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Gender Matters in the Global Outsourcing of Service Work

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Abstract

The aim of this paper is to weave together a range of literatures that operate at the intersection of gender, labour markets, service work, ICTs, and globalisation. In doing so, we ask whether women benefit from the changes associated with the feminisation of labour and the internationalisation of ICT-enabled service work, given the broader context of economic transformations. When discussing the global ICT-enabled service sector, we make reference to three illustrations – call centres, shared service centres and the ICT sector generally. Issues of gender inequality in the global labour market are queried, given an environment of a growing informal economy, the feminisation of work, and the domestic division of labour. We challenge the suggestion that changes in global capitalism, facilitated by ICT-enabled employment, offer new opportunities that benefit women and suggest a degree of caution is needed before assuming a reduction of gender inequalities. Finally, we outline a research agenda that incorporates the specificity of women's working lives.

Keywords: gender, ICTs, labour markets, informal economy, service work

Gender Matters in the Global Outsourcing of Service Work

1. Introduction

In this paper we provide a review of literature concerned with the global outsourcing of service work, facilitated by ICTs, in order to highlight the importance of gender matters in this emerging field. Changes in the global division of labour that came into existence in the 1970s, facilitated by continued improvements in ICTs, have contributed to the feminisation of employment (Perrons, 2004) as international trends have been for female labour force participation to rise, while the male participation rates are falling (Standing, 1999; Standing, 2006). The feminisation of employment expanded initially with the manufacturing sector, and more recently with the internationalisation of services. This has been in parallel with the processes of labour market regulation and flexibilization (Bernería, 2003), which has led to institutional changes at the micro level, including outsourcing and changes in the composition of the workforce. However, it is important not to over-privilege the impact of technological innovation but identify how market changes and competitive forces shape rather than determine the organisation of work and employment relations (Ellis and Taylor 2006).

Our particular focus is on a gendered analysis of the outsourcing of service work to developing economies. Service work is a vast sector and is often polarized between higher paid ICT-enabled 'knowledge work' and lower paid catering, cleaning, caring and domestic work, the latter type of work being where female labour is largely concentrated. The outsourcing of service work is facilitated by the declining costs and increasing capacity of ICTs and, in order to further focus our attention, we concentrate primarily on three sectors that have been developing through the use of ICT's – call centres, shared service centres and the ICT industry itself. Drawing on critical gender and development literature and concerned with the gender dimensions of service work, we discuss whether women benefit from the feminisation of work that is a feature of the global cultural economy. Without doubt, for many women the opportunity to participate in the labour market has been positive, yet these opportunities need to be analysed within the broader context of globally connected capitalism and the 'long-term profits squeeze' (Thrift, 2006).

While we acknowledge that there is much evidence of heterogeneity in terms of development experiences, nevertheless we argue that, just as the world of work is sex-disaggregated, the global outsourcing of service work has the potential to enhance existing gender inequities. As more women participate in paid employment, equality of opportunity remains elusive (Elson, 1999; Heintz, 2006; Perrons, 2004). The new international division of labour and the accompanying structural, material changes are gendered, with differential consequences for women and men (Bernería, 2001). While gender differences vary, according to local circumstances, both within and between regions, nevertheless, women have clearly defined roles and responsibilities in a gender division of labour in all cultures of the world (Huyer, 2006). Therefore it is our intention to highlight how these material and structural changes could potentially exacerbate inequalities. In order to develop our understanding further we set out a research agenda calling for a more clear appreciation of the intersection of women's working lives with the formal and informal, and the paid and unpaid areas of work they are engaged in, drawing on experiences of women globally in their struggle against poverty and for gender equality.

Underpinning our approach is the socially constructed relations between women and men, acknowledging that women and men are positioned differently in society, and that not all women or all men share the same experiences. A gender perspective does not simply focus

on differences between women and men, but considers how this differentiation acts as the basis for the unequal distributions of power (Wajcman, 1998; Pearson, 2006; Perrons, 2004). In particular, our focus of concern is gender and labour markets, an arena that is gendered in the way in which markets operate at the intersection of how people earn a living and care for others (Elson, 1999). In contrast to the neo-classical perspective on theorising labour, which emphasises that the market operates on the basis of free and equal exchanges, we consider the exchange of people to be a potentially contradictory and tense process. Situated within the broader context of global capitalism, the feminisation of employment, and the expansion of the service sector, our aim is to illustrate that these changes may not necessarily help overcome gender inequities, but may in fact exacerbate them further.

Our analysis questions the assumption that ICTs create new societies (variously referred to by different commentators as the knowledge economy, the information age, or the network society¹) and contains dramatic claims regarding the effects of technological change (MacKenzie and Wajcman, 1985; Wajcman, 2006). Much global economic discourse starts from the inevitability of globalisation (Hirst and Thompson, 1999), containing conjectures regarding the neutrality, autonomy or largely unassailable influence of technological development. There is an imperative to connect with ICTs and digital divide rhetoric tends to stress links between engaging with technology and economic prosperity. The mainstream argument is that of a utopian vision of opportunities for developing countries to ‘leapfrog’ and thus make strategic gains, with women in particular capitalising on the growth of service work (Adam et al 2007). As Wajcman (2004) suggests, one might be forgiven for thinking that the future of work, particularly in the ICT sector, is female. This utopianism swings to the more pessimistic views of ICT-related ‘jobless growth’ and the ‘race to the bottom’ of de-localized outsourced and offshored jobs with women providing a pool of labour from which the ‘new’ economy will maintain and extend capital gains (Adam et al 2007). This sense of inevitability limits our understanding of global economic change and allows technocratic discourse, globalisation and free market economics to coalesce into an extremely powerful ideological force (Johnson 2000). Therefore, in this paper we stress the importance of steering a course between these seductive arguments in order to more closely examine how women’s everyday lives entwine with sociotechnical change, for better or for worse (Adam et al 2007).

The paper proceeds with a discussion of what shapes ICT-enabled service work, looking at the specifics of employment in call centres, shared service centres, and ICT sector work. This follows with an overview of women’s working lives in the global cultural economy, focussing on the informal economy and the feminisation of labour, whilst paying due attention to the totality of women’s lives in the broader context of domestic labour and the household. Throughout, we consider whether – through the deployment of ICTs – the feminisation of work and the expansion of the service sector, benefits women workers (or not). Finally, we set out a research agenda, as conclusions are drawn.

2. ICT-Enabled Service Work In Context

Our concern is with global outsourcing and we narrow our focus to ICT-enabled service work, since ICTs have enabled the collapsing of time and space and facilitated the movement of service work to different geographical locations², notably in developing economies. In this section we consider the ‘new orthodoxy in the making’, discussing how a technologically deterministic discourse largely dominates government, agency and organisation led analysis of global economic development. However, history shows that development is inexplicable without reference to broader political and economic environments (Ellis and Taylor 2006). Issues of global capitalist expansion and competition - coupled with specific conditions such as deregulation, restructuring and financialisation of markets - enable consideration of the continuous process of adaptation of which global sourcing of ICT-enabled service work is part. In order to achieve a more grounded understanding of what this means for women and

their localised everyday lives, we adopt a broader feminist political economy perspective that enables us to move beyond the parameters of the workplace in the formal sector to consider wider constraints, both within the global cultural economy and the household itself.

In discussions as to what features constitute globalisation of the economy there is emphasis on new clusters of scientific and technological innovations - particularly ICTs - and the convergence of ways of life around the globe (Wajcman 2002; Perrons 2004). ICTs have enabled market expansion, removed geographical constrictions and reduced the need for infrastructure (Miozzo and Ramirez 2003). Networking technologies have permitted wider technological and organisational diffusion throughout the service sector as large amounts of data are shared and transmitted (Ellis and Taylor 2006) at minimal cost. ICTs have made possible the production of services in one place while simultaneously being consumed in another (Miozzo and Soete, 2001).

Given that in the majority of countries in the world, women are still at an economic disadvantage as compared with men (ILO, 2004), some argue optimistically that these new arenas of employment – facilitated by ICTs - have the potential to provide distinct opportunities for women workers (e.g. Toffler, 1980). These so-called opportunities arise in a number of ways. Firstly, the global expansion of capitalism has been dependent on a huge influx of women into the workforce, women who have traditionally been dependent on husbands and male relatives, thereby providing a degree of financial independence. Secondly, ICTs release women from time and location constraints traditionally associated with the workplace, thus allowing women to better combine paid work with caring responsibilities. Thirdly, proponents of the information or network age, predict the rise of flatter organisations, based on teamwork rather than competition, allowing for more women to be represented in management positions.

However, this view of restructuring that is based around emerging ICTs suggests that new technologies create new societies rather than change the terms in which social, political and economic relations are played out (Wajcman 2002; Mansell 2002). There are numerous theories of globalisation, the knowledge economy and the network society, with rhetorical claims regarding the effects of technological change (Wajcman, 2006), yet as Stanworth (2000) points out, what technology makes possible should not be confused with material change. This view of technology, organisation and globalisation suffers from a naïve determinism, which assumes unidirectional trends are taking place. Mainstream analysis is led down either optimistic or pessimistic scenarios to assumptions about opportunities for women in the labour market that are divorced from their socio-cultural experience. The impact of technologies on work and skill is complex and uncertain (Wajcman, 2006). The role of technology in the change process needs to be treated as endogenous and contingent, not as an independent given; it depends on conditions of the labour market, the industrial relations system, and the education and training system (Rubery and Grimshaw, 2001).

On the surface, the increasing adoption of ICTs may appear to enable work to be conducted ‘anytime anywhere’ as the globalisation process enables investors and companies to globally relocate to lower labour cost regions or shift focus from the formal to the informal economy. The trajectory of technological and organisational innovation has gone hand-in-hand with liberalization featuring, for example, easing of restrictions on internal and external trade and de-regulation of labour protection, which provides opportunities for unprecedented growth in contract labour and sub-contracting (Jhabvala and Sinha 2007). This has facilitated a reduction of the core size of the firm as the periphery is expanded to new outsourced sites in other countries (Bermeria, 2001). The restructuring of the labour market and the labour process has seen moves to transfer some aspects of ICT-enabled service sector work to less developed countries as firms search for cheaper and more flexible ways to accumulate capital. What was once regarded as non-tradable work is being reinterpreted, as increasing number of tasks are conducted electronically over large distances (World Bank 2007). In the quest for

new sources of profit, labour is sought in cheaper localities, aided by neo-liberal policies, which aim to support the deregulation of trade and financial transactions.

The majority of new women workers are employed in the service sector (Horgan, 2001; UNCTAD 2003) – many in jobs that were once considered to be well-paid, high status and male dominated. In areas of ICT-enabled service work, such as financial and IT services, women have displaced men in areas which have now become lower paid and deskilled. Therefore, it is important to contextualise changes with the context of labour markets generally, since they are ‘bearers of gender’ operating at the intersections of the productive and reproductive economies. They are ‘gendered institutions’ often constructed on assumptions that women are secondary earners and can draw on assets and earning of men if necessary (Elson 1999). This manifests itself in various ways but often results in women being concentrated in occupations of low pay, unequal pay, with gender pay gaps, in work of high risk and insecurity and with few opportunities for advancement. Within the service sector there are high levels of polarisation with wide earnings distribution and different working conditions, but generally, service work is comparatively low paid and less secure than other types of work (Sassen, 2001). International divisions of labour are becoming increasingly apparent (Castree et al., 2004; Huws, 2003) as the outsourcing of tasks spans the globe. The development and location of service work is a ‘new powerful determinant’ of the international division of labour and regional inequality (Miozzo and Soete, 2001). In particular, the global sourcing of ICT-enabled service work has benefited from a feminisation of work as skills are re-valued and de-valued with women losing pay and status previously enjoyed, through the global capitalist imperative to drive down costs.

Next, we will focus on these material changes by outlining three different economic profiles within the service sector, illuminated by a gender analysis of global change. Our first example will consider the outsourcing of call centre work, which has received much media attention as some North American and Western European firms move offshore to cheaper overseas competitors. Our second example concentrates on shared service centres, a more recent development as so-called back-office jobs consolidate and move overseas. Finally, we consider the IT/ICT industry, an emerging sector that has, on occasion, enjoyed rapid expansion, particularly in some developing economies, such as India.

Call centres

A popular example of outsourced service employment, concerns call centres, particularly those offshored to locations such as India, the Philippines, China and Eastern Europe. From the 1980’s on, their proliferation as the preferred mode of customer contact relates as much to politics and economics as technological innovation (Ellis and Taylor 2006). Identifying and responding to consumer needs is recognised as a ‘global business imperative’ (Sturdy, 2001) and there is a wealth of management discourse that identifies the customer as omnipresent (duGay and Salaman, 1992; Legge, 1995). Such discourse complements deregulation and the privatization of public services (Huws, 2003) as public sector organisations are put under greater pressure to function more like private organisations (Lin et al., 2007). This has resulted in restructuring at both the industry and firm level with intensification of competition and the usual imperatives to maximize profits and reduce costs. These changes are coupled with skill shortages, which are identified as an important driver to the outsourcing and offshoring of ICT-enabled service work to cheaper locations. Clearly, globalising processes have resulted in investment patterns that ‘privilege capital’ (Carr and Chen 2001), hence the appeal of the offshoring of ICT-enabled service work, with the intention of taking advantage of different time zones and lower wages. In this respect, rather than being seen as an alternative ‘customer servicing paradigm’, call centre development cannot be abstracted from the dynamics of capitalist accumulation (Ellis and Taylor 2006:111).

While on the surface, the rapid expansion of this sector in developing economies and its potential for providing white-collar work for women workers may appear beneficial, on closer inspection it appears that the ability of this sector to 'empower' women is questionable. When considering the labour process, previous studies of call centre work show how the combination of front-office (voice) work carried out mainly at night and back-office work latter during the day (Taylor and Bain, 2004) enables firms to operate around the clock in offshored locations. Many of the types of calls that are handled in India, for example, are low-level transactional enquiries, which are fairly repetitive, with short cycle times (between 30 and 180 seconds). This intense activity of call handling for overseas customers occurs during shifts of between 8-10 hours duration, six days a week (Taylor and Bain, 2004). Much of the 'front-line work' (Frenkel et al., 1999) is carried out by women since their social and emotional skills are often designated as gender attributes (Belt et al., 2002). These skills are often unrecognised and unacknowledged, but they are arguably gendered and indeed perpetuate the 'gender ghetto of women's service work' (Webster, 2004). In this context, gender becomes embedded in the restructuring of global service production and is mobilized as an economic resource for companies.

Within the workplace, technology is used to automate and facilitate work restructuring, as service sector employees interact as advisors, assisters, carers or message-takers. The technology has been shaped to meet the twin criteria of increasing the range of services being provided while increasing labour productivity (Miozzo and Ramirez, 2003). The key technological development has been predictive dialing systems or automated call distribution (ACDs) that allow for the routing of calls to sites where land and labour costs are comparatively low. ACD systems are seen as central to the call centre because they automatically process in-coming calls and 'force-feed' them to call-centre employees, along an 'unstoppable telephonic conveyor belt' (Ferne and Metcalf, 1998). The ACD system stacks incoming calls and distributes them to operators as they are 'freed up' (thus removing the need for switchboard operators). It is the integration of telephone and computer technologies that fundamentally define call centres (Taylor, Hyman, Mulvey and Bain, 2002) and it is this integration that structures the labour process. This has allowed management to deepen the division of labour by fragmenting the labour process into centres, which operate around a narrow set of services. This fragmentation of service provision has resulted in deskilling as tasks are standardised, thus allowing for minimal training requirements to cope with the high levels of attrition that are renown in service work.

There are contradictory pressures as much of the work process is routinized, yet at the same time employers within the global service sector become increasingly aware of potential problems regarding cultural affinities and so demand a constructed cultural identity, which may sit uneasily with cultural identity within the host location. A key challenge that call centre workers face in India is the neutralisation of their diction and the cultural assimilation that is assumed (Taylor and Bain, 2004), as they adopt anglicised names while 'smiling down the phone'. Mirchandani (2004) describes the psychological tensions that are experienced as workers adopt Western identities and are expected to conceal the location of the call centre. Despite the assembly-line nature of the work, employers try to instil the idea of professional status by enforcing 'pink collar' dress codes of skirts and high heels (Freeman, 2000). For many women workers within the service sector these local and global tensions become embedded within their everyday lived experience, varying between types of service work and across different locations, depending on the contextual specificity.

While much of the call centre literature can be categorized as contending visions of optimistic or pessimistic scenarios, there is increasing recognition of the variety of call centre configurations (Glucksman, 2004) and the resulting differences in the labour process. However, much of the existing research has taken place in a Western context and the small, but emerging, literature on call centres in India tells a different story. This story cannot be divorced from the broader global context were the key drivers for offshoring are reductions in

expenditure and access to a highly-skilled, educated labour force at a fraction of the cost. However, in order to benefit from this, firms expect a stable, robust and assured level of performance from the offshore facility. It is hoped that this can be achieved in the following way: 'The key to providing efficient customer service at low labour cost has been to create a standardised service in terms of simplified routines, speeding search times and through detailed operational protocols that remove discretion from work tasks' (Miozzo and Ramirez, 2003: 70). Therefore, while the call centre literature displays increasing variety with regard to the labour process, we suggest that in developing countries, the reality appears to be more reflective of the dystopian vision of the 'sweatshops of the 21st century' (Belt, Richardson and Webster, 2002).

Shared Service Centres

Shared service centres are subsumed within two broader categories of IT Enabled Services (ITES) and Business Process Outsourcing (BPO). The sector is of emerging importance given the predictions for expansion, which is set to become one of the fastest growing international business sectors (NASSCOM, 2006)³. Shared Service Centres, as a subset of service sector work, are interesting as an example of the reorganisation and restructuring of IT-enabled organisations, clustered in particular locales. There is little academic research on this sector (with the exception of Cooke, 2006) but there is an increasing literature from consultancy companies or the area of 'academic enterprise', which tends to be largely positive, focusing on 'factors' involved with firms choosing a particular organisational structure or location of production.

Many shared service centres surfaced in the mid-1990s, following on from the strategy discourse which suggested that business success lies with the firm's ability to concentrate on core competencies (e.g. Prahalad and Hamel, 1990), despite the fact that the identification of core competencies is less than straightforward, and indeed, shifts over time. Specialist centres emerged for the processing and centralizing of routine or back-office support functions, such as HR, IT or finance. It is argued that shifting these activities to shared service centres, enables the rest of the firm to concentrate on the strategic aspects of their operations, while reaping the benefits from economies of scale. This differentiation and specialisation of knowledge has enabled service firms to generate products of predictable quality while speeding up delivery time (Miozzo and Soete, 2001). Examples of firms within the private sector that have established shared service centres include BP, Ford Motors, GE, and SAP. Increasingly, the public sector is under pressure from the Gershon Review (HMSO, 2004) and the drive for efficiencies and consolidation to implement shared service centres in government departments. For example, in the Republic of Ireland, the health service has been reorganised from a set of regional health boards to a unified national structure, within which is a National Shared Services Organisation, where procurement, HR, finance and ICT services are provided to health agencies.

Options for establishing shared services range from a unitary model, whereby a single organisation consolidates and centralises business services, through to joint ventures involving collaboration with a third party provider, to complete outsourcing and offshoring. Some of the purported benefits have been difficult to achieve in practice and so as some of the 'first movers' mature, a number of them are focusing on taking advantage of the potential cost savings to be achieved from the international division of labour, enabling the offshoring of parts of the shared service centre business process, or particular tasks, to low-cost locations, while keeping higher-value work onshore. Given the increasing deployment of ICT's and the potential transformation of the modes and means of delivery, reorienting entire jobs into tasks as functional or 'part-process' divisions of labour are emerging (Castree et al, 2004).

As the service sector generally offers higher wages and greater job security than the agricultural sector, trends such as the offshoring of shared service centres are seen to reflect

broad improvements in the quality of women's employment (Mehra and Gammage, 1999). Yet within the service industry itself, particularly banking, finance, and insurance, women are predominantly based at the lower paid and less skilled employment levels, with few occupying positions in management (Standing, 1999). In India women comprise 37% of employees in ITES (www.hindubusinessline.com), yet they tend to be concentrated in particular occupational areas, which are generally the lower skilled jobs related to data entry, and they comprise a small percentage of managerial personnel (Hafkin and Taggart, 2001). Of the women that are employed within the service sector, employers prefer young, single women, with a good education. Underlining the assembly-line nature of the work, employers require flexible working with shifts, which frequently prevents women with families from taking jobs during off-peak hours. In India, described as one of the world's most traditional societies (Chen, 2000) it is interesting to observe how the boundaries shift in order to attract ITES-BPO investment: for example, the Labour department of Maharashtra, after being lobbied by NASSCOM⁴ and business organisations, relaxed regulations forbidding women to work at night (Taylor and Bain, 2004).

The IT/ICT sector

In the first phase of global migration to Asia in the 1970s, IT-related jobs were labour intensive, contingent, primarily assembly line or semi-skilled, low-wage, with long hours and harsh conditions (Castells, 1996; 1997; Mehra and Gammage, 1999). Much of the production focussed on low technology consumer goods, such as radios and televisions. Over the last 20 years, however, the pattern has changed from *making* IT to *using* IT. Therefore the ICT workforce is a fairly new profession, particularly in many developing countries, yet we find that women occupy a minority of positions and that gender inequalities are being replicated in these industries (Hafkin and Taggart, 2001).

Anchored within the ideology of the New Economy, much has been written about the so-called 'IT revolution' and its potential transformatory power. Taking the example of India, described as the clear leader in the field (Sahay et al., 2003), IT is the fastest growing industry within this developing economy (D'Mello, 2006), employing over 1 million workers. Much of the mainstream media and agencies such as NASSCOM explain the competitiveness of the IT industry as arising from the levels of English proficiency amongst well-educated people. However, this view is contested: '...rather, it is the severe class, caste, and gender inequality that allows surplus value to be especially efficiently mobilised and concentrated on a small elite group to produce competitive IT labour' (Biao, 2007: 114). Despite these contentions and given the scale and future potential of this sector, it is disappointing that issues of gender relations have been largely ignored in studies of offshore software development (D'Mello, 2006).

Notwithstanding the rhetoric about women's opportunities within the new IT sector, men continue to dominate technical work (Wajcman, 2006). In the absence of sex-disaggregated data, we see that while ICT work is on the increase, women constitute only 25% of the global IT workforce (D'Mello, 2006) and despite attempts by government and industry-related initiatives, these numbers are shrinking (Ahuja, 2002; Griffiths et al., 2007). Much of the labour process within software development is highly labour-intensive (Biao, 2007) and is seen to breed a 'masculine culture' (Knights and Murray, 1994) as technical skill is intimately entwined with masculinity (Grint and Gill, 1995). The evidence is overwhelming that a male subculture has developed around a special affinity with computers (Wajcman, 2006).

In an ethnographic study of workplace practices in global software organisations, D'Mello (2006) describes how employees, interacting across time and space, are consistently required to work long hours to accommodate different time zones, frequently operate in crisis mode with tight project deadlines, whilst having to constantly update their skills in response to rapid changes in technology. In addition to these demands, the mobile nature of these types of

occupations also works to women's disadvantage as they experience difficulties when faced with long hours, expectations of overseas travel and participation in informal social networks. Their domestic circumstances also result in women being less inclined to 'job-hop', taking advantage of higher salary negotiations and benefits that often come with new modes of employment. These material circumstances work against women and consequently, the majority of women IT workers carry out routine work, while their male counterparts are appointed to analytical and managerial positions (Ahuja, 2002; Hafkin and Taggart, 2001).

Many of these software firms can be found in urban clusters and IT-based special development zones such as Bangalore, Mumbai, Delhi and Hyderabad (named Cyberabad). As an urban based industry, this sector has an absence of 'rural brains' and favours English-speaking employees (Suriya, 2003). This exclusion becomes particular evident with regard to female professionals, whereby a majority originate in metropolitan cities as opposed to rural districts. Globally, as corporate and in-house jobs are dismantled, more people are pushed into highly competitive labour markets for short-term, temporary or freelance jobs (Barley and Kunda, 2004). In the Indian IT sector the unemployment rate has been described as 'endemic' and as a result, unemployed IT graduates move among different cities in the search for work, or are pushed into emigration as part of the body shopping business (Biao, 2007). This has the effect of driving salaries down. Again, these issues of flexibility, mobility, and decreasing pay are undoubtedly gendered and work against many female IT professionals.

Although it has been argued that the IT industry offers a less discriminatory environment than other employment options in India (Heeks, 1998) nevertheless, the social and cultural construction of gender identity is heavily implicated in the everyday practices of technology work. As D'Mello (2006) eloquently argues, these sites are far from a 'level playing field' for female and male IT workers, embodying stereotyped gender norms and traditional gender relations. Studies show that while men are concentrated in the more prestigious export software firms, women can be found in higher proportion in domestic low-end and IT-enabled services, suggesting a clear gender differential in access to employment in this sector (Suriya, 2003). In this respect, gender is a marker that continues to sort out high-tech from low-tech. Most women in the IT workforce are reported to be less than 30 years of age, and predominantly employed in lower-level jobs such as programming, being underrepresented in higher-level occupations, such as consulting and project management (Kelkar et al., 2002; Suriya, 2003). Yet ironically, as increasing numbers of women enter the ICT professions, there is a drop in salaries, status and working conditions. The domain of masculinity becomes increasingly feminised.

The majority of the newly created technology and telecommunication jobs in developing countries operate within the private sector, but the lack of benefits available means that women instead have to opt for public sector work, since this is more likely to offer childcare provision, flexible hours and maternity leave (Hafkin and Taggart, 2001). As some governments start to legislate for such benefits, the responsibility for providing them often falls on private sector employers who are then disinclined to employ women in order to avoid the financial cost of providing these services and benefits. Once again, opportunities are limited.

3. Women At Work In The Global Cultural Economy

In order to provide a broader understanding of gender matters within the global outsourcing of ICT-enabled service work, we have argued that it is essential that due consideration is paid to broader social, economic and political circumstances. Therefore, within this section we consider issues of gender inequality within labour markets, the development of the informal *economy* (Carr and Chen 2001), the so-called feminisation of work and women's experiences of employment in the context of the domestic division of unpaid labour.

The informal economy and ICT-enabled service work

Informal workers, according to the organisation WIEGO (Women in informal employment, globalising and organising), include all non-standard wage workers who work without a minimum wage or assured work or benefits and covers those working for formal or informal firms in the 'global commodity chain' (Carr and Chen 2001). The informal economy is an integral part of the global market economy (Steans, 2000), being both dependent upon and subordinate to the formal sector (Bremar, 2006). Core firms engineer a principal role in the generation of informality and poor working conditions, via chains of subcontracting and outsourcing. As Standing (2006) notes, a trend in many developing countries is that so-called 'formal' enterprises have been informalizing their labour, by outsourcing, and by using more casual labour and contract labour. Outsourcing has been described as a 'race to the bottom' (Carr and Chen 2001) with large firms in the formal sector increasing their involvement with informalized production through outsourcing and subcontracting. This can involve a transition from regular full-time employment to non-standard, part-time or contingent work (Heintz 2006) as large formally-based firms contribute to the growing informal economy, characterized by lower wages and more precarious terms and conditions.

Taking the example of the IT industry in India, the informal IT sector (e.g. comprising body shops, training institutes, and unemployed or semi-employed IT workers) was integral to the formal IT sector both in India and abroad (Biao, 2007). This informal sector involved various unlawful activities such as issuing fake documents and facilitating economic transactions which were rarely recorded. It also provided an initial work experience for many IT workers, preparing them for the workforce in the industry; for example, the majority of IT professionals in Andhra Pradesh entered the international workforce via the informal sector. These workers provide cheap and flexible labour for the global market, and also provide a resource base that allowed body shops to survive the market downturn following the 'dot com boom'. The mobility of labour within the formal sector, the informal sector, and the overseas sector has been described as the 'Indian triangle' in the global IT industry (Biao, 2007).

While women's participation in the informal economy may be crucial for the survival of many households, nevertheless, there is a link between working in the informal economy and being poor and this link is stronger for women. Women are under-represented in the employer and self-employed higher income sectors of the informal economy and over-represented in the lower income areas, such as casual waged work and industrial home-based outwork (Carr and Chen 2001). Informal sector employment is assumed to be compatible with characteristics that are deemed stereotypical of women workers: irregular labour force participation, willingness to work for low wages, and static jobs requiring little or no career advancement. By outsourcing work to the informal sector corporations reduce costs, as women are employed without fixed contracts and lack the rights and benefits associated with regular employment based on company premises: comparable pay, promotion, pensions, training, unionisation and paid leave. As noted, one of the paradoxes of industrialisation, is that homeworking flourishes (Hafkin and Taggart, 2001).

Feminisation of work

While the informal economy has benefited from the availability of women workers, no country has industrialised without mobilising large numbers of women workers. As increasing numbers of women enter the labour force studies have documented a preference for women workers in different sectors, particularly in export-oriented, labour-intensive industries relying on low-cost production for global markets. Women predominate in industries where profit margins are protected by reducing labour costs, extending working hours or reducing the number of formal workers. Changes in the global division of labour that came into existence in the 1970s have been facilitated by continued improvements in ICTs and have contributed to the feminisation of employment - the term was intended to

highlight the irony of integrating women as equals into the labour market at a time when women have been pushed into more precarious forms of work.

Feminisation has therefore been defined in terms of the increasing ratio of women's labour force participation compared to men's as well as a deterioration of working conditions in previously male jobs (Beneria 2001). The new international division of labour and the accompanying structural, material changes are gendered, with differential consequences for women and men. Feminisation is used to characterise the activities associated with 'women's work': ideologically constructed and with fluid definitions according to the role of the family and the specific requirements of the local labour market at any given time. It also refers to the pattern of employment, which results in increasing numbers of women occupying certain jobs. Yet as Heintz (2006) shows, women's labour force participation per se is not a significant cause of informalization and casualisation, it is the combination of other economic forces, including development policies and strategies, that influenced the rise of a precarious labour market and an expansion of women's participation.

The domestic division of labour

On the one hand, the feminisation of employment has provided an element of financial independence for some women. However, on the other, the 'double burden' faced by women, given their centrality in the family, means that their lives are difficult as they attempt to reconcile work and family life. It is the unequal and gendered domestic division of labour that impacts on women's experiences in the labour market and what Heintz (2006) has termed the 'feminisation of poverty'. Elson (1999) reminds us that a most fundamental means by which labour markets are gendered institutions is how they operate at the intersection of 'ways in which people make a living and care for themselves, their children, their relatives and friends'. Economic 'liberalization' and other policies in the global integration of production have frequently squeezed household incomes, pushing women into income-generating activities. At the same time, economic reforms have intensified demands on women's unpaid work, creating a situation in which increasing the supply of women's labour is a central strategy by which families cope with fundamental economic change. At a basic level, women's employment, both paid and unpaid, may be the single most important factor for keeping many households out of poverty (Heintz 2006) as households supplement formal sector incomes with informal earnings in response to inflation or cutbacks in public services (Carr and Chen 2001).

However, the ability of employment to reduce poverty depends on prevailing gender relations and intra-household dynamics. Access to paid employment does not necessarily mean that women can exercise control over a household's income (Heintz 2006; Elson 1999). There are unequal divisions of assets and opportunities between men and women and the domestic division of labour must be analysed when analysing growth, employment and poverty reduction. Types of employment available to household earners impact on risk of poverty (either income or consumption poverty) and income poverty rates are significantly higher for those dependent on informal employment (Heintz 2006).

In order to have some understanding of the interconnectedness of gender, ICTs and development, the totality of women's working lives requires examination. Much of the gender and development research has emphasised the need to redefine work to incorporate paid labour in the formal sector, paid informal sector work, and unpaid labour in the household (Ward and Pyle 2000). Households take different forms in different societies, yet the majority of women in the world work in two to three of these categories, aptly called 'the triple shift' (Hossfield, 1990). Struggling to cover childcare is particularly difficult for women living in new urban clusters, because of the absence of the extended family support network. Under researched outside of feminist scholarship, domestic chores generally remain the responsibility of women. Despite a common assumption that equalitarian households are

on the rise, many women have to sacrifice their career or employment choice to manage these practical caring tasks. This restructuring of the household has implications for employment patterns, but also mobility, opportunity and well-being.

Domestic structures and practices are recalcitrant to change and considerably contribute toward unequal gender relations in the household and in employment, and their cultural variances affect women and men in very different ways. If patriarchal processes are challenged by the growing globalisation of the feminisation of employment in local market settings, women may be subject to stigmatisation as loose, neglectful of their domestic duties and too independent for their own good as they shape and negotiate their public employment (Perrons, 2004; D'Mello, 2006).

4. Research Agenda

In this section we propose a research agenda in order to gain more understanding of the issues discussed above. Since the 1980s, the centrality of gender to economic and social change has been understood by many in development agencies and international organisations (Kothari, 2002; Perrons, 2004). While 'gender mainstreaming' has attempted to bring about institutional transformation, experience has shown that it has had limited success (Rao and Kelleher, 2003) and there is evidence to suggest instrumentalization of these issues with projects that do not necessarily serve feminist goals or may in fact be in conflict with them (Berneria, 2003). All too frequently it is based on an 'add women and stir' approach and fails to question some of the liberal assumptions about global capitalist expansion and competition. Therefore, there is a crucial requirement to build an understanding of the intersections of gender, formal and informal labour markets, service work, ICTs and globalisation. We advocate the need for detailed qualitative and quantitative studies, preferably underpinned by a feminist political economy perspective, that offer a grounded analysis that acknowledges the experiences of women's lives.

- Develop definitions and statistical baselines.

Firstly, problems of definitions and inaccurate statistics persist. Research in developing statistical baselines is required to reveal the detail of women's economic activity, much of which remains invisible (Elson, 1999). Greater understanding of global, regional, and local variances would be beneficial. In addition, there is no accepted definition of services for the calculation of national accounts or for the measurement of international transactions (Miozzo and Soete, 2001). When carrying out this type of research, it is also worth stressing the importance of understanding the social and the cultural aspects as well as the economic. These elements are less easy to quantify and are often erroneously deemed less significant (Heintz, 2006). Much of the literature presents a utopian perspective based on a strategic approach to business, so in order to avoid this simplistic determinism, more grounded analysis is required

- Research the specifics within the formal and informal economy.

Research is urgently needed into the formal and informal economy, in particular the provision of in-depth studies of women in specific regions and within specific global commodity chains. The emphasis could be on studying the grass roots in terms of participation along the global chain. Few policy makers have explicitly addressed the opportunities and constraints faced by informal workers in the context of global integration and competition (Carr and Chen 2001). Pearson (2003) draws our attention to efforts challenge this. The example relates to action to implement Voluntary Codes of Conduct (VCCs), which are concerned with labour conditions along the value chain and request that the main contractor takes responsibility for the pay and conditions of all workers at every stage in the process. Most women are faced

with no alternatives other than this type of work; however it should not be at any price. What the women workers want is: 'Trabajo – si pero con dignidad' ('Work, yes – with dignity') (Red Centro Americana de Trabajadoras de la Maquilas, cawn@gn.apc.org, cited in Pearson, 2003).

- Consider both paid and unpaid work to appreciate the totality of women's lives

There is a gender division of labour between paid and unpaid work. A woman's position in the labour market is inextricably linked to experiences in the home and the domestic division of labour. As Heintz (2006) explains, women work more in unpaid non-market activities than men and this limits the options that are available to them in the global labour market. Therefore, the totality of both paid and unpaid work must be considered when researching constraints on women's ability to participate in the labour market.

- Include all aspects of employment in formal and informal sectors

There is a limited, but emerging literature on globalisation and women in the informal economy and especially lacking is knowledge about the outsourcing of ICT-enabled service sector tasks to home-based workers. This requires both building up statistical knowledge as well as drawing on women's lived experiences as they move between formal and informal work. Often informal employment is hidden and this affects women more than men (Standing, 2006); all aspects of employment must be included in research.

- Detailed historical and occupational studies would also benefit from understanding of the social shaping of technology.

Detailed understanding of gender, technology and development would enable greater appreciation of how the emergence of new occupations and divisions of labour can be perceived as gendered. Rather than view this as a property of the technology per se, an understanding of the broader context of gendered labour markets and 'women's work' may enable power relations and future outcomes to be contested. Detailed sectoral and occupational studies are required to trace the historical precedents and explain the outcomes for different groups of workers. The social shaping of technology approach (MacKenzie and Wajcman, 1985; Williams and Edge, 1996) offers a useful framework for studying labour market changes.

- Focus on international regulation of labour and recognition of workers rights globally.

International regulation within the World Trade Organisation structure (such as TRIPS and GATS) concerns international economic activity, yet neglects to cover international regulation of labour (Pearson, 2003). While there has been concern about the economic consequences of 'protectionism' nevertheless, research on policy to enable the right to collective bargaining, the elimination of all forms of compulsory labour, and the abolition of job discrimination, would be a step forward. One such example of this is from the Central American Women's Network (CAWN), which includes organisations of women workers in Nicaragua and Honduras. This group demanded no discrimination, job security for all, but in particular for pregnant and post-natal women, consideration in the workplace (no mental, verbal, or physical abuse), access to national social security benefits, a minimum wage, limits to the length of the working day, pay for overtime, freedom to organise and be involved in collective bargaining, and a ban on child labour (Pearson, 2003: 30). In addition, legislation improving the position of non-standard workers is required, so that 'flexible' ways of working are no longer considered deviant and thus devalued (Stanworth, 2000).

- Consideration needs to be given to all dimensions of inequality.

Finally, although our focus has been primarily on gender, ICT-enabled service work, and labour markets, equally the path of change is shaped around class and racial/ethnic processes. As Acker (2006) points out, the notion of ‘intersectionality’ is important in pushing forward our understanding of complex inequalities and the diverse realities of people’s lived experiences.

5. Conclusion

In this paper we have aimed to bring together a number of areas of literature that operate at the intersection of gender, labour markets, service work, ICTs and globalisation in order to raise awareness regarding issues of gender inequality in the formal and informal global economy. To summarise our argument, global capitalism embraces industrialization with the mobilisation of large numbers of women workers, preferably in export-oriented, labour-intensive industries relying on low-cost labour for global markets. Women and men occupy different positions in local, regional and global economies and sex segmentation is endemic in labour markets around the world, with women often concentrated in low-paid, unstable and poor-quality employment (Heintz 2006). Women predominate in industries where profit margins are protected by reducing labour costs, extending working hours or reducing the number of formal workers (Standing, 2006).

There is much rhetoric which suggests that ICTs are driving and enabling social transformations, and that women are likely benefactors. This is coupled with the shift from the offshoring of the manufacturing industry to the increasing offshoring of ICT-enabled service work, which is often seen as key to promoting development, offering opportunities for women to enter the workforce and become involved in enterprise (Morgan et al 2004). Yet there are vastly exaggerated claims about the likely ‘impact’ of new technologies on social, economic, cultural and working lives (Huws, 2003; Woolgar, 2002). Technology generally and ICT’s in particular are often touted as an instrument for bridging the gap between developed and developing countries, yet these assumed economic and social gains, often perceived within a market regime, are dubious at best (Avgerou, 2003). Given the broader context of the feminisation of labour and the growth of the informal economy, we suggest that caution is needed before drawing positive conclusions about the employment opportunities provided by the ICT-enabled service sector and the prospects of advancement for women in developing economies. Clearly, there are different development experiences according to sector types, regions, locales, and familial structures. However, these experiences must be considered within the broader picture of social, cultural, and economic positioning.

So, far from re-shaping women’s lives and creating new opportunities, we observe that the ‘triple shift’ and role of women in the informal economy - expanded through global sourcing of ICT-enabled service work from corporate formally-based firms – offers little benefit to women, who remain in their position as the poorest of the poor. Cultural factors still mitigate against progress for women with downgrading and devaluing of ‘women’s’ work and barriers, which operate on different levels and as different structures, continue to restrict their vertical and global mobility. There is a basic gendered contradiction in the way in which capitalist societies operate. This emerges historically, between the goals and organisation of capitalist production processes and the goals and organisation of families/households (Acker, 2006). However, the continuance of oppression and discrimination is not inevitable and social change is possible. Examples such as the setting up of VCCs, which have provided a voice for women workers to draw attention to the reality of their working lives, enables those involved in the global division of capitalist production to connect with international systems of solidarity and fight for change. The assumption that transnational corporations can operate in a borderless global economy pursuing profit at any cost is unsustainable in the long-term; therefore, raising political questions about the long-term viability of this and drawing attention to these practices can only serve to further undermine it.

¹ see Carlow et al., (2006) for a critique

² This is not meant to imply that globalisation not affected other aspects of service work, such as sex work and the care industry – see Perrons (2003) for a full discussion.

³ According to the World Bank (2007:12) the global sourcing of services is expected to grow by 30% annually.

⁴ NASSCOM is the umbrella organisation for the IT software and services industry.

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