

# *Varieties of flexibilisation? The working lives of information and communications technology professionals in the UK and Germany*

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Published Version

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Kinsella, P., Williams, S., Scott, P. and Fontinha, R. ORCID: <https://orcid.org/0000-0002-2390-098X> (2021) Varieties of flexibilisation? The working lives of information and communications technology professionals in the UK and Germany. *New Technology, Work and Employment*, 36 (3). pp. 409-428. ISSN 1468-005X doi: 10.1111/ntwe.12204 Available at <https://centaur.reading.ac.uk/97948/>

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To link to this article DOI: <http://dx.doi.org/10.1111/ntwe.12204>

Publisher: Wiley

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## RESEARCH ARTICLE

# Varieties of flexibilisation? The working lives of information and communications technology professionals in the United Kingdom and Germany

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## Abstract

One feature of ‘flexibilisation’ concerns the growth of more individualised employment arrangements and career trajectories less connected to employing organisations. Informed by the Varieties of Capitalism approach, which emphasises the embeddedness of employment practices within discrete types of capitalist market economy, and based on rich qualitative data from interviews with 32 self-employed and directly employed ICT professionals in the United Kingdom and Germany, we investigate comparative variation in their experience of flexibilisation. The research findings not only indicate some commonality, particularly in respect of perceptions of independence, but also highlight notable differences with regard to work pressures and insecurity. The paper advances theory by characterising two discrete varieties of flexibilisation, a ‘liberalised’ form evident in the United Kingdom and a more ‘regulated’ type apparent in Germany, contributing to a better understanding of comparative differences in flexibilisation.

## KEYWORDS

flexibilisation, ICT professionals, independence, insecurity, Varieties of Capitalism, work pressures

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## INTRODUCTION

There is a growing international concern with understanding the implications of marketisation for work and employment, including the increased flexibility it has engendered (Greer & Doellgast, 2017). One notable aspect of ‘flexibilisation’ concerns the greater manifestation of more individualised employment arrangements and career trajectories, which are supposedly less restricted to employing organisations (Rubery, 2015). Using data from 32 in-depth, semi-structured interviews with self-employed and directly employed information and communications technology (ICT) professionals in the United Kingdom and Germany, our research objectives are, first, to explore how their experiences of, and engagement with, flexibilisation vary in comparative perspective and, second, to explain and characterise any apparent variation.

In a ‘vanguard’ sector such as ICT (Donnelly, 2008), a notable degree of commonality should be evident, potentially centred upon positive experiences of, and notable engagement with, flexibilisation among ICT professionals, transcending particular national contexts. However, the Varieties of Capitalism (VoC) approach, which holds that social structures and processes are embedded within, and thus influenced by, distinctive models of capitalist market economy (Hall & Soskice, 2001), implies that, since they are situated in discrete national environments, ICT professionals’ experiences of flexibilisation should vary according to the country setting. Our investigation of ICT professionals’ perceptions of their independence in employment, their work pressures and their employment security suggests that some commonality is apparent. However, it also indicates a degree of comparative variation between the experiences of ICT professionals in the United Kingdom and Germany. We identify two distinct varieties of flexibilisation. In contrast with the United Kingdom’s ‘liberalised’ form of flexibilisation, in Germany, flexibilisation has a more ‘regulated’ character. Nevertheless, habituated to working in a regulated setting, ICT professionals in Germany – notably those directly employed – are particularly troubled by the prospect of greater employment insecurity associated with flexibilisation.

In exploring ‘varieties of flexibilisation’ in comparative perspective the paper adds to research published in this journal on the experiences of ICT professionals and workers. Tremblay and Genin (2010), for example, explore autonomy among those who are self-employed. Our research builds on their contribution by investigating comparative variation in independence and autonomy among both self-employed and directly employed ICT professionals. Trusson et al. (2018) document the degradation of IT professional work. Our research has a broader focus, one which is concerned with ICT professionals’ experiences of work and employment, and their engagement with flexibilisation, not just the nature of their work processes. The paper also builds upon the contributions of those who have explored comparative differences in respect of ICT, technological change and employment. In their study of the United Kingdom and Norway, for example, Lloyd and Payne (2019) highlight the way in which ‘country effects’ influence the development of robotics and AI. Our research adds to this by further demonstrating how work and employment in the ICT sector, specifically ICT professionals’ experiences of, and engagement with, flexibilisation, are embedded within discrete national institutional settings.

## LITERATURE REVIEW

One key manifestation of marketisation is the trend towards increased labour market and employment flexibility (Greer & Doellgast, 2017). Although the process of flexibilisation can encompass greater variation in working patterns and working time schedules (Rubery, 2015), in the ICT sector, it is also manifest in the growth of ‘portfolio-style’ employment arrangements, with workers engaged in temporary, project-oriented assignments for employing organisations, often on a formally self-employed

basis (Barley & Kunda, 2004; Bidwell & Briscoe, 2009; Tremblay & Genin, 2010). In this paper, we thus use the term ‘flexibilisation’ to refer to the ‘apparent shift away from traditional institutionalised career structures to more flexible employee-led careers, variously called boundaryless or protean’, with workers ‘now more likely to recognise a need to develop their external employability to protect themselves against either blocked careers or employment instability’ (Rubery, 2015: 636, 637). Yet, while such flexibilisation may suit skilled professionals who have a relatively high level of individual labour market bargaining power, others can find themselves pushed into portfolio arrangements, often in the form of a combination of ‘bad jobs’, as a consequence of organisational restructuring (Baldry et al., 2007; Osnowitz, 2010; Trusson & Woods, 2017).

## The working lives of ICT professionals

Three issues are particularly noteworthy when it comes to the implications of flexibilisation for the working lives of ICT professionals. The first concerns the extent to which they benefit from greater independence of the kind claimed to have expanded among a supposedly entrepreneurially minded workforce in more marketised settings (Barley & Kunda, 2004; Fenwick, 2006). By ‘independence’, we mean the capacity of ICT professionals to pursue increasingly individualised, boundaryless careers, through a ‘portfolio-style’ combination of assignments, unimpeded by constraints imposed by, or obligations towards, employing organisations (Barley & Kunda, 2004; Fenwick, 2006). In so doing, they should enjoy greater autonomy in their job roles, in the sense of discretion over their work tasks (Esser & Olsen, 2012; Gallie, 2007). Tremblay and Genin’s (2010) study of self-employed ICT contractors demonstrates that while they might enjoy a degree of ‘strategic’ autonomy, through the capacity to negotiate the terms of work assignments, their ‘operational’ autonomy or the freedom to determine how such assignments are carried out is often highly constrained. Much ICT work appears to have been degraded (Trusson et al., 2018), with the diminution of autonomy seemingly a function of technological change, rendering workers less valuable to employing organisations (Boes & Kämpf, 2018). Polarisation is apparent, with those in ‘professional’ ICT roles enjoying greater discretion than workers employed in more operational ‘technical’ functions (Marks & Scholarios, 2007; Tremblay & Genin, 2010).

A second issue concerns the implications of flexibilisation for work pressures and the capacity of ICT professionals to balance the demands of their working and non-working lives. Greater flexibilisation, of the kind associated with more individualised career trajectories, can offer individuals enhanced flexibility over their time and place of work and thus facilitate a healthier work–life balance (Sturges, 2008). As supposedly archetypal knowledge workers, ICT professionals should be particularly well placed to benefit from remote and mobile ways of working, including the ability to work from home (Donnelly, 2011). Yet clients’ demands can involve considerable restrictions placed over self-employed contractors’ choice of work location (Tremblay & Genin, 2010). Flexibilisation imposes weightier obligations upon workers to cultivate their own individual employability (Berntson et al., 2010), with all the additional demands they imply for managing careers. Moreover, greater spatial and temporal work flexibility can pose difficulties for workers, by ‘blurring’ the boundaries between paid work and private life, with adverse spill-over effects (Kelliher & Anderson, 2009; Sayah, 2013).

The third issue concerns the implications of flexibilisation for the employment security of ICT professionals. Flexibilisation creates opportunities for highly skilled and well-remunerated professionals to use their skills and knowledge to navigate a more fragmented and marketised employment landscape effectively (Barley & Kunda, 2004; Süß & Sayah, 2013). Workers can attain a degree of career and employment security, even when at high risk of losing their current position, as long as there is an appropriate supply of comparable jobs available and they are willing to change employers (Anderson

& Pontusson, 2007). While ‘objective’ dimensions of employment security, such as changes in average job tenure, are important, for workers themselves it is ‘subjective’ expressions of security, the perceived likelihood of losing employment for example, that are often more pertinent (Erlinghagen, 2008; Kalleberg, 2018). Individuals who perceive themselves as employable believe that they have ample opportunities in the labour market, thus increasing their perception of employment security (Berntson et al., 2010). Flexibilisation, though, can be associated with greater insecurity (Budtz-Jørgensen et al., 2019), linked to the erosion of established, predictable organisational career patterns (Donnelly, 2009), particularly in circumstances where flexibility is imposed upon workers by employers as a consequence of organisational restructuring and demands for efficiency savings (Holtgrewe, 2014; Trusson & Woods, 2017). The three issues covered in this research – independence and autonomy, work pressures and employment (in)security – are particularly appropriate for investigating ICT professionals’ perceptions and experiences of, and engagement with, flexibilisation, in a way that facilitates effective analysis of comparative variation.

## Comparative perspective

Operating in a sector where it is particularly manifest (Barley & Kunda, 2004; Bidwell & Briscoe, 2009), ICT professionals should be especially engaged with, and habituated to, flexibilisation – irrespective of their country setting. Contrarily, the way in which employment arrangements are organised, and how workers experience them, including perceptions of job and employment security, can vary by national context (Esser & Olsen, 2012). In respect of the structure and organisation of work and employment in the ICT sector, existing studies demonstrate the importance of distinct national institutional settings (Donnelly et al., 2011; Grimshaw & Miozzi, 2006). The comparative focus of our research enables us to explore any variation in ICT professionals’ experiences of flexibilisation based on their embeddedness within discrete national settings.

Focusing on how economic activities are coordinated, the VoC approach distinguishes between two ideal-type varieties of capitalism. In a ‘liberal market economy’ (LME), such as the United Kingdom, markets have a dominant role in resolving problems of coordination, characterised by an emphasis on labour market flexibility and weak employment regulation. In a ‘coordinated market economy’ (CME), such as Germany, however, coordination issues are resolved mainly by non-market mechanisms, with the process of marketisation attenuated by the presence of strong institutions, such as trade unions (Hall & Soskice, 2001). While it perhaps neglects the importance of liberalisation-induced change in CMEs such as Germany (Baccaro & Howell, 2017; Doellgast, 2009), in emphasising the embeddedness of social structures and processes, the VoC typology is important for understanding cross-national diversity in employment (Greer & Doellgast, 2017).

Flexibilisation epitomises the trend towards individualised and market-oriented employment arrangements of the kind likely to be more prevalent, and received more favourably, in the United Kingdom (LME) than Germany (CME). For example, nearly one in six (15.6%) workers in the United Kingdom is self-employed compared with fewer than one in 10 (9.6%) in Germany (OECD, 2019). One important reason for this variance concerns the differences in regulatory arrangements that exist, particularly the stronger system of protective employment legislation evident in Germany (Baccaro & Howell, 2017; Esser & Olsen, 2012; OECD, 2020). More generally, Germany is viewed as providing a less favourable institutional domain for flexibilisation than the United Kingdom. Its coordinated political economy, including a prominent role for joint regulation involving labour unions, better supports a long-term investment approach towards workers, giving them increased opportunities for autonomy and skills development and greater employment security (Baccaro & Howell, 2017; Kalleberg, 2018; Marsden, 2015).

Nonetheless, empirical research indicates that workers' perceptions of autonomy and employment security are generally higher in the United Kingdom than in Germany (Anderson & Pontusson, 2007; Erlinghagen, 2008; Kirchner & Hauff, 2019). This could reflect occupational differences, particularly the elevated proportion of managerial jobs evident in the United Kingdom (Kirchner & Hauff, 2019). Workers in Germany may have higher expectations of employment security than in the United Kingdom, contributing to an increased perception of insecurity (Kinsella et al., 2020), particularly in a context where liberalisation pressures have encouraged greater flexibilisation (Eichorst & Tobsch, 2015). Notwithstanding its status as a CME, Germany's 'dualist' employment model is characterised by considerable polarisation (Gallie, 2007). The extent to which the pressures of globalising convergence have eroded the established institutional features of work and employment in Germany is the subject of considerable debate (Addison et al., 2017; Baccaro & Howell, 2017; Doellgast, 2009). Non-standard forms of employment, including freelance contractor arrangements, have become more common in the highly liberalised German ICT sector (European Commission, 2015). In the Information and Communication sector (which also covers publishing and broadcasting, as well as ICT), official data indicate that, in 2019, a similar proportion of workers in Germany were self-employed (17.8%) as in the United Kingdom (17.1%).

The value of the VoC approach for this study concerns the implication that ICT professionals' working lives, and particularly their experience of, and engagement with, flexibilisation, are embedded within country-specific institutional domains, and should thus vary accordingly. Engagement with flexibilisation should be less evident among ICT professionals in Germany, because of its status as a CME, than in the United Kingdom. That said, though, given liberalisation pressures in Germany, flexibilisation, and its consequences, may be apparent among ICT professionals in Germany as much as, or even more so, than in the United Kingdom.

## RESEARCH METHODS

Comparative studies typically use countries as their frame of reference, rather than sectors (Bechter et al., 2012). However, focusing on one sector, as we do here, offers additional insights, by facilitating an investigation of variation between national settings. A further distinctive feature of the research concerns the emphasis placed on exploring the working lives of ICT professionals in comparative perspective. While existing work on comparative employment relations highlights the importance of taking a 'multi-level' approach (Bechter et al., 2012), it rarely extends to incorporating the experiences of workers themselves.

The United Kingdom and Germany were selected as the two research settings for this study, since each represents a distinct form of market economy in Hall and Soskice's (2001) VoC approach. Studies which take an LME and CME as country settings for the purpose of comparative analysis can be highly instructive (Grimshaw & Miozzi, 2006; Lloyd & Payne, 2019). However, a difficulty with such research concerns the challenge of comparing social phenomena which, because they are situated in, and defined by, their own distinctive national contexts, vary in how they are constituted, and are thus, by implication, uncomparable (Maurice et al., 1986). Yet while recognising that ICT professionals are embedded within discrete national settings, it is important not to take an overly deterministic approach that reads off how they operate, as social actors, from those settings. Our focus on the subjective experiences of ICT professionals with broadly equivalent work arrangements and job demands, and how they comprehend and interpret these experiences, in specific national contexts, illuminates these contexts in new ways. This enables a better understanding of comparative variation in flexibilisation. Aspiring to 'measurement equivalency', while desirable, is unlikely to be achievable

in practice (Smith, 2003: 69); and it should not be a reason to eschew comparative research of this kind, given the overall benefits it offers.

A qualitative research approach was best suited to investigating how ICT professionals in the United Kingdom and Germany experience, understand and make sense of flexibilisation and its implications. As such, the research took the form of an interpretive enquiry, guided by the phenomenological method, concerned with exploring and interpreting ICT professionals' experiences and understandings and thus capturing the depth, richness and complexity of their social worlds (Moustakas, 1994). Although broadly phenomenological in nature, the research process was also informed by an element of realism, on the basis that the experiences of ICT professionals and how they understand them are influenced by the structural features of the environments they inhabit and, thus, what seems 'real' to them (Maxwell, 2012).

Semi-structured interviews have already been used to good effect in qualitative studies of the working lives of ICT workers (Osnowitz, 2010); such an approach to collecting data was also deemed suitable for this project. As Miles et al. (2014: 31) point out, 'qualitative researchers usually work with small samples of people, nested in their context and studied in-depth', who are deliberately and purposively selected. We aimed to solicit free-flowing and personal narratives regarding participants' experiences of work and employment using open-ended questions covering topics such as independence, autonomy and flexibility; and perceptions of job security. The emphasis was thus on how ICT professionals understood and interpreted these concepts in the context of their own working lives, for the purpose of encouraging reflection, rather than in relation to specific analytical concepts. Among other things, participants were asked if they have 'sufficient independence, autonomy and flexibility' in their work arrangements; to explain their response as appropriate; and to reflect on whether or not, and how far, such phenomena were encouraged or discouraged. Details of the interview schedule are provided as Supporting Information.

In establishing our sample, we considered it important to include self-employed ICT professionals, given the expectation that their experiences are more likely to involve flexibilisation than those who are directly employed (Lo Presti et al., 2018). Equal numbers of research participants were thus recruited from two groups in the United Kingdom and Germany: individuals who are either directly employed by an organisation in the ICT sector or who provide ICT services to such an organisation in an employed capacity; and individuals who either pursue contractual work on a self-employed basis in the ICT sector or provide ICT services to an organisation in a self-employed capacity. Participants were recruited by approaching personal contacts, making use of existing networks, through relevant industry associations and by 'chain sampling' (Noy, 2008: 328), whereby the recommendation of previous informants produced new ones.

Table 1 provides details of our pseudonymised research participants, specifying their country setting (UK or Germany), gender, age range, job role, type of company (multinational or SME) and employment status. Our research participants were 'corporate professionals' (Hodgson et al., 2015), either working directly in providing professional ICT services (e.g. software engineer, IT architect) or operating in a professional capacity in ICT firms (e.g. marketing manager). Table 1 shows that while equal numbers of participants were drawn from multinational companies and SMEs, respectively, the sample was highly skewed in one important respect. The majority of directly employed ICT professionals (13 of 16) were employed by multinationals; for self-employed participants, the opposite was the case, with most of them (13 of 16) based in SMEs.

In this study, 32 interviews – involving eight directly employed and eight self-employed ICT professionals from both the United Kingdom and Germany, respectively (see Table 1) – were sufficient for achieving data saturation. There were three reasons for supposing this. First, an appropriate sample size is contingent on the philosophy underpinning the research (Fusch & Ness, 2015; Saunders &

Townsend, 2016). Both the quantity and quality of the data generated by the purposeful research design were sufficiently rich for the needs of this largely phenomenological research study. Second, the rich data collected were ample to ‘capture a range of experiences but not so large as to be repetitious’ (O’Reilly & Parker, 2012: 193). Third, patterns in the data provided evidence that saturation had been achieved. For example, six of eight directly employed ICT professionals in Germany claimed that their careers were insecure, double the number of UK counterparts doing so, suggesting a greater sensitivity to the pressures of greater liberalisation.

Based on thematic analysis (Braun & Clarke, 2006), a comprehensive, rigorous and manually operated coding system was applied for the purposes of ensuring thorough immersion in the raw, qualitative interview data, organising these data and producing the core categories which underpin the findings. The codes were generated in a process that involved four phases. The first phase involved a process of ‘open’ or ‘initial’ coding (Miles et al., 2014), as the raw interview data from each transcript were intensely reviewed before being disaggregated and codified. This ensured that the experiences and perceptions of ICT professionals, as they reported them, were integral to the data analysis (Gioia et al., 2013). A second phase of ‘holistic’ coding (Saldaña, 2013) followed, as the codes from phase one were assigned to a topic area (e.g. work–life balance) previously identified as relevant from the literature. The third phase encompassed a process of both ‘pattern’ and ‘axial’ coding – identifying patterns in the codes, generating categories as appropriate and finding connections between these categories (Miles et al., 2014). The fourth and final phase – a process of ‘selective’ or ‘theoretical’ coding – involved generating key themes from these categories to organise the research findings accordingly (Saldaña, 2013). The overall process of data analysis enabled a ‘data-driven’ (Gioia et al., 2013) account of the experiences of ICT professionals, one which uses direct quotations, not just to convey their reported experiences but also to allow us to interpret and make sense of them.

## RESEARCH FINDINGS

This comparative investigation of ICT professionals’ working lives and their experiences of, and engagement with, flexibilisation covers three principal topics: the nature and extent of any independence and autonomy they have in employment; their work pressures and efforts to mitigate any work–life imbalance arising as a consequence; and their perceptions of employment security.

### Independence and autonomy

A key feature of flexibilisation concerns the purported shift towards more individualised career trajectories, centred upon portfolio-based work assignments, which supposedly offer people greater independence and (strategic) autonomy, especially in a sector such as ICT (Barley & Kunda, 2004; Tremblay & Genin, 2010). However, based on the VoC approach, we would expect greater engagement with flexibilisation among ICT professionals based in the United Kingdom, given the more liberalised setting they inhabit, than their counterparts in Germany. Yet there is no suggestion from our data that ICT professionals’ experience of flexibilisation varies according to the country in which they are based; rather employment status seems to be a more important source of variation. A striking feature of the research concerned the highly positive experiences of independence expressed by self-employed ICT professionals, irrespective of where they were based. They valued the independence that they believed came with working for themselves; and being liberated from what were perceived as the constraints imposed by corporate imperatives. Negative experiences of direct employment in

**TABLE 1** Details of research participants

Participant	Country of work	Age range	Gender	Job role	Contract type
John	UK	35–44	Male	Senior Legal Director/ICT company (SME)	Directly-employed
Michael	UK	45–54	Male	Client Executive/ICT company (multinational)	Directly-employed
Ben	UK	35–44	Male	Brand Manager/ICT Company (multinational)	Directly-employed
Sarah	UK	35–44	Female	Marketing Manager/ICT company (multinational)	Directly-employed
Jane	UK	25–34	Female	Sales Specialist/ICT company (multinational)	Directly-employed
Stephen	UK	45–54	Male	ICT Consultant/ICT company (SME)	Directly-employed
Barbara	UK	45–54	Female	Learning Consultant/ICT company (multinational)	Directly-employed
Emma	UK	35–44	Female	Learning Consultant/ICT company (multinational)	Directly-employed
Julia	Germany	25–34	Female	Marketing Manager/ICT company (multinational)	Directly-employed
Stephanie	Germany	25–34	Female	SAP Consultant / ICT company (SME)	Directly-employed
Thomas	Germany	55–64	Male	Senior Technical Product Manager/ ICT company (multinational)	Directly-employed
Claudia	Germany	35–44	Female	Technical Project Manager/ICT company (multinational)	Directly-employed
Martin	Germany	45–54	Male	Technical Product Manager/ICT company (multinational)	Directly-employed
Daniel	Germany	45–54	Male	IT Architect/ICT company (multinational)	Directly-employed
Christian	Germany	45–54	Male	IT Architect/ICT company (multinational)	Directly-employed
Paul	Germany	45–54	Male	Channel Manager/ICT company (multinational)	Directly-employed
Claire	UK	45–54	Female	SAP consultant/ICT company (multinational)	Self-employed
Andy	UK	35–44	Male	Marketing Communications Manager/ICT company (SME)	Self-employed
Elizabeth	UK	45–54	Female	Managing Director/ICT company (SME)	Self-employed
Peter	UK	55–64	Male	IT Architect/ICT company (SME)	Self-employed
Robert	UK	55–64	Male	IT Architect/ICT company (SME)	Self-employed
Anthony	UK	55–64	Male	ICT consultant/ICT company (multinational)	Self-employed

(Continues)

TABLE 1 (Continued)

Participant	Country of work	Age range	Gender	Job role	Contract type
Louise	UK	45–54	Female	Managing Director/ICT company (SME)	Self-employed
James	UK	55–64	Male	IT Architect / ICT company (SME)	Self-employed
Marc	Germany	45–54	Male	Managing Director/Software company (SME)	Self-employed
Tim	Germany	55–64	Male	Financial Consultant/ICT company (SME)	Self-employed
David	Germany	45–54	Male	Financial Consultant/ICT company (SME)	Self-employed
Max	Germany	35–44	Male	Business Consultant/ICT company (SME)	Self-employed
Frank	Germany	45–54	Male	Business Consultant/ICT company (SME)	Self-employed
Karl	Germany	55–64	Male	Managing Director/Software company (SME)	Self-employed
Wolfgang	Germany	45–54	Male	IT Architect/Software company (SME)	Self-employed
Christoph	Germany	45–54	Male	Business Consultant/ICT company (multinational)	Self-employed

organisations can provide an incentive to shift to self-employed status. James (UK), who worked as an IT architect for an SME, explained that the reason he became self-employed was:

...the stress of corporate work. I literally did not see my family for years and was definitely on the verge of a breakdown. I was pretty much mentally exhausted.

The espoused belief that self-employment offered independence and a better work–life balance was common to ICT professionals in both the United Kingdom and Germany. Elizabeth (UK), who held a director role in an ICT SME, explained that switching to self-employment had given her greater control over her working life:

I wanted to have more flexibility and own my own business. Before I was self-employed, I was employed and I was swamped with work and long hours and therefore, missing out on personal commitments. I got to a point where I could take the financial risk of trying self-employment and it paid off.

Of course, in relating these findings, we cannot discount the possibility that, in expressing such sentiments, our participants were engaged in some self-rationalisation. The beliefs and expectations of the self-employed are often over-optimistic (Cassar, 2012). The positivity evident among our ICT professionals might thus reflect a process of ‘adaptive preference formation’ (Elster, 1983: 110), in which the structural constraints they experienced – a function of ‘everyday’ self-employment (Cohen et al., 2019) – were downplayed.

Moreover, self-employed ICT professionals' independence is bounded in an important respect, since generally they rely upon securing work from organisations in a way that ultimately creates a dependency relationship, limiting their capacity for self-determination. As Tim (Germany), a financial consultant in an ICT SME, observed:

There is a type of freedom; but it isn't really a freedom because you're still a slave to what the client wants. So at the end of the day, you are never really independent, and you always have to respond to the client, irrespective of weekends, holidays or times of day.

While self-employed ICT contractors might enjoy 'strategic' autonomy, their 'operational' autonomy can be constrained in notable ways (Peel & Inkson, 2004; Tremblay & Genin, 2010). It was striking that nearly a half of our self-employed participants – 7 of 16 – were either not engaged in or unwilling to contemplate, operating a portfolio-style employment arrangement, based on undertaking a series of contracts, and managing a set of varied work commitments, to generate a continuous income stream. According to Claire, a UK-based ICT consultant for a multinational:

It's tough when companies want their pound of flesh. They want you solely and singly contracted to them and are not happy if you've got some other commitments. You couldn't do very much portfolio work. I've only done short bursts of it.

There was no evidence of any comparative variation in the experience of directly employed ICT professionals, between the two countries, either. They were wary about the portfolio approach, considering it to be something undertaken only through necessity than choice. While directly employed ICT professionals valued the autonomy they perceived they had in their job roles, the constraints they believed were imposed on them by having to work in corporate environments could be important sources of dissatisfaction. Stephen (UK), an ICT consultant in an SME, was highly critical of the challenges arising from:

Working within the confines of corporate rules. The infrastructure is very corporate, so you have to do things in a centralised, formatted way with unified and centralised systems. Although the division I work in is a bit more flexible, I still have to work within the corporate framework.

These research findings, concerning ICT professionals' experiences and perceptions of independence, and the related degree of autonomy at work they enjoy, provide no evidence of comparative variation according to the national setting. Instead, variation in ICT professionals' experiences of flexibilisation seems to reflect the nature of their employment status. However, some caution is needed in interpreting these findings, given that the majority (13 of 16) of self-employed participants worked for SMEs. Self-employed contractors based in smaller organisations may enjoy greater scope for autonomy than those in corporations (Tremblay & Genin, 2010). Moreover, notwithstanding the value they placed on their supposed independence, the engagement with flexibilisation evident among the self-employed ICT professionals in our research was bounded in important ways.

## **Work pressures and work–life balance**

A second key feature of flexibilisation concerns the nature and extent of any work pressures experienced by ICT professionals, and the efforts made to alleviate them for the purpose of securing a

better work–life balance. Greater flexibilisation, by supposedly liberating people from organisational constraints, and thus giving them more spatial and temporal control over their work, could mean that work pressures, and their adverse consequences, are moderated (Sturges, 2008). Yet in practice flexibilisation is often associated with greater work demands which overspill into, and are detrimental for, people's lives outside paid employment (Donnelly, 2011). Based on the VoC approach, we would expect ICT professionals based in Germany, a CME, where flexibilisation and its ill effects should be less manifest, to be less adversely affected by work pressures, and better able to balance the demands of their working and non-working lives, than their counterparts in the more liberalised United Kingdom.

Our data bear this out, demonstrating a marked country variation in the experiences of ICT professionals. Those in the United Kingdom reported a high degree of work intensity, as the comments of these directly employed participants attest:

I am doing a job that would normally be done by two people. It's very challenging and it's hard

(Sarah)

There is work pressure and it's stressful when things are not in your control

(Michael)

I've got a big workload and it is bothering me that I can't do jobs well because of the amount of work

(Ben)

Self-employed ICT professionals based in the United Kingdom also reported particularly notable levels of work intensity. The difficulty of managing work pressures was described by Claire, a consultant in an SME, who stated that: 'expectations are extremely high and there are unrealistic deadlines'. The need to raise income and attract new assignments were particular sources of pressure for self-employed ICT professionals in the United Kingdom, especially for those in senior roles. This illustrates how efforts to maintain their employability can add to self-employed contractors' work demands (Berntson et al., 2010).

UK-based ICT professionals benefited from the flexibility to work remotely or from home, giving them scope to reconcile the demands of their working and non-working lives. For example, according to Peter, an IT architect in an SME:

I can fit my work around the things I want to do. So there is freedom to work the hours that I want, subject to the requirements of my time. It allows me to have certain control over what I do and when I can do it, subject to having work to do at the time.

That said, however, there was some intriguing evidence from self-employed ICT professionals based in the United Kingdom that balancing the demands of their working and non-working lives was not necessarily much of a priority, let alone achievable or even desirable. The need to maintain their livelihoods made it difficult to detach from work assignments. As Anthony, a self-employed ICT consultant explained:

The phrase "work-life balance" suggests it's two different things. Work is part of life. And if you do a job you love, it's not work and so you don't need to strike a balance. My work is also my hobby.

This serves to emphasise just how challenging it can be for people engaged in professional work to differentiate between their working and non-working lives (Donnelly, 2011; Sayah, 2013). There is a sense from the data that self-employed ICT professionals in Germany could also find it difficult to reconcile the demands of working and non-working lives. David, who worked as a financial consultant for an SME, claimed that:

I have no work-life balance. It's pretty lousy. I did not realise when becoming self-employed that you basically sacrifice most of your free time and any other hobbies that you might have. I might not have chosen to become self-employed had I known before.

In general, though, irrespective of their employment status, ICT professionals based in Germany were less concerned with work intensity and seemed better able to manage any pressures arising from their working lives, using appropriate 'boundary work tactics' (Sayah, 2013), than their UK-based counterparts. The evidence on this is striking, reflecting the status of Germany as a CME and its more regulated institutional domain, with market competition attenuated as a consequence. ICT professionals there are thus better able to balance their working and non-working time effectively. They acknowledged that work pressures existed; but these were evidently manageable, and thus not a source of adverse stress, because of coping strategies. For example, according to Tim, a self-employed financial consultant:

If you are well organised and structured, the pressure and stress are reduced immensely. In that sense, you can influence them yourself and reduce the stress and pressure yourself.

When it comes to perceived work pressures and efforts to manage these pressures, then, a striking research finding concerns the comparative variation in the experiences of ICT professionals which is evident. Consistent with our expectation, based on the VoC approach, ICT professionals based in the United Kingdom reported manifestly greater work pressures than their counterparts in Germany, with those in self-employment finding it particularly difficult, and perhaps even undesirable, to be able to separate work and personal commitments.

## Employment security

Given its association with more individualised career paths, flexibilisation poses a risk to people's employment security, particularly in more liberalised settings, such as the United Kingdom, where workers have less protection. Our research findings complement existing work that emphasises the adverse nature of the insecurity associated with flexibilisation (Budtz-Jørgensen et al., 2019). Moreover, they demonstrate that self-employed ICT professionals in the United Kingdom were particularly exercised by the insecure nature of their working lives. According to Robert, who worked as an IT architect in an SME:

Sometimes, it's very frustrating. There is no guaranteed work. No guaranteed income. The danger of freelancing is that you get times of feast or famine. You have too much work in one period and that comes to an end and then you have time to find new work and you have a gap for several months. I have to prove my work the whole time, otherwise the companies won't be using me.

More striking, though, were the experiences of self-employed ICT professionals in Germany. Based on the VoC approach, we would have expected them to be less exposed to insecurity, and believe themselves to be more secure, than their counterparts in the more liberalised United Kingdom. Contrary to such expectations, though, self-employed ICT professionals in Germany were just as concerned about the unpredictability and uncertainty of their employment prospects, and the potentially adverse consequences, as their counterparts in the United Kingdom. Frank, a consultant in an SME, put it bluntly: ‘...as a self-employed person, you haven't got any security’. Tim, the financial consultant, was clear that, in respect of employment security, self-employed status was inferior to that of being employed; and that it was difficult to undertake long-term employment planning:

Being self-employed, there's always the added element that you cannot really plan for long-term. My work set-up isn't the most secure. There is far more uncertainty than when you are an employee.

Compared with self-employed ICT professionals, the working lives of their directly employed counterparts, in both the United Kingdom and Germany, were characterised largely by a greater degree of stability and employment security, without the intense insecurity experienced by those in self-employment being evident. Working for multinationals, as most of our directly employed participants did, can be associated with greater job security, compared with SMEs (ILO, 2017). According to Daniel, an IT architect based in Germany:

I am aware that changes may occur, especially in the IT industry but due to my long work experience, I believe I am secure in my work set-up.

Yet a striking and unanticipated research finding, given the contrast between the United Kingdom and Germany's institutional settings, was that directly employed ICT professionals in Germany expressed greater concern about future insecurity than their UK-based counterparts. While relatively confident about the security that prevailed in their current job roles, there was a concern nonetheless about the instability and unpredictability of the contemporary labour market that was absent in the United Kingdom. There is a sense that UK-based ICT professionals were more habituated to the greater flexibilisation associated with liberalisation, and its consequences, than their counterparts in Germany. Julia, who was employed in a multinational as a marketing manager, observed that:

It's a two-fold perspective. I perceive my work set-up as stable but I know when I think about it that this can be deceptive. Due to changes in management or the spin-off of companies, your work and the corporate culture can change very, very quickly and the apparent stability can lead to instability within weeks. You need to be a little bit aware of this. But that's not something that's burdening me. I am relatively confident about handling this and will do something different if the situation changes.

Paul, who also worked in a managerial role in a multinational, realised that, even being directly employed, employment security could nonetheless prove elusive. He also emphasised that individuals are responsible for their own employability, having to be ready to adapt and potentially change jobs:

It is wrong to assume that there is security in a company. It does not exist anymore nowadays. You have to permanently work at it. Especially in the IT industry, you have

to be able to change and think about it due to the fast-moving nature of the products and change in general. You also have to be prepared to change jobs.

Directly employed ICT professionals in Germany believed that their current employment arrangements were stable. In this respect, they were no different from their UK-based counterparts. Where they diverged was in contemplating the prospects for employment security, with ICT professionals based in Germany clearly more concerned about future insecurity in the sector. A finding that perceptions of employment insecurity are higher among workers based in Germany than in the United Kingdom might not be so surprising, given the existing evidence (Anderson & Pontusson, 2007; Erlinghagen, 2008). But greater insecurity in Germany is conventionally understood with reference to the dualist structure of its labour market; with recent reforms having exacerbated the polarisation that exists between a relatively privileged 'core' workforce and those in contingent forms of often low-paid employment (Eichhorst & Tobsch, 2015). Our research, though, concerns exactly the kind of workers – ICT professionals – who should consider themselves better protected, and thus more secure, given the CME setting. Although self-employed ICT professionals were most sensitive to the prospect of the employment insecurity induced by greater flexibilisation, and its challenges, perceptions of insecurity were particularly evident among directly employed respondents in Germany, based on the belief that competitive pressures, linked to greater liberalisation, posed a distinct threat to their own security, eroding the sense of protection hitherto offered by direct employment arrangements.

## DISCUSSION

Our comparative study of flexibilisation among ICT professionals in the United Kingdom and Germany is grounded in their experiences and perceptions of independence in employment, work pressures and their efforts to accommodate such pressures and employment security. We would have expected UK participants, situated in an LME, to have greater capacity for independence, and be more positive about any ensuing autonomy, than their counterparts in a CME such as Germany, because of the greater extent to which flexibilisation is embedded there. However, our data revealed no evidence of any comparative variation of this kind. How can this finding be explained? The absence of comparative variation could reflect the effects of ICT as a 'vanguard' sector, and how professional and managerial roles are structured and undertaken within it, transcending the influence of the national setting (Donnelly, 2008; Holtgrewe, 2014). Our findings indicate that ICT professionals express positivity towards, and are open to the prospect of, flexibilisation, because of the supposed greater scope it offers for independence and autonomy, irrespective of their country setting.

However, there are two important qualifications. One concerns the variation by employment status evident from the research. Perhaps unsurprisingly, the research demonstrates that self-employed ICT professionals place a particularly high value on their perceived independence from the constraints associated with being subservient to employing organisations, even if this might involve a degree of self-rationalisation (Elster, 1983). In contrast, the perceived autonomy of their directly employed counterparts, particularly any 'strategic' autonomy (Tremblay & Genin, 2010) is more bounded, since they are acutely aware of having to comply with corporate rules and procedures. The second qualification is that while support was expressed for the principle of the independence supposedly derived from flexibilisation, in practice ICT professionals' 'operational' autonomy is constrained in some notable ways (Peel & Inkson, 2004; Tremblay & Genin, 2010). Our research findings illuminate the challenges and constraints associated with flexibilisation, and how it operates, notwithstanding any positivity regarding the principle. This is consistent with existing sceptical accounts about how manifest flexibilisation and its supposed benefits are in practice (Donnelly, 2008).

Flexibilisation can help to mitigate the impact of greater work intensity, because workers supposedly have more control over the place and time of work (Sturges, 2008). However, in practice the challenge of distinguishing between ‘working’ and ‘non-working’ time and the obligation to engage in employability activities can result in increased work pressures (Berntson et al., 2010; Sayah, 2013). Our research suggests a notable degree of comparative variation. ICT professionals in the United Kingdom, particularly those in direct employment, reported experiencing greater work pressures than those based in Germany. There is a strong sense from the research that, based on the experiences of ICT professionals, workloads are more manageable in the German ICT sector than in the United Kingdom. Such comparative variation is consistent with the VoC approach, with Germany providing an institutional domain characterised by greater employment regulation (Baccaro & Howell, 2017; Esser & Olsen, 2012; Marsden, 2015). The more ‘regulated flexibilisation’ characteristic of Germany means that the demands of employing organisations, and any resulting work pressures, are more likely to be moderated, and thus diminished, than is the case in the liberalised United Kingdom.

Habituated to operating in more insecure working environments, and thus adept at accommodating the challenges that arise, not least by engaging in active measures to maintain their employability, employment insecurity is supposed to be of little concern to knowledge workers, such as ICT professionals, especially those who are self-employed (Barley & Kunda, 2004; Berntson et al., 2010). However, our research findings demonstrate the marked sense of employment insecurity felt by self-employed ICT professionals in relation to flexibilisation. This is consistent with research on the greater insecurity engendered by advanced marketisation in employment, especially in the ICT sector (Baldry et al., 2007; Osnowitz, 2010; Trusson & Woods, 2017). Yet the most striking research finding concerns the evidence of comparative variation in perceptions of employment insecurity. Based on the VoC approach, we would have expected ICT professionals in Germany, operating in a less liberalised setting, to have expressed more confidence in their employment security than their UK counterparts (Kalleberg, 2018; Marsden, 2015). However, our findings show that not only were self-employed ICT professionals in Germany just as exercised about employment insecurity as those in the United Kingdom but also concerns about insecurity – specifically in respect of future employment prospects – were more acute among directly employed participants in Germany than their UK-based counterparts.

Flexibilisation may well be more ‘regulated’ in Germany than it is in the United Kingdom; however, ‘public policy provisions come to be taken for granted and that their insecurity-reducing effects diminish over time’ (Anderson & Pontusson, 2007: 229). Greater deregulatory pressures (Eichhorst & Tobsch, 2015) mean that even among workers who are not necessarily exposed to objective employment insecurity themselves, such as the directly employed ICT professionals in this study, there is an increased subjective awareness of the potential risks to their future security. Directly employed ICT professionals in Germany seem particularly sensitive to liberalising pressures, and their consequences, given the challenges posed by greater marketisation to their hitherto perceived employment security. These research findings thus contribute to existing work which explores how liberalising pressures influence work and employment in Germany (Addison et al., 2017; Baccaro & Howell, 2017; Doellgast, 2009).

## CONCLUSION

Centred upon the VoC approach, which emphasises the embeddedness of social structures and processes, and which identifies two ideal-type varieties of capitalism (Hall & Soskice, 2001), this paper compares ICT professionals’ experiences of, and engagement with, employment flexibilisation in the

United Kingdom, an LME, and Germany, a CME. The potential for sampling bias was a limitation of the research and, given the highly gendered nature of ICT work and employment (Kenny & Donnelly, 2020), it would also have been desirable to have covered the issue of gender. Yet the main benefit of qualitative work of this kind is depth of analysis it permits (Miles et al., 2014), with interpretation derived from a detailed exploration of ICT professionals' experiences and perceptions.

Our main empirical contribution is to illuminate how ICT professionals' experiences of, and engagement with, flexibilisation vary by national setting. Some commonality is evident from the research, with perhaps the most striking findings concerning ICT professionals' common experiences of high work pressures and feelings of employment insecurity. However, in certain key respects, experiences of flexibilisation do vary according to the national setting. For example, ICT professionals in the UK report higher work pressures than their counterparts in Germany, consistent with operating in a more liberalised setting, as the VoC typology would anticipate.

All these points to the principal theoretical contribution of the research, which is to characterise two distinct 'varieties' of flexibilisation based on the experiences and perceptions of ICT professionals in the United Kingdom and Germany. What we see in the United Kingdom is a 'liberalised' form of flexibilisation, marked by positivity towards the supposed greater independence with which it is associated, but limited enthusiasm in practice, not least because of the practical constraints that arise. The 'liberalised' variety of flexibilisation is also characterised by excessive work pressures which spill-over into ICT professionals' non-working lives. There is a sense from the research that, operating in a more liberalised setting, ICT professionals in the United Kingdom seem habituated to flexibilisation and its consequences, even if they are averse to the resultant insecurity.

The evidence from ICT professionals in Germany points to a more 'regulated' variety of flexibilisation, consistent with its status as a CME. While this form of flexibilisation is characterised by a similar ambivalence about the claimed greater independence which is evident in the United Kingdom, a key difference is that work pressures are more muted. An important insight from our research, however, concerns the potential brittleness of the 'regulated' variety of flexibilisation evident in Germany in the context of broader liberalisation pressures. Based in a CME, ICT professionals in Germany, particularly those who are directly employed, seem habituated to certain expectations of employment security, derived from working in a customarily more 'regulated' setting, but which have become more difficult to uphold, hence their greater feelings of insecurity relative to their UK-based counterparts. As an expression of greater marketisation, the process of employment flexibilisation is invariably disruptive, and this disruption extends to disturbing customary understandings of matters such as employment security. This explains why perceptions of future employment insecurity were more pronounced among ICT professionals in Germany than in the United Kingdom, despite the CME setting.

All this serves to emphasise the value of a research agenda in respect of flexibilisation which, by focusing on workers' subjective experiences, not only recognises cross-national variation but also illuminates the dynamics of change, in a context of greater liberalisation. Our data were collected before the Covid-19 pandemic arose and before the United Kingdom's departure from the European Union. Covid-19 has clearly had some major adverse consequences for people's working lives, including greater work intensity, especially for those working remotely and at home (Taylor et al., 2021). Further research exploring comparative variation in ICT professionals' experiences of flexibilisation, in the context and aftermath of the pandemic, would therefore be highly desirable. As remote working arrangements become more commonplace, especially in the interconnected ICT sector, any variation in flexibilisation, based on different country settings, might be expected to diminish. In the case of the United Kingdom, though, Brexit, by potentially constraining interconnectedness, could help to sustain its distinct variety of flexibilisation. This is something that should inform further research comparing the experiences of UK-based ICT professionals with their counterparts in the rest of Europe.

## ACKNOWLEDGEMENTS

We are grateful for the comments of the two anonymous referees, which enabled us to improve the paper. We also thank the journal editors, Kate Hardy and Debra Howcroft, for their guidance and support.

## DATA AVAILABILITY STATEMENT

Data are available on request from the corresponding author.

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## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

**How to cite this article:** Kinsella, P., Williams, S., Scott, P.&Fontinha, R. (2021) Varieties of flexibilisation? The working lives of information and communications technology professionals in the United Kingdom and Germany. *New Technology, Work and Employment*, 00, 1–20. <https://doi.org/10.1111/ntwe.12204>