

"The Hassle of Housework: Digitalisation and the Commodification of Domestic Labour"

Introduction

This article is written in the spirit in which *Feminist Review* was founded in 1979 by British socialist feminists: to develop a materialist feminist analysis of society not just for the sake of theoretical advancement but in order to inform feminist strategies in the real world (see for example, from the first two issues, Barrett & McIntosh, 1979, London Women's Liberation Campaign for Legal and Financial Independence and Rights of Women, 1979, Riley, 1979). It critically revisits some of the debates left unfinished by Second Wave feminists relating to unpaid social reproduction labour in the light of technological changes, unpredicted at the time, that have taken place in the ensuing four decades, and explores their implications for future feminist strategies. It draws in particular on recent research by the author on the emergence of online platforms and their implications for the marketisation and commodification of social reproductive labour.

In doing so, it steps into something of a minefield. While there has been a general agreement that women's economic disadvantage in the labour market is closely linked with their responsibility for unpaid reproductive work in the home, opinions have been sharply split about how this should be understood. Scholarly attempts to understand the political economy of housework have been inextricably entangled with political debates about feminist demands and strategies and the relationship between feminist struggles and other, class-based ones as well as ethnic and racialised divisions. As a result, what was known in the 1970s as 'the domestic labour debate' has been somewhat underexplored in the current economic context.

Nevertheless, many of the questions asked – and solutions proposed – by feminists in earlier periods remain relevant today. Several first wave feminists (e.g Alexandra Kollontai, 1909; Clark, 1919 [1982] 1920) argued that capitalism had done away with the kinds of production previously carried out in the home by transferring it to the factory and that housework now consisted only of unproductive work that created no value for the economy. Communism, Marxist feminists claimed, would be able to liberate women from the exhausting burden of carrying out this work by collectivising it, in the form of state-provided restaurants, laundries, 'clothes-mending centres' and childcare facilities. Other first-wave feminists put their faith in new technologies to automate away the need for domestic labour and thereby bring about equality between the sexes, as imagined by H.G. Wells in his 1905 *A Modern Utopia*.

Second-wave feminists, writing in the 1970s, also discussed the value produced by the labour of housework, debating whether or not it represented surplus value for capital – a topic on which opinion was divided, even among Marxist feminists. Some (eg Gardiner, 1975; Himmelweit & Mackintosh, 1975; Seccombe, 1974) held that the socialisation of housework was a necessary precondition for liberation, arguing for public laundries, childcare facilities and the like. In recognition of the role played by public services in providing these, this underpinned a wave of feminist political activism in support of expanding public services, and, later, defending them against cuts in welfare spending. A variant position – interested in establishing prototypes in the here-and-now – experimented with forms of communal living in which housework could be shared equally among men and women (chronicled, *inter alia* by Segal, 2007 and Wall, 2017). Counterposed to this socialist feminist position was a radical feminist one, notably advocated by Dalla Costa and James, (1973) and Federici, (1975) which proposed that the labour of housework should be paid. There were also

discussions during this period about the potential of automation to dispense with the need for housework (see for instance, the essays collected by Zimmerman, 1983; Rothschild, 1982; Terry & Calvert, 1997; Huws, 1982; 1984).

All of these positions suffered to some extent from class-blindness, colour-blindness and Western-centredness, tending to presume a normative household based on a nuclear family, with a male head of household and a female housewife, rendering invisible not only the unpaid labour that was carried out within the extended family and the broader community but also the paid labour carried out by domestic servants within the household.

With some rare exceptions (Cock, 1980; Cowan, 1983) It was not until the turn of the millennium that scholarly attention was turned to the use of paid labour in the home as a means of freeing some women from the burden of housework, transferring it to other, poorer women, even while (re)constituting it as paid labour. More recently, feminist scholars (eg Hondagneu-Soteko, 2001; Parreñas, 2001; Chang, 2000; Ehrenreich & Hochschild, 2002; Young, 2001) have pointed to the ways in which middle-class women in the global West have only been able to enter the labour market on more-or-less equal terms with men because on the basis of the labour that others, mainly migrant workers from the global South, have contributed to cleaning their houses and taking care of their children.

Also neglected was the growing reliance on reproductive labour carried out outside the household, in the market, and the realisation that the transformation of unpaid work into paid work carried out under capitalist control was not a one-off transition but rather part of an ongoing process that still had further to go. There was often also an underlying assumption that the tasks involved in housework, whether carried out by unpaid homemakers or paid servants, remain fundamentally unaltered over time.

Drawing on theoretical insights from political economy and labour sociology, as well as feminist theory, this article argues that, although cleaning, cooking, laundry and childcare remain as essential as they were in Kollontai's time, the ways in which they are carried out have been undergoing dramatic changes with the development of capitalism, with successive waves of commodification, decommodification and recommodification¹ combining with technological change to bring about dynamic shifts in the content and organisation of reproductive labour inside and outside the household. It also draws on empirical research by the author to illustrate the part played by digital technologies in these transformations.

The first part of the article presents a framework for understanding how the restructuring of housework, shaped by technological, social and economic factors, has both resulted in the generation of new kinds of paid employment and changed the tasks involved in unpaid domestic labour. It then goes on to summarise some broader tendencies that influence these changes before focusing on current trends in the context of digitalisation. Finally, it draws some conclusions and reflects on their implications for feminist scholarship and strategy.

The refashioning of housework: a conceptual framework

The content of social reproductive labour is shaped and reshaped in a complex interplay between economic, social, cultural and technological factors. It therefore seems unhelpful to create

¹ These terms are explained and illustrated in Huws, 2019.

'housework' as an abstract category that can be compared like-for-like across different social classes, global regions and historical periods.

The approach I adopt here is more differentiated. It involves breaking down the functions involved in housework according to the types of labour that are involved in producing them, whether as goods or as services, and whether paid or unpaid (Huws, 2019). This results in a typology of six broad types of labour, summarised in Table 1. Plotting changes in the way that particular functions are performed as they shift between these six types of labour makes it possible not only to differentiate between households over time and space but also to understand sectoral changes in the broader economy. This provides a framework for investigating changes (and continuities) in the gender division of labour both in paid and unpaid work while also making it possible to investigate the complex interdependencies between them. Theoretically speaking, this framework makes it possible to triangulate between the distinction between paid and unpaid labour which has played such an important role in feminist theory, and the distinction between 'productive' and 'unproductive' labour which is critical for the Marxian labour theory of value, in which 'productive' labour is defined as that which produces 'surplus value' for capitalists. Taking account of feminist critiques of Marx I prefer the term 'reproductive' to 'productive' in this context, in order to emphasise that labour that is 'unproductive' for capital is nevertheless 'reproductive' in the way that it produces generalised social value (Huws, 2013). In other words, it makes it possible to link changes in domestic labour with changes in capitalism.

The first of these six categories, *subsistence labour*, involves unpaid work performed outside the market that produces direct use values for the household or surrounding community. It does not just include physical tasks, such as cleaning, cooking, harvesting or tending to animals but also cultural ones, such as teaching children to speak or read.

The second category, *servant labour*, involves paid labour that is directly employed by the household, a type of labour that Marx regarded as 'unproductive' because it did not produce value for capitalists but was paid for out of wages. Historically, this accounted for a high proportion of all labour, for example It was estimated by Woollard (2002) that over a third (35.45% and 34.51% respectively) of the 'occupied' population of England and Wales were classified as domestic servants in the 1881 and 1891 Censuses of Population, a proportion that remained as high as 30.8% in 1901, falling only slowly to 26.33% in 1911 and around 23% in 1921 and 1931. In subsistence agriculture *servant labour* may also involve outdoor activities such as harvesting or husbandry.

The third category, *capitalist service labour*, involves paid labour employed by companies aiming to make a profit from selling their services. Some, but not all, of the services provided by such labour contribute directly to social reproduction.

The fourth category, *public service labour*, also involving paid labour, is distinguished from *capitalist service labour* by the fact that the services are not provided for profit but for their use values. While many are provided directly by the state, others are provided by not-for-profit bodies such as religious bodies, charities and other NGOs.

The fifth category, *capitalist production labour*, like the third, involves paid labour carried out in the market for employers motivated by profit. Many, though not all, of these products, ranging from sewing machines to dishwashers, are directly implicated in social reproduction, representing 'labour saving' applications of technology to activities that were previously carried out by *subsistence labour* or *servant labour* in the home (Davidson, 1982).

The sixth and final category, *consumption work*, refers to the unpaid labour that is required to access goods and services from the market.

Table 1: A typology of labour

	Unpaid	Paid	Produces social value only	Produces value for capitalists ('surplus value')
Reproductive work carried out beyond the scope of capitalism – <i>subsistence labour</i>	yes		yes	
Service work carried out directly for an individual or household – <i>servant labour</i>		yes	yes	
Work for private service companies – <i>capitalist service labour</i>		yes		yes
Work in public services or other non-profit organisations for public good – <i>public service labour</i>		yes	yes	
Work in production industries – <i>capitalist production labour</i>		yes		yes
Unpaid labour involved in externalised tasks connected with the consumption of goods or services – <i>consumption work</i>	yes			Indirectly – by increasing productivity of paid workers

It must be emphasised that this typology refers to types of *labour* not types of *worker*. The same person may well be involved in performing several of these types simultaneously. In fact most people perform both types of unpaid work (*subsistence labour* and *consumption work*) on a daily basis, as well as at least one of the others, at some stage in their lives. It should also be stressed that the same tasks may be implicated in more than one type of labour. For example changing a baby's nappy may be carried out unpaid by a family member or friend (*subsistence labour*), a paid nanny (*servant labour*), an employee in a private nursery (*capitalist service labour*) or an employee in a state nursery (*public service labour*). Work in a nappy factory is *capitalist production labour*, while operating the automatic self-service check-out machine in the supermarket when purchasing manufactured nappies and lugging them home is *consumption work*.

Changes between these different types of labour are highly dynamic, influenced by social and economic factors as well as changes in technology. Since paid work is recorded in the statistics whereas unpaid work is not, some may flicker in and out of economic visibility as circumstances change. For example the impacts of austerity might result in public nurseries being closed, forcing parents to return to looking after children themselves or use informal family networks (a switch from *public service labour* to *subsistence labour*). Conversely, a mother who gets a job (perhaps even in a nappy factory or as a childcare worker) might start employing a nanny or send her child to a private nursery (switching from *subsistence labour* to *servant labour* or *capitalist service labour*). She might even, if earning enough to pay for it and really pushed for time, start using an online platform to deliver her shopping for her, thus transferring some labour from *consumption work* to *capitalist service labour*). If she decides, perhaps for environmental reasons, to give up purchasing disposable nappies in favour of washable cloth ones, there will be a proportional drop in *capitalist production labour* and *consumption work* and a concomitant increase in *subsistence labour* (unless of course she is able to pay someone else to do the washing for her, in which case the rise will be in *servant labour*).

Despite this volatility, there are clear historical trends in the shifts in labour between these categories, which are summarised below.

Substitution of buying for making or doing

All social divisions of labour, by definition, involve some people carrying out specialist tasks, the results of which are then exchanged with other people: freely, by appropriation (forcible or otherwise), through barter or by monetary payment. These may involve the production of goods or the delivery of services. However this is a distinction that is not always easy to make when we speak of domestic production outside the market. Feeding a household, for example, involves a wide range of tasks including foraging, hunting, cultivating plants, tending and slaughtering animals, preparing, preserving and cooking ingredients and serving the results, including feeding them by hand to infants and invalids. Clothing the household may involve preparing yarns, spinning, weaving, sewing and knitting (which may be regarded as 'manufacture') as well as mending and altering, washing and ironing (which might be seen as 'services'). The inclusion of these tasks in the social division of labour also entails separating and standardising them and creating specialist occupations for supplying them.

Thus, as societies become more complex, a larger and more varied range of provision emerges to supply these goods and services. Broadly speaking, before the advent of mass-production, when each of the items to be purchased had to be individually crafted, there was rather little difference between goods and services in terms of the relative costs of making and buying, apart from differences in skill and access to raw materials, since the processes involved were not fundamentally different whoever was doing the work.

It is in the capitalist era that mass production became widespread: using new types of machinery, the production process could be broken down into separate tasks, introducing a division of labour under centralised control, to create standard products which, once the initial investment in design and machinery had been recovered, could be produced much more cheaply than ones which are individually crafted: commodities. The cheaper these become, the more incentive there is for people to buy these ready-made items rather than making them themselves. But to do this consumers need the cash to buy them with, increasing their dependence on earning a living in an external labour market (or, put another way, making it more difficult to live self-sufficiently providing their own subsistence through their own household labour).

The substitution of buying for doing or making in the home is a process which is still ongoing, if anything accelerating in the present phase of capitalist development, with its throwaway consumer culture and ready meals, driven on the supply side by the increasing cheapness of mass-produced commodities and on the demand side by the scarcity of time in households where all adults are increasingly likely to be exhausted from overwork in their paid jobs.

This development represents a shift from *subsistence labour* to *capitalist service labour* and *public service labour*, with *servant labour* playing an intermediary role.

Substitution of goods for services

An important dimension of this trend is the substitution of goods for services, a trend which is also closely associated with technological change.

Typically, in the first stage of buying rather than making or doing, the tasks involved are not dissimilar to those carried out when the work is done unpaid, although it is possible to achieve economies of scale (and for capitalists to make a profit) if such workers can be brought together and

employed by a specialist company that can sell their services to customers. But there is a limit to how much profit can be made per worker in labour-intensive services compared with the outputs of factory workers turning out physical commodities whose unit cost goes down proportionately to how many items are sold. There is also a limit to how many people can afford to purchase such services when the hourly wage paid to the service workers may be more or less the same as that of the customers. How can you afford to employ a cleaner or a nanny if you have to pay them as much as you yourself earn for the equivalent amount of time saved?

This is where new technologies come in. A machine that promises to reduce the amount of labour-time it takes to achieve a given task can dramatically increase the productivity of service workers or indeed substitute entirely for them if the customer can be persuaded to operate this machine. Following the development of a number of such labour-saving technologies in the 18th and 19th centuries, the 20th century saw a major wave of development based on the diffusion of electricity, resulting in electrical appliances such as vacuum cleaners, irons, radios and washing machines. Actively promoted by women's organisations, such as the Electrical Association for Women, founded in 1924 (Pursell, 1999) these were widely regarded as contributing directly to the liberation of women from housework. By the 1990s, when the neoliberal era of dirt-cheap global manufacturing had fully kicked in, the cost of such products was low enough not only to make them available to working class households around the world but also to render many of them effectively disposable: cheaper to buy a new one than attempt to get the old one fixed. Digitalisation has added to the supply of such technologies as well as increasing their complexity. It is not, of course, the only type of technology that leads to the substitution of goods for services. The pharmaceutical industry, for example, makes it possible to substitute the use of psychotropic drugs for the labour of mental health nurses.

Such developments represent a major expansion of *capitalist production labour* and, associated with this, *consumption work*. However this does not necessarily entail the elimination of *servant labour* or *capitalist service labour* which may still be required for such functions as delivery, installation and maintenance of machines. Households may still employ people, such as cleaners or gardeners, to work in their homes using these appliances (*servant labour*). More importantly, although it may make it less physically intensive and dirty, this development, despite its promises of 'labour saving', does not eliminate *subsistence labour* either: unpaid work is still involved in using these machines as part of daily household labour.

Public services – decommodification and recommodification

The 20th century did not just bring a massive expansion of capitalism, flooding daily life with commodified goods and services and, in the process, binding the population ever more closely into global markets. It also witnessed developments, in part resulting from the reactions to that very capitalist commodification, especially in developed western economies, whereby many activities relating to social reproduction, previously carried out in the household, were socialised in a process of 'decommodification' (Esping-Andersen, 1990) whereby social entitlements protected citizens from dependence on the market. Public services such as health, education and childcare that are provided as rights of citizenship promote social equality by insulating the recipients from the need to pay for them. Because they are delivered directly by public bodies or NGOs, the values they produce are social ones; they are not producing value for capitalists.

The political and social compromises which shaped the different welfare regimes in the West in the mid-20th century varied from country to country (Esping-Andersen, 1990) and the variations between them, in turn, had differing gender impacts, depending, for example, on whether they were

based on a 'housewife-breadwinner' social model, as in Germany, or an individualised model, as in the Nordic countries (see Sainsbury 1994; Lewis, 1993). The US model provided fewer social protections (such as maternity rights, child benefits) and limits on working hours (Schor, 1983) than many European countries, encouraging a greater use of *servant labour*, largely carried out by black and Hispanic workers (Duffy, 2007; Nakano & Glenn, 1992) that also reflected an evolution from earlier ethnic divisions of labour based on slavery (Davies, 1983).

Nevertheless, in most developed Western economies, the post-war period saw a very rapid growth in public sector employment², which, for example, reached nearly 30% of the total UK workforce by 1977 but had fallen below 20% by 2012 (Cribb, Disney & Sibieta, 2014:7), a workforce that employed proportionally more women than men³. This fall represents a major recommodification of what had previously been decommodified, resulting in a large shift from *public service labour* to *capitalist service labour*. Cuts in public funding also led to a transfer of *public service labour* back to *subsistence labour*.

At first, much of this reduction was achieved as a result of the wave of privatisations that took place under neoliberal regimes during the 1980s. Later, recommodification often came about more stealthily, as a result of the outsourcing of public service functions to private companies. For example in the UK, by 2008 it was estimated that outsourced public services accounted for nearly 6% of GDP, employing over 1.2 million people – an increase of 126% since 1996 (Julius, 2008). Digital technologies played an important enabling role in this development, enabling simplified and standardised tasks to be relocated and/or outsourced, leading to the development of a global division of labour in functions such as IT support, call centre work or data processing (see, for example, Lacity & Rottman, 2008). As tasks became more generic, it was possible for the multinational companies that grew up to supply them to provide them to governments as well as companies. This led to a whole range of previously public information-processing tasks being outsourced to the private sector. Digital technologies also enabled new forms of work organisation whereby manual workers could be tightly tracked and managed on a just-in-time basis, once again opening the door to large international companies to provide outsourced services such as cleaning, care work and security.

When services are provided for profit by private companies, workers' motivations are placed under a stress which becomes extreme when resources are scant. The altruistic impetus to help the client, theorised in a neo-Weberian feminist framework by Hildur Ve (1984) as 'caring rationality' comes into headlong collision with the employer-set imperative to maximise productivity and meet performance targets. In the context of contracts set within neo-liberal government policies aimed at minimising welfare spending, this can morph into practices that are actively harmful to recipients of state services, such as the setting of targets for 'sanctioning' (withdrawal of benefits) from claimants imposed on UK Jobcentre staff (Butler, 2015).

In addition to the quantitative impacts that make public services ever more difficult to access, the recommodification of public services thus also has qualitative impacts that directly contradict the intentions embodied in the original political project of decommodification.

² Note the definition of 'public sector' used here *excludes* some groups, such as GPS working for the National Health Service, University employees and outsourced workers, because they are not direct government employees, even though they are paid from public funds.

³ In the UK, similar to other OECD countries, in 1979, men made up 54% of the public sector workforce, compared with 65% in the private sector. By 1997, the proportion of men in the public sector had fallen to just 38%, compared with 58% in the private sector. (Cribb, Disney & Sibieta, 2014:17)

The domestic time squeeze and the re-emergence of servant labour

A number of factors have converged to bring about a squeeze on the time available for housework (see for example Menzies, 2005; Gregg, 2011; Sharma, 2014; Wajcman, 2016). These include the growing labour force participation of women, migration to cities, cutting off the possibility of accessing the labour of the extended family, the increasing intensity of work, and an accelerating tendency for work obligations to spread beyond the confines of the formal working day, with workers expected to be on call or to check for emails or SMS messages from employers or clients outside normal working hours. The trend towards project-based working and management by results also leads to a culture in which workers put in unpaid overtime in order to meet deadlines or fulfil performance targets (Legault, 2013). To these extra external demands on time, we can add the effects of the additional labour required because of the reduction in decommodified public services just discussed.

In the twenty first century, it may be questioned whether the gender division of labour in the home even remains a relevant issue. There is, after all, some evidence that the gap between men and women in unpaid household work is narrowing. An exhaustive analysis by Altintas and Sullivan (2016) showed that, despite wide differences between countries, there has been a general move towards increasing gender equality in the household division of labour, although this appears to be slowing down in more gender-equal countries. In the USA, for example the gender gap in minutes of housework per week shrank from 195 minutes in 1965 to 65 minutes in 2010. However this was not so much because men were doing more (the male mean increased by only 24 minutes during this period) but because women were doing less, with a mean drop of 105 minutes (Altintas & Sullivan:458). The most recent international compilation of statistics (OECD, 2014) shows very large disparities between countries, as expected, but no sign that the average gap has disappeared anywhere. The ratio of women's to men's hours of housework stands at 10.25 in Pakistan and 6.22 in Turkey, 1.61 in the USA and 1.85 in Great Britain but remains at 1.49 even in egalitarian Sweden. Even in the best cases, therefore, women are still doing one and a half as much housework as men. Such simple quantitative comparisons disguise other differences, such as the extent to which household services are provided by other people's paid labour, through the use of externally-provided services, the purchase of labour-saving appliances or convenience foods.

This time squeeze has in turn led to a growth in demand for paid help with household chores. Because much of this work is carried out in the informal economy, paid in cash, it is difficult to find reliable statistics on the precise scale of this growth, but survey evidence suggests that it is significant. For example one UK survey found that in 2011 (a period when the economy had not yet recovered from the 2008 financial crisis), approximately 6 million people were employing a cleaner compared with 5 million a decade earlier. A third said that they did so because they did not have the time to do the work themselves, a proportion that rose to nearly half among those aged 18-32 (Wallop, 2011). Another survey, using a broader definition that included window-cleaners, gardeners and handymen, found that one UK household in three was paying for some form of domestic help in 2016, with particularly high rates among the under-35s. Even among households with incomes of less than £20,000 per year, one in four were doing so (Poulter, 2016). To this can be added other kinds of privately-procured paid service work carried out in the home such as babysitting and care for the elderly.

When this labour is supplied by directly-employed individuals, this represents a substantial shift of labour from *subsistence labour* to *servant labour*.

Externalisation of tasks to consumers

There is another strong historical trend which affects the distribution of labour between the six categories described above: the externalisation of tasks by companies, transforming activities previously carried out by paid workers into unpaid tasks carried out by consumers (Huws, 1984; 2003). Identified in the 1970s by Batya Wienbaum and Amy Bridges (1976) as 'consumption work' and by Jonathan Gershuny and Ian Miles (1978) as the 'emerging self-service economy', this received rather little scholarly attention for some time though it has been picked up more recently in the business studies and sociological literature (e.g. Oliver, Livermore & Sudweeks, 2009; Glucksman, 2016) as well as making an appearance in the literature on 'prosumption' (e.g. Ritzer & Jurgenson, 2010; Comor, 2010).

It is a trend that is underpinned on the one hand by practices of work organisation and management that strive to maximise the productivity of paid workers, including standardisation and the substitution of production-line techniques for craft ones, and, on the other, by the introduction of new technologies. In manufacturing industries, for example, the use of standard components has made it easier for companies like Ikea and Brandstätter (manufacturers of Playmobil) to transfer onto consumers tasks such as the self-assembly of flat-pack furniture or plastic toys. In retail, customers, who grew accustomed from the 1960s to weighing their own vegetables and collecting their own purchases in self-service stores, are now also expected to operate self-service checkout machines. In the travel industry, customers book their tickets online, retrieve their boarding passes, print out own baggage tags and heave their bags onto the conveyer belts at the airport check-in – all tasks that would in the past have been carried out by paid service workers. Those needing cash contribute their unpaid time to queue at ATMs while those needing customer service have to choose between battling their way through frequently-asked-question menus on websites or waiting (unpaid) in virtual queues to receive the attention of a stressed (but paid) call-centre worker.

Meanwhile, the development of the Internet has enabled a large-scale transfer of other consumption-related tasks to consumers, such as the entry of information needed for online shopping, filling in forms for self-registration on databases, taking out insurance policies and filing taxes – thus dispensing with the need for a variety of paid data-entry and verification labour.

This represents an increase in time spent on activities in *consumption work*. Even if labour time is 'saved' in *subsistence labour* activity, through the use of labour-saving appliances, some of that time may well be reallocated to *consumption work* by the need to source, purchase, assemble and maintain those appliances and the consumable products needed for them to function effectively.

Current trends

Taken together, these trends have created a situation in which housework – and more specifically the time available for carrying it out – sits at the intersection of several powerfully conflicting forces. On one hand, the imperative to earn money, the exhausting nature of paid work, and the encroachment of the demands of paid work all reduce the time and energy available for housework, thus providing an incentive to minimise it by buying ready-made 'convenience' products rather than making things from scratch, purchasing labour-saving appliances and/or hiring help. However all these things cost money, setting in motion a vicious cycle whereby it becomes necessary to seek even more paid work in order to pay for them. On the other hand, the imperative to acquire things as cheaply as possible pushes in an opposing direction: towards self-service, which means taking on even more unpaid labour. The result is a time squeeze that puts pressure on the quality of life both at home and at work and also impacts personal relationships and psychological, as well as physical,

wellbeing. Add to this the effects of the austerity policies imposed by many governments in the aftermath of the global financial crisis of 2007-8 and the result for many households, at least in the West, has been a time/money crisis: a contradiction that is almost impossible to resolve within the constraints of existing practices⁴.

This is the context in which we must consider the current wave of restructuring associated with digitalisation. The restructuring of capitalism (in which digital technologies play such a strong enabling role) that took place after the 2008 financial crisis has multiple implications for the labour involved in housework.

In a new wave of technologically enabled commodification, it has facilitated the development of a sophisticated range of new household appliances, many wirelessly linked and voice-activated, that purport to simplify aspects of domestic labour, for example by enabling surveillance of the home and allowing tasks (such as activating central heating) to be activated remotely: building blocks of the Internet of Things (IOT) that will tie households ever more closely, transparently and interactively into the global market via the commodities their members covet, consume, and discard. This creates new kinds of *capitalist production labour* but also new kinds of *consumption work*.

Simultaneously, the development of online platforms for the management of work is transforming the organisation of household services, bringing about dramatic shifts between the types of labour described above. Although it had earlier roots (Huws, 2017), the emergence of online platforms for the provision of household services can be dated most plausibly to 2008. It was, in other words, born in the crisis. This was a period when credit was hard to come by and business models became attractive that avoided large capital investment in assets that would deteriorate (such as cars, tools and new hotel buildings) but, instead, found ways to exploit other peoples' investments in these things, taking a rent from their use. The spread of digital technologies made it possible to create websites that could match suppliers with customers for physical services, building on models that had already been developed, in the early 2000s, by companies like Elance (founded in 1999), Odesk (founded in 2003) and Amazon Mechanical Turk (founded in 2005) for matching labour supply and demand in digitalised business services.

In 2008, Taskrabbit was founded, one of the first of many platforms set up to provide casual labour for household tasks, famously followed in 2009 by Uber, providing taxi services.

The high demand for reproductive service labour in the USA, where working hours were long and welfare benefits few, compared with some European countries, created fertile conditions for a rapid expansion. Since then, a large number of other platforms have been launched, providing through the market a wide range of services that make it possible to substitute paid for unpaid labour, for example in food delivery, cleaning, personal care, childcare, running errands, gardening, dog-walking, repair, building maintenance, filing and sorting and putting up shelves. Many of these activities were substituting for activities which, when unpaid were *subsistence labour*. However some are forms of *consumption work*. It is possible, for example, through a platform such as Lineangel or Placer, for time-strapped users to pay a 'tasker' to wait in a queue for tickets on their behalf, or stay in their house to await a delivery. One of the most popular tasks on the Taskrabbit platform is the assembly of flat-pack furniture, no doubt one of the reasons the company was

⁴ There is insufficient space to enumerate here the evidence for this that can be found in social statistics illustrating sharp increases in indicators of household crisis such as homelessness, child poverty, use of foodbanks and suicide rates.

acquired by Ikea in 2017 (giving it a chance to charge customers twice over in relation to a single purchase). Indeed, the fact that people are prepared to pay others to do it provides compelling evidence that consumption work really is perceived as unwelcome labour.

Such online platforms have spread very rapidly. Research carried out by the author in seven European countries in 2016-17 (Huws et al, 2017) found that between 2.4% of the working population (in Sweden) and 8.9% (in Italy) were carrying out work in other people's homes at least weekly (a subset of a larger category doing other kinds of work for online platforms, including other services, such as food delivery, that could also be regarded as related to social reproduction but were left out of this analysis which aimed specifically to focus on the more hidden types of labour that take place within the household). The proportions who were purchasing such household services at least annually ranged from 10% in Germany to 23.8% in the UK, with an average of 16.7% across all seven countries.

However, unlike most forms of *servant labour*, the relationship between platform service providers and users is not necessarily one between different social classes. There was no significant association between household income and using an online platform to find someone to work inside the home and, indeed, most of the people who worked for these platforms were also customers for them. On average 84.9% of those who supplied household services at least weekly were also customers for them at least yearly. At least in Western Europe, it would therefore be more accurate to regard this form of marketisation of household labour as something taking place *within* the working class rather than between classes.

In many cases, using a platform is directly substituting for more direct or casual means of obtaining these services that prevailed in the past. It represents, in other words, a shift from *servant labour* to *capitalist service labour* or, put another way, a formalisation of the informal economy. The European surveys showed a correlation between a high use of platform labour for social reproduction work and a historically large informal sector – in the Mediterranean South and in rural areas. If it is true that the greater the size of the informal sector the greater scope there is for global platforms to transform *subsistence labour* and *servant labour* into *capitalist service labour*, this has major implications for global regions in Africa, South Asia and Latin America where the informal sector accounts for a much larger proportion of all employment and thus offers an immense new field of accumulation for global capitalism.

The shift to *capitalist service labour* has consequences that go beyond the merely quantitative. Workers who provide these services are brought directly within the disciplinary scope of transnational corporations: closely monitored, expected to be available at short notice, subjected to continuous review through the use of customer ratings, and with tasks tightly defined, but lacking the job security or collective voice that would come from working in a regular unionised workplace (Huws et al, 2017). Often responsible for buying their own tools and working materials and liable to be unpaid if the customer rating is negative, these workers incur very low costs for their employers compared with regular companies. This makes their services very cheap. This very cheapness, combined with the platforms' ability to draw on large data sets to use targeted advertising, makes it possible to extend the market for these services. People who, in the past, would have hesitated to employ a cleaner because they thought it would be too expensive, were embarrassed to be put in the position of a 'boss' or simply did not know how to start looking for one can be tempted with a special offer of '£10 worth of ironing to free up your weekend'. And it is easy to see how, after an exhausting shift at work, the plan to cook a home meal can dissolve, first into the thought of picking up some convenience food at the supermarket on the way home and then, after contemplating the queue, and in response to a pop-up message on the smartphone on the bus, giving into the

temptation to click on the app and order a pre-cooked meal to be delivered to the door by Just Eat, Foodora, Deliveroo or Uber Eats.

A pattern seems to be emerging whereby the needs of time-poor households are met through the labour of the money-poor. The intensification of work and poor work-life balance that leads working women to depend increasingly on the market for their social reproduction directly feeds the development of a form of labour that is characterised by even poorer working conditions. The workers who rely on online platforms for most of their income, many of whom are from racialised minorities, are among the most precarious (Huws, Kampouri & Spencer, under review, working long and unpredictable hours interspersed with periods of enforced worklessness and poverty. Their own work-life balance is likely to be even worse than that of the customers they serve, increasing their own dependence on the market and tightening still further the knots that tie them into the global digital capitalist economy.

Conclusions

By bringing together insights from feminist theory with those from political economy and the sociology of labour and technology, this analysis reveals gaps in all these fields. While drawing attention to the continuing failure of Marxist political economy to look seriously at unpaid reproductive labour, it also points to a failure in the growing scholarship on digital labour to address the implications of online platforms for the gender division of labour inside and outside the household. Finally, by reconceptualising labour, it opens up new questions for investigation by feminist scholars interested in the problematic interface between productive and reproductive labour.

This analysis also has implications for feminist strategy, challenging us to look critically at the demands raised by feminists in the past in relation to domestic labour.

First, it becomes clear that the demand for socialising it and creating good jobs in the public sector to deliver household services is vulnerable on two fronts. On one hand, the trend for substituting goods for services may provide a way for these services to be bypassed, consigning to the market functions that the original plans hoped to decommoify. On the other, as recent history has shown, public services are very vulnerable to privatisation and outsourcing – another form of recommodification. Campaigns for further decommoification run the risk of becoming merely rear-guard actions to minimise cuts and reverse the incursion of the market, unable to advance radical programmes for improvement.

Second, the demand for payment for housework emerges as problematic if treated in isolation, even if this is reformulated as a demand for basic income for all, regardless of gender or family circumstances. If this demand is made in isolation from efforts to protect the provision of collectively-provided universal public services it can become simply a means to allow citizens to purchase more and more household services and goods in the market. And, as we have seen, market forces left unchecked do not necessarily free us from the burden of housework. While some tasks are rendered easier, new ones are imposed, with the resulting time squeeze creating a vicious circle in the political economy of social reproduction whereby the cost of the goods and services required to compensate for the shortfall in time results in a further loss of time. Depending on how any basic income is paid for, its introduction could be redistributive towards the lower paid, and towards households with children and, like the demand for better public services, would be progressive. However it could not, on its own, address the contradictions of commodification and the capitalist market. In other words, the problem cannot be solved just by throwing money at it.

Finally, it is apparent that there is no simple technological fix for the problem of housework. While technologies are controlled by corporations and serve the interests of creating profit, they cannot fulfil their promise of eliminating the need for drudgery. The dynamics of capitalist restructuring create low-paid jobs for workers even while they create cheap commodities, with the earnings of the former never quite catching up with the cost of the latter, in a ratcheting spiral of exploitation.

Housework, it turns out, is at the epicentre of capitalism. And the labour of social reproduction, which underpins it, also represents its future potential for expansion. Feminist strategies for addressing it will therefore have to take on capitalism itself if they are to bring about the liberation of women and, in doing so, feminists will have to combine demands for public services, demands for basic income *and* demands for bottom-up design of technologies that serve the needs of households and communities rather than those of big business.

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