moving news items along”, ensuring they were ready for deadline. This role was, at least partly, a function of subeditors’ position in the editorial hierarchy and with the layering of the publishing process, this aspect of the role has been made redundant. Additionally, web publishing changes the requirements of the product and elevates the automated processes of SEO over language crafts; not an intentional deskilling but a factor which diminishes the skill level required for headline writing.

No. We do, we do. We still have people called subeditors. The one thing that we say— Okay, in Production, for example, we’ve got six different job titles, six different levels of job title. Only four of those are really different in function. We’ve got subeditor, we’ve got senior subeditor, which is a job title that really only remained because the NUJ felt the people who’d been here for 20/25 years deserved a slightly better title if they’d been.

— Eddy, managing editor, interview, 15/10/2016

In this case, where subeditors’ skills had been replaced or side-lined by new technologies, new ways of working and changing priorities for the product of journalism, their status and seniority has enabled them to protect their position within the organization. Subeditors and former subeditors tended to be older men who had around 20 years of journalism

experience, whereas content coordinators were more likely to be younger – mostly having graduated within three to five years of my interviewing them – and women. And content coordinators generally didn't feel like they commanded the same bargaining power over their jobs, as summed up by this junior reporter (who had a post-graduate degree in journalism and had been mentored in a national newspaper):

There are a million other people who want to write features, aren't there?
And they're probably better qualified than I am, so I should probably try
and stick on in. Yeah, I think that's absolutely it, there is a sense of feeling
like you're quite expendable.

This point, which was reiterated by many journalists at *Digital Paper*, as well as at NUJ events I attended and is a perennial theme in the NUJ's publication, *The Journalist*, relates to the labour market for journalists – principally, the imbalance between the rising number of journalism graduates and the declining number of journalism jobs. A 2014 survey by the Higher Education Statistics Agency (HESA) found that one year after graduation unemployment of students from 'mass communications and documentation' – which would include journalism and PR courses – was 11 percent (HESA, 2014). This combined with a sense among younger journalists that the ubiquity of many of the technologies they were using meant that the skills required to use them are not unique to journalists and that many younger people would know how to use them or could learn them easily.

This section has demonstrated that, despite the convergence of print and digital newsdesks and the equalizing of print and digital journalists' working conditions, and even amid wide-reaching change in the structure and composition of newsrooms, the legacy of print and the institutions developed around print production still inform the lower status of digital journalists and the value of their skills. Other factors which reinforce the devaluing of digital journalists' skills include the design of the systems, which limit their technical skills and only require the development of general digital literacy skills. This is reinforced by a context where journalists perceive those skills are readily available on the labour market, devaluing them in a relative sense. The following section examines forces outside the newsroom which have also greatly affected the status and value of journalists' skills, such as new pressures on journalists' skills from user-generated content.

4.4 User generated content: ‘so specific that only geography teachers would be interested in it’

We have an adjunct to the website which caused a big kerfuffle when it was first introduced – and it’s so little of an issue these days that I can’t remember what we call it – but it’s an area where our readers can send in pictures of fluffy kittens and all the rest of it. There were people coming to me, telling me that this was the end of paid journalism as we knew and if *Digital Paper* allowed this through, we’d all be finished. But funnily enough, the sun came up the following day and, you know, the world kept spinning on its axis.

— Richard, FoC, Interview, 11/05/2015

The first section of this chapter has introduced the way in which user-generated content (UGC) on social media is scanned by journalists as a source for stories, but user contributions – and “free labour” – are present in other aspects of news production. As suggested by the above quote, this section argues that, while UGC has been seen as a threat to journalists at moments during the process of digitalization, unlike theorists such as Dyer-Witheford (2015), who characterizes digitalization as leading to small numbers of paid workers processing the freely-given content supplied users, its overall impact on modes of news production has been limited. This section examines audience contributions in *Digital Paper* from the perspective of its impact on the employment relationship and other institutions of work, looking at how or whether UGC changes the process of news production but also, whether it raises a challenge to journalists’ monopoly on their professional skills or on their gatekeeping role (Gans, 1979).

Very few journalists, unless prompted, associated UGC with the stories they gleaned from social media or videos of breaking news events, which they tended to think of as an extension of newsgathering, or a source to be processed (see also Wardle and Williams 2010). To the extent that UGC comes into journalists’ daily work routines, most thought about it in terms of “below the line” comments; the text boxes underneath stories where readers are encouraged to discuss articles. This kind of user or consumer contribution is theorized to have changed, or have the potential to change, relations between producers and consumers, or professional and amateurs (Banks and Deuze, 2009). Seth Lewis (2012) argues that UGC creates a tension between journalists’ attempt to control their profession – the norms, institutional authority and legitimizing narratives which delineate and reinforce the boundary between journalists and others undertaking similar activities – and what he calls

participation-as-ideology; the logic of free engagement which is embedded in both the structure and the culture of digital media. The culture of *Digital Paper* was one in which user engagement – which tended to mean all interactions with or contributions from users – was encouraged. All articles have spaces for below the line comments and the paper also has a dedicated user section, run by a separate editorial team and which issued assignments or “call outs” which are collated, edited and curated by journalists. In addition, some features desks created space for user content, viewing it as an opportunity for reader participation and engagement; a space for specialists to write in their field:

We have probably a lot less user-generated content than a lot of people would do. Where we do have it – and it’s of value, I think – is in specific areas. You know, maybe take science. We’ll run a science story that very qualified eminent people will start commenting on. And it’s not just a sort of below-the-line comment – it’s almost a considered piece in itself. And that then generates another conversation. And you get to the end of it and there’s more information on that particular thread than anyone one journalist could hope to produce in a month, because of all the people who have got together and [contributed] their ideas. Now, that, in journalistic terms, has to be considered a good thing. It’s a positive. There’s information now available which wouldn’t have otherwise been done.

— Bob, managing editor, 18/11/2015

In general, below the line comments – where they were engaged with in a fraternal way – were seen to add to journalists’ work, rather than compete with it.

Maybe it could be so specific that only geography teachers would be interested in it. So, it never would have made it into print, because it was too specialized, but it is kind of interesting in itself and would be of interest to a group of people. So that is done within a kind of confined area on the web.

— Amelia, section editor, 10/11/2015

Lewis (2012) suggests that participation-as-ideology aligns with the public service aspect of journalism, but it nonetheless poses a challenge to the traditional ‘gatekeeping’ role of journalists, which has long been theorized as a key tenet of journalism and source of journalists’ power (Gans, 1979). UGC has also been viewed as a threat to journalists’ values (Gillmor, 2004) or their editorial control over news content (Singer 2005; Örnebring, 2008; Singer and Ashman, 2009). Journalists, in contrast, tended to see these sections of the website as confined and controlled, with the Father of the chapel claiming that the union had taken a position that ‘we value core editorial and editorial principles – recognize the need

for this stuff, but don't want it sullyng what the rest of the newspaper is about' (Richard, interview, 11/05/2015) and had negotiated with management about what were acceptable limits. There was also a, perhaps more cynical, awareness that this kind of specialist writing attracted 'specific targeted advertising, knowing it's going to those people' (Alan, Interview, 11/02/2016).

Much of the UGC was framed through the concept of public service or an opportunity for readers:

We run [a blogging section] which, the idea for that is obviously to ... give people a voice. So, we work with them on that. Yeah, then obviously what we're actually checking for on a closer level is sub-editing — does it make sense; is it clear; are there mistakes in it; is it factually correct ... making sure [contributors] are not going to get harmed by writing about drugs or something — all of those kinds of things.

— Katie, content coordinator, 28/04/2016

In this case, where blog pieces were solicited – items more akin to paid-for features – journalists felt they had to put more work into both supporting bloggers to write and then editing the work once it was received. The moderation of UGC is generally expensive and resource-intensive (Thurman, 2008; Williams et al., 2011). As one managing editor commented, 'user-generated content is probably more work than journalist-generated content because, by-and-large, journalists know what they're doing, and users don't necessarily. Somebody's still got to check it for legals before you are prepared to let it go up in your name' (Bob, interview, 18/11/2015). With below the line comments, they are all moderated ultimately by people, rather than machines, as is often assumed to be the case (Roberts, 2014):

Well, we have moderators and they would take down – they have the ability to take down stuff that they think is a legal problem or is offensive. Most of our desks – or probably all, all the ones I can think of – will, before publication, have a meeting with the moderators and say, "This is what we've got coming up today and this is what we think might be problematic with people below the line. What do you think?" Obviously, there are the sort of things that always are, so things to do with the Middle East, etc., etc. There are certain writers that will go on a watch list because they always enrage people below the line.

— Yasmin, commissioning editor, 22/10/2018

The time and cost of processing UGC has placed constraints on its adoption in newsrooms, and it seems that, where UGC is utilized, it is not replacing paid labour but replacing content-

producing work with that of editing, curating and moderation (Paulussen and Ugille, 2008) or fact-checking, interpretation, analysis and storytelling (van der Haak et al, 2012).

4.4.1 The platform is ours, but the conversation belongs to everybody

Digitalization has brought about new possibilities for users to engage with news sites and produce content. The extent to which this content poses a challenge to journalism or results in news organizations restructuring in order to capture the free labour of users might be usefully assessed with reference to Örnebring's (2008) typology of UGC, the first dimension of which assesses the degree to which users produce content, with production at one end and, the more restricted idea of customization at the other, drawing attention to the degree to which UGC is channeled or structured by technology and the needs of the news organizations. In terms of free labour, this could reveal much about the extent to which free labour is captured and under what circumstances. The second dimension is the degree of centralization of production; to what extent UGC is centralized in news agencies or decentralized among users. This dimension is useful for assessing how UGC is positioned in relation to the work of journalists and the extent to which decentralized production outside the labour process has primacy in the production of news.

The three key ways that users contribute at *Digital Paper* are through below the line comments, by responding to community assignments and through commissioned blog pieces. From a technological point of view, below the line comments are rigidly structured as text-only responses to articles and, while not word-limited, users are expected to adhere to community guidelines and content that falls outside of these will be moderated. Contributions to the community page take a variety of forms, including pictures, interviews and text but are entirely directed by the journalists on the community desk who also select and display only those contributions they want. Blog pieces and articles allow the greatest scope for users to pursue their own production but are solicited by the editors who publish them. In each of these instances, editors and news producers still ultimately hold the decision-making power, deciding what and how UGC is utilized and, in doing so, also have sought and retained professional monopoly over the exercise of certain skills, knowledge and judgement (Williams, 1998; Lewis, 2012). Research that has looked at the product and motivations of users, or 'participatory journalists', in Germany – those providing online story content on commercial news platforms, rather than just comment – found that contributions were driven mostly by personal interest and experience, rather than news values adhered to

by professional journalists, such as relevance or accuracy. This is similar to the cases outlined at *Digital Paper* where extended comments or reports cover specialist niches that would not be covered otherwise. This suggests that UGC with a news focus is, at best, complimentary rather than in competition with, or a threat to, professional journalists.

While journalists at *Digital Paper* seem to be more driven to accept UGC as part of a commitment to reader engagement, much of the argument about the internet's potential for a democratization of the news (see e.g. Paulussen and Ugille, 2008) is based on the determinist idea that technology could bring about fundamental changes in the power relationships which journalism has historically been organized around enabling less top-down news production. This idea leaves unexamined the institutions, structures and conventions developed within organizations which shape the digital news environment, as well as journalists' access to news and their efforts to protect their profession. While Singer (2003) acknowledges that journalists have gained their status and credibility historically through their affiliation with particular news organizations, less has been said in the discussion of UGC about the, not insignificant, collective resources and power which access to news organizations confers upon professional journalists *vis-à-vis* citizen journalists or users and which acts to protect journalist's role in the news-making process and acts as a limit on UGC in significant areas of news reporting.

4.4.2 UGC and the labour of making of user content a commodity

Williams et al (2011) argue that the way UGC is incorporated into newsrooms tends to be embedded within traditional journalistic practices, rather than refashioning those practices anew. Paulussen and Ugille (2008) suggest that limitations of time and resources, and heavy workloads mean that journalists tend to rely on existing work routines and trusted sources, rather than utilizing less familiar, less trusted user sources. Overwhelmingly, UGC at *Digital Paper* has been adopted into existing work routines or has only slightly changed the emphasis of journalists' work, rather than displacing journalists or placing them in direct competition with citizen journalists or other sources of UGC. There are some instances where Dyer-Witthford's small number of paid journalists are preparing content supplied by the free labour of readers, but this tends to be the exception. For these journalists, their workload principally involves working with the product of freelancers; something that will be discussed in the following chapter in terms of the way precarity has been structured into the work of newsrooms.

Finally, to focus on free labour and the “audience commodity” in the case of news production at *Digital Paper* also overlooks the mediating work which enables UGC, in all of its forms, for example, the production of the code and the technologies which capture, contain and process user data. Equally, it overlooks the work of converting audience data into something that can be sold as a commodity; collecting, modelling and interpreting user data into a meaningful product and using it to sell the advertising it supports. These increasingly significant roles within the news production process are rarely discussed in theories of free labour or audience data; they tend to be glossed over as though they are automated processes, rather than industries, or sections of the news industry, that employ people and are giving rise to new jobs, new occupations and emerging skill sets.

4.5 Chapter Summary

This chapter has demonstrated the way in which the content of journalists’ work has changed dramatically with digitalisation at *Digital Paper*. The demarcation between traditional roles has broken down, which could be characterized as job enlargement, where digital journalists undertake more varied tasks than those undertaken historically by print journalists. Networked technologies have created efficiencies, particularly in the way that journalists gather information and has led to a greater reliance on social media. Content Management System (CMS) software combines word processing, typically a reporter or writer role, with web publication, typically a production role, so enables both roles to be carried out by one person from a single desktop. This has called for an expansion and diversification of journalists’ skills, although there is a perception among some journalists that the work they carry out is more generic and now includes many technical and production skills not historically carried out by journalists, as well as community management skills not considered journalism. Digital journalists’ work has been devalued relative to that of print journalists as a result of their jobs evolving from a position where they held lower status and power compared with print journalists and also potentially because they were young and ununionized; through a limiting of their technical skills in the design of the software and systems they use and as a result of the general nature of their digital literacy skills, which are readily available on a labour market that already includes a large number of journalism graduates.

User-generated content does not have an overwhelming presence in the daily work of journalists and nor can it be seen as contributing to job losses at *Digital Paper*. Where UGC is incorporated it tends to be guided by an ethic of participation, or in some cases an advertising strategy, which is limited by the additional work it creates for journalists in terms of guidance, editing and moderating. Although that is not to say that journalists have not been at all affected by UGC; photographers, in particular, seem to have been affected by the increasing availability of user photographs and video. But even with photographers, the main threat to their employment in news agencies has been images bought from photo agencies which tend to use the images of self-employed freelance photographers. Similarly, where journalists are processing the content of others, it is the work of freelances, rather than of unpaid users.

Unlike the technologies of mechanisation or automation, the technology of digitalization, such as data, networked computing and platforms, social media or mobile communications are not as discrete pieces of technology; ‘a bit of kit in the box’ (Baldry, 2011). Their effects have been systemic through the organization, which is what has given rise to such widespread restructuring. Further, the protocols and networks that form the architecture of the Internet have not been developed for a particular production process nor at a pace or in a direction driven by the news industry, which is why the process of digitalisation has often had the characteristics of a process of adaption. Organizations have made use of some software and tools developed specifically for their industry, such as analytics software like Omniture, and *Digital Paper* has also started to build in-house software development teams which could develop bespoke tools for editorial. Despite this, the practices and routines of digital journalism have developed out of the conventions of print media, particularly in terms of the status conferred upon digital journalists and their skills.

The next chapter takes up issues around digitalization and the employment contract, looking at how contractual arrangements have changed at *Digital Paper* and, in a context of restructures and redundancies, how insecurities have also been introduced into the working lives of permanently employed journalists. Given that questions of time have been central to theories and discussions of digitalization and to the negotiations of terms of employment between the NUJ and *Digital Paper*, it also examines the temporalities of digital news,

including the creation of work intensification and how journalists have used digital technologies to navigate the interpenetration of work and life.

5 – Precarity in and out of contract and the temporality of digital labour

“the idea of work as something unbounded and virtual took root” (Huws 2014: 22)

Digitalization at *Digital Paper* has entailed a number of management strategies that have externalized labour as well as introducing market-type relations into labour relations inside the organization. First, this chapter argues that the restructuring of newsrooms under the pretext of digitalization has resulted in an increased reliance on numerical flexibility through freelance work and that the uncertainty of digitalization – in relation to both the publisher’s changed finances and business model, as well as the rapid pace of technological change – has justified and normalized a greater use of temporary contracts and the introduction of precarity into the working lives of permanently employed journalists. This fits with characterizations of digital work more generally, where it is associated with the increasing use of temporary contracts and freelancing or self-employment (Scholz, 2016:33). The second section of this chapter examines the employment contract through the management of time, arguing that digitalization has made way for work intensification as well as new temporalities of work, which have been brought about, not by digitalization or 24/7 digital time, but through particular managerial practices and strategies which have attempted to create time discipline in the newsroom in the absence of a print deadline. Second, I argue that the digital imaginary of 24/7 news and management ideal of a 24/7 newsroom have been limited by the way in which time continues to be spatially or geographically circumscribed within particular local social conventions and institutions of time, despite claims that digitalization brings about ‘timeless time’ (Castells, 1996) or unbounded time. In particular, time has been limited through journalists’ resistance to changes to their working hours and shift times.

5.1 Freelancing and the outsourcing of uncertainty

Freelance journalists are on the forefront of the broad devaluing of journalistic labour and journalism itself, a process that began before journalism’s move to the Internet but has accelerated since.

(Cohen, 2016:145)

Journalism has one of the highest rates of self-employment in the UK economy at 36 percent, according to the National Council for the Training of Journalists (Spilsbury, 2016). As national newspapers restructured to accommodate digital there were widespread anecdotes among journalists (Thurman, 2016:14) that journalists were being made redundant from permanent positions then finding themselves working as freelances and producing stories or “content” for their former employers, losing access to employment rights, benefits, training and security of work. In the major surveys of UK journalists undertaken during this time, there are conflicting results and contested interpretations about whether this is the case. The National Council for the Training of Journalist (NCTJ) undertook a survey of 1,067 journalists in 2012, of which 10 percent were working on national newspapers (NCTJ, 2013). The study found that, of newspaper journalists, 77 percent were permanently employed, compared with 81 percent in the UK labour force as a whole, and 13 percent either self-employed (5 percent) or freelance (8 percent), which was below the industry average (28 percent) and the national average (14 percent). Despite this, the study recognized that freelance work was a feature of the management of journalism. In contrast, the study of UK journalists undertaken by the *Reuters Institute for the Study of Journalism* (Thurman et al, 2016), which surveyed 700 journalists, found that in 2015 74 percent of journalists were on permanent contracts while 17 percent were freelancing. Supplementing their finding with ONS data, Thurman et al (2016) argue that there is no clear pattern of increased freelance working over a thirteen-year period since 2002, although they don’t analyze the wide fluctuation within that period, instead interpreting these figures to mean that journalists made redundant from permanent jobs are leaving the occupation, rather than freelancing.

There are problems with the interpretations in both of these studies. The *Reuters Institute* study doesn’t disaggregate its results from the broad category of journalists across all media and the NCTJ figures are for all newspapers, whereas the dynamics of digitalization have affected newspapers differently than, for example, broadcasters, who have had a different set of issues and responses. Within newspapers, national newspapers have experienced less downsizing than regional and local newspapers, have been able to invest more in technology and have adopted different business and staffing strategies (Jenkins and Nielsen, 2018). Moreover, in terms of studying the extent and nature of freelancing, the *Reuters Institute* study excluded from its analysis journalists who earned less than 50 percent of their income from

journalism and those looking for work⁴⁰. In this section I argue the restructuring of newsrooms has externalized a large portion of less time-sensitive content production, principally to freelances, and that this work doesn't constitute full-time work for most freelances nor enable them to earn a living. Further, freelance earnings have been suppressed over this period, leading many freelances to undertake other forms of work to supplement their earnings, suggesting that the sampling decision by Thurman et al, likely misrepresented the number of freelances contributing to national newspapers and the circumstances of freelancing.

A benefit of undertaking qualitative research in a newsroom was that it became clear the extent to which freelance work has been structured into the way many desks operate. Several of the online content coordinators and desk editors I interviewed were writing some stories in-house but principally were working with freelance copy and usually had a pool of freelances whose work they used, with some freelances writing regularly on specialist topics. This section editor's comments were typical:

Principally, yeah. I mean I do get some copy from staff, but mostly it's freelancers. But I mean in terms of production, digital first would mean...we just have a skeleton staff basically.

— Amelia, section editor, 10/11//2015

These sections were organized in such a way that they did not have the capacity to produce content in-house and so commissioned freelance copy; regardless of whether it was formerly permanent staff who were undertaking this work, production relied on freelances. While this strategy isn't uniform – there were some departments where editors had responded to budget constraints by limiting the use of freelances (Interview, Yasmin, 22/10/2016) – it was typical on many online features desks, but difficult to quantify as freelance work tends to be obscured in official reports — decisions to commission freelance work are determined at a section or desk-level with payments coming out of local budgets and, whereas company-

⁴⁰ While this amounted to an insignificant number in the study, this low number may be evidence of sample bias, where a journalist may spend the majority of her time undertaking journalism work and yet the very low rates of pay for freelancers translate to a low hourly rate, meaning journalists may earn a greater proportion of their income undertaking jobs for which they spend less time.

wide reporting has staff expenditure as a single delineated budget item, freelance spend is conflated into the, substantially higher, “other expenditure” line. There was no evidence at *Digital Paper*, however, that staff made redundant were now freelancing.

Debates over the desirability and quality of flexible working arrangements (FWA), such as freelancing, often converge with discussions about whether they are employer- or employee-led (Felstead and Jewson, 1999). A NCTJ study (Spilsbury, 2016) explored this aspect of freelance journalism, finding that 17 percent of freelance journalists were pushed into self-employment due to lack of attractive employment opportunities, 44 percent chose self-employment and 39 claimed to be both pushed and pulled, a result which possibly only further complicates the picture of the desirability and quality of freelance work. Freelance journalists likely have a diversity of experiences; whereas there are some high-profile, well-paid columnists who exercise considerable discretion over the content and hours of their work, or workers who undertake freelance work to fit around other activities and responsibilities, many young journalists in this study were undertaking freelance work to break into the industry or to supplement low-wage shift work in journalism. Both the NCTJ and Reuters studies found journalists taking on other work to supplement their income; 29 percent of newspaper journalists (Spilsbury, 2016) and 27 percent of all journalists (Thurman et al, 2016).

I’ve done freelance...I’ve done other work for other desks – so like Health, for example...But recently, because I’ve always had these three days [of shift work], I’ve always had these two days where I’ve been mixing and matching. So, I’ve recently actually started working for another news organization for the other two days.

— Ruth, content coordinator, interview, 27/02/2016

An emerging practice at *Digital Paper*, which journalists I interviewed from other national papers also recognized, was of casual shift workers taking on additional freelance writing where they are paid a rate per word. Occasionally they would work on these commissioned pieces during quiet shifts or sometimes complete them exclusively during paid shift time as an important supplement to their low shift rate and this kind of work was often ‘awarded’ by sympathetic editors to junior reporters in lieu of pay increases. The shift workers I interviewed who also undertook freelancing found it the least manageable of their work because, they claimed, demands made by editors rarely take into account the amount of

research needed for a story. For example, freelances described spending hours arranging and conducting interviews which might never be used. And while they are paid a wordage, or flat, rate for commissioned pieces, they described being requested to make changes on demand – including full rewrites – regardless of the time it took and for no additional pay. As a result, freelances often worked very long hours to complete commissions with little autonomy over their time. They felt this work put pressure on relationships and other aspects of non-working life. And many freelances felt unable to refuse such requests: “I don’t feel – I never email back and say no, I wouldn’t do that, because then you just won’t get asked again.” (Rachel, reporter and freelance, 20/11/2015).

Nicole Cohen (2016) argues that freelance journalism must be understood in terms of precarity. She argues that because journalism is a “semi-profession” – there are no licensing or qualifications need to undertake journalism – it has been difficult for journalists to maintain a monopoly over their skills or create other barriers to entry. In addition, digitalization has created access to journalistic resources such as press releases, newswire services and archives outside of newsrooms which, Cohen argues, make it easier for publishers to outsource work. The combination of these factors means that it is possible for ‘anyone, in theory, to become a freelance journalist’ (2016:85). This has led to an oversupply of freelances, high degrees of competition and downward pressure on wages.

The NUJ (2007) claims that pay rates for contributed material and casual shifts are low and the recent survey by the NCTJ (Spilsbury, 2016) found that the average pay for freelance journalists is £19,499; substantially lower than for employed journalists (£30,884). The report also cited irregularity of income, lack of security and lack of ability to save as recurring issues for freelance journalists. The Father of the Chapel explained:

Freelance is a concern to us because freelance is out of our (union) control. Whereas we can negotiate staff rates – and we can make a noise about freelance payments... For a number of years, our freelances – freelances on retainer contracts– have not seen the money go up, they’ve been screwed. And often it’s either less work for - you know, less work is wanted for less money – or, ‘if you keep your work, we want it for less money.

— Richard, FoC, Interview, 11/05/2015

Photographers, the majority of whom work freelance – 64 percent according to the BPPA (2014) – have had their pay restrained through changes to copyright in their contracts. In 2009 freelance photographers in the NUJ staged a demonstration outside *The Guardian* newspaper in London after it redrafted its payment clause, claiming a “non-exclusive perpetual licence” to re-use commissioned photography in any media and without further payment. Changes like this were made throughout the industry to extend picture use online, while payment for photography dropped, for example in 2014 the *Financial Times* were paying a flat fee of £30 a picture in its arts pages, regardless of size, whereas ten years earlier a half page picture commanded £210 (Fieldnotes, 25/04/2015). Copyright has been a site of struggle for freelance journalists during the period of digitalization, as publishers have sought to extend their control over the product of freelances’ work. Cohen (2016) argues the power imbalance between publishers and freelances has meant these changes often have been imposed unilaterally, where freelances have little leverage to change clauses or refuse work, given their reliance on publishers for future work.

In general, work which is commissioned tends to be that which is less-time sensitive but also less subject to routinization or standardization; work which involves greater indeterminacy in the creative process, particular in terms of the time taken to complete it. Paying piece-rates for this kind of creative work both contains costs and externalizes those uncertainties, instead it is the time of freelances’ which becomes unconstrained and they are left to manage the long hours and unpredictability individually.

5.1.1 Managing through precariousness for in-house journalists

While freelance work is embedded within the organization of features production, casual work has been increasingly justified in the newsroom as a way of responding to the uncertainty and continual change associated with digitalization. All of the seven online-only journalists I spoke with at *Digital Paper* either started working on a casual contract or were currently on one. Some freelances worked regular shifts and had a degree of certainty about their hours, usually through informal agreement with editors with whom they had a good relationship, but with no contractual guarantee; they were not contractually entitled to minimum hours of work, while others were working ad hoc shifts according to the needs of the employer. For example, this content coordinator worked three days a week:

I'm on a contract... It's kind of not really a proper contract. Well, it's not a contract for any determinate length of time. It's like, I get paid for the days that I work. It's basically like a casual contract, I guess. Freelance contract, I guess.

— Ruth, content coordinator, interview, 27/02/2016

While the kind of contract described is known colloquially as a zero hours contract, few casual workers recognized their contracts as such and they tended to be disinterested or have only a vague understanding of the technicalities of the contractual terms of their employment. They generally referred to themselves as freelances, although this didn't necessarily mean that they were engaged as self-employed contractors. An NUJ union rep gave an indication of the resignation with which casual contracts had been met by the union:

We have a whole array of contracts, for various reasons. We think, as a chapel, that the management take liberties. We understand that the need for casuals, we understand the need for fixed-term contracts – that somebody goes on maternity leave, for example, a fixed-term contract is the obvious way to deal with it. Once you've got these mechanisms in place, a company will tend to use them, you know, and the employment law has changed...extended employment qualification rules from one year to two. And, of course, companies – even this one – will go, 'if it's legal, we can do it.' ... But they're kind of minor quarrels really. The use of casuals, which we say is too high. The use of fixed-term contracts, which we say is too high.

— Interview, 11/02/2016

This union rep downplayed the issue of casualization and characterized the union's challenges to management over casual employment as 'hand-to-hand fights that a chapel will have with its management'. Some journalists on casual contracts appreciated the flexibility it gave them to pursue other, mostly writing, projects. But others, some who had worked for three and four years without a contract (reporter and freelance, 20/11/2015), were less sanguine:

I was kind of the exception to the rule because... I was only doing two or three days a week most of the time. Pretty much everyone else...there were lots of other people — this is about 2 years ago — lots of other people were on the same type of contract as me and were there 5 days a week and expected to be there 5 days a week and, in fact, had, you know, huge

workloads and were expected to do well above their, you know, cover for other people — all types of things and there was a lot of anger about it.

— Chris, news reporter and freelance, interview, 28/08/2015

What I have now, I actually do kind of have a problem with. Because...there's literally no guarantee of work at all and so often there won't be any work and I've had...I work quite sporadically doing reporting shifts.

— Josh, digital reporter, 15/10/2015

In their negotiated house agreement, both sides had agreed that the use of short-term, office-based contracts should be limited to short-term needs, such as maternity or paternity leave, long-term illness and temporary secondment or transfer. Although new editorial projects were also seen as a reasonable basis to bring on casual staff and management had justified the greater use of casual contracts on the basis of the uncertainty of the period. The idea had been broadly accepted among journalists. This editor, who wasn't responsible for any staff, saw digitalization as requiring the organization to be in constant flux and journalists as needing to be accommodating:

You need to experiment when things are moving quite quickly and you need to be able to take people on on a short term basis because you don't know whether that is going to pan out, and you need to have some flexibility and I think the union is probably quite against flexibility and is against the use of casuals and against some other stuff that actually you need because you don't know what things are going to look like in two years' time and I think you need, as an organization, be able to experiment.

— Gillian, online editor, Interview, 16/09/2015

The uncertainty of adapting to change and the risks associated with experimenting would be borne at the cost of security of employment for staff. During negotiations over the union house agreement, management had attempted to use digitalization and convergence between print and online staff to remove a “no compulsory redundancy” clause, which applied to print editorial staff. This sparked a dispute with the employer in which the union succeeded, not only to uphold the clause but to extend it to online journalists. But the attempt by management to remove the clause suggested there was a general strategy to increase numerical flexibility of staff, in addition to the functional flexibility achieved through job redesign. Possibly unsurprisingly, this contractual insecurity had the potential to intensify work for journalists on casual contracts who felt easily dispensed with and like they had little bargaining power to negotiate better terms. Chris is a freelance who is hired on a shift basis

as a news reporter, usually working two or three days a week, but with no guaranteed shifts. He also undertakes freelance writing and investigating for *Digital Paper* and other publishers, which is the work he prefers to do. He spoke at length about casual working:

If you're on a proper contract you can have a day when you slack off a bit, or whatever — you're not under that constant feeling of "If I mess up today, they might not have me back". And, to be honest, that is a constant thing that's in the back of my mind. Whenever I do a shift, I'm always thinking, "if they don't like me, I won't get taken, for whatever reason — if I argue with them over something or if I just don't write a piece very well, or whatever, that could be it. I could never be asked back. And I don't really think that I've got much negotiating power over that to be honest.

— Chris, news reporter and freelance, interview, 28/08/2015

Working on casual contracts and the insecurity it entailed had a disciplining effect on journalists, creating a sense of pressure around work, which casually-employed journalists felt contributed to intensification and made them less likely to raise disagreements or negotiate for better conditions. There was scope for some journalists to address their working circumstances through making informal agreements about shifts and shift patterns or informal arrangements to improve take-home pay with their line managers. This tended to be possible because of loose hierarchies within the organization, particularly in situations where 'oh the editor is my mate' (Josh, digital reporter, 15/10/2015). But these solutions to work security were circumscribed; they could improve hours or pay marginally but could not address the contract itself.

There definitely are people who would help out or try and improve my working... But obviously their power is limited too ... you know, they can't just put me on a better contract or something like that...I think really the only way to ... the only real definite way to increase your bargaining power really in the workforce is to just get promoted to a position where you can. Once you're chums with all the editors and things then, yeah, you can say "I want a pay rise"; you can threaten to leave to another paper.

— Chris, news reporter and freelance, interview, 28/08/2015

Because these arrangements were both informal and irregular, they often happened with a degree of secrecy, with journalists assuming they should not discuss their arrangements with colleagues. While informal arrangements of different kinds seemed to be commonplace in my discussions with causally-employed journalists, it was an issue which my interviewees were cautious to discuss with me and didn't want the details reported. This individualization

and secrecy has the potential to act as a barrier to addressing casual contracts as a collective issue.

In addition to the creation of more precarious contractual relations with staff, digitalization had also seen the extension of marketized relations within the organization, which are used to discipline permanently-employed workers and make journalists more sensitive to audience and advertising. Within the financial constraints of falling revenue, the governing body of *Digital Paper* had sold assets and invested in private equity investments in order to sustain its journalism. While this didn't impact directly on editorial operations, newer online sections of the organization were required to be revenue neutral (*Digital Paper* Annual Report, 2008/9), which brought a greater financial awareness and sensitivity to editorial sections and staffing levels were explicitly attached to the level of revenue an online section could attract. One content coordinator explained how she needed to secure advertising to 'pay for content':

One of the reasons why my job is only part-time, is because, kind of, the general rule is you need to have two or three [major advertising sponsors] on the site at one time to be able to afford a full-time second member of staff.
— Ruth content coordinator, interview, 27/02/2016

Overall my department's budget – is determined by how well our sales team perform.
— Maeve, online section editor, interview, 25/02/2016

While the emphasis on directing traffic to the site and to specific pages and stories is the subject of the following chapter, it is worth noting how audience traffic and data has helped to embed marketized relations within the organization. It was particularly apparent in the competition between editors to have their stories published on the network front or sent out via *Digital Paper's* main social media handles and profiles. An editor described the time and effort that would go into convincing the SEO team to put one of her pieces on the network front:

Well it's quite hard these days because there is so much [online content], but ... if it has a good headline it is more likely to be picked up by the editors. If they know it's something that is coming or, occasionally, I will send them a lobbying email and quite often if I do that it involves me

pointing out that where the BBC have like ripped off our story or [another online news site] has or whoever – that, actually, they have got theirs on the front and we haven't, and things like that. Any of those tricks!

— Gillian, online editor, Interview, 16/09/2015

All of these changes, which made journalists' contracts and working life in general more precarious, were occurring in a context of successive rounds of redundancies. Precarious employment, in the sense that it was irregular, low wage and lacked the social protections of permanent employment, was being structured into the organization of the news production process through the use of freelance work and underwritten by insecure employment contracts for in-house journalists. However, precariousness was not limited to the contractual arrangement of employment — the permanent threat of redundancies, combined with staffing levels and section budgets tied to advertising revenue, introduced precarity into the labour process and introduced mechanisms that left journalists' conditions of work at the individual level much more susceptible to the fluctuations of the market.

5.2 New digital temporalities: acceleration and intensification

By 12.55am Chris has been at his desk more or less since his shift started at 5:30pm. He has written a NIB (a snippet of news about 250 to 300 words long) based on stories on the news wires. At around six o'clock, when the Digital Paper site hits a spike in traffic that coincides with the evening rush hour, he made some changes to a news story in an effort to get more traffic to it – updating the picture and creating a link from it to another news item which provides some background on the story. Other than that, he has scrolled the wires repeatedly and had a brief chat with the night news editor about stories from the wire that he could write up, but there is no breaking news tonight and tomorrow's newspaper edition has been finalized, so there is little to do. He has used the quiet shift to put together some FOIs⁴¹ for an investigation he is pursuing – part of the freelance work he does in addition to casual shifts at the newspaper. The muted flurry of work from earlier – mostly evidenced by the concentrated tapping of keyboards and the swift movement of production editors from desk to desk across the floor as print deadlines drew closer – has stopped.

⁴¹ Freedom of Information requests are legally sanctioned requests for information from public bodies covered in the FOI Act, often used by journalists to access unpublished public documents.

Chris checks his email, scans the wires, scrolls recent feeds on Twitter—moving seamlessly between the different pages, all open in different windows on his browser—spending not much more than a few minutes on each. He looks across the editorial floor, searching to see the night news editor who Chris hopes will tell him to go home in five minutes; thirty minutes before his shift officially ends. This is likely, he has told me. It isn't always this quiet on a night shift, he tells me: 'There've been times when I've done live blogging—actually I've not done that for ages but, for instance, do you remember when [there was a terror attack in London]? They had a live blog going and then the guy who was doing the live blog finished his shift, I came in and started doing that live blog.'

One night shift with Chris reveals much about how the convergence of print newspaper and digital journalism has had important implications for the way working time is organized for digital journalists. At the most basic level, shift times have changed, so for Chris, that means coming in for a night shift where he will start by assisting with the production of the print newspaper—now a task that involves curating what has been written for the online news platform into print format; '[*Digital Paper*] has a system where it's web first. So you all write your stories and at the end of the day they make a paper out of them' (Interview, 15/10/2016)—and then be available to prepare stories on any breaking news that happens after the print deadline. Across *Digital Paper*, day shifts, which the majority of journalists work, start earlier and there are more journalists working later into the night and covering weekends so that news stories can continue to be covered at those times. The rhythm of the day, previously a buildup punctuated by a print deadline, has made way for different events and norms that structure and pace the working day for journalists, with implications for the intensity of work and for the extension of the working day. And, as outlined in the previous section, Chris' status as a casual employee with no guaranteed hours is not unusual among journalists writing for digital publishers, nor is the practice of casual journalists supplementing shift work with freelance feature writing that is paid at a wordage rate.

The first part of this chapter has demonstrated the way in which management sought numerical flexibility in contracts in order to respond to the constantly changing circumstances of digital journalism, in particular, new technologies and changed finances. This second part addresses the widespread claim that digital technologies are responsible for the intensification of work (Felstead et al, 2013). The previous chapter argued that, in the absence of print deadlines, the need for immediacy of publication (Usher, 2014) and assisting speed became the organizing principle for the restructuring of the newsroom and redesign

of journalists' jobs and highlighted how tasks had been integrated as jobs were enlarged, creating a fragmentation of the labour process. These changes complicate any assessment of whether work intensification has occurred, but this section argues that digitalization has changed journalists' relationship to time and constant connectivity leads to factors which increase journalists' sense of time pressure. Additionally, rather than digital opening the way for 24-hour time, constant connectivity has resulted in managers asserting new forms of time discipline and journalists developing time management strategies, in a context where institutions and social conventions which delineate standard working hours persist.

The charge made of churnalism was that poor quality, repurposed news copy was the result of newsrooms where fewer journalists were required to produce more news in less time. The original study by Lewis et al (2008) found that journalists in UK national newspapers were producing three times the content of their counterparts 20 years earlier, but their research was limited to print journalism and their method involved comparing editorial employee levels with pages of editorial content. The researchers claimed they could not gain adequate information at the time to quantify online content. The study by Thurman et al (2016), which did compare online and offline journalists, found that UK journalists produce or process on average ten news items a week, with online journalists producing twice that amount.

While these studies might help to give a broad sense of the quantity of content being produced in newsrooms, the argument has generally relied on the theory that the amount of content being produced could only be achieved by lowering of the quality of content and intensifying of journalists' work. The two main problems with this theory are, firstly, different kinds of news content are produced through qualitatively different processes and, secondly, that digitalization, like any technological change has had implications for efficiency and productivity, which complicate any simple equation of output against employees. The study by Lewis et al (2008) compares pages produced in newsrooms during the period of computerization — an earlier period of technological restructure in newsrooms which predates the incorporation of the Internet and mobile technologies — with a time when digital technologies were more established in newsrooms. The measure of “news items” used by the Thurman et al study is an even less precise measure than pagination, used by Lewis et al, where a news item could include stories of vastly different length; a “quick take” or a NIB, alongside a longer story which has been researched. It is also not clear whether “news

item” includes investigative pieces or news features. In light of this, the question should be reframed as one of the extent to which technology has enabled efficiencies in news production compared with the increased volume of content being produced by journalists.

Even when accounting for the way technology has changed the circumstances of production, making direct comparisons is difficult. Digital technologies have clearly created efficiencies in some aspects of work. Aside from the wholesale removal of the printing process, typesetting has been replaced by pre-defined templates for layout in CMS; journalists can access a vast amount of information about a story without leaving their desks (although some journalists suggest that, this means journalists are less knowledgeable, no longer needing to recall reference information); electronic file transfer amounts to a compression of space and time, for example, photos no longer need to be processed and transported to newsrooms. As Judy Wajcman (2014) points out, ‘rather than simply compressing time, information technologies change the very nature and meaning of tasks and work activities’ (2014:31) and, as noted in the previous chapter, journalists’ work processes and practices and the way the work is organized have not increased in pace or volume as much as changed entirely, and the increased speed of news production has been facilitated, at least in part, by the removal of some layers of editing and oversight. None of which is to argue that churnalism doesn’t exist, or that journalists’ work hasn’t intensified, but that these simplified calculations are limited in what they reveal about the multiplicity of factors that have influenced the conditions of news production during the period of digitalization. Even Lewis et al based their final analysis on discussions they had with journalists about perceived workloads, rather than the quantitative evidence based on output per journalist.

5.2.1 Competition, news spikes and the manufacture of time pressure

Previously time discipline was imposed by a print deadline and this was reinforced by the need for coordination and synchronization of different sections of the production process, whereas ‘digital news is constantly re-temporalized by a complex field of technologies, practices and institutions of news-making that range from nearly instant technical transfer of data to a variety of tempos of informational processing and planning’ (Boyer, 2013:5). Rather than reducing the temporality of digital news to “realtime” or “immediacy”, Boyer highlights the way in which time is mediated by technologies, practices and institutions. From the perspective of journalists, the constant connectivity inherent in digital publishing requires them to work faster compared to print where:

...the story could come in at 9 o'clock in the morning and you could still fiddle about with it 'til 5 o'clock in the afternoon because it wasn't going anywhere until then. So you had more time to think about it and to work around it. Now if something happens, it's, like, "Well, we need to get a take on it up there in 15 or 20 minutes"

— Eddy, managing editor, interview, 15/10/2016

For breaking news, timeliness is central to its value (Galtung and Ruge, 1965; O'Neill and Harcup, 2009 c.f. Rimestead, 2015) and constant connectivity means that journalists have a time pressure to publish "as soon as possible" (Usher, 2015). A managing editor described breaking news as 'just shoveling through as fast as you possibly can. It's harder for most journalists than it was' (Bob, interview, 18/11/2015). Live blogging represents a new form of journalism devised specifically to deliver news coverage in the context of constant connectivity, which journalists described as requiring constant attention and as being potentially stressful. Constantly monitoring and filtering flows of information has recalibrated the rhythms of the working day for journalists who now monitor news events and manage external information flows in addition to responding to internal flows of information, such as those from analytics dashboards. Compared with print production, where the intensity of work built up through the day towards a daily deadline, this process of online monitoring and immediate publication has resulted in a more constant workflow, where journalists find it harder to switch off during the course of the working day.

'There's a theory that if you can be earlier with the story, you'll get more traffic in the long term, but also, I think there's just the reputational thing of not wanting — if you think something is a big story, you don't want to be late on it. And you want to be the place people go to for breaking news. You don't want to be that editor, or that paper, that has a reputation for doing everything a day late.'

— Chris, news reporter and freelance, interview, 28/08/2015

Deadlines for breaking news are driven by competition, meaning that immediacy of publication acts as a real time pressure on journalists. While reference points such as reputation and competition with other news sources have become a benchmark for judging how fast news should be ready to launch online and whether a publisher is keeping pace, new notions of immediacy don't have the same finality as a print deadline or the sense of concerted effort:

There was an excitement to hitting the ten o'clock deadline. And you could hear the presses in the building rumble. And go downstairs and pick up a copy of the first edition. And go through it and think, 'oh shit, we spelt that wrongly', and 'oops'. But I... Just hitting the return key is...[shrugs]
— Craig, NUJ organizer, former print journalist, interview, 29/04/2015

Despite the constancy and the competition, time pressure in these circumstances had to be manufactured. For breaking news an unofficial, but well-recognized target of 15 to 20 minutes to get a story online has been established by news managers at *Digital Paper* and internalized by reporters as an editorial norm which sets the timing of online publication and so the pace of work. Managers will also apply direct pressure, with editors pushing reporters, 'saying "have you done it yet? Have you done it yet?"' (Josh, digital reporter, 15/10/2015) and some time pressure is self-proscribed through professional socialization, with breaking news reporters sensing they are 'being judged partly on how quickly you write things' (Chris, 28/08/2015). Word limits are also applied, not because of space restrictions but to indicate how long a story should take to compile.

Where breaking news can arrive haphazardly through the day, it only amounts to a small proportion the work that most journalists, including those in the news desks work on. For pre-planned, or "diary" stories and features, different temporalities have emerged, where speed is not necessarily the imperative:

Because I'm not on a breaking news desk, and I've never done live-blogging or whatever, I'm not ever completely stressed out about deadlines because we just do things quite slowly. And it's more about organization. Organization in advance.

— Ruth content coordinator, interview, 27/02/2016

In these instances, where journalists are not disciplined by the competitive and organizational pressures for speed that have developed around breaking news, they have more discretion to plan and negotiate their relationship to constant connectivity and to the digital technologies they use; planning activities, making use of the synchronous and dyssynchronous features of ICTs in order to better manage their time, much like the networked workers Wajcman (2014) describes. But this doesn't equate to journalists having full autonomy over their time or that working in the absence of a print deadline leaves

journalists unmoored from time or the structuring forces of time. Where journalists have a wide discretion over their work, time discipline is instilled at the organization level with the institutionalization of new digital deadlines. Analytics tools, which monitor audience traffic on the website, have been used to identify “news spikes” — moments in the day when audience numbers have tended to cluster — and these have been instituted as new deadlines. One managing editor pointed out that, initially, the Sunday edition was being launched online at its usual print deadline, until editors realized:

The number of people who were around at three minutes past midnight on a Sunday morning, actually looking for newspaper stories, is very small.

We laughed about the fact that it seemed obvious now, but when stories were first being posted online, production routines had changed very little and launch times for features were based on old print deadlines. Now stories for the Sunday edition are posted throughout the day on Sunday and, occasionally, depending on the story, at other times through the week. News spikes may create two or three deadlines throughout the day, with the number and timing of spikes specific to the desk. These impose a discipline on editors and reporters about when stories need to be published and, in an organization where the management culture tends towards a hands-off approach, the dashboard technology creates an indirect means for management to impose structure on the working time of journalists.

While news spikes are used to structure the working day and journalists’ use of time, they are less about speed than timing. The pace of news is driven in response to audience behaviour:

So there a lot of decisions to be made with features, I think, about what time of day you put them up to get maximum traffic.

— Amelia, section editor, 10/11//2015

The priorities on digital have changed an awful lot...not necessarily needing to be first anymore and not necessarily needing to be fast and the fact that timing isn’t just about speed; it’s about when you release it and who wants to read it — You can be tempted to just to chuck as much at it as possible and see what sticks but that’s not the way to do it.

— Gillian, online editor, Interview, 16/09/2015

Theories have suggested that digital technologies and constant 24/7 connectivity lead to the end of synchronous time (Castells, 1996) and the merging of work and non-work time (Burston et al, 2010) which we willingly take part in (Crary, 2013). This purportedly diminishes the importance of the working day as a marker of time and for setting the rhythms of daily life (Castells, 1996; Crary, 2013). Traffic spikes tell a different story; there are discernible patterns of audience traffic on the site, many of which correlate with the working day of the audience; their commutes to and from work and their lunch breaks. As the education editor said:

Things that we do that will be of interest to teachers does really have to go live at breakfast time, otherwise they're just going to be in school all day and they won't read anything. So, things like that we have to take into account as well. — Amelia, section editor, 10/11//2015

The contour of audience working days play a large role in setting the rhythms and routines of journalists' working days.

The emphasis on timing, rather than pace, accords with Rosa's (2003) paradox that, even in the context of overall acceleration, some aspects of social life experience decelerations and inertia. In digital journalism, the faster flow of information in the digital sphere can be seen as an acceleration which pushes up against the limits of journalists' ability to filter and process it, but greater speed creates new issues – or inertias – to do with information overload or scarcity of attention (Moulier-Boutang, 2012), for consumers of news. While the capacity to speed up the source of information has increased, the emphasis on timing when stories will be launched can be viewed as a response to the inertia of overload — like a traffic jam in high-speed flows of information. Journalists are involved in trying to coordinate and synchronize the launch of stories so they are not vying for audience attention and their work becomes paced by the need to operate in the spaces created by inertia.

While the pace is slower in features work, as compared with live blogging or breaking news, juggling multiple, sometime conflicting temporalities, rather than an objective increase in the intensity of work, can give the perception of time pressure: 'I do have a bit too much and too many different deadlines really' (Gillian, interview, 16/09/2015). A content coordinator discussed the same issue in relation to her ability to time manage and prioritize:

I find it hard to manage my own time in terms of...because it was just so many different...juggling plates of so many different things to do.

— Katie, content coordinator, 28/04/2016

This tension between competing priorities accords with an argument Wajcman (2014) makes that multitasking and interruptions can create a perception of time pressure; where it is the qualitative experience of time that can lead to a sense of feeling harried. Journalists are often working within many different time frames; in addition to working with different and sometimes competing timelines – deadlines with daily, weekly or monthly lead-in times – there is the monitoring and filtering of a greater amount of external information through social media and other news-gathering sources (something journalists have always done) but also monitoring and responding to internal flows of information from data analytics dashboards. Constant connectivity enters the work of features writers in terms of managing their social media accounts and interactions with audience through social media and this takes place alongside much slower processes such as the long-tail of news, where old, archived stories occasionally go viral and so require curating. And while social media interactions can be anticipated and planned in advance – they tend to coincide with when stories are launched online – the intensity of audience interactions or older stories going viral are less predictable so less easily planned for, but also make up only a limited part of the work of journalists not dealing with breaking news.

5.2.2 The working day

The organization of publication around web traffic spikes has changed the rhythm of the working day for journalists at *Digital Paper*. The early morning surge in traffic means that many journalists start work earlier and, whereas news journalists in the three different parts of the organization — the weekly paper, the Sunday paper and online — worked completely different weeks prior to convergence, now ‘for almost everybody, we have shifts that start at 7:00 in the morning and run through till 2 o’clock the next morning and five hours in between’ (Managing editor, interview, 15/10/2016), with overnight news monitored by overseas desks.

News events, and so journalists’ work, continues to be structured around social and institutional norms where big, unpredictable incidents that need to be reported are rare and, when they occur, it tends to be during standard working hours or, on the occasions when

news breaks outside these times, journalists are limited in how they can report them, because their sources operate according to standard working hours, for example, as one reporter pointed out, the likelihood of someone answering their door after 11 o'clock at night, was slim. Several journalists made similar points:

If it's 10 o'clock at night, not that many places have out-of-hours press offices and they're normally very unhelpful so, if it's the police force, they'll probably go, "We've got a statement on our website and if we haven't, sorry, phone back in the morning". So, there's often not much you can do. apart from rehash other things. Or just wait.

— Chris, news reporter and freelance, interview, 28/08/2015

But in terms of really big incidents, they're quite rare. Where you get some very unpleasant murder that takes place, often what happens anyway is that the police don't tell you about it until 9-5 working times anyway.

— Josh, digital reporter, 15/10/2015

In this context, where the vast majority of news is geographically bound to local time zones and temporally bound by institutions like standard working or office hours, 24/7 news tends to refer to international news coverage. A third of journalists working for UK national newspapers consider their outlet's reach to be transnational (Thurman et al, 2016), but rather than national news desks operating 24/7, the work has been distributed globally. A reporter explained that when a shooting spree happened at midnight in America, it was covered by the London office, rather than night staff in the US office:

So, it was a bit of a scramble to pull something together and we didn't know whether we were allowed to name [the shooter] and all of this stuff and, as chance would have it, someone came into the [US office] quite early.

— Josh, digital reporter, 15/10/2015

Digital technologies have been central to explanations for the extension of working hours (Gold and Mustafa, 2013; Cavazotte et al, 2014; Smith, 2016), which point to networked connectivity and mobile devices as enabling, if not causing, the encroachment of work activities during time out of working hours. I examined whether digital journalists' work had been extended in terms of longer working hours and outside the boundaries of standard working hours and, where extensification of work is occurring, with attention to the driving forces and practices and the contributing role of technology.

An unexpected, or counterintuitive finding was that, in jobs which required constant connectivity, such as live blogging, or news shifts which had become less porous throughout the day, the start and end times of shifts seemed to be observed more attentively. Journalists in sections where work is more driven by the demands of constant connectivity noted that tasks were more likely to be handed over to someone at the end of the shift. This contrasts with pursuing a story to its completion, which is characteristic of how news journalists have worked historically. Although the continuous reporting associated with online breaking news or live blogging seemed relentless, it was more likely to be bounded by shift times than the story- or task-oriented work of features writing. This move towards working to shifts was common for journalists whose working rhythms had become more constant:

I think people do still think it means this kind of relentless work and it is harder to switch off but in other ways it's not because, if you are working in certain roles, you sub the five things to go online and then you go and have your lunch and you don't worry about it.

— Gillian, online editor, Interview, 16/09/2015

For those journalists producing breaking news and news where their working days are more continuous and less porous, shifts have become more pronounced as a way of imposing a limit on the length of the working day, with work becoming predominately time-orientated, rather than story- or task-oriented.

Working out-of-hours is variable among the journalists I interviewed. Staffing levels mean that some working out of hours is unavoidable. Amelia, who works alone on the section desk where she is editor explained:

I don't officially work on a Monday. I have to completely keep in touch with my email and so yes, if there is a problem, I'm the only one who can deal with it. I don't have deputies...Just basically I work on my own with a couple of subs at the end of the week. So yeah, so it's me who has to deal with these things.

— Amelia, section editor, 10/11/2015

I mean, we don't always launch things on the weekend. And if we do, we can kind of split who is looking on it for that time. I guess I'd feel like we should be looking [on the site out-of-hours]. Just to see if there's mistakes and stuff.

— Katie, content coordinator, 28/04/2016

The main reason why journalists worked outside of working hours, however, was because of their attachment to their work and the enjoyment they derive from it, rather than as a result of managerial directives, contractual obligations or a sense of responsibility:

I found that normally when I'm having to finish something off and stay late it's normally because I'm writing a feature or something, which is kind of "Oh I've got to do this, or transcribe that, or whatever"...which is always, for me, kind of like, why I wanted to get a job in journalism in the first place. I always was like "Well, yes it makes my hours go over" but I'll make sure I'm always doing something that's interesting or that I want to do.

— Katie, content coordinator, 28/04/2016

It's probably a bit unhealthy, it is a bit unhealthy because I do watch Newsnight and follow the front pages on Twitter and if I see something that the *Telegraph* has got something on the front tomorrow that is on my patch then I would already be thinking, "Oh what are we going to do, how are we going to do that?"

— Gillian, online editor, Interview, 16/09/2015

For many journalists this manifested as a close personal identification with the work, which Gillian summarized well: 'I do find it quite difficult to separate. I am proud of what I do as well, so I suppose I don't really see a reason to separate it'. This attachment to the process and product of the work is a feature of creative work (Smith and McKinlay, 2009). The personal attachment to work became more complex where journalists were using their personal social media accounts for work:

I check my emails all the time and I don't always check work emails necessarily outside of it, but I check...I mean I check Facebook, Twitter, work email every hour. Just constantly.

— Leah, reporter, interview, 15/07/2016

It's so tied to...becomes tied to everything that you're doing online and who you are; what you're...you know, just online space...and I've never been good at being like...I mean, it's not even occurred to me to check my emails on the weekend or outside of work because I check it not to do work really but just because it's like habit.

— Katie, content coordinator, 28/04/2016

In this comment, Katie demonstrates the way in which the design of social media technology – to keep you in the site for longer (stickiness) and to encourage repeat returns to the network – combined with practices that social media users have developed of ritually checking their accounts, mean that work where social media is required becomes implicated in these habituated practices. Some journalists described their social media use in terms of never really being able to switch off from work. But in other cases, journalists are able to make use of technology to control the flow of work, for example, Ruth discusses how, in the section where she works, they time the launch of stories for early in the morning, so the team don't have to be physically present in the newsroom: 'I think that's kind of why we started scheduling stuff to go up in the morning, before we get to work' (Ruth, interview, 27/02/2016).

The NUJ chapel has taken the view that, where there is pressure from management for shifts to start earlier, that working from home would be preferable to requiring journalists to come into work early:

Our feeling is – from chapel-side – that you don't, in this day and age, have to be in the office for six o'clock in the morning to write the story. If they really want someone to write a story for six o'clock in the morning – and all of the various other rewards that come with it – you can do that at home. It's perfectly possible to be in touch with the office constantly.

— Richard, FoC, Interview, 11/05/2015

While constant connectivity has been linked to the blurring or collapse of work/life boundaries for workers, for these journalists, technology has a more ambiguous role. The timed launching of features gives journalists some latitude to prepare stories during working hours and have them go live out of hours, without having to be present at work. The ability to work remotely has, so far, avoided, the imposition of earlier shift working patterns by management. Where jobs involve constant connectivity, the working day has not been extended by the relentlessness of information flows, but rather limited through a renewed emphasis on shift times. Most out-of-hours work is generated by journalists checking social media and happens as a result of journalists' attachment to their work or habits around social media, rather than a necessary requirement of their jobs or managerial expectations.

5.2.3 Negotiated time

The shift patterns that journalists work at *Digital Paper* are the outcome of a year of negotiations from July 2007 to 2008, including a dispute over the early rolling out of web-first. In the first instance, management attempted to bypass negotiations with the union by using unofficial pilots of multimedia working, such as podcasting and blogging, on a section-by-section basis. This, the union argued, increased workloads and required new skills that were embedded into work practices but not reflected in journalists' pay. Similarly, web-first, rather than become the subject of official negotiations, was trialed in selected areas (a deliberate strategy of management to avoid negotiation with the union). Journalists in these selected areas reported extra workload and longer working days as a result (*Fieldnotes*, 07/07/2015) and the union passed a motion to refuse any further rolling out of web-first without negotiation.

Following from this early confrontation, a major change process, which involved negotiation between the management and union chapel was undertaken, including a review of the editorial house agreement, which provides a framework for the working conditions of editorial staff. Management at *Digital Paper* wanted to provide 24-hour news coverage, with newsrooms to be staffed throughout the day and night, including introducing 6am shifts and moving the editorial workforce from a 9-day to a 10-day fortnight. Management presented their proposed changes in terms of “flexibility”, which was interpreted by staff and the chapel as “a byword for watering down terms and conditions” (NUJ, 2007:39-42) — journalists opposed these changes and working hours became the major focus of negotiations:

I think, in common with a lot of people, I don't want to come in at six o'clock in the morning...some of those things might have come in without [the NUJ] and I think we are lucky we are being protected from a lot of those ways of working. — Gillian, online editor, Interview, 16/09/2015

In the final agreement, the chapel conceded to multi-platform working, provided that all staff received training and that workloads were monitored. The 24/7 working rotas which management had wanted to introduce were pushed back to 7am starts for a smaller core of staff, rather than rolled out across all staff, as management had originally bargained. A night shift, as one journalist pointed out ‘is not really a night shift’ (Rachel, reporter and freelance,

20/11/2015), but runs from 5:30pm to 1:30am. Management never managed to instigate 24/7 newsroom work, but the union were forced to concede on editorial hours of work, which were harmonized to match the 10-day fortnights of online staff (NUJ *House Agreement*, 2008). In the trade-off the union had emphasized security of employment, with the retention of the “no compulsory redundancy” clause, over the limiting of working hours.

While digital has shifted the temporalities of news production, journalists tend to put overwork down to staffing levels, rather than the particular requirements of digital publishing. One reporter described her section as ‘ridiculously overworked’ because the staff were trying to do ‘too many people’s jobs’ (Rachel, 22/1/2015). This is probably unsurprising, given the period of digitalization has been marked by cycles of redundancies, which have been justified on the basis of financial constraints, rather than the needs of digital production. Journalists had normalized being present at work for nine hours or more, even though a scheduled shift was for eight, and routinely ate their lunch at their desks. They described how colleagues would leave the organization and not be replaced – there had been periodic recruitment freezes at *Digital Paper* between 2008 and 2015. While journalists on both the editorial sections which had evolved from the print paper as well as those on the more commercial online-only sections noted that overwork was an issue, this was not even across both sections. The legacy journalists, who have higher status within the organization and are well-unionized, acknowledged that they were better-staffed than the digital-only sections; a fact which drew resentment from some online-only staff. The general pattern of overwork is reflected across national newspapers and was one of the major themes raised at the NUJ newspaper summit on digitalization (Fieldnotes, 04/2015). At the NUJ chapel meeting of a different national newspaper, members raised the issue that they were working consistently understaffed shifts — one journalist claimed that, over a 65-day period, there were only three days when they had the full desk of four people working. Another said that four months’ cover had been approved for a colleague on long-term sick leave, but no replacement had been arranged (Fieldnotes, NUJ chapel meeting, 03/06/2015).

5.2.4 Time after time or a new digital temporality?

Rather than creating “timeless time” (Castells, 1996) or 24/7 time (Crary, 2013), the absence of deadlines, led news managers to develop a range of practices to impose time discipline in the newsroom. Whereas the internet and the abundance of information journalists can access

are often perceived as a pressure which comes from outside the organization, timing tends to be driven by internal factors. For breaking news, deadlines were competition-led but for features, urgency, along with new deadlines, had to be manufactured – whereas a print deadline was a non-negotiable final arbiter, its removal places more emphasis on management to create time pressures through direct supervision, instilling norms around how quickly breaking news is compiled and translating audience spikes into deadlines.

In terms of the role of technology, Wajcman (2014) draws attention to the flexibility and malleability of digital technologies which gives workers potentially greater autonomy over how they negotiate their use. In this chapter, journalists have been shown to engage in practices that create new norms and habits around technologies and have internalized different notations of time but, where work has been intensified, it tends to be more a product of organizational restructure. But, in Wajcman's haste to dismiss the view that technology in the workplace is shaped by the antagonistic relations between capital and labour relations as reductionist, she underplays production relations and overlooks the continuing centrality of the working day for determining the social organization of time. Time cannot be understood independently of social action and, as Harvey notes, 'those who define the material practices, forms and meaning of money, time, or space, fix certain basic rules of the social game' (1989:226), where control over labour time is fundamental for accumulation. Working time and the disciplines, norms and rituals that work imposes are still the key influences on how the journalists in this study orientate towards time, just as the embeddedness of workers in place remains important for the regulation of time. This is the case even for freelances and workers who are not employed regularly, where lack of security of work creates feelings of a lack of control over time, as discussed in the previous section. Freelances' time, as experienced in relation to their work, is unpredictable (O'Carroll, 2015) and can be overloaded where the demands placed on them by management and commissioning editors often bear little relation to the implications they have on freelances' working time.

5.3 Chapter Summary

This chapter has outlined the specific ways in which managers have responded to contingencies in the labour process for news production principally through negotiating new temporalities in digital journalism. Flexibility and time have been central to the establishment of new contracts and new customs and practice around the effort bargain and facilitating

speed has been central to the design of web publishing technology and an organizing principle behind the restructuring of the newsroom and redesign of journalists' jobs. The radical restructuring of the newsroom and changes to work practices have partly obscured the relationship between pre- and post-digitalization workloads and the intensity of journalists' work. While networked digital technologies create efficiencies in the gathering and transfer of information, journalists feel their workloads have increased and the temporal reordering of their working patterns, especially where the working day is less porous, creates the perception of time pressure for many. This perception of the intensification of work is attributable to the changed rhythm of the day, where work is constant and there is no collective building up or building down to a deadline. The constant pace of work also means journalists find it harder to switch off during the course of the working day. Paradoxically, for journalists whose tasks require them to be constantly connected, shift times have taken on a greater importance in terms of defining working time, limiting working hours, to make work more manageable or predictable. The vulnerability created as a result of precarious casualized work, and potentially the stress associated with greater responsibilities, may also contribute to a sense of intensification. Objectively, as evidenced by their editorial contractual agreements, journalists who are permanently employed are working longer weeks by five hours and numerical flexibility has been sought across the editorial workforce through the greater use of casual and freelance contracts. This fits with a broader employer-led flexible working time agenda has been justified by managers in terms of customer demand (Rubery, 2005; Smith, 2016) and financial constraints and these justifications are generally accepted, or considered inevitable, by employees. The intensification which journalists experience fits with general trends in work (Green et al, 2015) where productivity increases have been attributed to increased worker effort or work intensification, rather than technological productivity (Nolan, 1989; Nichols, 1991) and intensification is linked to changing employment contracts; restructuring in response to the crisis (Felstead et al 2013; Smith, 2016) and as a result of performance management regimes (Taylor, 2013; Smith, 2016), which will be discussed in greater detail in chapter 6.

The organization or sequencing of work in time has also been radically altered as a result of digitalization; managers have asserted new digital timelines based on audience metrics which replace the time discipline created by a print deadline and shift times have changed in response to them. Workers have been dislocated or disconnected from a process that historically linked, if not synchronized their work according to print deadlines. Journalists

are much more likely complete their work on their own or in small teams with little reference to the rhythms of the newsroom as a whole. The multiple timelines created through this disaggregation of the news process has also contributed to a sense of overload. Journalists often internalize the competing priorities that arise; talking about the need to be better organized, or get better at prioritizing, or faster over time; journalists try to embody the many temporalities, but at their own expense. This individualization of time pressure, however, has not precluded journalists recognizing work intensity and workload as collective issues and disputes over work intensity and shift times have been key to the negotiations between the union and management during transitions towards more digitalized work.

Digital time continues to be most sharply circumscribed by the institution of the standard working day, even at a time when this has increasingly come under pressure and been eroded for many workers; it is still the most significant institution that shapes collectively shared time in society, as can be seen with the timing of traffic spikes. Standard working time also continues to be an important point of reference for journalists in defining the terms of their industrial agreements, where working time has been limited through journalists' resistance to changes to their working hours and shift times.

6 – Data, Surveillance and Visibility

In May/June 2014 the NUJ's magazine, *The Journalist*, carried a news item claiming that *The Oregonian*, a US newspaper, had set journalists the target of writing three articles per day and was tying reporter bonuses to the number of stories published⁴². Throughout the 1990s, as microprocessors and computers became the major area of technological development within the labour process, the technology precipitated a shift in the predominant kind of work being performed, towards work which had more informational content (Frenkel et al, 1995), but it also raised new questions about control in the labour process (Thompson and van den Broek, 2010). In particular, ICTs were associated with surveillance and performance monitoring; through feedback mechanisms these technologies could provide information about how work is performed and extend technological control into the evaluation process in precise and individualized ways (Zuboff, 1988; Taylor and Bain, 1999; Tansley and Watson, 2000; Sewell and Wilkinson; Elliot and Long, 2015). Now digitalization seemed to be tying the management of journalists' performance to data collection in ways that journalists, until now, had been spared.

Chapter five started to introduce the idea that audience data and new forms of measurement were structuring the work of journalists, this chapter extends that discussion; whereas the previous chapter touched upon how technologies are used to develop new deadlines and as a form of time discipline, this chapter considers the extent to which audience data has become a tool of management control beyond time management, linking this idea with discussions within LPT about control and the role that technology plays in directing and disciplining journalistic labour. I identify the ways that audience data and the metrics derived from them have become embedded within the everyday practices of journalists and argue that data analytics are having a significant effect on the work of producing news, as well as reflecting a general shift in the decision-making and priorities that direct journalists' work. I argue that metrics and the tracking of audience responses to a story creates new visibilities for the performance of journalists' work that are both more individualized than previous measures of a newspaper's success and, secondly, that data give the appearance of being objective or neutral measures but embed in the journalistic labour process a set of

⁴² Available at: https://issuu.com/nujupload/docs/thejournalist_mayjune2014_Page_4. [Accessed October 2018]

commercial priorities – priorities which depart from journalists’ professional understanding of what counts as quality journalism. I conclude that this brings to the surface, and has the potential to augment, an underlying tension created by the particular duality of the journalistic labour process, which is both a process to produce content for audiences and a process to produce audiences for advertisers (Smythe, 1981; Fuchs, 2012) which challenges journalists’ professional values. The second part of this chapter extends the idea of customer control (Fuller and Smith, 1991; Korczynski et al, 2000; Bélanger and Edwards, 2013) to the way social media has been incorporated into the journalistic labour process. I argue that social media introduces audience desire and demands directly into the newsroom and, extending from this, that one of the features of constant connectivity and the multi-way communications it affords is that journalists’ work takes on more of the characteristics of service work and, in the context of a managerial focus on audience engagement, means that journalists must be responsive to their audience. Further, social media technologies, designed as they are to create rapid, emotive exchanges between anonymous users, combined with the norms which have developed around their use, mean that they have a tendency to generate polarization and abuse (Garimella and Webber, 2017).

As outlined in chapter two, the knowledge and creative content of labour poses a challenge to management control; it can be what makes the labour unique and valuable, as well as what makes it indeterminate. Indeterminacy can arise in the processes required to convert knowledge or creativity into valuable commodities, meaning that management cannot tightly control or routinize the process, or in terms of the final product, whether that product is a good, service or new knowledge, it makes outputs more difficult to measure. For journalists there is indeterminacy in both the process—which could involve gathering news from a wide variety of sources, assessing and responding to new information and then synthesizing that into a story—and the product, where many aspects of the outcome of labour may not be known in advance and the story could be presented in a range of ways with a variety of media. Journalists, like most professional and skilled workers, tend to work in high-trust managerial regimes where they are given a high degree of discretion over their work and where managerial control takes the form of ‘appeals to professional values, creativity, career, good will or trust’ (Smith, 2016: 208). Knowledge workers tend to control themselves because they are highly self-motivated and self-directed, often as a result of their attachment to both the process and product of their labor (see Thompson 1989: Chapter 6; Smith and McKinlay, 2009).

Previous chapters have already demonstrated that the knowledge content of journalists' work has not defused the conflictual relations within the labor process, as predicated by theorists such as Bell (1973) or Castells (1996), who foresaw the interests of professional and technical workers being drawn into alignment with those of their managers and the capitalist labour process because of the rewards and meaningfulness of knowledge work. If anything, the pressures placed on journalists in terms of workload and job security, which have accompanied digitalization have brought antagonisms between journalists and their managers to the fore and led to formal collective disputes on several occasions around the issues of consultation over change, working hours and work intensification. Chapter four outlined the way in which managerial oversight of journalists' work had been minimized in order to facilitate faster production and chapter five discussed the way in which the rhythms of the newsroom had been reorganized around traffic spikes derived from audience data. This chapter looks at how audience data and metrics have underpinned this reorganization of the journalistic labour process as a particular form of value-based control.

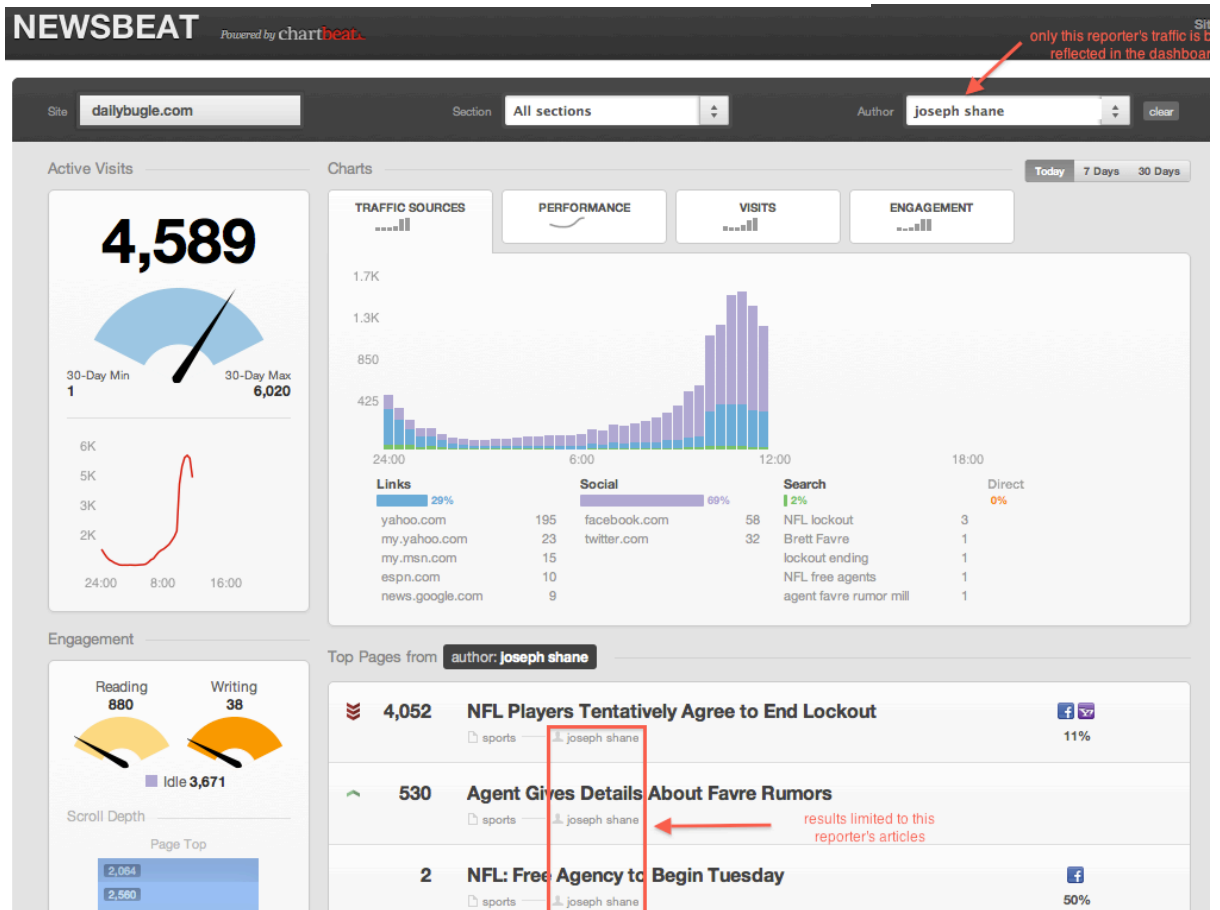
6.1 Embedding metrics in the news production process

Data analytics tools that track reader behaviours on news sites have become a standard feature of contemporary digital newsrooms. News organizations have designed technological infrastructure that captures data, such as the number of page views an online story receives; audience attention time⁴³; the sites traffic travels from and to; where viewers are located and what kind of device they are using. And increasingly, data is visualized through real-time dashboard displays that are available to journalists and others involved in the news-making process (see Diagram 1). In *Digital Paper*, gaining audience numbers has become a part of the daily process of production for editorial staff. Every member of editorial staff, regardless of their role, can access the analytics dashboard and checking it has become part of news workers' daily work practice. Ruth is a content coordinator on a digital specialist section and explains, 'you've got to have it open from the moment you get in in the morning. You're probably going to open [the analytics dashboard] and, even though it's

⁴³ Attention time was becoming an increasingly important metric in the newsroom I studied, measured by the median length of time audience spent on a page.

not the be-all and end-all, you know you probably will talk about it; you'll have a conversation that mentions traffic at least once during the day' (Interview, 27/02/2016).

Diagram 1: Page from a Newsbeat dashboard



Source: Chartbeat (<https://chartbeat.wordpress.com>)

Audience data has given journalists a more detailed understanding of audience interactions with the stories and content they produce than they have ever had access to. The data is viewed by journalists at *Digital Paper* as a neutral measure introduced into the news-making process, which accords with the findings from early studies of the use of digital metrics in newsrooms. For example, in one of the earliest studies of the effect of audience data on journalists' work, an editor at the *Guardian* who was interviewed by Phil MacGregor said: 'because previously, well newspaper demographic information would go as far as the editor and sales information . . . Online you're getting a much more direct verdict on the quality of a given story.' (2007: 289). McGregor found that journalists viewed the use of analytics as a 'more reasoned and "evidence-based"' approach to their decision-making (2007:280). Alan,

who is a subeditor on the business pages at *Digital Paper*, talks about audience numbers as evidence which form part of a broader decision-making process:

You'll take this information onboard. And you may have an aversion – I don't know – to property prices stories, for example. And I hate property price stories, but there is no denying that people look at property price stories, and we, you know, as a result probably write more than we should. But it would be crazy not to write them, because people are reading them. So, the old circle goes round. And it's a combination of readily available evidence and – judgement, taste – all the things that have always gone into the subjective life of the journalist.

— Alan, Interview, 11/02/2016

Audience metrics have become a constant reference point for journalists, many of whom monitor their dashboards frequently through the day. Chapter four outlined how this monitoring resulted in journalists altering news stories or repackaging or promoting them in order to improve their circulation around the web. Site traffic has also become an important consideration for editors when making decisions about what to commission. Ideas or theories about what kind of topics, stories or formats will do well online have become internalized by journalists and embedded into their everyday practices. Yasmin is responsible for commissioning pieces for a weekend magazine section which is published online:

You sit around in a features meeting and you think, “What do people want to read?”, and “What would do well online?”. And that's always in the back of your mind now, would it do – whereas before you could just think about the magazine, your readership, what we are as just a magazine. Whereas now you're thinking, trying to visualize ahead and think, “That would be a real big hit online,” and I think, “That would do really well on Facebook on a Sunday morning or something”.

— Interview, 22/10/2016

While the audience data available through the analytics dashboard is one factor among several, it clearly informs journalists' decisions about which stories they will run as well as when and how. As this quote suggests, it also invites a different perspective about what journalists do and the publications they produce. Journalists tended to discuss the dashboard and the information it provided in positive terms:

So once things have launched, I can actually see, you know, how many people are looking at them and where they are and what devices they're using, and

you know, what they're saying on Twitter and how many people are clicking on that. So that's all absolutely brilliant.

— Amelia, section editor, 10/11/2015

It is good to see that you've got a piece and it's had a lot of traffic, or a lot of shares on Facebook, it means that obviously people like it and that and the amount of time people spend reading it is quite high too so, if you can see all of that, then that's quite a good sign.

— Katie, content coordinator, 28/04/2016

Comments like these suggest that journalists have internalized audience data as a legitimate measure of whether their work is performing well. Legitimation is key to normative control systems which require internalization of dominant, or management, values which lead to self-regulation of behaviours and activities (Frenkel et al, 1995), particularly where there are no immediately coercive measures linked to audience data. This kind of management strategy, which is aimed at producing work commitment or compliance through consent, operated in part at an ideological level; focussing journalists' attentions on audience, views and circulation and producing a set of expectations what would constitute acceptable levels.

6.1.1 Data as visibility, performance monitoring and control

In addition to being embedded within the day-to-day work of journalists, the tracking of audience data creates new visibilities for the circulation and readership of the product of journalists' labour. These are more detailed and individualized than any previously available measures:

It's very clear – what's doing well. And [the analytics dashboard] kind of shows you the stats for that week. I think it only goes back seven days. ... It has a list of the highest click-throughs from Twitter. It shows you how many people are coming to the site from Google, from Facebook. ... You kind of are quite plugged into who is clicking on it from what. Most of the day, we will have a tab open with that dashboard. Just to check it occasionally, not all the time. But yeah, that's what we use. And every week, we actually report our figures to the wider group.

— Ruth, content coordinator, interview, 27/02/2016

Visibility is the first requirement of monitoring or surveillance, which plays a key role in work control systems (Edwards, 1979), enabling an individual's performance to be assessed and work to be supervised. According to Frenkel et al (1995), the data-producing potential

of ICTs meant they lent themselves to forms of control which rely on the monitoring of workers' performance; what they termed "info-normative control", defined as 'control based on data objectification (performance indicators) and employee accommodation or commitment to performance standards' (1995:774). With the advent of social media and the conversion of social interactions, internet searches and other online activities into quantitative data-driven algorithms, the use of data, or what José van Dijck (2014) refers to as "datafication", has extended its reach into more areas of work and everyday life, making data and data measurement both widespread and normalized. The proliferation of data, or the capacity to collect data, on increasing aspects of work and working lives has extended the potential reach of info-normative control. In the particular case of journalists at *Digital Paper*, it raises the question of the extent to which audience data operate as performance indicators and whether journalists have internalized them to extent that data direct, constrain or enable the ways in which journalists work.

At *Digital Paper*, there is no explicit or formal link between individual performance management and audience metrics, but there is a perception among journalists that data relating to their outputs was being assessed by managers and compared with the work of colleagues:

'there's also the kind of over-hanging thing that if you're working on various projects where you're commissioning things or you're writing things that, I guess there's an expectation that if everything you're doing flops then that's not good...Or sometimes, someone's got a really good story or something and you've got something good as well or someone's got a series that's commissioning really well or that's done really well, so there's those kind of expectations. But that's very subtle. It's not openly necessarily said.

— Leah, reporter, interview, 15/07/2016

You know that if your site is not doing well, people will have an issue with it and [it] will affect your — not my ability — but people's ability to get future [revenue] for it.

— Chris, news reporter and freelance, interview, 28/08/2015

Journalists generally had a sense of what a good average amount of traffic would be for their stories and higher than expected levels of traffic are almost unanimously referred to as "doing well", while Leah's comment tries to articulate the subtle comparisons between individuals and desks, which are read into the way journalists interpret the data. According

to Katie, in her section, ‘there’s definitely a lot of being impressed by big traffic or judging things as a success by the traffic they get’ (Interview, 28/04/2016).

The idea of measurement as control is not a new one within studies of work – from the time and motion studies of the scientific management movement to the metricization involved in developing indicators for performance management systems, managers have understood measurement as a means to control. But digitalization seems to be having a quantitative, and potentially qualitative, effect on the kinds of data that are available and the way they can affect work. David Beer (2014a) argues that we live in a moment in history when, socially and culturally, numbers play a large role in determining who we are and how we understand and relate to the world. The use of metrics has expanded into every part of our lives, so that data and metricization have become a way we orientate to everything from our emotions, our fitness, our productivity to our networking ability. As boyd and Crawford point out, digital data makes many more social spaces quantifiable (2012). Under these circumstances, data cedes into the background and becomes normalized. As Ruth said of audience data at *Digital Paper*, it has become: ‘part of the fabric of what you do’ (Interview, 27/02/2016). But data has no power of its own and, as I have argued elsewhere (Whittaker, 2018) in order to understand how data and metrics have an effect and shape our lives, or in this case our work and behaviours at work, we must account for the particular configurations of power and institutions within which they circulate. Normative structures do not operate in isolation, underlining the importance of identifying the conditions which sustain or undermine them (Cushen and Thompson, 2012).

Leah, who had worked as a reporter before audience data and dashboards had been available across the organization and integrated into work routines, was able to provide a contrast of work pre- and post- the use of audience data analytics:

I guess, before, you had a lot of stuff that you found interesting and just put it out into the ether and like, you know, it would have an impact or it wouldn’t have an impact. But I think now, you are looking at what impact it has had on traffic way more than you would have ever previously considered.

— Interview, 15/07/2016

The dashboard at *Digital Paper*, like the one shown in Diagram 1 is designed with the capacity to bore down into granular detail about the output of individual journalists, so the potential

to use it as a measure of individual performance exists. But, in this organization, audience data is not clearly integrated with any overt control mechanisms; staff are not given targets, for example, and, despite investigating links between the metrics and formal performance management systems, my study did not turn up instances where in-house journalists have been disciplined on the basis of audience data, although conversations about audience data were commonplace between journalists and their line managers – usually section editors. When asked who looked at the audience data and whether they were used beyond giving journalists feedback about how their own work is doing, Ruth said:

I know that, like, our boss does [look at the data] and the editorial director of the whole of the [section] will look at them. Yeah. And everyone else will look at them, because we can see the document. So, we report to a group document, so we can see which other [sections] are doing well, or like which other [sections] tend to get lower traffic.

— Interview, 27/02/2016

Senior management has made a clear decision to construct a ‘culture of data’, where audience analytics are accessible to everyone with a company email account. Data are made visible through official practices and documents and have become an important business artefact and the focal point for how sections gauge their own success and their success relative to other sections. This is underlined by a weekly summary report, which is emailed to staff, highlighting stories that have performed well:

Every week, at the end of each week, every [section] would have to send a little weekly report and that would be sent around to everyone and in that you’d have to say how many hits you had over the entire week, what your strongest content was in terms of hits, what did well on Twitter; how many Twitter followers you’ve got now, things like that.

— Josh, digital reporter, 15/10/2015

The importance of data and of journalists directing their efforts towards increasing their page hits, is reflected organizationally in formal meetings between editorial and commercial sections as well as in the organizational resources that are dedicated both to supporting the analytics technology and developing strategies to improve audience data. Yasmin commented:

We've got a whole analytics team, we've got several online teams who all do different things. I mean, it's just immense, the whole operation behind what people read and see. So I couldn't even begin to explain to you exactly how it works, but I know there's an analytics team who work very closely with us, they send us out a daily email, sometimes twice a day, of what's done well and why basically, and where the traffic is coming from.

— Interview, 22/10/2018

Data was given authority in the organization through its status in the editorial morning conference – where decisions about the news are made. The SEO team would present their take on news and give advice on editorial decisions based on data. At NUJ events I attended I heard from journalists at other national news outlets about how members of the SEO teams had started attending morning conferences (*Fieldnotes*, 09/05/2016), suggesting data was entering editorial decision-making across the industry.

In order to act on data, or for data to play a role in shaping journalists' activities or behaviour, they must not only accept audience data as a legitimate measure of the output of their labour; journalists must also believe those measures to be responsive to their discretionary actions to improve audience traffic and extend their readership reach; they have to take responsibility for them and at *Digital Paper* there was little questioning of this. Katie explains that on her desk: 'we would use [the analytics dashboard] sort of every day – see how well a site — a piece — is doing. If it's not doing well and you can see immediately that it's not doing well, you'd try and give it some more boost on social media'. (Interview, 28/04/2016). Gillian and Leah also described how they would monitor and adjust stories according to the data:

I'm using it all the time and ... if you see something that a lot of people are obviously landing on but then not clicking on anything else then you say, "Well is there anything else I can link to or package it with?"

— Gillian, online editor, Interview, 16/09/2015

It's very useful to see whether the stuff's coming from Facebook or Twitter. I mean, people have different theories about what makes people click on something. But we could play around with, as an example, how we sell something on Facebook. The first thing you write as you publish it – the status as it were, you know, next to the story – we'd play around with how we'd do those.

— Leah, interview, 15/07/2016

It was taken for granted throughout the organization that there were ways to improve the data or game the search engines, based on a range of strategies including using particular words in headlines, tagging, timing of launches and grouping stories together. The SEO team offered support with this to the editorial desks in addition to running ‘best practice sessions’ for journalists to give them ideas about what they could do to improve their traffic.

6.1.2 Data: from “panic pressure” to a “discipline of knowing”

From a technical perspective, data capture and data analytics at *Digital Paper* were a product of digitalization, but the way in which they were implemented was also the product of a particular set of historical circumstances in the newsroom. It was common for journalists to contrast the work practices I witnessed during my study to ‘the days when people thought you just had to get up as much as possible and be constantly updating’ (Gillian, online editor, interview 16/09/15). There was a general sense among staff that they now have a better understanding of how news on the internet works and more of an appreciation for quality over quantity and just ‘getting stuff out’. The early period of digital news was often characterized by stress, overwork and a decline in news quality as journalists struggled to adapt to a work environment where the defining structures of their working day — deadlines and the space limitations of a physical paper — no longer applied.

Managers, editors and reporters⁴⁴ discussed this period differently and what emerged was an image of the early days of digital convergence as, in the words of one journalist, ‘a fractious time’ (Sarah, 09/22/2015) between managers, editors and staff. Sarah, who was a reporter at the time when the digital and print operations were first brought together had played a central role in the NUJ chapel and had been Mother of the Chapel for a period during that time. She described the early days of convergence as characterized by a ‘panic pressure’ to keep getting new content onto the web. Shovelling content onto the web was creating real tensions within an organization that, most staff agreed, was a good place to work. (In the same year this restructure was taking place the annual staff survey, completed by 70 percent

⁴⁴ To clarify, managers, editors and reporters hold different positions within the organization hierarchy whereby managers refer to production and managing editors who are part of the senior executive team and whose role principally involves coordinating the work of others; editors have managerial responsibility for their section of the website or pages in the print edition, some having line management responsibilities over subordinate journalist staff or freelancers but whose principal work is that of undertaking journalistic work; and reporters are journalists with no managerial responsibilities.

of staff, found 89 percent of staff agreed or strongly agreed that they were proud to work for *Digital Paper*). where there are generally good relations between staff and management and where the union plays an active role in negotiating staff conditions. Sarah described how the NUJ chapel had received an increasing number of cases of burnout at this time and, eventually, the union went into dispute with the employer over workloads.

The newness of the operating environment and management's lack of mastery over it was bringing structural antagonisms to the fore. The Internet had made producing news and news revenues much more unpredictable and insecure and management needed to develop strategies that would both secure profits and regain control over the direct conflict which had surfaced on the editorial floor. In an attempt to regain control over the process as a whole, the development of metrics became, in the words of a managing editor, 'a discipline of knowing' (Interview, 15/10/2015); it redirected the open conflict between reporters and editors about how much content to upload and when, and conflict between editors and managers about staffing levels to the cold, objective facts of audience data. Analytics became a way to re-frame and bring new structures to an unbounded space. Conflict was successfully displaced away from management.

Metrics were also used to make direct rationalizations of the news-making process. One managing editor described a process in the early phases of digital convergence, whereby he had tried to make decisions about the number of staff required on the newly-converged digital and print desks; but there was no "objective way" to measure the output:

The only thing that you could base your assessment on was what there was in print because nobody could measure...We didn't really know how much stuff we were putting up online. There was nothing recording that or saying "Yesterday, this desk launched 33 stories and this desk launched 29". We just didn't know, and people were just putting stuff up there. And now we absolutely know, not just exactly how many words there were on everything we put online and when it went up, but exactly how many people hit on that story and where they came from — whether it was to do with referrals from Facebook...so all that information exists.

— Eddy, managing editor, interview, 15/10/2016

While the narrative and justification around audience data was that it was developed to gauge audience responses and understand audience needs and engagement with the news, this comment made explicit that the view was also directed inwards, at journalists. And while I

don't claim that rationalization was the principle reason for the design of data collection systems, once they were in place, they had the capacity to be a tool of surveillance and measurement of journalists' output in the hands of management. Another editor described how she'd used page view data to justify cutting the work of a specialist reporter who is also freelance from two columns a week down to one.

Audience data analytics and reporting were developed then introduced into the newsroom during the same period in which management at *Digital Paper* was struggling with editorial non-compliance with a new performance appraisal regime. Annual reports for three years running between 2007 and 2010 reported that the number of editorial staff who had been appraised was 10 percent – well-below the 60 percent target set by HR, which was explained in terms of appraisal was 'not part of editorial culture'. And, as outlined in the report that opens this chapter, traffic was being used to performance manage and incentivize journalists in other publications. In the UK, management at the regional publishers, *Trinity Mirror*, had attempted to introduce web targets at some of its publications, but had been forced to back down when staff threatened strike action over the proposal⁴⁵.

The normalization of data as a tool for journalists' daily work was possible as a result of, and its incorporation into the work practices of journalists at *Digital Paper* has been underscored by, an organizational culture where the news agency sees itself as embracing technology and the future of digital media — it is one of the few national news agencies to have made a successful foray into online news internationally; the agency publicly praises data as a powerful tool for journalism and offers training and support to other companies wishing to develop their own analytics systems and plays an active role in the tech community, including sending its engineers and developers to address technology conferences. The organization describes the widespread availability of data in the newsroom and throughout the organization as part of a "democratizing effect" and as empowering those who work with it. A faith in data has become an unquestionable part of the organizational culture — the data itself might be questioned and analyzed, but not the idea that it should be the frame of

⁴⁵ Details of the proposal and the dispute can be found here: <http://www.holdthefrontpage.co.uk/2015/news/trinity-mirror-shelves-plans-for-individual-web-targets/> [accessed September 2018]

reference; a culture which is part of and is reinforced by a current trend in business and even social and health sciences, that celebrates big data (boyd and Crawford, 2012; Mosco, 2015).

6.1.3 What counts as data: how data constructs the audience

This section looks at the way in which data is both constructed but also constructs a particular reality. I argue that audience data give the appearance of being objective or neutral measures – or have been accepted by journalists as such – but the kind of data which is collected and presented and which counts to the organization are carefully selected points and comprise only those things which can be measured quantitatively, embedding in the journalistic labour process a particular set of priorities. In this case those priorities are more closely aligned with the audience as a commodity to be sold to advertisers than the kind of audience which journalists construct through their professional socialization and which inform their views of what counts as quality journalism. As data has become more prevalent as a source of understanding the world, as the basis for decision-making in ever-great aspects of our lives and as the object of research in social sciences, critical data studies scholars have drawn attention to the social construction of data. The design decisions about what data is prioritized for collection are never neutral but reflect the kinds of questions that data is collected and used to answer (Gitelman, 2011). Equally, data is limited in that it directs us towards only those things which can be quantified and measured.

Critical data scholars have observed that data and metrics don't just measure, they also produce (Amoore, 2011; Beer, 2016a). Louise Moore's (2011) work looks at how data derivatives that used to determine terrorist "flight risks", based on relations drawn from disparate data sets. Her research has a vastly different focus and set of concerns to this study, but some of her general points can be related; principally that when pictures or images are drawn from fragments of data, the fragments which are used have a significant bearing on the kind of picture which can emerge. In the case of audience data, it raises the question of what kind of audience is it possible to construct through the particular data collected and presented through the audience analytics system?

The data presented to journalists includes: volume of traffic; the length of time readers spend on a story; a story's circulation via social media; detail about the devices audiences are accessing stories through and geolocation data. These are viewed by journalists as being reliable – if not fully complete – measures of the value of a story. The data worth knowing,

and certainly the data that has been prioritized for collection and visualization through the dashboards, tends to be that which is more functional to the commercial priorities of the publisher; the kind of data that would act as a measure of the value of audiences to potential advertisers. In their acts of interpreting the data, journalists were trying to reconcile quite complex notions of what they understood to be a heterogeneous audience with—or despite—the limited kinds of data they had access to. They often tried to supplement the quantitative data with qualitative measures, such as comments pasted “below the line” of their published stories or those accompanying Facebook and Twitter reposts. Yasmin, who is a commissioning editor on a digital section, explained how audience data was:

... giving us a clearer picture of what people want, which is great. That’s a really powerful tool, because if we can give readers what they want then it works for everybody, doesn’t it? (Laughs) But there is a huge sea between traditional magazine readers and our online readership, which we’re still trying to work out. People that buy the [paper] and read the magazine are very different to the people who will go onto the [...] website and comment on pieces.

— Interview, 22/10/2018

Two things are worth highlighting from this quote; the idea of ‘giving the audience what they want’, which resonates with the customer-orientation of service work; and Yasmin’s awareness that, despite finding the data useful, she only had a partial understanding of who her audience is. For the journalists at *Digital Paper*, the audience is what Boyer describes as a “spectral presence” in the newsroom (2013:34); journalists’ understanding and estimation of their audience; who the audience is and what it wants, is a prominent rationale for the kinds of decisions that they make, including the stories they cover and how they are covered, as well as how journalists relate to their work and derive meaning from it. Journalists use audience data as a measure of whether a story is newsworthy, where a high readership or circulation is a proxy for, or the equivalent of, newsworthiness. They describe data as positive feedback on their decisions and choices or as validation of their news values. There is also, among some journalists, a sense in which high audience traffic is self-evidently good:

It is good to see that you’ve got a piece and it’s had a lot of traffic, or a lot of shares on Facebook, it means that, obviously, people like it and that and the amount of time people spend reading it is quite high too so, if you can see all of that, then that’s quite a good sign.

— Katie, content coordinator, 28/04/2016

Gillian described the way she interprets audience data in customer service terms; thinking about what the audience wants and how she can provide it. She described her thought processes when analyzing the search term data, which is a list of search terms that readers used to arrive on her pages:

“Well okay, someone wants that. What are they actually looking for and what have I got that fulfils that in the short term and have I got something coming down the track that fulfils it in the long term?”

— Interview, 15/09/2015

Professional socialization plays a central role in developing norms, values and discursive ideals which inform the way journalists understand their role (Gans, 1979; Herman and Chomsky, 1979; Sparks, 2007). Through socialization, as well as through professional codes of ethics, journalists come to understand their role as having public utility, with journalism as the “Fourth Estate” within democracy, informed by values such as truth, accuracy, objectivity and impartiality (Johnstone et al, 1976); ideals which give journalists a sense of meaning and attachment to their work (Weaver and Cleveland Wilhoit, 1996). Amelia, who is a section editor, captured a common sentiment among journalists in the study, when she talked about her particular responsibilities to what she perceived as her audience:

But my job is I’m a specialist editor, so a lot of my audience are professional people and we – well it’s just a mix. We have to have a mixture of features that are rigorous and specialised, and we have to balance that with trying to make it appeal to a broader audience.

— Interview, 10/11/2016

Newsroom studies have often pointed out how journalists’ conceptualizations of their audience have a bearing on how they undertake their work (Gans 1979; Anderson, 2011; Tandoc, 2014). These values also tend to stand in contrast to commercial interests or commercial or proprietor influence over editorial coverage (Hearns-Branaman, 2014). The focus on audience through the use of these data analytics appealed to journalists’ professional values and sense of responsibility towards their public or audience. But even so, journalists were not unaware of the tension created when data-driven understandings of the audience provided a different, more commercial-orientated representation of the audience than the notion of a public on which they understood their editorial decisions to be based, even if they did not articulate it in these terms:

I have heard a lot of people complain that they spend way too much time just looking at numbers than they previously would have. It's like, naturally people who are writers are not that interested in, like, sales and numbers and that kind of aspect. And that's a recent thing that's quite new. Or not new, but like, not what you would have thought you'd have to think about.

— Ruth content coordinator, interview, 27/02/2016

“Oh this person's tweeted it...these are all students. That's good. None of these people are students, maybe we're not getting the students' market or you know it's all international students, that's good.

— Katie, content coordinator, 28/04/2016

Those things which can be quantified – in this case number of unique visits to a story – become operationalized and things that cannot be, or are not, quantified, are deprioritized in organizational terms. This subeditor describes the way in which data was mobilized by the SEO team as “evidence” to make a case for using headlines and other strategies that will result in higher rankings for stories in the searches:

Clearly, in SEO terms, that's different. So, and again, because stuff that goes out online is so much more measurable and quantifiable in terms of hits – less in terms of influence and how long people will actually stay on it, but they will actually go to it – this is sort of constantly raised that, ‘well, we can prove that more people will read it if you do it this way’. And again gradually, I think – I don't know about meeting in the middle – there's certainly been a drift where print subs have increasingly got the idea.

— Alan, Interview, 11/02/2016

Alan's view and resignation echoed an argument I heard subeditors making about their worry that SEO-directed headlines might help with search engine ranking, but that this may come at the expense of, or even undermine, other objectives which journalists have; such as providing detailed and rigorous accounts of events or policies to specialist audiences, engaging with particular audiences or raising issues and “having impact” – all of these were raised by journalists about what they felt their journalism should do. They often reflected divergent understandings of the audience as well as the aims journalists felt they were trying to achieve through their journalism, most of which could not be evidenced or understood by measuring the size of readership. These tensions between data-driven decisions and other ways of prioritising and producing news tended to set up antagonisms between editorial and

the SEO staff, who are viewed by some journalists as “quite difficult” and interfering in the editorial process.

The explicit reference to the audience as a market, which Katie makes in her comment above, or Ruth’s reference to “sales and numbers”, were more prominent among the younger journalists working in the digital-only section, where there were more formal organizational links between editorial and commercial sections and where budgets and staffing were more closely tied to a section’s revenue. The old “legacy” editorial sections, which had evolved from the print newspaper, were less comfortable with this language or the idea of audiences as markets and traffic or hits as sales. In many ways this is unsurprising – for many journalists, newsworthiness is informed by professional values around the “separation of church and state”; editorial independence from advertising interests⁴⁶. While this notion of editorial independence has been critiqued as having ‘never been impenetrable in practice’ (Cornia et al, 2018), or concealing other structural biases (Sparks, 2007), regardless of whether such a total separation between editorial and commercial needs is possible, it forms an important part of journalists’ professional norms and the journalists in this study perceived that they could produce independent editorial content and, moreover, that they should. Amelia, who was a section specialist editor in a section which produced for both print and digital, commented on the way she had to balance her own journalistic values against the organization’s focus on numbers:

‘I do try hard to stop myself from just following the traffic and just from constantly doing things that I think will generate a lot of traffic, because the nature of what I do means that to do my job well I think I have to do some things that are not going to reach massive audiences’.

— Interview, 10/11/2016

On the one hand, journalists had cultivated the view of the audience as an arbiter of news values or as validation of journalists’ news decisions equally widely-held was the view that there are some stories which journalists have a duty or a responsibility to write, regardless of

⁴⁶ Ironically, it was the growth of advertising revenue in the press from the early nineteenth century which was responsible for newspapers’ diminished dependence on wealthy patrons or political parties and which prompted the professionalization of journalism as newspapers sought wider appeal (Conboy, 2004).

how well-read or well-circulated they are. Richard, the FoC at *Digital Paper*, expressed his general scepticism about the metrics in this way:

If you put metrics to it, would Harold Evans ever have broken thalidomide?
If you put metrics to it, would Shaun Lintern of the Express and Star stayed
with the Staffordshire health stuff⁴⁷ long enough for it to come out?
— Interview, 11/05/2015

That major news stories might not have broken if decisions were based solely on metrics cast into question the reliability of the audience as a good judge of newsworthiness and traffic as its measure. Both views were held in some form by all of the journalists I spoke with, but they attempted to reconcile them in different ways. Whereas some of the journalists, like Ruth and Katie, were more likely to accept, or concede the commercial nature of their role, others saw their role as journalists to temper the influence of the metrics. As Gillian commented, her job as a section editor was ‘not just chasing traffic’ (Interview, 16/09/2015). Editors described the ways in which they would regularly challenge the metrics and argue for the importance of a story at the daily news brief. And most journalists would identify the value of knowing what makes a good story and which stories are important as a fundamental skill for journalists and fundamental aspects of journalism.

Journalists are aware that the metrics on a story can also, at least partly, reflect contextual factors which are outside their control. For example, they explained that one of the main factors determining whether their stories got above-average traffic was, whether or not it appeared on the network front. Chapter five discussed the way in which this has diverted some of journalists’ attention and activity towards lobbying editors to have their work promoted to the front. Whether or not a story is shared via *Digital Paper’s* main social media channels is also understood to have a significant effect on traffic:

⁴⁷ This refers to an investigation undertaken by former Express & Star reporter Shaun Lintern into high mortality rates and poor conditions at Stafford Hospital. The reporting led to a public inquiry, chaired by Robert Francis QC in 2009 which found serious failure on the part of the Mid-Staffordshire Health Trust Board had led to patient neglect and deaths.

And sometimes, you do a story that seems like it's really important, but not that many people – for whatever reason – not that many people read it. And traffic actually varies wildly. Like sometimes, we'll have a story that goes viral, and we'll have hundreds of thousands of page-views. And sometimes, it's like less than two thousand for the story – if it's very sector-focused, and not that many people in the sector read it.

— Ruth, content coordinator, interview, 27/02/2016

This was a point picked up by earlier research on page metrics where “the number of clicks on a page may actually reflect its position in the design on the site, rather than its readership appeal” (MacGregor, 2007:290):

To be honest, it's not... We have all these like theories, but it's not an exact science, you know, because something you thought was going to do really well won't on Facebook. Or sometimes it goes out of your control, because if people have shared it on their Facebook page, it's kind of gone viral that way, and you'll get a spike of traffic on Facebook – but we won't have done anything to initiate it...And sometimes it's quite interesting to see if something is coming from Reddit, if things get posted to Reddit. And again, that's completely out of our control. We don't post to Reddit. But if it does and it takes off on Reddit, then we get traffic that way.

— Yasmin, commissioning editor, Interview, 22/10/2018

As audiences are increasingly accessing news through social networking sites, such as Facebook and Twitter (Bell et al, 2017) publishers and journalists distribute their stories through these sites, where circulation is heavily reliant on the site architecture and the way that their algorithms curate news. Emily Bell et al (2017) argue that ‘the single most controversial, influential, and secretive algorithm in the world is the one that drives the Facebook News Feed. While publishers can freely post to Facebook, it is the algorithm that determines what reaches readers’ (23). This means that journalists have to identify what kind of stories, formats or headlines will be prioritized by social media algorithms, which leads Bell et al (2017) to argue that social media networks are able to direct or dictate the kind of journalism that is published, through promotion of particular format—for example, video—and that the algorithms they use are explicitly editorial, or have editorial effects. Social media companies also have vastly different aims than news media organizations and journalists.

6.1.4 Audience data as a realignment of priorities

‘You can make whatever choices you want about what you publish and how you go about doing it, but the metrics will speak truth to your work.’

How journalists make decisions about news values and what events and issues are newsworthy have been the subject of extensive research and discussion in media and communications studies of journalism (Harcup and O'Neill, 2017) and, as this research demonstrates, the presence of audience data in the newsroom is clearly changing the way journalists make decisions. The use of audience data analytics as a key point of reference has embedded commercial priorities into journalists' professional decision-making in a way that journalists below senior management levels have not been exposed to before. This has been reinforced organizationally through closer working relationships between editorial staff at all levels and staff in commercial teams, and the regular reporting of data. Using data to commodify audiences and better understand how to target news or products to them is currently a key strategy for digital businesses, including publishers. This kind of strategy places much greater emphasis on audience numbers, particularly for a publication, like *Digital Paper*, with a middle- to low-income audience which cannot deliver an elite readership to luxury advertisers, or a specialist readership to subscribers. Like in many newspapers, this business model has been reflected in organizational restructuring that draws together a closer collaboration between marketing, digital product development and editorial. A similar strategy was evidently underway at the *The New York Times* when its 2014 Innovation Report (Sulzberger et al, 2014:57) was leaked. Possibly unsurprisingly, the greater integration of the editorial and marketing sections of the organization has been reflected in the design of the data-capturing digital architecture which supports audience analytics. This integration has extended the role of journalists so that they produce content but now also take responsibility for the circulation of their work.

Beer (2016b) argues that we don't need to trust numbers in order for them to have power over us. He uses the example of university league tables and argues that people understand the measures often don't hold up to scrutiny, and yet are still influenced by them. What Beer confuses in this formulation is the difference between trust or belief in the numbers, and compliance; and when numbers are present in the labour process, managers can create powerful incentives for workers to comply.

Audience data analytics, as a tool of managerial control in *Digital Paper*, focus not on employee identity, as do many cultural control programs (Grugulis et al, 2000), but draw on and appeal to journalists' professional values and commitments around readers and 'the

public'. This study found extensive evidence of journalists embracing the audience data as a way to get to know their audience and give the audience what it wanted. And it had also successfully inserted management perspectives into journalists' decision-making, encouraging journalists to take much greater individual responsibility for the volume of audience to the news site and the circulation of stories through social media. As with all management strategies, however, it wasn't without gaps, challenges or contradictions (Hyman, 1987). While interest alignment and compliance through consent may be the objective of management, studies within the labour process tradition have demonstrated that it is also possible to have compliance with normative managerial strategies without consent. For example, the knowledge workers in Cushen and Thompson's (2012) study of workers in a high-tech firm who, despite HR practices designed to secure high-commitment, were found to be simultaneously uncommitted and angry but still high performing. In their study, commitment was undermined by a working context characterized by job, career and financial insecurity for employees. While the journalists in this study have generally embraced the idea that data can provide important feedback on their work, they maintain an attachment to their role and their output. But the emphasis on commercial aspects of news-making, as promoted through audience data, has the potential to push the exchange relation – the audience as commodity – too close to the surface, undermining the legitimacy of data as a measure for journalists' output, particularly if it is seen to undercut stories feel are important to write.

For management at *Digital Paper*, there is a fine balance between encouraging journalists to build audiences and presenting audiences as markets and thereby exposing the exchange relationship within the journalistic process – a process at the heart of commodity fetishism and the subordination of journalist-audience relations to market relations – placing this relationship at odds with journalists' sense of professional responsibility, which values notions of "the public" or "democracy". It highlights the contradictory dynamics involved in the production of consent; where, as Ruth says, *Digital Paper* 'really cares about making its money by really making itself a kind of globally-read – in the English language – site, because that's the way they can increase their advertising revenue... You know, I just think that's a really big part of their strategy' (interview, 27/02/2016) and encouraging journalists to pursue that objective – and thereby both intensifying their work – and potentially undermining the meaning of what journalists understand themselves to be doing as producing news for interested or engaged publics.

The use of what Frenkel et al (1995) call an “info-normative” control strategy, does not provide closure as a strategy, especially where it is not systematically linked to other forms of control or formal performance management systems, leaving space for contested narratives and interpretations by journalists. The journalists in this study had taken responsibility for audience building but also demonstrated a keen awareness that “data-driven” journalism must not overtake editorial decisions based on the values and judgements of those making the news, so they are aware of the differing, or competing, priorities of data and their judgements or decisions which draw on other factors, like professional values; a tension that has been identified in other newsroom studies (MacGregor, 2007; Anderson, 2011). When data enters the newsroom and the work practices of journalists, journalists still have scope to interpret it and decide how they will act on it, but data has been internalized to the extent that, regardless of journalists’ attempts to balance competing requirements, the presence of these particular data places management concerns and perspectives about circulation and sales into journalists’ day-to-day consideration of their work and the products of their labour.

Journalists shared common experiences of the audience data as being useful, but also occasionally creating stress or frustrations which were out of their control, and of data dominating daily decision-making, but their responses to it tended to be individualized. Most were complied with the datafication of audiences to varying degrees; through developing theories or methods of boosting their hits and engaging with their role as one of increasing traffic to their stories and pages; others discussed internalized struggles not to chase traffic or be overly-focused on data. While most journalists in this study engaged with audience data, a few responded with disengagement or cynicism, including Chris, who commented of his time working on the digital-only section: ‘So, I never knew how any of my pieces had done, which I actually quite liked because, why should you know?’ (Interview, 28/08/2015).

6.1.5 Data and managerial strategy

A recent study of data analytics in newsrooms by the Tow Centre for Digital Journalism argues that the way audience data and forms of measurement that accompany digitalization are implemented will depend heavily on the organization context (Petre, 2015). This was borne out in my study where audience data is central to journalists’ work at *Digital Paper*, whereas in other newsrooms it played a residual role, or measures were the concern of editors, rather than all journalists. At *NewsOnline*, where Stephanie works and which, like

Digital Paper, is also a national newspaper with a global online presence, ‘there’s definitely a degree of analytics there if you want to use it’ (Stephanie, Interview, 10/09/2016). All writers and editors have access to the data and are given training on how to use it but, ‘it’s not, like, actively encouraged.’ The difference in how analytics are integrated in news production, might be viewed as reflecting broadly different management approaches. *NewsOnline* is a very hierarchical newsroom and decisions about which stories to run are determined by editors, whereas writers have little discretion over content, as Stephanie points out:

So, from the traffic point of view, we’re slightly protected, because we’re just doing what we’ve been told, you know, as writers.

At the top level, editors are required to deliver page hits, whereas journalists who don’t have editorial responsibilities have little to do with them. Despite having access to the data writers didn’t need to engage with them: ‘No, I actually don’t even look at the hits. I just don’t’ (Stephanie, Interview, 10/09/2016). Consequently, reactions to data are more cynical and less engaged:

There’s a kind of thing on the desk, when someone gets a banner – which means that it’s the main thing on the front page, which we do get quite often - it’s like, ‘wow, you got the banner, well done.’ This sort of faux whooping that goes on. And I remember when I first came back to work and was horrified about the leap from [my previous role – which has less breaking news content - to this desk], I remember thinking, ‘I want to be the person who doesn’t get the banner. That’s what I want to achieve. I want to be the person who never gets the banner.’

— Stephanie, Interview, 10/09/2016

The tensions that audience data has brought to the surface in the newsroom, between the commodified audience and journalists’ public or civic notions of audience, may be read through Christian Fuch’s (2012) use of the “audience commodity”. The concept, with its dualistic notion of the product of journalists’ work – the content and the audience commodity – provides a useful way to think about the dualism of the labour which journalists are engaged in when they make news. But rather than using the concept to think about audience or users as being exploited when their data is captured, I want to reframe it to focus on the way journalists and others in the news-making process work to conceptualize the audience and, in doing so, *make* audiences through their engagement with the data. This

redirects the attention around data from the activity of users towards the productive and, in this case, waged and supervised, activity within the labour process which transforms data traces into a useful commodity; to focus on the way in which audience data is made into a commodity within the labour process. This happens in the first instance when tech developers and engineers design, refine and update the digital architecture that can capture data – these are highly specialized workers who make up an increasing part of the workforce at *Digital Paper* and at other publishers. There are teams of up to 80 engineers and tech developers working on editorial technological products at *Digital Paper*. As Richard, the father of the chapel described where growth in staff has concentrated:

Well yeah, in the broadest terms, anything that is online-related and digital-related in particular. I mean, we have an increase in developers who are kind of attached to editorial – they're not necessarily NUJ members, but possibly they should be – looking at ways to improve phone apps and various whizzy things you can get. If you get the app, you can get this bolt-on that tells you what the time is on the dark side of the moon and a-million-and-one other things.

In the second instance, once the digital architecture is available to capture the data, it enters and actively shapes the labour process for journalists to the extent that they become engaged in interpreting and theorizing patterns of data and analytics in order to enlarge their audience; journalists work on the data in order to make a use-value or product; an enlarged audience which becomes a market for advertisers. When conceptualized this way, Fuch's extension of the audience commodity to deal with digital data becomes useful, not for trying to theorize audience consumption activities as labour, but for highlighting the specific dualities in news production. Digital strategies based on the commodification of data expose the way in which journalists are engaged in both creating content for audiences and creating an audience market for advertisers. Journalists start to more explicitly take part in producing an audience through the new forms of data interpreting work within the journalistic labour process, which has the potential to make the commodification of audiences and this exchange relation more visible. This creates specific tensions for professional workers whose motivations and meanings around work are not purely transactional but operate through a moral framework involving a set of responsibilities towards their audience as a public, or through a role conceived in terms of holding power to account or as the "fourth pillar" of democracy.

Knut Laaser (2016) argues that that the employer-employee relationship is not only an economic relationship but one that has a social and moral dimension. He applies the concept

of moral economy (Sayer, 2006) as a frame for examining how the instrumentalist frame of the labour process – instrumentalist in the sense of a process to convert labour power into productive labour that produces a surplus value – can be mediated and humanized through the relationship between employers and managers. Laaser's research on bankers demonstrated how a new performance management regime and the recruitment of managers who did not share a banking background with the workers started to undermine a moral economy in the bank where workers and managers related to each other 'as social and sentient being with diverse needs and concerns, resulting in displays of respect, recognition and care' (Laaser, 2016:23). In the case of journalists, their moral economy goes beyond a lay morality which humanizes workers and managers; it is based on a shared set of values and ethics which are rooted in the professional socialization of journalists and shared by writers and staff without editorial responsibilities, as well as editors and news managers. The wearing down of this social and moral aspect of journalists' work through the imposition of commercial values into editorial work has the potential to reveal the differing objectives which are produced as a result of structural positions within the labour process – with journalists' commitment and attachment to the editorial aspects of news production and management imperatives around the commercial aspects of news. Encroachments on their editorial commitments and those aspects of work which give them meaning, should be viewed as a degradation of work, particularly where it undermines journalists' conceptions of who they are and what they do, or should be doing.

The use of data emerged out of a period in the newsroom's history when the new digital environment had brought about uncertainty and instability, but also industrial unrest. Tandoc (2014) argues that it is instability in the industry which has driven the institutionalization of audience data into work in newsrooms. In the case of *Digital Paper*, data appear to have been used as a mechanism whereby newsroom management could assert control in two different ways; as seeming objective measures with which to redirect conflict over workload, and to push responsibility for audience and revenue questions down the line onto journalists. Data were mobilized as an objective measure to respond to a situation where managers, who had not yet understood how to respond to the new operating environment, were encouraging a strategy of journalists putting as much content online as possible and, in response, editors and managers were facing increasing daily challenges from reporters and staff over workload, stress and burnout that eventually ended in collective dispute. Managers were neither in control of the overall process, nor able to exercise effective

control in the newsroom. The evolving process of managers understanding how news works on the internet included the development of audience data and effectively shifted conflict over from direct confrontation between reporters and editors, or between editorial teams and managers, towards seemingly scientific, value-free calculations. It started to resolve the problem of management's loss of control. As a tool of "responsibilization", data appear to have been used as part of a strategy to 'retain control by sharing it' (Thompson 1989:138). By embedding audience data and analytics dashboards into journalists' everyday practices and institutionalizing data as a key measure of success, principally through reporting mechanisms, news managers could achieve the aim of focusing the organization on cost containment and revenue generation within a 'responsible autonomy' – high trust, minimal supervision – framework.

But data cannot entirely obscure relations in the newsroom; while journalists were shown to find the data useful as a feedback mechanism about their own decision-making, most are aware of the tension between these particular quantitative measures of what does well online and their professional sense of what is important. For those journalists who were cynical about, or even hostile to, the use of data, it was possible to ignore it or ridicule its use. In this sense, journalists' sense of professional identity has been mobilized to resist or challenge the data, an issue which is the focus of the following chapter. While data is clearly associated with performance, it only works to direct journalists' actions and behaviour at work to the extent that they accept the measures and see the purposes to which they're put as legitimate.

6.2 The qualitative audience: social media as control

If I get up on a Saturday morning and I have got a load of tweets slagging me off for something I have written then that is like the readers basically coming to my house on a Saturday morning and saying, "We don't like what you have written." I do find that is something that I am very mindful of.

— Gillian, online editor, Interview, 16/09/2015

Social media and the interactive features of the news site, such as below the line commenting, mean that the audience also has a presence in the newsroom and the day-to-day work of journalists which is more direct and in a more personalized relationship with journalists than the spectral audience produced through data. This is particularly the case where journalists are writers with by-lines and can be identified and responded to directly by readers. Readers

use it as an opportunity to comment on, not just the content of the story, but on aspects of its production:

People sometimes tweet on something I have written, if they take issue with the headline or they take issue with something that has actually been an editing thing, and I don't think it's the place for discussing what the editorial process is.
— Gillian, online editor, Interview, 16/09/2015

We would generally try and keep an eye on them, particularly spot if there was a mistake flagged up in the comments or if there was a particular negative angle that people are talking about that is fair enough then maybe we could be like "Oh, ok, people are saying this...maybe we need to think about that, address it", or...um...if it's just kind of sexist—a lot of it is—then we just wouldn't do anything about that.

— Katie, content coordinator, 28/04/2016

Reader comments on articles and in social media were used by journalists to gauge audience reception to pieces but, as Katie, implies, might also lead to editorial changes. While some journalists were adamant they would not allow audience comments to change what they write or the way they wrote it, others discussed how their expectations about possible audience reactions were adopted into their work practices:

It's made me a lot more – it's made think a lot more about stories and what different people's viewpoints might be and how different people might react and I suppose I think, for me, it has made me write in a more balanced way because I am trying to head off some of those things.

— Gillian, online editor, 16/09/2015

While almost all of the editors and journalists I interviewed were using social media for their work and engaging with reader comments – younger journalists and those who had recently graduated described how audience feedback and interaction was something they had been trained to expect:

It's just normal to me. I can't imagine just working on a paper and not knowing what's doing well or, you know, what people are saying about what you are doing, or with no comments."

— Katie, content coordinator, 28/04/2016

Social media and ways of interacting online are not bound by the same norms and social rules as the workplace or offline communications. Observations that online communications result in particular forms of anti-social behavior, such as flaming, trolling and cyberbullying, and that abuse is more prolific and tends to escalate faster than in face-to-face interactions (Phillips, 2015) have been made since the earliest days of public engagement with the Internet. José van Djick (2013) argues that online sociality arises in response to the way interactions are engineered through the design of platforms as well as the practices and habits which users develop through using them. Twitter, for example, ‘works best to convey affective content, both in terms of gut-fired opinion and spontaneous reactions’ (van Djick, 2013:77). Journalists talked about the way online discussion could quickly degenerate into abuse, that it could often be personal and racialized or gendered in nature and spoke of the polarizing nature of Twitter in particular. Journalists had come to expect a degree of negativity and even abuse from social media:

So that would normally be tied to traffic in terms of a piece has had a lot of views and traffic then it probably would get quite a lot of comments and some of that would be quite negative.

— Katie, content coordinator, 28/04/2016

Well, you know what Twitter’s like. It’s just people who argue with each other constantly.

— Amelia, section editor, 10/11/2015

Yasmin talked about how *Digital Paper* had a ‘really hardcore online following’:

You see the same commenters, they’re really full on. And it’s a community in itself, you know – whole departments have opened up – community moderators – who know commenters by name. Commenters come to the office. Quite often there’s readers events where they turn up and there are meet ups. It’s quite full on. And they’ve also got the reputation for being very fierce. There’s this element of, “Oh no, I’m going to get crucified on a Sunday,” if you know that you’ve written something that might not please them or will amuse them... Just before I [went on maternity leave] I did a review of some nail varnishes or something (laughs), I got ripped to pieces by people that obviously know a lot more about nail varnish than I do. Sort of saying, “Oh, that brand’s really rubbish, it goes on terribly, I don’t know why you’re promoting them,” and this and that. People get it in the neck as well. A lot of the columnists, [names a female lifestyle columnist], for instance, without fail every Sunday she gets ripped to bits by the readers. They just get a thicker skin.

— Interview, 22/10/2015

It is taken for granted by the women journalists I spoke with that abuse and, in particular, sexist abuse, is part of the reality of writing for the Internet and especially if they are writing articles that touch on feminism, gender or, in particular, transgender issues.

If you have your Twitter handle on your profile, people can start, not just commenting on the piece but people can start comments at you. I had that quite a lot recently actually. There was one piece that I did on a student getting transphobic abuse and I each time I kept going home I kept having like 40 new notifications in each hour or something and I was like “What’s going on?” and it was all just transphobic abuse that people had been tweeting at me rather than...So that can be a bad thing.

— Katie, content coordinator, 28/04/2016

The *Guardian* newspaper undertook an analysis of the offensive comments its moderators have removed from the 70 million below the line comments posted on its website since 2006. In a report entitled *The dark side of Guardian comments* (2016)⁴⁸ it revealed that of the ten most abused writers, eight were women (four non-white, four white) and the two men were black. Jane Singer (2003) warned in the early days of digital, that online journalism was developing in a ‘culture of argumentation’, where the imperative for speed and novelty was being pursued at the expense of fact-checking and verification. Today in *Digital Paper*, and in newsrooms generally, there is an emphasis on audience engagement and an awareness that courting controversy encourages engagement as measured by audience comments. As Whitney Phillips (2015) argues in her research on internet trolls, while trolling by individuals is seen as deviant behavior, for mainstream media it is a business strategy, which manifests as sensationalism and controversy. At *Digital Paper* it has been well-understood by news managers that there is a culture of gendered and racialized abuse online, but audience engagement is viewed as an important part of digital journalism, facilitated through the availability of below-the-line comments for readers and through journalists’ engagement with social media. Despite journalists in the past having had the opportunity to request the below-the-line comments on their pieces switched off to avoid audience backlash, they were increasingly denied that option:

⁴⁸ The report can be found at: <https://www.theguardian.com/technology/2016/apr/12/the-dark-side-of-guardian-comments> [Accessed: September 2018]

But there are people that will say, “Please can you not have – can we switch off the comments on our piece.” To which we have to say “No” these days unless it’s a very sensitive piece that could...or there’s a legal warning or something. But quite often we have to say no now. Because, whereas before it was up to the Editor’s discretion if he’d say okay – I’d go to say [senior editor] and say, “Look, blah doesn’t want comments on their piece because they just really can’t deal with it this week and they know there’ll be lots and they will be negative.” And he’ll say, “Okay, well, let’s just leave them off”. But that actually became an issue with the news team who would come to us and say, “Actually, there needs to be comments on all pieces, with the exception of pieces that have a legal warning on them or a piece that is super, super sensitive, say about child abuse or something like that.”

— Yasmin, Interview, 22/10/2018

The publisher makes some attempt to limit or mitigate the abuse that journalists can receive from commenters. They do this principally through a combination of technical means – requiring users to register before use – and social means – providing a set of guidelines that audience must agree to before they post at the risk of having their comments removed or being banned from using commenting on the site if they fail to comply. This is enforced by teams of moderators who sift through the comments, particularly if they accompany articles on topics known to invite inflammatory commentary. For social media, these options don’t exist, and commenters are only bound to the Terms of Service required by the social networking company.

Articles published on a few highly controversial topics, such as Palestine/Israel or distressing topics such as child abuse or rape may have their comments switched off. For everything else, journalists at *Digital Paper* no longer have this option, so they found their own, individualized strategies to cope with the abuse: from “getting a thick skin”; to refusing to engage in arguments, to avoiding the comments section and switching off their Twitter notifications:

A lot of writers, for a long while, refused to go below the line and look at what people were saying about their stuff because it was abusive.

— Eddy, managing editor, interview, 15/10/2016

I expect there are [] guidelines, but I have my own sort of set of views. I tend not to get into arguments on Twitter...And I also just watch what

people are talking about, what people are annoyed about or anxious about.
— Amelia, section editor, 10/11/2015

Abusive online comments could be stressful and have a harmful effect on journalists, as demonstrated by these comments in the *Guardian's* report⁴⁹:

Imagine going to work every day and walking through a gauntlet of 100 people saying, "You're stupid", "You're terrible", "You suck", "I can't believe you get paid for this". It's a terrible way to go to work.
— Jessica Valenti, *Guardian* writer

Even if I tell myself that somebody calling me a nigger or a faggot doesn't mean anything, it has a toll on me: it has an emotional effect, it takes a physical toll. And over time it builds up.
— Steven Thrasher, *Guardian* writer

6.2.1 Digitalization and service-like conditions

Journalists are increasingly expected to engage with audiences through comment features on articles and social media. The interactions they have can be viewed as exposing journalists to more service-like conditions because of the real time exposure they have to readers. These new forms of audience-journalist interaction, through commenting facilities on stories and the integration of social media into content distribution strategies, act to influence the work of journalists – content is written with greater attention to how journalists anticipate audiences will react to their work and journalists are more attuned to giving readers what they want. Journalists were engaged in a more transactional, customer-like relationship, than earlier journalistic engagements with audiences, which were minimal and removed from their day-to-day practices and where journalists' activities were more directed by professional news values.

Studies of digitalized work have made connections between worker-customer interactions in digital spaces and earlier concepts of “customer control” in service work (Fuller and Smith, 1991; Korczynski et al, 2000; Bélanger and Edwards, 2013). In particular, customer

⁴⁹ While I had similar comments from journalists at *Digital Paper*, I felt the comments showcased here from the *Guardian*, which were already in the public domain, were preferable than using comments which could potentially identify the journalists I interviewed.

control has been extended to analyze how ranking and rating systems that accompany platform-mediated work operate to discipline platform-mediated labour (Schörpf et al, 2016; Gandini, 2018). When Fuller and Smith (1991) first elaborated the concept of customer control, they argued that customer power to evaluate service workers augments managerial power, lending legitimacy to management and creating ‘continuous, unobtrusive control systems’ (1991:14). While journalists still have a large degree of discretion over what they launch online and how they do their work and evaluation isn’t formalized in terms of the kind of feedback forms used in the Fuller and Smith (1991) study, this is effectively how the below-the-line comments can operate. Journalists claim their work is increasingly moderated according to their experiences and understanding of how the audience will react and, while there are aspects of audience interaction that journalists appreciate and which give them satisfaction – much like some relational aspects of customer services work give service workers job satisfaction (Korczynski, 2002) – it alters, not just the relationship between journalists and audience, but the focus and purpose of the labour that journalists do.

Where journalists are engaging with audiences via social media and, in particular Twitter, which is the platform most used for journalists in their work, the kinds of interactions they have with audiences are at least partly circumscribed by the design of the platforms. Van Djick argues that ‘social media are inevitably automated systems that engineer and manipulate connections’. For example, comment boxes enable discussion attached to particular articles by semi-anonymous⁵⁰ registered users. This use of registration, combined with the social protocols around community engagement, are designed to facilitate respectful dialogue for those readers who value their ongoing participation in the reader community and do not want their comments, or their profile, to be blocked, but it clearly doesn’t prevent people from registering on the site then posting abuse.

The connections which are engineered through social media and commenting technology are reinforced by the institutions and expectations within the employment relationship. In this case, interaction between journalists and readers is tied to a management strategy to maximize audience engagement and build audience relations. Where management create an

⁵⁰ Debates about the role of anonymity in escalation and abuse in online communications has led *the Digital Paper* site to require all commenters to register via an email account or social media profile and create a handle. Although this doesn’t entirely rule out the possibility of someone signing up and commenting anonymously.

expectation that journalists will engage on social networking platforms that are known to encourage inflammatory and polarized interactions and where journalists are encouraged to write opinion pieces that are designed to be controversial or incite debate and discussion, it amounts to a management strategy that systematically exposes journalists to forms of indignity and abuse at work. These interactions are mediated by relations in the organization (Bélanger and Edwards, 2013) where reader, or “customer” input is being structured into the work of journalists to reinforce management priorities. Audience abuse may be the by-product rather than the principle objective of a managerial strategy to encourage audience engagement, the point is that, despite the stress and abuse it is known to invite, journalists continue to be encouraged to write provocative pieces and are given less recourse to avoid social media and commenting.

6.4 Chapter summary

Management require a high degree of cooperation from journalists in a labour process where journalists’ labour requires knowledge and creativity and the flexibility to adapt to changeable or indeterminate processes and are not subject to direct or technical control. Following the delayering of the newsroom and the removal of levels of oversight, as outlined in chapter four, the loss of managerial control which this entailed has been balanced through responsabilizing journalists for commercial and financial considerations; journalists take on more responsibility for building audiences for their work, and this is underpinned by the data analytics that are available to journalists and reinforced by the cultures that have developed around both data and audience engagement via comments and social media.

Data is embedded in journalists’ work through the analytics dashboards but its importance is underlined through the presence of the SEO team in morning news conference and through reporting and the developing and sharing of best practice. While data is used to monitor the work of individual journalists in precise ways and has the potential to be used to monitor and control performance, it is not integrated into any formal performance management system however, it was used to inform the rationalization of jobs during the integration of print and digital operations. Instead, data operates on a normative level whereby the structuring of audience feedback through particular metrics, disciplines journalists to consider audience in terms of quantity – as opposed to focusing on the public service aspects of journalism – while giving the appearance of being objective data and, so

obscuring the way in which it directs worker effort in accordance with management objectives (Edwards, 1979; Callaghan and Thompson, 2001).

Journalists' subjection to discipline by data is heavily reliant on a context where there are other normative pressures at work; in this case, where data has been legitimized by journalists as a measure for their work, combined with the idea that journalists can affect audience numbers and interactions through their efforts — an effect that is neither necessary nor guaranteed. The focus on audience data builds upon, and is calculated to align with, professional commitments that journalists have towards their audiences however the data collected and presented emphasizes the commercial value of audience and, although journalists try to reconcile the 'audience as market' with their notions of the 'audience as public', there is potential for these divergent constructions of audience to come into conflict with journalists' professional values and erode the moral and meaningful aspects of their work.

This chapter has also outlined the way in which social media and below-the-line commenting facilities, combined with a managerial priority on audience engagement, gives journalists' work more service-like characteristics, making it more customer-focused and exposing journalists to potential direction by audience. Management have engaged in this strategy at the expense of journalists who are likely to be exposed to abuse in the course of carrying out their work.

7 – Labour power and the power of labour in a digital workplace

This study aimed to examine the digital transformations of journalists' work with a focus on how journalists perceived the process – what they identify as being the central features – how they have responded to those changes and how they assess their ability to shape their conditions of labour as individuals and collectively. The research sought to answer the question of how journalists are contesting and negotiating the digital transformations of the labour process, by looking at:

1. What has been the effect of digitalization on newspaper journalists' work, particularly in relation to the content of work; the skills and knowledge journalists need and the intensity of work.
2. How has the employment contract changed?
3. How has digitalization affected management strategies in newspapers?

The previous three chapters have sought to answer each of the above questions and this chapter reviews the findings presented in those chapters in light of how the journalists in my study have responded to their changing circumstances; to new configurations of power, managerial regimes and control within the labour process, including identifying the ideologies or narratives that have informed their acceptance of or adaptation or resistance to digitalisation (Scott, 1985). It examines what has happened to collective organization among journalists through their union, the NUJ, as well as how the labour process and job design has reconfigured power in the labour process for journalists in the newsroom and out and affected journalists' ability to collectivise their resistance.

The research has focused on the digital technologies, or the particular configuration of digital technologies, which journalists principally associated with digitalization at the time of research. These were audience data and the way it was being presented and referenced through dashboards; the shift towards working in multimedia formats – principally, interactive features on published works in the form of below the line comments – and the integration of social media into their work. Journalists also saw search engine optimization (SEO) becoming more important– the role of the SEO team in editorial meetings and the influence of SEO considerations in their own work, such as the use of SEO rankings and the use of techniques for attracting and maintaining audiences.

7.1 The journalistic labour process: processes

The reorganization of work to accommodate digital publishing has given rise to work systems that deliver the production of a highly differentiated product, while the publisher minimizes staff cost and the risk associated with an indeterminate process; strategies that could be summarized as the collectivization of effort and the individualization of risk (Thompson and Smith, 2010). This has resulted in a labour process with broadly three differently-structured processes; first for breaking news, where jobs have been enlarged, for example reporters now source video and images, and where editorial oversight has been delayed to facilitate speed of publication. It is in breaking news where work intensification is most evident with time pressure and acceleration driven by direct competition with online news outlets, but where intensification is also a function of staffing levels and the resulting greater workloads. Second, in-house features editors and content coordinators have also experienced job enlargement, but more of their time is dedicated to production and handling the copy of freelances. Journalists working in these parts of the newspaper have seen their skills expanded but simultaneously devalued. This work has a very different set of temporalities than that of news journalists; temporalities which are underwritten by new institutions such as traffic spikes and which result in more individualized time-management strategies by journalists because of the fragmentation of working practices and work rhythms. Third, much of the creative, more indeterminate work of writing is outsourced to freelances; the effort-bargain is resolved – albeit partially and temporarily – in favour of the employer by the externalization of labour and payment for a completed product, leaving the uncertainty with the freelance journalist. For many freelances, time is a problem because of the irregularity of work, or lack of control over the use of their time, but principally the payment of a wordage rate often translates into a low rate of hourly pay. In-house journalists report undertaking less writing and more repurposing of other material and generally feel that there is less time to undertake key journalistic tasks, such as developing contacts, although many journalists give more time and attention to both audience and, in some cases, clients. These aspects of the changed digital news production process are closely connected for many journalists to both the quality of their work and the inherent worth they feel in what they do – a theme which is developed below.

The reorganization and layering of the news-making process to accommodate the faster pace of online news has given news journalists at *Digital Paper* a greater degree of autonomy but, rather than giving journalists more control, it has been countered, or journalists' work

constrained, through the individualization of risk – management has exposed journalists to market-like pressures making them individually responsible for their audience and exposed them to risk in relation to job losses or workload by tying staff levels to revenue. Individualized behaviours can be evidenced in the way journalists promote their work through their personal social media profiles, but also where they engage in competitive behaviours to promote their work to the network front (see chapter four).

The integration of tasks into expanded roles for journalists has had the parallel effects of making the organisation of work across the newsroom more fragmented and the work of individual journalists, or the small teams in which they work, more dyssynchronous. Rhythms and routines of work have changed according to the requirements of web publication, in particular the removal of a single daily deadline as well as the need to monitor and revise or modify news items and stories after publication. In sections which produce breaking news or off-diary stories, this has resulted in work intensification and competing priorities for journalists who are working to web and print timelines and overall, the newsroom operates with separate, more individualized temporalities, rather than being coordinated through a shared deadline.

While journalism roles have changed markedly in the transition from print to online news, many of the craft aspects of journalists' work remain and journalists still have a considerable degree of discretion over their work. Significant aspects of digital journalism and the skills it requires are qualitatively the same as pre-digital but this must be qualified by the fact that the craft aspects of their work have been minimized and other generic skills have been incorporated into journalists' work. There is some skill loss—from the perspective of some journalists, important skills are no longer required, such as the language skills associated with subbing or knowledge of media law—however, some roles require more varied skills, although this could be classified as an expansion, rather than a deepening of skills (Thompson and Smith, 2009). There is also some limiting of the development of technical skills as a result of the way technology, such as the CMS, has been designed but, while this makes journalists more reliant on engineers and technicians, it is not the main trend informing journalists' relationship with their skills. The main trends for work and skills are the redesign of job roles resulting in less demarcation between roles and the devaluing of journalists' work as a result of the incorporation of more generic skills into their work and

the ready availability of those skills on the labour market. Journalists do bring particular skills and expert knowledge to their roles, such as how to recognize a story, how to find and pursue sources, analyzing and verifying news and the communication skills to structure and organize information – but there is a widespread perception that, as Cohen (2016) argues, anyone can be a journalist and, certainly, there are many journalism and communications studies students graduating with these skills. Rather than losing skills, journalists have lost market-based structural power (Wright, 2000) based on a devaluing of their skills, leading to a relative devaluing of their work and of the work of digital journalism specifically. This disciplining by the market has been reinforced by waves of restructures and redundancies in the newsroom over a period of eight years (between 2008 and 2016), creating a perception of employment and job insecurity for journalists.

In cases where groups of workers are able to monopolize certain skills, these can become a power resource within the workplace which can then be leveraged to afford those workers who possess them discretion and value, reflected in greater control over work and higher pay (Cockburn, 1983). Job enlargement and the consequent erosion of the sharp demarcation between roles for journalists has removed the monopoly over skills, or over a particular aspect of the process of content production, that any single subset of journalists holds. This has been most strongly felt by subeditors whose knowledge and skills had previously given them a powerful role on the newsroom floor:

[The Father of the Chapel] has the theory that there was a point, when we went to electronic makeup, where subeditors could have ruled the roost for generations, because they were the only people who understood how to do it. The printers had gone and the writers didn't really know.

— Eddy, managing editor, 15/10/2015

This comment raises the question of why subeditors didn't or weren't able to maintain their position – a question beyond the scope of this research – but it also points to the fact that digitalization and the accompanying change to subeditors' skills and position within the hierarchy of the process has undermined their workplace-based structural power (Wright, 2000).

As mentioned above, journalists' relationship with new technology has required them to develop some generic digital skills and literacies but it hasn't required the development of

technical skills; the CMS which they use to store and publish content is specifically designed to limit their need for technical skills. Successive technologies and, ICTs in particular, have become more complex and are designed to be less susceptible to errors, but also to work-arounds by the journalists who use them. In addition, the technologies journalists are working with don't pace or intensify work and potentially give journalists more discretion about how they organize their work in time (Wajcman, 2014). This could seem to provide support to Vercellone's (2007) argument that networked technologies result in a reversal of real subsumption, whereby managers are unable to rely on the domination of technology, so are left with the more uncertain and precarious role of extracting surplus value through digital workers through direct forms of control associated with formal subordination. Setting aside the objection that this argument overestimates the degree of control that managers have in cases where labour is directed by technology⁵¹ – as studies of resistance in highly automated work systems have shown (Bain and Taylor, 2000; Silver, 2003; Mulholland, 2004), there is value in recognizing, as Vercellone does, that controls which rely on direct forms of management control to steer or intensify work, because they involve direct personal interactions, can lead to more open antagonism (Edwards, 1979). In this study, management controls based on audience data have been specifically designed to be unobtrusive, operating indirectly or as normative pressure and to avoid the need for direct control and, while their ability to direct and affect journalists is not without problems, it has been effective to redirect journalists' concerns to an extent. Further, in terms of thinking about the subordinating of labour to the capital-labour relation, management attempts to direct journalists' work through data are complemented from outside the labour process by the disciplining forces of the labour market and by journalists' general reliance on publishers to earn a living—factors which are underplayed in Vercellone's account.

Inside the labour process, digitalization has given rise to a number of resources for new forms of indirect and normative managerial control, notably, in this case, data and customer control through social media. Following the delayering of the newsroom and the removal of levels of oversight, flatter organizational structures have been managed through the devolution of responsibility to editors and writers for audience numbers and, by implication,

⁵¹ A point upon which studies in the labour process tradition tend to converge is that the subordination of labour to capital is never totalizing or complete and control is always a contested terrain in the capitalist labour process (Thompson and van den Broek, 2010).

revenue. The structuring of audience feedback through data and audience metrics has disciplined journalists to consider audience levels – as opposed to making decisions based on their professional judgement – while simultaneously obscuring the way in which data directs worker effort in accordance with management objectives (Edwards, 1979; Callaghan and Thompson, 2001). This is reinforced by links between staffing levels and revenue in digital-only sections. The use of data was one of the key technological innovations shaping work for journalists in the period when the study was undertaken; audience analytics were introduced, not just to inform marketing and sales, but also integrated into journalists' work practices and used as a way to structure their work and reorganize their priorities. The application of data into the labour process occurred within a very particular culture and approach to management in *Digital Paper*. Journalists describe a workplace in which 'there are no great instructions from on high' and where culture plays a large role in setting expectations – 'a lot of things are done by osmosis here' (Richard, Interview, 11/05/2015) – and where journalists are given a large degree of discretion over how they undertake their work. The audience data has enabled managers to measure journalists' worth in terms of content and redirect journalists' efforts to building audiences, but it achieves this indirectly because data is framed by management in terms that appeal to journalists' attachment to their work; their sense of responsibility towards, and desire to be responsive to, their audiences. The data is able to act as a normative control among journalists who have an informal culture that is otherwise dismissive, if not hostile, to practices such as performance management.

The effectiveness of the data to redirect journalists' activities and priorities sit in a fragile relationship with journalists' professional values. This is where, in the previous chapter, I have argued the concept of the "audience commodity" (Smythe, 1981; Fuchs, 2012, 2014) and the dual nature of the product of journalists' labour – as content on the one hand and an advertising market on the other – could have explanatory power. Requiring journalists to focus on data to build audiences threatens to lay bare the audience as a market. To an extent, journalists have been willing to engage with data where they feel it enhances their connection with audiences and have been able to reconcile this focus, or have been willing to pursue, larger audiences as a matter of organizational survival. But there are limits to how much journalists will compromise their professional values and sense of meaning in what they do. This was glimpsed in this study where the increasing emphasis on traffic and hits by managers were creating tensions and frustrations for journalists. The possibilities of securing

commitment as a result of data are not unconditional and, given that they draw on the satisfaction that journalists derive from their work or the responsibility they feel towards their audience, changes to the product or the process of journalists' labour can undermine the effectiveness of the data. It can also undermine journalist's perception of the quality of their jobs.

The rewards and meaningfulness of knowledge work (Bell, 1973) are not inherent to that work and can be undermined by work intensification – as evidenced when journalists went into dispute over workloads and the time pressure they were under in the early days of digital convergence – as well as pressures on quality and a more commercial orientation towards audiences. The pressures of more intensive work or a more commercialized environment have meant that, in some cases, journalists stop feeling pride and attachment to their work. A journalist I spoke to at *Digital Paper* said: 'I've written some really crappy interviews. I'm really ashamed of a lot of the stuff I've done. It's just because there wasn't time and I had to send it off and I'd got a million other things to do.' (Leah, interview, 15/07/2016)

In instances where journalists suspected that advertisers were having undue influence over editorial content, they found ways to withhold effort or restrict output in order to counter requests they objected to in ways that are particular to their work. Restriction in this case this included limiting the amount and kind of information journalists would make use of in the content they were producing or moderating the tone or the perspective of a piece so that they would fulfil their brief in word, but not in spirit and, therefore, avoid taking the implicit angle expected of them. In this example, a writer was asked to produce editorial copy that he felt was being written to appease an advertiser:

I was asked to write a couple of features about MOOCs and I had a big issue with it...I'm just, I'm not a fan. And so I thought, well look, I'm going to try and make it — I can't make it too critical but I'm going to at least try and make it balanced. And I basically didn't really include much positive spin on it.

— Chris, news reporter and freelance, interview, 28/08/2015

Far from being attached to their work and the products of their knowledge on a deep and inalienable level, journalists engage in practices that dissociate themselves from work of which they disapprove. In some cases, that involves literally disassociating themselves from

the work; journalists confided with me that they had returned to items after they had been launched online and removed links to their by-lines from those they no longer wanted to be associated with. The erosion of the meaningfulness of the work in these examples – the domination of exchange over use values – is at the heart of the first two dimensions of Marx's theory of alienation; first 'with workers' loss of control over and ownership of their labour product, and the second with the removal of their control over the labour process' (Brook, 2009), both factors which result in the degradation of journalists' work. This comment from a news reporter who worked at another national paper, where the newsroom similarly had been rationalized and work had become more pressured and commercialized described the process beautifully:

On one level you are frustrated and upset by the changes that are being brought about, but on another level you realise that, ultimately, there is not that much you can do about it, that you need to earn a living, and that you need to do the best you can within the circumstances as they are. And in a sense, you compartmentalize things. So you have your critique of what is going on, but while you are at work, to a degree, you park that and just get on and do what you're doing - do your stories. And that is the only way to cope with it in my view.

— Interview, reporter, 10/09/2015

This discussion highlights the way in which knowledge is a part of labour power which workers can feel alienated from, where alienation is contingent on other circumstances which influence the attachment journalists feel to the product. Further, it is a good demonstration of the fact that the knowledge aspect of labour power is different and separate from the overall control journalists are able to assert over the use to which that knowledge is put; the notion that the knowledge content of labour, or intellectual labour, is distinct from the idea of conception, which is about determining how and under what circumstances labour will be carried out. Further, this understanding starts to make clear that it is not knowledge which creates value (viz. Lazzarato, 1996; Vercellone, 2007; Moulier-Boutang, 2011) but the application of knowledge through the labour power of workers. As Guglielmo Carchedi explains, 'it is the value of the labourers' labour power, which is partly determined by the past value gone into the production of their knowledge, that determines the quantity of value created' (2012:187). Like other aspects of labour power, knowledge is both alienable from its bearer and indeterminate and becomes the site of contestation and, potentially, of the restriction of output.

While most professionals maintain their status through the monopolization of particular skills or expertise (Larson, 1977), journalists' semi-professional status has been, to a significant degree, afforded by their location within news organizations; access to news gathering resource, including access to power and distributional resources (Singer, 2003). This point has been used by journalism scholars such as Singer to demonstrate the way in which journalists have mobilized their professional status and their affiliation with proprietors to defend their role and differentiate themselves from citizen journalists, but it also highlights a dependence that journalists have on publishers/proprietors to earn a living. In Braverman's words, the middle strata, including the professions, 'possess no economic or occupational independence, is employed by capital and its offshoots, possess no access to the labour process or the means of production outside ... employment and must renew its labours for capital incessantly in order to subsist' (1974:403). Digitalization and the accessibility of networked devices and the Internet seemed to challenge this idea. Theories of cognitive capitalism, for example, argue that the means of production consist of little more than a laptop, a mobile phone and knowledge; "knowledge by means of knowledge" (Vercellone, 2007:16; Moulier-Boutang, 2011, 55-6). But, while journalists are in possession of all the craft skills they require to carry out their work, they are reliant on publishers and the concentration of capital which has amassed in terms of digital architectures, software and technical expertise inside news organizations to afford them access to sources, resources and a wide distribution. For the overwhelming majority of journalists, their knowledge is worth very little outside the relationship with a proprietor and, despite theories which argue the contrary, any product of their labours is unlikely to circulate widely or have significant value outside the large proprietors, who provide journalists an advantage over citizen journalists. While the product of journalists' labour, hypothetically, could be the same, regardless of whether their work is published in *Digital Paper* or a personal blog or website, its ability to attract advertising revenue – or any other kind of exchange value – would be greatly diminished. In this way, journalists' labour continues to be drawn into the capital-labour relation and their skills and knowledge must be developed in accordance with the requirements of capital. This is important to emphasize because of the tendency of theories of the 'general intellect' which see knowledge production as external to the labour process to dismiss or downplay 'the extent to which the direct producer is subjected to economic compulsions to specialize in producing efficiently for the market and thereby intensively to develop the productive forces' (Callinicos 2014:209); i.e. is subsumed by the directive forces

of capital. Subsumption is not just about labour being subject to the specific discipline of managerial control within the labour process but is a specific relation that increases the productivity of labour and determines the way in which workers must develop their skills and knowledge to bring to the labour market. These forces operate on journalists whether they are employed permanently in-house, or outside as freelancers.

7.2 The journalistic labour process: boundaries and actors

Many discussions about digital labour have turned upon the question of how it disrupts boundaries; the fragmentation of work into many tasks which are distributed through online platforms and the blurring of working time and non-working time. The question of working time is principally about the extent to which working life colonizes our lives, tying into a general trend whereby we are working longer and harder. As outlined in chapter two, some accounts, such as theories of ‘immaterial labour’ and ‘free labour’, take up more conceptual questions about what is “gained outside the employment relation” (Böhm and Land, 2012) and what derives from inside in terms of how value is produced and what activities can be classed as labour and exploitation. Two things are principally at stake in these arguments – the boundaries of the labour process and, so, the relative significance of the labour process for production, and who are the actors within that process.

The issue of boundaries in relation to time surfaces in response to the way in which mobile networked technologies like smart phones, laptops and tablets can draw the demands of work into even the most intimate moments of our lives, facilitating the interpenetration of work and non-working life. In this study the blurring of boundaries between work and life has been shown to be principally a function of a broader social culture of connectivity within which journalists had become habituated to checking social media, rather than an outcome of management expectations. There are signs that, as journalists consolidate the use of social media into their work, they are developing ways to negotiate and contain their online work activities or protect activities in non-work life from technological intrusion. Key to this is the continuing importance of maintaining clear distinctions between work and non-work time around which to organize their networked work activities. Even in cases where journalists are prepared to allow, or are resigned to having, a less clear delineation between work and life, they are still engaged in circumscribing times or activities during which no work would be undertaken. In this way, journalists are engaged on an individual level in

defending the boundaries of their lives against the encroachment of work, but – possibly more significantly – they have also been involved in collectively defending the boundaries of the working day against management attempts to shift it into unsocial hours. Contra Castells (1996:442), working time and notions of standard working hours still play the central role in structuring everyday life. Journalists' ability to insist on the concept of 'standard working hours' continues to be an important source of appeal in their collective negotiations with management against pressures to start work earlier or expose more journalists to unsocial working hours. In addition, standard working hours continue to underlie the rhythms and routines of news work. This is evidenced by the fact that breaking news occurs – not always – but most often during standard working hours and journalists' ability to carry out their work, particularly in relation to accessing sources, is greatly diminished outside those hours, even in a context which could potentially give rise to 24/7 news. Although digitalization has given rise to a period where immediacy – the collapse of space through time – is possible, time continues to be constrained and controlled through institutions like the working day and, importantly, through traditional collective labour struggles over working time.

Although collective workplaces have most often been the focus of studies in the labour process, the labour process is not, as some have assumed, a physical place (e.g. see Gandini, 2018) and nor is it purely the employment relationship (e.g. Böhm and Land, 2012); the labour process is the process which draws together, in specific combination, the productive forces (fixed capital, technologies and labour power) and social relations (organization of work, job design; means of control), to produce use values in the specific form of commodities and, under capitalism, is simultaneously the process for the production of surplus value; the valorization process (Marx, [1876]1967:981-992). Given the fragmentation of work and the mobility afforded some workers as a result of networked technologies, it is important that studies of the labour process are not contained by these 'boundaries'. Journalists' labour has been broken up across these boundaries through the outsourcing work to freelances which has the potential to create geographical dispersal and atomization for freelances and, where they are engaged as self-employed workers, allows them less access to rights as employees or workers. At *Digital Paper* the union chapel may try to bargain over freelance issues but it has no official remit to negotiate over their pay or conditions, other than for the small number of columnists and photographers on retainer contracts. In order to draw this outsourcing and use of freelances into a narrative about digitalization, it would

be a mistake, however, to focus on the outsourcing of this work, or the self-employed status of freelance journalists and draw too close parallels between freelance journalists' work and forms of crowdworking that have arisen with digitalization because of the implications crowdsourcing has of undifferentiated, anonymous transactions for tasks and the reliance on online reputation and ranking systems. A benefit of qualitative fieldwork was that it revealed the extent to which there are not sharp boundaries between casual shift workers and self-employed freelances at *Digital Paper* – freelance work is often distributed to shift workers and journalists who commission work to freelances commissioners rely heavily on networks and relations of familiarity. This indicated there is some degree of mutuality of dependence between freelances and the news organization who need to have access to writers who are reliable and can be counted on to provide quality copy, despite the fact that the balance of power has swung heavily in the direction of the publisher/employer. The crossover in personnel between shift workers and casual shift workers at *Digital Paper* further suggests the potential for a mutuality of interests between them based on common experiences, rather than necessarily leading to segmentation between in-house and freelance workers, the atomization of freelances and so a diversification of their experiences and interests.

In terms of actors, digitalization and, in particular, social media have transformed the ability of consumers to be creative and much of what circulates through social networking sites is user content or content which is curated by users. The centrality given to user activity in theories of digital labour, which draw on concepts of “free labour” and “data labour”, creates an issue in terms of theorizing digitalization and labour because they describe activities which are limited in the case of journalism and, further, neither provide the theoretical resources needed to understand the large scale transformations happening in areas of work that are going through processes of digitalization, nor to analyze the expansion of new forms of work, nor to theorize the politics and class relations of this. To understand the digitalization of work requires addressing what is happening to waged work and the employment relationship, while acknowledging that digital networks have also extended precarious paid employment in parts of work and the world not previously engaged in capital-labour relations (Dyer-Witheford, 2015).

From an empirical standpoint, content produced by users was insignificant in volume and prominence in the newsroom because of issues with its reliability, quality and consistency.

As demonstrated in chapter four and, in line with the use of user content in other journalistic contexts, it was shown to be costly to solicit, moderate and edit and also requires major development in technological infrastructure and staffing to support. Drawing the products of free labour into the logic of accumulation is a much more contingent, contradictory and contested process than the exploitation of waged labour because “free labour” isn’t driven by the same mutual dependencies as exist within the capital-labour relation; the “silent compulsion of economic relations” which Marx (1976[1867]:899) argued was part of the coercive relations of wage work. The relationship between social media companies and users is not one of mutual interdependence and users can shut down their Facebook account or stop online browsing without it having a noticeable effect on their livelihood. In this case, “free labour” would be better theorized as a gift (Smith, 2013) or an opportunistic expropriation rather than a systematic exploitation that is posited in capitalist-labour relations inside the labour process⁵².

The overemphasis on the activities of users in digital labour theories connects with a point that has been made in different ways by Sarah Roberts (2014) and Christian Fuchs (2014) – that our engagement with technology often conceals the social relationships which sit behind it; the ‘immediacy, simplicity and high speed of the usage of networked ICTs hides the circumstances that in order for this process to happen, a complex chain of globally dispersed but necessarily interconnected labour processes has to be conducted (Fuchs, 2014:286). While Fuchs is principally referring to the production of the hardware that goes into ICT systems, the same can be said of the work of producing the news. It is important to highlight the labour and the labourers who sit behind that process. Journalists have seen their work reorganized and intensified and they are able to rapidly process information and relaunch it as news as a result of the technical architecture and applications that support ease and speed of use on news platforms. These infrastructures and the software that journalists use to make the news are designed and maintained by engineers and developers. The curation and moderation of user content is undertaken by journalists and content moderators. There is also labour that sits behind data, but it is not the activity of the users whose data is collected which is central to this process as much as the labour invested by developers and the capital

⁵² This returns to the argument posited in Marx’s value theory which demonstrates that exploitation is embedded and systematic within the capital-labour relation and concealed by the wage relation and that it exists and perpetuates because of the mutuality of relations between capital and labour.

investment in developing technologies to capture it. These are rapidly expanding areas of digital work which deserve attention in any study which seeks to understand digitalization.

7.4 The journalistic labour process: power

This study has outlined how the situation for digital journalists is one of the objective degradation of their conditions of work, principally through time pressure, heavy workloads and continual intensity of work, leading to work intensification generally. This has been accompanied by the relative lowering of journalists' wages as a result of the devaluing of their work. Within this context, journalists have tended to retain a discretion over their tasks and the way they carry out their roles, although this is steered by management indirectly through the imposition of a data regime which redirects journalists' efforts towards audience building. This section considers whether digitalization of the news has led to new responses and resistances by journalists to the conditions of their work, including an assessment of where digitalization leaves the structural and associational power of journalist's labour.

Technology and restructuring have shifted where power lies in the newsroom, as has been mapped through the preceding sections. One of the biggest challenges to journalists' power seems to be the fragmentation of the labour process. Key to the realignment of structural power has been the increasing functional flexibility of many roles, brought about by job enlargement and the end of clear demarcation. The NUJ house agreement outlines prescribed roles, however, digital journalists not covered by the house agreement have become accustomed to working flexibly with no job description, or little reference to their job descriptions. This, combined with the fracturing of shared deadlines and temporalities in the newsroom, means that the labour process for journalists operates in a way that is more dislocated or disconnected from a process that was historically linked, if not synchronized. Fragmentation is furthered by the large portion of writing work which is carried out by freelancers, often off-site and under conditions of self-employment. In addition to this, restructures and redundancies have created insecurities even for permanent staff and the pace of technological change has created uncertainty.

Digital journalists' work has been devalued as part of an historical legacy that saw digital news workers initially not classified as journalists. This devaluing has continued at *Digital Paper* due to the lower status and power of digital journalists compared with those journalists

from the legacy section of the newsroom. It has been reinforced by the fact that digital workers are young, ununionized, with their jobs not covered by the union house agreement and are more likely to be on casualized contracts.

Over the period of digitalization (since 2007) journalists, not historically known for their industrial militancy (Gall, 2011), have gone into dispute several times and balloted for industrial action over changing conditions of work. Disputes have been initiated over (lack of) communication and consultation, pay and working times in relation to management's web-first strategy, over workloads when the strategy was first implemented and over redundancies. The NUJ house agreement, which was negotiated in response to the first phases of digital convergence in 2007-8, deals extensively with changes to working time and specifies maximum hours and limits to night shifts and weekend working. As outlined in chapter five, much of the negotiation had revolved around the NUJ chapel seeking to preserve journalists' working patterns in light of attempts to introduce 24/7 working for online news. The only explicit reference to 'information technology, multimedia and new ways of working' in the house agreement, states:

Every support and training will be given to people taking new jobs as a result of integration. The disciplinary procedure will not be used against members who are perceived to be underperforming as a result of a change in their working practices brought about by integration or any other editorial changes of similar significance.

In many ways this is testimony to the fact that the direction and shape that digitalization was going to take was not known or well-understood at the time the agreement was negotiated – by either the union or management. The union prioritized retraining journalists into new roles, rather than risk them becoming redundant, and dealing with the immediate issues around contractual changes, principally shift times. In the period of rapid change since the agreement was negotiated, the union and its members have accepted a certain level of change as inevitable, such as self-publishing, or those which they have little or no control over, such as the use of casualized contracts. Despite concerns about freelance work and efforts by the union to negotiate better rates of pay, generally no attempt has been made to provide routes for casual workers to be made permanent or bring aspects of freelance labour back in-house.

The reorientation of the newspaper industry through the process of digitalization and the financial uncertainty it has created has cast a long shadow over the way journalists perceive their ability to act individually and collectively in response to their changing conditions of work. The kind of responses workers have are informed by the power resources available to them, and part of those resources include their perceptions of the power or possibilities they possess to affect their conditions of work. There are two main frames which have influenced the way journalists think about digitization and their position within it and limited their likelihood to counteract changes: financial and democratic.

The first is the financial narrative, which sees the all other questions about digitalization – jobs losses, restructuring, intensification of work – as framed in terms of the organization’s financial situation:

Anybody who knows the state of [the proprietor]’s finances, would not really want to go on strike. Unless they were doing something absolutely outrageous.’
— Interview, reporter, 10/09/2015

This view of the destabilization of the industry and loss of revenue was one of the main reasons journalists held, either implicitly or explicitly, as to why they were inclined to accept their changing conditions of work, even when they were deteriorating. In his mobilization theory, John Kelly (1989) argues that, in order to take action over workplace issues, employees must blame the employer or the management for the problems they experience at work. Management were careful whenever cuts or changes were announced to attribute them to the digital business environment, citing ‘seismic changes to the industry’ or referring to the loss of ad revenue to Facebook or Google; factors seeming beyond their control. This had the effect of effacing management decisions and choices over strategy or suggesting that their options and ability to mitigate cuts were limited.

Journalists on national papers and, specifically at *Digital Paper*, have tended to consider themselves comparatively better off than their colleagues in regional titles. Accepting the redundancies and increase in workloads they have endured on the basis that ‘it could be worse’:

It’s nowhere near as bad as the problems you hear being encountered by colleagues in the provinces, and stories of people getting up at seven o’clock in the morning and the first thing they do is tweet their story.
— Richard, FoC, Interview, 11/05/2015

Or also with the management approaches of other national papers:

You can contrast it with the other titles, local media with their redundancies, They're centralizing production. The *Express* recently lost 150 people – I don't know how they're going to cope. [*National newspaper*] took a slash and burn attitude and basically got rid of all of its old school journalists and drafted in younger cultural, digital native – you know – employees.

— Editor/FoC, Other National Newspaper 1, 19/05/2015

The idea that the course management were steering was an inevitable response to financial pressures was not an iron law and the union chapel at *Digital Paper* had been able to mobilize members even in the face of arguments around financial decline by drawing their attention to executive pay packages – which, in some cases, were 10 times the average journalist's salary – and demonstrating that senior management were making choices about how resources were being allocated, rather than accepting changes as inevitable. In addition, union members at national NUJ events were developing a case around the argument that that cost cutting through staff redundancies would result in poor quality journalism which would exacerbate losses of revenue. The point was raised by a national newspaper organizer for the NUJ, who had also worked as a reporter:

You've got to invest in quality...And my feeling is that there's no money to be made, in the longer term, from general content that is just rubbish-y, because the advertisers just won't pay anything for it.

— Fieldnotes, 14/05/2015

The second prominent narrative is the 'crisis of journalism'. Journalism tends to be seen by journalists – and those who study them – as a unified profession with a shared set of interests and there is powerful reason for this; journalists are socialized as a profession to have a set of ideals and ethics and often to see themselves playing an important role in the functioning of a healthy democracy. This can, and often has, become the frame of reference through which digital transformations to journalism have been understood, where the degradation of journalists' work and the causalities in terms of jobs have often been seen as necessary and almost always subordinated to the greater cause of "journalism". At *Digital Paper*, protecting journalism into the future has been the principle stated goal of management and has helped to align management and journalists' interests around the cause, even where it is counterposed to protecting security of work and working conditions for journalists. But this argument can be mobilized in more than one direction and highlights that there are complex sets of relations and interests involved in the restructuring of news. In some cases, journalists have used the democracy narrative to secure management support. The father of the chapel

at one national newspaper related a conversation he'd had with his "altruistic" boss about reporters being required to take their own photographs rather than use photojournalists:

Because it was seen', I said to the editor at the time, 'as the death of journalism.' And he agreed with me. So he is trying to mitigate the damage. He often says, "Trust me." He will try to mitigate the damage that is being done...

— Chief Reporter/FoC, 25/04/2015

Despite the potential for these narratives to limit the action journalists were prepared to take in defense of their conditions, members had still mobilized during those periods when the upheaval caused by digital transformations in the newsroom had been greatest. As a result, the union chapel had been able to win a number of significant concessions in these disputes, which have protected journalists' working conditions, including containing working hours and retaining the 'no compulsory redundancy' clause. These victories, however, were not seen to be extended to everyone at *Digital Paper*. There had been criticism of the NUJ nationally from an early stage from some sections of the union, particularly those working in 'new media', as it was called, that the NUJ were not providing adequate support to digital journalists or addressing the issues that were arising in a changing digital mediascape⁵³. By the time I was undertaking my research at *Digital Paper*, there was a feeling among digital and some legacy journalists that the NUJ chapel were protecting legacy journalists' conditions and older print-based practices against the shifts of digitalization and potentially at the expense of digital journalists' conditions. While managers at *Digital Paper* had tried to refuse digital journalists the title 'journalist', the union chapel had also been slow to recognize those on the digital side as journalists, or to fully engage with the issues that were arising with the digital workforce. This was partly to do with the craft nature of the union, which has strict membership rules and the chapel had questioned initially whether some journalists from the digital arm were eligible to be members. By way of example, some digital journalists discussed a successful campaign by the legacy editorial section to resist a large number of redundancies shortly prior to my research. The chapel succeeded in pressuring management, using the threat of strike action, the number of redundancies was reduced, and the union got agreement that any redundancies would be voluntary:

⁵³ For example, at the NUJ's Delegate Meeting (DM) in 2011, Motion 55 on the agenda argued that the council structures of the NUJ did not represent the changes to journalists' employment, the industries they are employed in or the methods of working, particularly for the increasing number of multi-platform workers.

There were cries of jubilation when this was announced, and they were all cheering and “Yes! We’ve beaten the system”, or whatever. And good for them - that is what they should do: protect their members. But what they failed to realise is that *Digital Paper* were set on saving that money and so all they’d do is pass that off to a different arm — to the un-unionized workforce. Low and behold...I may be jumbling my dates here, but just a couple of months later a load of redundancies were handed out to people on the marketing side.
— Josh, digital reporter, 15/10/2015

Union recruitment among more commercialized digital areas had not been a priority and some legacy journalists recognized it to be an issue:

I think it’s a problem that they can never come and sit and work with us even though we are writing about some of the same things because they are on different contracts and I don’t think that’s good practice.
— Gillian, online editor, 16/09/2015

The situation resulted in hostility from some digital journalists towards the legacy journalists; the sense that bloated editorial department and legacy ways of doing things were being defended by the union while other areas worked lean:

The union have been quite...they’ve had blinkered vision over this, I think, if that’s the right word and they ... obviously they protect their members and the problem is: if there’s no prospect of a recognition agreement, then the young journalists on the other arm don’t sign up; they don’t join the union and so there’s less incentive for the union to try and do something.
— Chris news reporter and freelance, 28/08/2015

7.4.4 Discussion

Across the newsroom journalists have accepted many aspects of what would be considered the degradation of their work; they have often responded to work intensification by seeking to manage different temporalities and be ‘really, really efficient with [their] time’. Time management and workloads in particular tended to be viewed as personal issues that required individual solutions and journalists’ discretion over their work appeared to give them the scope to solve them. Further, the fragmenting of the process of news production has meant that journalists’ experience of work is more individualized but, while journalists responded to the new pressures at work – around workload, competing timelines and the demands of audience levels and audience interactions – individually, their experienced were collectively felt. Drawing on Marx’s concept of the “collective worker”, Martinez Lucio and Stewart describe this as ‘the appearance of individualism, given precedence over the reality of collective participation in the capitalist labour process’ (1997:53). Many of the grievances

and pressures that journalists discussed emerge from the necessary cooperative character of the labour process and are organized through the structural determinants in journalists' labour process, such as the pacing of work by competition with other news outlets for breaking news, or through the traffic spikes in other areas; the commercialization of their work through greater focus on audience and revenue and the periodic existential threats to their jobs through restructure and redundancy. The industrial responses to some of these issues at key moments through the process have seen journalists identifying themselves more as workers with common interests, rather than as privileged professionals with allegiances to their profession and, by extension, to management. This has occurred, however in a context where they are structurally weaker, as a group or as workers occupying key strategic positions within the production process and where job losses and precarity act as a serious restraint on their assessment of their prospects of winning.

Among journalists working in the digital-only department, the most frequently cited and commonly shared frustration has been their perception of precarity, including their casualized status, not having enough work, the unpredictability of work and income and feeling like freelance workloads are difficult to manage. In their day-to-day working, this contributed to a sense that they were in a weak position within the organization, they felt their work was more scrutinized, that they couldn't negotiate for better contracts and that they were seen by some managers as expendable, which made them more likely to accept the conditions that were offered them. However, despite and – maybe because of – their precarious situation, the digital journalists were much more likely to talk openly in interviews about their frustrations and anger with the organization and admit to engaging in informal activities which either attempted to address their working conditions, such as where issues of low pay and the uncertainty of casual contracts informal pay and shift arrangements, or acts of resistance or defiance, which were aimed at trying to reclaim some dignity or sense of professionalism in their work. These individualized and informal attempts to improve conditions could be a barrier to addressing casualization collectively but they also highlight a degree of informal collective organization between casualized or freelance journalists and commissioning editors, or content coordinators who were responsible for commissioning work, to mitigate some aspects of low-paid freelance and shift work.

The strategy of the employer to continue to negotiate a union house agreement with legacy journalists while moving greater numbers of younger workers into the non-unionised, lower-

paid digital-only sections of the organization has created a digital divide in terms of how the union intervenes into the workplace. At *Digital Paper* it is objectively the case that employers have been able to take advantage the ununionized workforce who do not have the protection of a union-negotiated contract or work conditions to organize work in more precarious, casualized ways and experiment with new ways of making news, which would either break the terms of the union agreement or challenge the longstanding culture in the legacy section of the newsroom and create friction and possibly industrial unrest. This rift would seem to support, in microcosm, arguments made by Nick Dyer-Witheford (2015) in his explanation of the understanding of class in “communisation theory” whereby ‘the proletariat’s implication in capital results in an endless series of divisions and conflicts between its more and less favored segments’ (2015:32); that differential treatment of the workforce is diversifying the interests of workers.

While the action of management has created, or taken advantage of, divisions within the labour force; it is not clear that this necessarily creates irrevocable divergences of interests between digital or legacy staff. Despite the unequal treatment experienced by casualized journalists, many of the issues and the targets of their resistances addressed the same issues which preoccupied the unionised staff, especially in relation to the increasing commercial pressures on their work. And, while, it has certainly created frustrations and hostilities among casualized workers, whether they target that hostility at the legacy staff or at management is a question of organizing, but it poses challenges to journalists to reconcile the fractures imposed by the dyssynchronous work practices, casualization and the union divide.

8 – Towards a digital labour process?

During the year I spent interviewing journalists, observing their work and theorizing with them about what digitalization is and what it might mean for them, I found them to be a group of workers who were willing put in long, hard hours to undertake work which they enjoyed and which they thought was important, and who were often trying to reconcile what they thought their jobs could, or should, be with the reality of their daily work. The impression I left with was one of the preceding few years having been a period of extensive change to the design of journalists' jobs and the way they carry out work, often justified in terms of the upheaval of the newspaper industry and accepted by most because of the uncertainty of a sector understood to be in crisis or decline. Not long after I completed the research, *Digital Paper* announced 250 redundancies, the following year, a further 100.

This study sought to examine newsrooms as an example of an industry which had been radically reorganized by digitalization and, where newspaper journalists have stood at the centre of this— a group of workers who have had their industry 'disrupted' and their work transformed in the reorientation from print to online publishing—to reveal the social relationships that sit behind technological change. In the case of the newsroom detailed in this study, journalists have grappled with competing timelines and intensified work, often spurned by more immediate competition with other news outlets and a management focused on building audiences, which journalists are increasingly required to relate to as markets rather than publics, and which has exposed them to commentary, criticism and even abuse via social media. Unionized workers have tried to organize collectively, even in a context where work systems have been fragmented, partly through externalization of work to freelancers, and where their skills are devalued and their labour market position weak. In response, management have built a digital arm of the organization where workers are young, ununionized and precariously employed and, yet, share many of the same daily pressures and grievances as their unionized colleagues—albeit in an intensified form— as well as sharing the same concerns over professional values.

The central argument of this thesis is that digital technologies have provided new ways for news managers to structure the news-making process but the way those technologies have been adopted has involved a set of complex and context-specific negotiations which are highly contingent upon the social, political context in which they are put to work. This

research found that digital technologies drove competition into the heart of newsrooms as a result of the immediacy of web-based publication and constant connectivity also contributed to the intensification of work for journalists generally. Some aspects of digitalization represent a qualitative break from earlier ways of organizing work in newsrooms, for example, the removal of a single, coordinated deadline and the greater emphasis on multi-media story-telling, and these were features of digital transformations shared in all newsrooms. Beyond that, digital transformations have had widely differing outcomes in different organizational contexts even in the same industry. The way that work was organized, whether through indirect normative control based on data, as at *Digital Paper*, or via more hierarchical and direct forms of control, such as *NewsOnline*, or whether adaptation involved the replacement of print journalists with younger digital natives, the transformations were deeply embedded in existing newsroom practices, organizational cultures and institutional arrangements with unions and employment relations.

In addition to contributing an empirical study of the labour process for digital journalism, this study had a secondary objective of considering the extent to which journalists' experience can reveal anything about the nature of digital work, or the digital transformation of work, and, by implication, the question of whether it possible to talk of "digital labour", or whether digitalization is a useful lens for understanding transformations to work. Digital technologies do seem to be placing knowledge work like journalism under pressure; where work previously thought to be immune to technological advances have been exposed to deskilling and degradation. In this study, however, the degradation of journalists' work didn't occur because technology replaced or paced it, as much as journalists' work was reorganized and jobs redesigned to facilitate intensification that would compensate for revenue that had been lost as a result of a disrupted market. Knowledge is an important productive force, especially in journalism, but it has not been immune to the same dynamics as any other aspect of labour power. Drawing on labour process concepts, this study has demonstrated some of the ways knowledge has come under those pressures, often through indirect or contractual means; for example, the management imperative to resolve the indeterminacy of labour through outsourcing; precarity as a mechanism of control and managerial strategies focused on utilizing market forces or customer feedback to discipline workers. The experience of journalists raises the question of whether other professional, or semi-professional work is likely to come under pressures of de-professionalization or degradation as a result of greater commercial pressure or competition where management responses will

tend towards greater recourse to casualization and strategies that introduce precarity into contractual relations, because of the increasing portability of knowledge work.

In trying to reconcile discussions of “digital labour” developed around concepts which gave primacy to the role of users and user “labour”, this research instead found the persistence of the centrality of the wage relation and the direction of productive and creative intellectual labour by capital within the news production process. User content plays a peripheral role in news journalism and, in the places where it appears, it is a role which is heavily supported by the work of waged-labour within the journalistic labour process. Further, arguments which theorize user data as a form of value extraction and exploitation (Fuchs, 2014; Scholz, 2017) were hard to sustain from an analytical viewpoint; the commodification of labour describes the particular organization of social relations within capitalist production⁵⁴ and theories which try to find equivalence between data traces and exploitation, run the risk of trivializing both exploitation as a form of domination particular to capitalist production and the role of the mutual dependencies which sustain the capital-labour relation. For a study that sought to understand the social relations of a digital labour process, I concluded digitalization, or its corollary, digital labour, are not useful lenses through which to understand the changes which have been brought about by digital transformations of work in journalism.

In the news, the major driver of change has come from the reconstitution of the information sector and the introduction of powerful new players, such as social media networks and search engines, whom news organizations must compete with for revenue and whose platforms and protocols have the power to determine what kind of news would get precedence and which shape activities inside the newsroom (Bell, 2017). This revealed a contradiction at the centre of digitalization: in an area of expanded communication and unprecedented capacity for humanity to share and process knowledge globally, rather than a proliferation and diffusion of knowledge, or of the “general intellect”, there is a devaluation of knowledge and of knowledge workers, to which news organizations have responded with listicles, churnalism and advertorial. This is the effect of the continuing subordination of the free flow of information through the internet to the dynamics of capitalist accumulation,

⁵⁴ Of which Marx’s labour theory of value is an expression.

which this study has shown has placed great pressures on the labour of journalists, whose labour stands at the intersection of networked access to information. This is the answer to the logic of competition and securing advertising revenue in a digital communication sector driven by the competition between capitals.

Rather than being introduced into the labour market specifically to discipline labour or intensify surplus value production, the digital technologies in this study have principally opened new markets – or had the potential to open new markets, but simultaneously repositioned newspaper journalism into markets in which proprietors are much smaller, less powerful players. The technologies in newsrooms are not principally labour saving—they may lead to small efficiencies in newsgathering—but increases in productivity have had to be borne by journalists through increasing workloads and the intensification of work. In some cases, cost-cutting has been achieved by externalizing work to low paid freelancers, leaving issues of the indeterminacy of labour with journalists whose labour continues to be organized around the needs of the wider news production process, rather than undertaken autonomously from it. But this is not a feature of digital technologies in general, which can be cost-cutting or labour saving, can speed up turnover or open new markets; algorithms, for example, are both labour-saving and they can speed up turnover, where they process data faster and more cheaply than humans and have been used in platform-mediated worked specifically to discipline and direct labour remotely. The main digital technologies which have been incorporated into the journalistic labour process, do not arise out of its particular forces and relations of production; from the perspective of technology as a means of control in the labour process, they don't address its particular indeterminacies or confer a particular advantage on those proprietors who adopt them and, in the case of digital journalism, have introduced uncertainty for capital in terms of valorization. This has forced organizational responses ranging from adaption to overhaul, rather than the adoption of technology being part of a trajectory of scientific and technical development specific to addressing the needs of the particular labour process, and so often leading to the tendency of digital to be transformative or 'disruptive' for organizations as they seek to reconceptualize and reorganize their processes around them. To the extent that there are similarities in the way digitalization occurs, it may be that the adoption of digital technologies in pre-existing labour processes results in change that is systemic.

Finally, there are two tendencies brought about by digitalization, which are touched on in this study and which have the potential to become more widespread strategies of managerial control but also to be sites of new forms of resistance and which deserve attention in terms of future research:

Social media has become a new disciplining force within journalism, related to customer control (Fuller and Smith, 1991; Korczynski et al, 2000; Bélanger and Edwards, 2013). Journalists have a particular relationship with social media because it has become so central to the nature of their newsgathering and distribution work and they have a public-facing role in a way that other professionals who use it, e.g. PR professionals, for example, do not, but there is a general trend towards management control strategies which incorporate the use of social and interactive media to discipline workers, exposing them to anonymous online rating or rating and feedback, which are informed by the sometimes-toxic cultures of networked cultures of communications. There is a need to examine whether that is a trend in management control which has implications for the way that workers carry out their work and also for their experience of work.

Second, the ‘datafication’ of work, linked to new regimes of surveillance based on data collection, is one aspect of digitalization that is likely to have far-reaching consequences for workers across all sectors, occupations and jobs, with its potential to intensify performance management practices based on detailed monitoring, but also introducing the possibility of deriving ‘insights’ from the combining of data sets which are generated using potentially obscure logic of algorithms. The lack of transparency and accountability of this kind of ‘black box’ management should be of concern to workers who come under greater ‘dataveillance’. The tendency in digital work towards datafication and measurement is likely to lead to conflicts over measures as well as interpretations over measures. It also calls for an examination of the role of employee agency in the adoption and use of data to see whether, and how, workers might refuse, resist or rework the use of data or analytics and at what level and how they might be contested.

Appendix1: Interview Details

Pseudonym	Role	Organization	Date/s	Mode	Location
Richard	Sub-Editor/Father of Chapel	Digital Paper	11/05/2015	Face-to-face	Meeting room at news outlet
Chris	Reporter, freelance	Digital Paper	28/08/2015	Face-to-face	British Library
Eddy	Managing Editor	Digital Paper	15/10/2015	Face-to-face	Office at news outlet
Gillian*	Section Editor	Digital Paper	16/09/2015	Face-to-face	Editorial floor at news outlet
Rachel	Reporter (online), freelance	Digital Paper	20/11/2015	Skype	
Yasmin	Commissioning Editor	Digital Paper	22/10/2015 15/07/2016	Face-to-face	British Library Café
Sarah	Correspondent, freelance/former MoC	Digital Paper	04/11/2015 09/11/2015	Phone Skype	
Josh*	Staff Reporter online	Digital Paper	15/10/2015	Face-to-face	Café
Amelia	Section Editor	Digital Paper	10/11/2015	Phone	
Katie	Content coordinator, online	Digital Paper	28/04/2015	Face-to-face	Staff cafe at news outlet
Bob	Managing Editor	Digital Paper	18/11/2015	Face-to-face	NUJ event at UCL
Ruth*	Content coordinator, online	Digital Paper	27/02/2016	Skype	
Alan	Sub-editor	Digital Paper	11/02/2016	Face-to-face	Office at news outlet
	Executive Editor (SEO)	Digital Paper	18/11/2015	Face-to-face	Office at news outlet
Maeve	Section editor, online	Digital Paper	25/02/2016	Phone	
Leah	Reporter, online	Digital Paper	15/07/2016	Skype	
	Editor/FoC	Other National Newspaper 1	19/05/2015	Face-to-face	Café
Stephanie*	Staff Reporter (online)	Other National Newspaper 2	10/09/2016	Face-to-face	Café
	Feature Writer, freelance	Other National Newspaper 3	17/08/2015	Face-to-face	Café
	Chief Reporter/FoC	Other National Newspaper 4	25/04/2015 10/09/2015	Face-to-face	Unite offices, Birmingham Meeting room at news outlet
	Digital News Journalist	Other National Newspaper 5	12/08/2015	Face-to-face	Café
	Staff Reporter/MoC	Regional Newspaper	04/09/2015	Phone	
	Staff Reporter/FoC	Regional Newspaper	09/09/2015	Face-to-face	NUJ branch meeting
	National Organizer	National Union of Journalists	28/04/2015	Face-to-face	NUJ offices
	National Organizer	National Union of Journalists	14/05/2015	Face-to-face	Picket line and cafe
	National Organizer	National Union of Journalists	07/07/2016	Face-to-face	NUJ offices
	Rep, Newspapers and Agencies Industrial Council	National Union of Journalists	18/05/2015	Face-to-face	NUJ offices

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