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Author(s): Ursula Huws

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# Logged labour: a new paradigm of work organisation?

*Ursula Huws*

Ursula Huws is Professor of Labour and Globalisation in the Business School at the University of Hertfordshire, UK.

## **ABSTRACT**

This essay argues that, during the period following the financial crisis of 2007–8, several different trends, already visible in earlier periods, have converged to create a new pattern of work organisation, a pattern which is now approaching critical mass. Across all sectors of the economy, primary, secondary or tertiary, whether previously classified as public or private, formal or informal, manual or white-collar, high-skilled or low-skilled, this emerging model of work introduces a range of common features whose combined impact is large enough to justify the proposition that a new paradigm of work is in creation, perhaps representing the final dissolution of the normative model that emerged in developed economies in the third quarter of the twentieth century. In this new model, workers are increasingly managed via online platforms, monitored indirectly and expected to produce measurable outcomes. Their work is 'logged' in three distinct senses: it is cut up into standard, quantifiable components; it is subjected to continuous surveillance and monitoring; and it requires the worker to be connected to an online platform in order to obtain work. In a curious paradox, work is increasingly formalised even while it becomes less predictable and more precarious, with workers having to resubmit themselves repeatedly for employment, funding, promotion or inclusion in a particular team, and required to respond at short notice to unpredictable demands for work. The ramifications of this development are huge, since it creates major mismatches between the realities of the labour market and other aspects of social and economic life, including welfare systems, labour and consumer regulation and time regimes. The article draws on a large body of past work by the author on work organisation restructuring as well as current research on online labour platforms.

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## **Introduction**

This essay argues that, during the period following the financial crisis of 2007–8, a number of different trends, already visible in earlier periods, have been converging to create a new pattern of work organisation, a pattern which is now approaching critical

mass, referred to here as 'logged labour.' This model diverges in several critical respects from the normative model, established in most developed countries in the third quarter of the twentieth century, which preceded it. While never covering all workers universally, this normative model nevertheless laid down a template for what work should be like that shaped the labour legislation and social protection systems current generations have inherited. There is now a serious mismatch between these institutions and the realities of emerging twenty-first century labour markets.

The claim that a new paradigm is in formation is a bold one, requiring some explanation and qualification. The concept of 'paradigm shift', made famous by Kuhn (1962), provides a useful explanatory concept but also – when applied in the context of the social sciences – poses an awkward question: when we speak of a new paradigm, are we attempting to describe an actual historical change that can be substantiated empirically, or drawing attention to a change in how that reality is (or should be) understood by scientists? My argument is that the two cannot be completely separated because of the complex feedback loops that exist between the observable realities of labour markets, the ways in which these are understood by social scientists, the ways that these understandings inform economic, social and political policymaking and the ways in which the resulting policies in turn shape the actual practices of employers, workers and the various institutions in whose interactions the operations of labour markets are forged. Nevertheless, there remains a tension between them.

The notions of 'standard employment' laid down in the mid-twentieth century undoubtedly played a strong part in framing legislation and establishing practices that gave specific forms to labour markets, entrenching them as taken-for-granted features of national polities and cultures in the Western democracies and aspirational benchmarks for the global South. But, it can be argued, they also blinkered academic analyses (and alongside them policy debates) about changes in the organisation of work. In attempts to make sense of growing divergences between the normative standards and observable realities, terms such as 'atypical work' or 'non-standard employment' were deployed. Concepts like 'varieties of capitalism' (Esping-Andersen, 1990; Hall & Soskice, 2001) were used to make sense of international variations. In the midst of all these exceptions and variations, it is rare to find a challenge to the norm of the basic contractually defined standard relationship between employer and employee as the way that work is, or should be, organised.

The essay begins by tracing the history of this normative model and the ways in which it has been eroded by a combination of political, economic and technological forces, including neoliberal trade policies, globalisation and digitisation, arguing that the cumulative impact of these trends has brought about a series of changes to the character and organisation of work right across the economy.

In order to do so, it adopts a periodisation that might seem over-simplistic. The purpose of doing so is not to anatomise systematically and in detail the many economic, social, political and technological changes that took place over these seven decades, or their complex interactions with each other. This ambitious project would require several volumes to do it justice. Rather, it is to draw attention to general patterns of continuity and discontinuity and demonstrate that change is not necessarily an even and incremental process but may advance in sudden and violent bursts in

response to the major political and economic restructuring that accompanies moments of crisis. The descriptions of changes presented here are intended to be illustrative, rather than comprehensive.

The next sections summarise these changes in relation to five broad categories of work, two in what was formerly regarded as the 'primary' sector of the labour market and three in the 'secondary' sector (Doeringer & Piore, 1971): skilled private-sector work, public-sector work, creative work, low-paid service work and work in the informal economy. Again, these sections may appear rather sketchy, being designed to illustrate breadth and scope rather than paint a complete picture of the labour market in its totality. There is also a risk, in summarising trends and extrapolating from them, to assume a single direction, and fail to take account of the ways in which social actors, be they governments, employers or workers, resist or react to them, generating counter-currents that feed into much more complex dialectical interplay. Again, it is impossible to provide a full picture in the context of a single article; the aim here is simply to draw attention to broad tendencies that may be missed in narrower accounts.

The concluding section draws attention to the convergent nature of many of these trends. It argues that in the economic shake-up following the global financial crisis of 2007–8, several of them reached a tipping point, whereby what had previously been minority practices became normalized.<sup>1</sup> The convergence of these trends is now leading to the formation of a new pattern of work organisation, with a range of common features whose combined impact is large enough to justify the proposition that a new paradigm of work is in creation, representing a final dissolution of the normative model that was established in developed economies in the third quarter of the twentieth century. This new paradigm is also, of course, far from universal and riven with contradictions. I draw attention to it in order to alert labour market scholars and policy makers to the need to examine, and address, some of these contradictions and to reframe debates about the future of work.

## The life and slow decline of the post-war model of work

It is hardly controversial to suggest that in the third quarter of the twentieth century, a social model was established which laid down a template of what work should be like that held good for several generations. Whether we choose to call it the 'post-war Keynesian welfare state' (Jessop, 1990), 'the Golden Age of Capitalism' (Marglin & Schor, 1992), 'Fordism' (e.g. Lipietz & Macey, 1987) or '*Les Trente glorieuses*' (Fourastie, 1979), we can agree that it was shaped by political imperatives as well as economic ones.<sup>2</sup> The need for capital to do special deals with labour during this period was bolstered quite as much by the need to keep communism at bay as by post-war shortages of labour, or the requirements of what were still, by and large, nationally based manufacturing companies for skills that were specific to particular machines, companies or sectors, whether these were deployed for making tractors or watches, mainframe computers or machine tools.

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1 For reasons of space, the discussion of these trends is very compressed, and it is not possible to substantiate every point in detail here. Where relevant, the author's past work is referenced for a fuller picture.

2 See Judt (2006) for a detailed discussion of how this took place in Europe.

## Period 1: 1945–73

The existence of a normative model did not, of course, mean that all work was the same. Neither was this post-war model of work ever a reality for many, but it served as a powerful aspiration, both for workers in the capitalist heartlands, emerging from the experience of the 1930s depression followed by a war-time economy, and for workers in the developing world, at least in the formalised sectors of their economies. With some variation between different ‘welfare regimes’ (Esping-Andersen, 1990), it was a model in which most occupations were clearly defined and jobs were full-time and permanent, with a universal social insurance system to provide support in periods of sickness or unemployment and a pension at the end of the working life; it was also one in which a breadwinner (presumed to be male) could earn a wage sufficient to support a dependent spouse and children, with social reproduction taken care of by a combination of unpaid labour in the home and state-provided services.

With hindsight, it can be seen to have been so riddled with contradictions that many of its features were already starting to dissolve while others were still being perfected. Even in the period between the end of the Second World War and the oil crisis of 1973 (which represented something of a turning point), a number of trends eroded this model. Women entered the workforce in increasing numbers, mainly as part-time workers; many two-parent households were, in practice, likely to require the combined incomes of a full-time man and a part-time woman to make ends meet. But the nuclear family was itself by no means a universal norm. Rising divorce rates and a reduction in the stigma of illegitimacy led to a growth in single-parent households which, especially if headed by a woman, were likely to be in poverty. The welfare system was already under pressure to create exceptions to accommodate this new reality. It was also recognised by social scientists, as early as the 1960s, that labour markets were complex and segmented. Doeringer and Piore (1971) postulated that relatively secure jobs in ‘primary’ labour markets (internal to large firms and public administration) could only exist if bolstered by a ‘secondary’ labour market made of insecure jobs filled casually by workers whose employers made minimal long-term commitment to them, in what came to be known as dual labour market theory.<sup>3</sup>

Nevertheless, there were strong institutions that bound capital and labour together into distinctive national structures. These included national economic councils, government-coordinated sector-level collective bargaining, vocational training schemes, investment programmes and tax breaks targeted at particular industries as well as a panoply of measures designed to identify and support ‘national champions’ or keep industrial unrest at bay. Even when international in scope and scale, companies had to address the requirements of national governments if they wanted to operate on their territories and, at least in the more powerful states, to accept their terms.

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<sup>3</sup> Dual labour market theory has been critiqued in a number of ways since it was formulated. This is not the place to discuss these criticisms. I follow the concept in this essay simply as a shorthand way of pointing to divisions that existed in the labour market in the twentieth century that have since been disrupted.

## **Period 2: 1973–90**

In the 1970s, the power balance shifted. Conflict between capital and labour sharpened, as profits were squeezed. There was a greater impetus to introduce technologies that standardised and simplified labour processes, and the location of factories in cheap-labour countries reached critical mass, with the introduction of free-trade zones that made it possible to access cheap labour whilst bypassing local environmental and labour controls and avoiding taxes; a new international division of labour reached maturity in several manufacturing industries.

The phenomenon that began to be labelled 'structural unemployment' made it increasingly necessary for industrialised regions in the developed world to compete for foreign investment. Multinational companies now had to be wooed with tax breaks, development grants and other sweeteners to be persuaded to locate their factories in regions where labour had traditionally been strong.

Now, several tendencies that had been evident in the preceding period accelerated and reached critical mass. Women entered the workforce in ever-increasing numbers. Immigration continued to grow. Meanwhile, the development of computerised technologies made it possible for a range of labour processes to be transformed. Some groups of workers, such as print workers and skilled machine-tool operators, found that the specialist knowledge (often protected by long apprenticeships) that had given them their former bargaining power had become redundant almost overnight. In other cases, whole industries all but disappeared, as analogue watches gave way to digital ones, typewriters were replaced by word processors and cash registers, rolodex machines and stencil duplicators became quaint relics of a bygone age as they were replaced by digitised products. Other industries, and new occupational groups, emerged to take their place. Nowhere were these changes more visible than in the kinds of white-collar administrative, clerical and customer service work which had been expanding rapidly since the war and into which so many women had been absorbed, often as part-time workers.

## **Period 3: 1990–2007**

The next sea change can be pinpointed to around 1990, signalled by the end of the Cold War and the opening of large swathes of Central and Eastern Europe and the former USSR as unrestricted fields for capitalist expansion. In conjunction with a quickening of China's turn to capitalism as well as the abandonment of import substitution policies by governments in the Global South, such as India and Brazil, this marked the emergence of truly global markets (including labour markets). Formalised institutionally through supranational organisations like the World Trade Organisation, the free movement of capital and intellectual property accompanied the free movement of goods and services (though not of labour). At the same time, the liberalisation of telecommunications was established at the global level, coordinated by another supranational body, the International Telecommunications Union.

Meanwhile, the growing interoperability and standardisation of systems and processes was underpinned by a burgeoning spread of quality standards, set by the International Organization for Standardization (ISO) and internationally recognised

skills certification (Huws, 2014a, 2015b), and the World Wide Web and the Internet came into being. The stage was set for the development of an international division of labour in activities involving the processing of information, complementary to the international division of labour in manufacturing that had developed in the previous period and continued to expand in this one.

As sourcing business services from abroad became a normal business strategy, a 'new breed of multinationals' (United Nations Conference on Trade and Development [UNCTAD], 2004b; Flecker, 2007) grew up to supply them. And, as these companies expanded, they were able to exploit their market power and the economies of scale they could offer to create a situation where the contractual terms (and hence the labour processes of the workforce) were increasingly likely to be set by the supplier, rather than the purchaser, of these services (Huws et al., 2009). The quantitative impact of offshore outsourcing on employment in developed countries, though hard to measure, was not great (for an overview of the somewhat contradictory evidence, see Huws, Dahlmann & Flecker, 2004). However, the qualitative impact was immense. The realisation that work *could* be offshored exerted a powerful disciplinary effect on labour (see, for instance, Boes & Kampf, 2010).

This was also the period when the spread of information and communications technologies (ICTs) became pervasive at a global level. No longer were computers specialist tools for office workers, or mobile phones a means of communication for a privileged elite. They were increasingly essential to economic and social survival for all but the most disadvantaged, necessary for consumption and communication but also as a means for work to be accessed and organised, even in jobs whose actual content was anything but digital.

The next section focuses on trends in the period following the 2007–8 financial crisis, across five broad areas of employment.

## **Trends since 2007**

### **Skilled work in the private sector**

This category covers a vast range of technical, professional, managerial and administrative occupations across many different sectors of the economy, and there are of course enormous variations between countries, sectors and companies in how the work is organised and carried out. Nevertheless, a number of mutually reinforcing common trends can be observed that cross these divisions.

One of these is the near-universal spread of ICTs. By the early 2000s, the use of PCs and the Internet was normal in nearly all companies, with a significant proportion using them intensively in intranets, extranets or full online integration of business processes (UNCTAD, 2004a). Closely associated with this was the requirement for all employees to possess the generic skills required to use these technologies (over and above any specific skills required to do their own particular jobs). The spread of these skills in turn reinforced a trend for workers to be self-servicing, carrying out for themselves a range of tasks that used to be the preserve of specialist administrative support staff: managing their own correspondence and diaries, using online systems to arrange meetings, enrol on training courses, book rooms, process expense claims,

log working hours, report on progress or access human resource (HR) functions. Accompanied by an erosion of open voice-based communication, with the introduction of automatic routing of calls and a 'callcenterisation' (Huws, 2009) of processes, this has led to an increasing reliance on email and text communication, driving a tendency to check messages round the clock, regardless of location, and to expect others to be immediately available to do likewise.

In a mutually reinforcing process, this development has facilitated other trends: the standardisation of tasks, the collection of data on performance and the introduction of performance measures. As more and more information is collected, it can be analysed in ever more sophisticated ways to monitor performance and inform management practices designed to maximise productivity, encouraging further standardisation.

Standardisation – of tasks, processes and qualifications – is a precondition for outsourcing. By 2010, the ISO had over 700,000 standards registered on its World Standards Services Network (WSSN) database, 1,313 of which were published that year, with a further 1,900 new standards in development (ISO, 2010). Similarly, there was a dramatic spread of standard skills certification. For example, the Microsoft Certified Professional (MCP) certificate was held by some 2.3 million workers around the world in spring 2011 (Huws & Podro, 2012).

Reliable statistics on outsourcing are hard to come by, but there is considerable evidence that it has grown. Whilst most outsourcing takes place within the same region or country, international outsourcing is spreading (Rikama et al., 2013). A survey of 12 European countries found that between 2001 and 2006, 16% of enterprises moved some business functions abroad (Alajääskö, 2009). Relocation of tasks within multinational companies, or those in the same group, is also common as is the outsourcing of the HR function itself (Hesketh, 2006), driving further standardisation of recruitment and management practices.

Outsourcing has implications for employment that extend beyond the numerical effects on headcount. Even workers who retain their positions in the same departments may find their job descriptions changing, with less focus on carrying out the core task and more on recruiting, training and managing remotely based members of virtual teams, or employees of outsourcing companies (Flecker & Meil, 2010). This is associated with a greater need for systematic documentation and logging of work. The resulting standardisation also implies a greater substitutability between workers, which may be actively welcomed in contexts where workers are having to work across time zones and want to organise their working hours to include some down time. This substitutability can, however, lead to increasing precariousness, especially when work is organised on a project basis (Whitley, 2006) and there is no guarantee of being selected for the next project when the previous one ends (Meil & Heidling, 2003). In some sectors, this sense of being only as good as one's last project is an important factor in understanding the otherwise inexplicable tendency for workers to accept extremely long hours, unpaid overtime working and 'time crunch' as deadlines approach (Legault, 2013). Even those who are formally employed on permanent contracts may thus experience their work as precarious.



Between 2005 and 2009, the WORKS<sup>4</sup> project carried out a large number of case studies across a range of different industries and occupational groups in 16 countries and, despite considerable differences, found three striking common tendencies, equally apparent amongst highly qualified research and development and creative professionals and low-skill logistics and production workers: standardisation, intensification and a speed-up of the pace of work (Flecker et al., 2008). These results, which were confirmed by an analysis of the results of the European Working Conditions Survey (Greenan, Kalugina & Walkowiak, 2007), were particularly pronounced amongst white-collar workers, who were experiencing pressure from a number of different directions, including the need to work to externally determined targets, to respond directly to demands from customers, sometimes in different time zones, and to exercise a growing range of communications and emotional skills on top of their core tasks (Ramioul & De Vroom, 2009).

### **Public-sector work**

Turning to public-sector work, we find a number of similar trends, some linked to the general patterns of organisational change accompanying the introduction of ICTs, and others more specifically connected with restructuring related to the imperatives of liberalisation, privatisation, marketisation or outsourcing (see Huws, 2014a).

On the supply side, the already-mentioned growth of multinational corporations supplying outsourced business services, and/or temporary employment services, combined with the increasingly generic nature of the tasks involved, meant that, from the 1990s onward, the differences between the private and public sectors were progressively reduced. On the demand side, political pressures to outsource public services in order to reduce costs and/or create efficiencies brought growing imperatives to involve private companies in the delivery of public services or the provision of back-office support to public bodies even where out-and-out privatisation (in the sense of change of ownership) was not envisaged. Before a process can be outsourced it must first be standardised, broken down into measurable components and analysed in such a way that it can be defined and monitored in a service-level agreement (SLA) – the basis for a contract between the public purchaser and the private supplier (Player & Leys, 2008; Leys, 2001). Whilst it cannot entirely be isolated from more general trends, this logic has undoubtedly underpinned at least some of the performance-monitoring measures that have been introduced across the public sector, affecting workers across a wide range of occupations, from surgeons to hospital cleaners, from senior managers to waste disposal operatives, from university professors to care assistants.

By 2006 – before the financial crisis – it was estimated that the outsourcing of public services was already significant. In the UK, it was estimated that it accounted for 6% of GDP, and in terms of value added, it was ‘significantly larger than “food, beverages and tobacco” (23bn in 2006), “communications” (£28bn), “electricity, gas and water supply” (£32bn) and “hotels and catering” (£36bn)’ and employed some 1.2 million people (Julius, 2008:11:i). Since then, it has grown considerably. A National

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<sup>4</sup> Work Organisation Restructuring in the Knowledge Society, funded by the European Commission under its sixth Framework Programme.

Audit Office report on four major contractors estimated that in 2012–13 Atos obtained £0.7 billion of its worldwide revenue of £7.2 billion from UK public-sector and central government sources. The comparable figures for Capita were £1.1 billion from a global total of £3.4 billion; for G4S, £0.6 billion from a global total of £8 billion and for Serco, £1.2 billion from a global total of £4.9 billion (National Audit Office, 2013:5).

Many employees ended up working for such companies by being transferred, along with the contract, from their former public-sector jobs. For example Capita's UK workforce included in 2012 35,800 workers transferred from public employment compared with 18,840 who were hired directly (National Audit Office, 2013:58). Although, at least in Europe, working conditions are notionally protected by the conditions of the Transfer of Undertakings (Protection of Employment) Regulations (TUPE), qualitative research suggests that there is often a progressive deterioration in job security and working conditions, especially after the expiry of the original contract and its replacement by a second or third, and in situations where the outsourcing unit is subject to mergers or takeovers (Dahlmann, 2008). The experience of being transferred from public to private employment also entails a change in working culture – from one with a motivation to meet the needs of clients to one where the goal is meeting targets and maximising profitability (Dahlmann, 2008).

Whether still employed in the public sector or facing transfer to a private company, many public-sector workers are thus experiencing similar changes in their working patterns to those of their counterparts in private organisations: standardisation of tasks; the introduction of performance measures, often set by targets inscribed in contracts; insertion into global sourcing chains; the integration of workers into the disciplinary structures and time regimes of external organisations; increasing requirements to use online systems for logging work and self-service access to administrative functions; and growing precariousness, with job security linked to the lifetime of a particular project or contract.

There has, in other words, been considerable convergence between the ways that work is organised in the formerly distinct fields of public-sector organisations and private companies. Although both were classified in the latter part of the twentieth century as 'primary' or 'internal' or 'firm' labour markets (Doeringer & Piore, 1971), their organisational structures, cultures and means of progression were traditionally quite different, with the former characterised by rule-bound hierarchical structures, staffed by public servants (often referred to as 'officers', reflecting military models of organisation) and requiring formal examinations for entry and progression. The latter were more heterogeneous in their cultures, some strongly paternalistic and others more meritocratic, but nevertheless typically offering their employees a strong 'brand' to identify with, with loyalty rewarded by long-term commitment.

We now turn to a field of work that was traditionally very different from either, classified by Doeringer & Piore (1971) as a 'secondary' or 'occupational' labour market: the field of creative work.

### **Creative work**

Many artists have traditionally been self-employed or reliant on public or private patronage for their economic survival. But in the twentieth century, there were a

number of niches in the economy where they could earn an income that enabled economic independence. These included permanent employment in newspaper and publishing companies, broadcasting corporations and architecture practices and temporary employment (often on a freelance basis) in film companies, theatres, orchestras or rock bands. A lucky minority could make a living from royalties, or performance fees. There were also opportunities for creative workers to supplement their income from artistic work by teaching. Labour markets were frequently informal, with recruitment by word of mouth, or (for specialist services such as translation, proofreading, or sessions music) through small ads in trade papers or via specialist agencies. For some occupational groups, such as film technicians, trade unions played a role as employment agencies (Kelly, 1966; Reid, 2008). Apart from the relatively few pockets where permanent employment was available, creative work was typically precarious and low paid, with self-employed workers often having to go for long periods between jobs and seek casual employment in unrelated fields to make ends meet (see, for instance, Hesmondhalgh & Baker, 2011; Banks, Gill & Taylor, 2013; Randle & Culkin, 2009; Blair, 2001).

Recent developments have put many features of this pattern into question. Industrial restructuring has played a strong role here. Concentration of capital and technological convergence have served to bring together formerly disparate industries within single merged corporate families encompassing music, publishing, broadcasting, film production and distribution, video games and mobile phone apps, seeking to exploit the (digitised) content of these products across multiple platforms. A further 'digital shift' (Simon & Bogdanowicz, 2013) has changed the balance between formerly vertically integrated industries producing cultural commodities and the (even larger) companies whose profits come from selling hardware. If, for instance, Apple stands to gain most from selling large numbers of iPhones or iPads, or Amazon large numbers of Kindles, then these companies' focus is not (as those of traditional publishers were) to maximise the income from any given piece of recorded music or eBook but to ensure the widest possible selection of content to encourage their customers to buy the relevant hardware, or upgrade it to increase its capacity. This changes the business model, and with it the artist's prospects of earning a decent income from the relevant work.

The size of the corporations that dominate cultural production and distribution, the global nature of their markets, and the digital nature of much of the content they produce have enabled the development of highly complex value chains in cultural production, in which geographical specialisation coexists with extreme footlooseness. Since the 1990s, for example, publishers based in the UK or North America have sent text-editing work to India and the processing of graphs and diagrams to China. Hollywood-based film companies have sourced post-production from Canada, the UK and several Asian destinations (Gurstein, 2007). In the Spanish-speaking world, Argentina is a centre for visual special effects, whilst Mexico acts as a Latin American production hub (Huws, 2014b). Vietnam supplies illustration and animation for Japanese Manga comics and Anime films as well as graphic and website design to European companies (Huws & Flecker, 2004). These global value chains are managed much like others, involving similar patterns of standardisation (including the use of

standard software packages and platforms that constrain the scope for creativity), logging of outputs and pressure to work to global-determined time schedules. The need to compete with workers in low-wage countries has combined with the increasingly universal availability of the skills, to bring sharp downward pressure on earnings. This has been exacerbated by the growing expectation that creative workers, at least at labour market entry level, should be prepared to work in unpaid internships (Percival & Hesmondhalgh, 2014; Perlin, 2012; Huws, 2006).

An extra dimension of volatility has now been introduced to this already unstable labour market by the exponential growth of online labour exchanges, also known as 'crowdsourcing' or 'cloudsourcing' platforms, 'peer-to-peer networking,' the 'sharing economy,' 'gig economy,' 'on-demand economy' and other terms (Huws, 2015a). These forms of online intermediation between workers and clients or funders are reshaping labour markets for creative work in three quite distinct ways.

First, there are platforms such as Freelancer and Upwork that provide ways for employers to tap into a global pool of labour without entering into long-term commitments. These can in some ways be seen as online successors of offline predecessors such as directories or agencies, but once these activities have migrated online, qualitative as well as quantitative changes are introduced. Economies of scale enable offerings to be standardised and costs lowered, thus consolidating market dominance. Network effects bolster this consolidation: the larger the platform, the more likely it is to have suppliers in any given location, or for any given activity, so the more customers are likely to use it. Meanwhile, the collection of large quantities of data on users makes it possible to target customers with ever more sophisticated advertising, across a range of media, including mobile 'apps'.

The scale and reach of these platforms is considerable. In February 2015, Freelancer advertised over 14.5 million registered users and over 7 million projects with over 22,000 users online at the time the site was accessed (Huws, 2015a). Elance merged with oDesk in 2013, producing a combined workforce of some 10 million (*The Economist*, 2015), further enlarged when the merged companies were rebranded in 2015 as Upwork. There are large numbers of smaller platforms offering similar services (Green et al., 2014; Mandl, 2014; see also d'Cruz & Noronha and Gandhi, Pais & Geraldo, this volume). The global market for online staffing platforms is growing rapidly. It was estimated by Elance at \$1.6 billion in 2013, projected to grow to between \$16 billion and \$47 billion by 2020 (Hippler, 2014). Massolutions estimated that the number of crowd workers is growing in excess of 100% per year, with nearly US\$300 million of venture capital invested in crowdsourcing in 2011 alone (Massolutions, 2012). Meanwhile, Kaganer, Carmel, Hirschheim & Olsen (2013) estimated that year-on-year growth in the global revenue of 'human cloud' platforms was 53% for 2010 and 74% for 2011, with the numbers of platforms and middlemen also growing rapidly. Not all the freelancers using these platforms fall into the category of 'creative' workers, but a significant proportion do. Elance ed in 2014 that 23% of its demand was for design and multimedia skills and 17% for writing and translation (Hippler, 2014). A survey designed by the author in January 2016 found 11% of the UK working-age population earning an income from such platforms, with around a third saying it was their main source of income (Huws & Joyce, 2016).

A second fast-growing way in which online platforms are being used to reshape labour markets for creative workers is the use of ‘crowdfunding’ to raise money for albums, films, books, exhibitions or other artistic projects. Crowdfunding platforms raised an estimated US\$2.7 billion (an 81% increase on the previous year) in 2012, funding more than a million projects, expected to increase to US\$5.1 billion in 2013 (Massolutions, 2013).

Finally, online platforms have also created new ways to market craft and other physical artistic products. When the largest of these, Etsy, went public, in April 2016, it was valued at a record-breaking US\$3.3 billion (CNNMoney, 2015).

These very different forms of online organisation have some common impacts. While they undoubtedly open up opportunities for creative work to much broader groups of people, in many parts of the world, they also have some more ambiguous effects. The value of accumulated past social capital, in the form of personal contacts and word-of-mouth recommendation, is eroded and, when it still exists, becomes more difficult to renew. Individual workers are obliged to pitch themselves or their work, using standard formats which become the basis for competitive comparison. Outright rejection of work or negative ratings by customers (which typically cannot be challenged) become disciplinary instruments, and there is pressure to check for messages round the clock for fear of missing a vital piece of work (Huws, 2015a; Green et al., 2014).

### **Low-paid service work**

Another type of work classified by Doeringer & Piore (1971) as part of the ‘secondary’ labour market in the twentieth century is low-paid service work. This includes a range of employment in warehouses, supermarkets, cafes, restaurants, hotels, delivery, security and cleaning services and call centre work that does not involve specialist knowledge.

Faced with fluctuating demand for labour, employers in these sectors have for several decades resorted to just-in-time methods to allocate staff to shifts or add capacity at short notice. These are the sectors where flexible forms of work organisation have been most deployed, with a large use of part-time and temporary contracts and, where these are permitted by law, of ‘min-max’ or ‘zero hours’ contracts. More recently, the allocation of work is increasingly carried out via online platforms, sometimes using mobile phone apps, allowing workers to be summoned at extremely short notice to work.

Some of these ‘flexible’ forms of work have evolved by a process of mutual adaptation, whereby employers have created specific forms of work (albeit often with poorer pay and working conditions than their non-flexible counterparts) which fit the availability of people (especially women with children or caring responsibilities but also students and artists) who are desperate to find work that can be fitted in with their other commitments. These forms of work therefore have a strongly gendered character and may also exhibit a high degree of ethnic segmentation.

The large literature on changing forms of work organisation and the development of these forms of ‘flexible’ or ‘atypical’ work includes survey evidence, for instance from the European Working Conditions Survey, that these trends are growing, but without

clear definitions, it is not possible to use them to extrapolate growth rates. A Eurofound (2010) study found that the highest prevalence of 'zero hours' or 'on call' labour (about 5% of the workforce) was in the UK and Austria, followed by Estonia and the Czech Republic (around 2.6%) and Malta and Norway (about 1%). In Finland and Italy, trade union surveys found that between 4% and 8% of respondents were involved in on-call work. In Sweden, the number of such workers tripled between 1990 and 2005. More up-to-date figures from the UK Office of National Statistics found an estimated 700,000 workers on zero-hours contracts between October and December 2014. Using a broader definition of contracts that 'do not guarantee a minimum number of hours', the figure was 1.4 million in January 2014 and 1.8 million by August 2014. These workers were more likely to be women, in full-time education or working part-time. Over half of employers in Accommodation and Food Services and a quarter of employers in Education made some use of no guaranteed hours contracts in August 2014 (Office for National Statistics [ONS], 2015).

Zero-hours contracts are an extreme form; there are many other workers on part-time or temporary contracts who are managed in similar ways. Of course, not all these workers' schedules are managed via online platforms, but it seems likely this is a significant proportion. One British pub chain, for instance, has 21,000 zero-hours workers employed in this way (Uttley, 2013). Anecdotal evidence (see, for instance, Hayward, 2015) describes workers having to walk two miles to cover a one-hour shift at short notice. Refusal of a posting may be regarded as a breach of contract. It is therefore necessary for workers to be permanently logged on, ready to respond whenever their services are required and to report their arrival and departure.

### **Work in the informal economy**

We turn finally to the informal economy, a labour market that has been somewhat neglected by scholars in the past. A few studies in the twentieth century (e.g. Jordan, James, Kay & Redley, 1991) looked at the role of informal 'cash-in-hand' work as part of the survival strategies of low-income households to bridge the gaps between work and welfare. Various economists (e.g. Schnieder & Williams, 2013) have attempted to measure the size of what the 'shadow' or 'grey' economy but, by and large, studies of the informal economy have focused on developing countries. Nevertheless, there is a long tradition of informal work in the developed economies of the West, as well as the global South, often straddling the boundary between small businesses, self-employment and 'grey' labour, supplying services such as repair and maintenance, cleaning, gardening, construction, driving and petty trading (for instance, in second-hand goods).

More recently, scholarly attention has focussed on the household services (such as cleaning, child care and care of the elderly) that are increasingly purchased privately in the market as a result of growing labour market participation by women on the one hand and cuts in public expenditure on the other, with migrant workers playing a central role in this workforce (see, for instance, Ehrenreich & Hochschild, 2003).

When such workers are employees of large service companies, they come into the previously discussed category of low-paid service work; when they are individually employed to work for a single client, they can be seen as domestic servants; when

they work for multiple clients, they can more properly be regarded as self-employed or, if they are successful enough to have employees of their own, as small-scale entrepreneurs. They have traditionally found work by a variety of means: word-of-mouth recommendation, leafletting, local advertising, agencies or, especially when migrant workers are involved, a range of intermediaries.

It is this labour market, perhaps more than any other, that is now being radically disrupted by the development of 'crowdsourcing'. Companies like Uber and Lyft link drivers with potential paying customers for taxi services, Taskrabbit and Helping provide household services, Mybuilder and Handy construction services and so on. Although the work itself typically involves manual work carried out in physical proximity to the customer, it relies on ICTs for coordination and is managed by platforms with a large international reach. It is growing exponentially. Uber, for instance, claimed that it would 'create 50,000 European jobs in 2015' (Waters & Mishkin, 2015). In other cases, the geographical expansion of US-based companies is more limited, but similar platforms are started elsewhere. Taskrabbit has a major presence only in 18 US cities and London in the UK (Taskrabbit, 2015). However, Mila has been described as 'the Taskrabbit of Europe' (Fowler, 2013) and Youdo 'the Taskrabbit of Russia' (Starkell, 2013). Berlin-based Helping was founded in March 2014, and by December of that year, it was already active in over 150 cities across eight markets in Europe and Latin America (Russell, 2014). It now operates in Dubai, Singapore and Australia and a number of other locations as well, and has acquired the UK-based Hassle. A significant proportion of the estimated 5 million crowd workers in the UK are doing such work, with 45% claiming that they do personal service work, 53% doing regular scheduled work in other people's homes, 54% doing occasional unscheduled work in other people's homes and 46% providing taxi services or other driving work. The situation is complicated by the fact that most workers are registered on multiple platforms and offer a number of different kinds of service (Huws & Joyce, 2016).

Some of the growing market comes from new users, who might have previously thought that such services were beyond their means. This is reflected in their advertising – Hassle, for example, encourages its customers to 'Book your local, trusted cleaner for £10/hr. Because there are better ways to spend your lazy Sunday.'<sup>5</sup> In other cases, these new platforms are clearly competing with, or substituting for, local small businesses or individuals, many of whom end up becoming absorbed by them as their traditional sources of work erode.

From the perspective of labour market analysis, the impacts of this development are curiously contradictory. On the one hand, the work is formalised, in that it is brought within the scope of the formal economy (with financial transactions, and hence tax liability, fully tracked) and subjected to external discipline, with movements and working hours logged. Tasks, and the estimated time to complete them, are defined in advance, and customer feedback is used to assess whether they have been completed correctly – with payment often withheld if they have not (Huws, 2015a). On the other hand, it remains insecure.

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<sup>5</sup> <https://hassle.com/uk>. Accessed on August, 25, 2015.

Responsibility for insurance and other issues is often hazy. The employment status of crowd workers is a contentious issue. In the USA, suits demanding employee status for workers have been filed on behalf of workers for Uber and Lyft in San Francisco (Rogers, 2015), Handy in California (Montgomery, 2014) and Homejoy in Massachusetts, despite the latter's insistence that it is 'not a cleaning company but a platform' (DePillis, 2014).

Compared with the forms of informal labour that it has replaced, crowd work brings considerable loss of autonomy to the worker without appreciably increasing job security. There may be a steadier flow of new clients (though this is by no means guaranteed), but the ability to negotiate the payment, plan the timing of the work or expand the scope of the job in direct dialogue with the customer has been diminished. Being unavailable to respond to a request for work may not be a sackable offence (as it is for many workers on min-max or zero-hours contracts), but there is nevertheless a strong imperative to be logged on, ready to respond to new requests for work at a moment's notice.

## Conclusion

This brief comparison between five very different fields of work reveals several strong common tendencies. Whether high-skilled or low-skilled, employed or self-employed, in the private or the public sector, or doing work that is predominantly mental or manual, workers are increasingly likely to be managed partially or wholly via online platforms.

They are, in other words, required to be logged on, via a PC or a mobile device, during most of their waking hours. This means that their relationships with managers and co-workers are increasingly likely to be mediated via online communications, in the process leaving digital traces – the building blocks of 'big data' that can be used to monitor their performance. Standardisation of tasks makes it easier for workers to be substituted for each other and for comparisons to be drawn between them, and this, in turn, generates a competitiveness which is intensified in inverse proportion to the length of time that workers are committed to a particular contract or project.

There is a requirement to 'pitch' for each new job, promotion or funding opportunity, using increasingly standard formats, in which competitors are compared using standard criteria. Being 'only as good as your last job' sets the clock back to zero each time, devaluing the results of past efforts. The implications of this are ambiguous: for those who in the past benefited from accumulated social capital in the form of carefully nurtured personal networks and favours granted in the expectation that they would be returned, this is strongly negative; for outsiders, it opens up opportunities that were previously closed (see d'Cruz & Noronha, this volume, for evidence on this from India).

The unity of time and space of the traditional workplace (in which the worker was deemed to be 'at work' when physically on the employer's premises during the hours stipulated in the contract of employment) is dissolved as 'presence' is increasingly defined as being logged on.



Workers are, therefore, 'logged' in several different senses: their work is chopped up into separate tasks just as trees are logged in a lumber yard; they are 'logged' in the sense of being monitored continuously by employers, clients or their intermediaries, and they are 'logged' on in the sense of being required to be connected to the Internet, ready to receive a summons to work at any time.

This situation is not limited to the five areas of work discussed here. Coordination of work through online platforms is being extended rapidly to other areas. In the USA, American Well, 'the Uber for doctors' was launched in 2015 (Diamond, 2015). In the UK, Axiom offers the services of 650 lawyers, and Eden McCallum 500 management consultants (*The Economist*, 2015) while Sooqini<sup>6</sup> offers marketing services. There is every likelihood that the convergence will extend and continue, with work across many areas of the economy becoming simultaneously both more formalised and more precarious; more interconnected, yet more atomised.

Despite this convergence, it would however be a mistake to see this development as a flattening out of labour markets or the development of a single universal job-type.

The power of the post-war normative model referred to in the introduction to this essay was not to homogenise work but rather to contribute to the development of an institutional infrastructure within which labour markets could be organised, with all their hierarchies, patterns of segmentation, exclusion and inequalities continuing to play out their dynamics, even if some excesses were checked. It represented more of an aspirational goal than a lived reality for most workers, but, nevertheless, its construction was rooted in a critique of the worst employment practices of the pre-war period and its existence as an ideal type helped to shape the political and institutional landscape for decades to come, albeit in ways that are now unravelling, or being entirely bypassed by new developments.

What we are witnessing now is a new model that is still in formation. There are many sectors in many countries that have so far been only lightly touched by these trends. Even if logged labour becomes more dominant, it is important to remember that labour markets are likely to remain as segmented as in the past, if not more so, by gender, race, age, skill and qualification level, class background and other variables, and there are no signs of inequality being reduced. Workers will, of course, resist these trends where they can, complicating these patterns and setting new counter-dynamics in motion. But if, as I have argued here, we are now witnessing the emergence of a new paradigm of work, then the implication is that we also need a new political and institutional architecture within which labour can be framed and (re)regulated. Picking through the wreckage of the old, it will be necessary to construct new forms of social protection, consumer protection, labour protection and health and safety legislation, employment contracts, training schemes and systems of control and management and new institutions of social dialogue that fit it. In the context of globalisation, where (if there is not a vacuum) supranational institutions hold sway, this will be no easy task.

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<sup>6</sup> <http://sooqini.com/> Accessed on August, 25, 2015.

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