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Cracking IT: Negotiating Working-Class Gender Capital through Group Enterprises in India

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Abstract

Digital work is often associated with higher levels of earning and increased social mobility. Working in the digital economy will not benefit all women equally or act as an enabler of broader social change. The article draws attention to the intersection of gender and class in work in the information technology (IT) sector of India, where women have increased their visibility and participation. Through a gender capital approach and intersectional analyses, the article points to the incontrovertible impact of class and gender when women from low-income backgrounds engage in IT-based group enterprises in the state of Kerala. A central insight from the study is the need to disaggregate types of IT work as women's experiences in IT are shaped by the simultaneity of working practices, intersectional inequalities and gendered behaviours, often with limits to gender capital and spill-over impact on broader gender and social relations.

Keywords

digital work, gender capital, India, intersectional inequalities, IT group enterprises, low-income women's groups

Introduction

Sociological debates on the gender digital divide in information technology (IT) have paid little attention to how class origins intersect with gender in such fields. Through

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elitist references to technology and 'higher' professions related to knowledge-based sectors, such as software industries, narratives focus on 'young' and 'educated' women from 'urban' and 'middle-class' locations (see Arun, 2018; Herbert, 2017; Mirchandani, 2009), particularly for the global South. Thus, the effects of such new technologies on the workers in lower socio-economic classes are less known. This article aims to explore IT workers' class backgrounds and considers how class interactions are key to work within IT-related fields. It focuses on work practices in IT group enterprises owned and managed by low-income working-class women from a globally acclaimed initiative called Kudumbashree in the state of Kerala in India.

Women's overall gains from working in the knowledge-intensive sectors in the global South have been mixed (Howcroft and Richardson, 2009; Patel, 2010). This article, by focusing on the class locations of IT-related work aims to unravel the intersectional inequalities in the IT sector. For this, (1) we highlight the contribution of a gender capital approach within feminist debates as it analyses inequalities *within* work sectors; (2) through such an intersectional class perspective, we shine a spotlight on how unpicking the distinction between 'higher' and 'lower' status work within the IT sector can identify a key structural divide; and (3) we draw attention to the intersection of gender and class in work, particularly in the emerging global South, often overlooked in work and society debates. The focus of the article is an exploration of the theme of gender capital and work in the IT work sphere and thus does not rely on the 'enterprise' or 'entrepreneurship'[1] lens, but builds on our previous research into the working lives of women in the newly burgeoning IT sector (Arun and Arun, 2002; Heeks and Arun, 2010), taking a longitudinal view of changing dynamics within the digital divide debate. The article first discusses the framework of gender capital in intersectional inequalities, class and working cultures in IT spheres. The article starts with a brief overview of the gender disparities in the IT sector in the Indian context and the Kudumbashree initiative in the southern state of Kerala, then discusses the empirical findings before providing conclusions and some policy recommendations.

Framing gender capital in IT work through the lens of intersectionality

To explore how class interactions are key to work within IT-related fields, we refer to wider sociological debates on power relations and intersectionality, perpetuated in the knowledge-based sector through the intersecting interaction of gender with structural and material contexts. Long-standing debates in feminism on the confluence of patriarchy and capitalism as sources of gender subordination point to how gender-based inequalities can be an instrument of power and dominance and are reproduced and legitimated, and how experiences of embedded intersectionalities can add to this effect (see Crenshaw, 1989; Fraser, 1995). Intersectionality in any form can refer to a broad assortment of multiplicities, interdependencies and differential oppressions (Haraway, 1988). Here we draw on Yuval-Davis's (2011) approach that combines the sensitivity and dynamism of the intra-categorical approach with the socio-economic perspective. In particular, exploring work experiences through such an intersectional approach will help to unmask inequalities through class, gender and ethnicity. As Perrons et al.

(2016) note, intersecting inequalities provide an analytical tool for understanding and responding to how individual factors or identities intersect with others to enable more nuanced intersectional understanding to inform institutional policy and operational practice.

For this, we employ the feminist Bourdieusian concept of gender capital, especially drawing on the influential works of Moi (1990), McCall (1992) and Skeggs (1997). They draw on the concepts of capital, field and habitus, thus renewing the link with materiality or material conditions. In this framework, the value of different capital/s becomes tied to specific contexts, and therefore has consequences for social reproduction (Moi, 1990; Skeggs, 1997). Bourdieu's assertion as to how the volume and composition of capital are structured by gender properties within each social group (see Laberge, 1995; McNay, 1999), is illustrated through the integration of gender into the concept of capital and habitus. Examining gendered habitus, particularly processes of socialisation, helps understand how gender norms are reproduced within public and private spheres, especially within the IT fields. For example, in reviewing the nearly absent or marginalised role of women in IT policies in South-East Asia, Andersson and Hatakka (2017) reject binary constructions of women as victimised or an untapped resource in IT policies. Or they are constructed as assets through notions of care and maternal roles, where their role is secondary to their positions of mother and wife.

Feminist debates on technology are often associated with gendered identities, the division of work, social mobility or professional careers (see Huppatz, 2009). Laberge delineates the differences in feminine and masculine traits of gender, which are forms of economic and symbolic power. Building on this, Huppatz (2009: 50) distinguishes such forms of gender capital:

> Female/male capital is the gender advantage that is derived from being perceived to have a female/male (but not necessarily feminine/masculine) body. Nevertheless, feminine/masculine capital is the gender advantage that is derived from a disposition or skill set learned via socialisation, or from simply being hailed as feminine/masculine (this occurs when one's body is recognised as feminine/masculine).

Here, feminine traits are associated with caring and altruism, passiveness, submissiveness and meekness, and masculine traits are associated with risk-taking, aggression and dominance. There have been disputes about the extent to which feminine and female capital is a positive force for women, or indeed feminine bodies. For McCall (1992), women who employ forms of female capital in the masculine field of the labour market are in a double-bind in that they risk their feminine capital should they 'act like men', but are also seen as 'inferior and weak' should they subscribe to their femininity completely. So, the lens of gender capital helps to unravel navigating change, control and resistance through lived experiences and reveals the need to consider the emotional and embodied dimensions of women's work–family interactions in the IT field dominated by a matrix of patriarchal and capitalist norms.

Feminist theories have produced significant insights into the constitutive power of emotions in shaping social and cultural realities (see Reay, 2004; Skeggs, 2004). The term 'emotional capital', first coined by Hochschild (1983) is a form of social capital in

the sense of social and cultural resources such as the 'knowledge, contacts and relations as well as access to emotionally valued skills and assets, which hold within any social network characterized at least partly by affective ties'. In Bourdieu's terms, the structure of domination is perpetuated through 'symbolic violence' – a 'censored, euphemised, that is, mis-recognisable, recognised violence' (Bourdieu, 1990: 126). Symbolic violence is 'recognised' because everyone within a particular social field tacitly understands the 'rules' and 'stakes' of the 'game' (Moi, 1991: 1021–22). Following Bourdieu (2001), such naturalisation of power relations, and the resulting symbolic violence, as seen in this article, whereby social relations, such as the gender relations, are predicated on specific historical and contextual factors. Through the emotive notion of symbolic violence, we make visible hidden power relations and injustices. It is in this context that women's work in IT group enterprises is explored, particularly those formed for working-class women from low economic households in the state of Kerala, India. The next section describes some contextual information about the state and the Kudumbashree initiative.

Gender inequities in the Indian and Kerala context

The continued evolution of information technology (IT) is significantly altering working conditions in many sectors (see Chesley, 2014; Taylor et al., 2014). In the global South, India's efforts in accelerating towards a knowledge economy have had a direct impact on human capital formation through job creation in the labour process, and an indirect impact regarding the consumption of IT (see Heeks and Arun, 2010; NASSCOM, 2021; Padmanabhan, 2011). In the global South, women's entry into this sector has increased the already burgeoning middle classes (Upadhya and Vasavi, 2008).

With widespread gender disparities, the Human Development Report 2020 placed India at 112 out of 153 in terms of its Gender Development Index, with many South Asian countries placed above India. Many forms of male bias in the Indian economy and society are well documented and remain unaltered with women's increased visibility in the public sphere. For example, Abraham (2013) points to the large-scale withdrawal of women from the labour force and the continuing skewed sex ratio (against girls) and son-preference prevalent in many Indian states (Mitra, 2014). In addition, gender discrimination and misogyny have put women at constant risk of violence (Basu, 2005; Bhattacharyya, 2016). Thus, mere access to material gains through work does in itself not challenge patriarchal practices in the household or in the labour market (Fuller and Narasimhan, 2008). Such practices can be located in the complex social–gender relations within a patriarchal system, or caste[2] relations in Indian society, where the dominant group defends the integrity of what Bourdieu labels 'doxa' – unquestioned beliefs embodied in actions and feelings (Crossley, 2001). In the Indian context, the term 'caste' has been widely used to describe ranked groups within rigid social stratification systems. Thus, the complexity of gender relations is habitually constituted and reconstituted through intersecting social practices and social relations.

Very different to the Indian context, the example of the southern state of Kerala is often cited in development debates (Drèze and Sen, 1996; Heller et al., 2007) with the

state's history of social mobilisation, vibrant civil society and educated citizenry and human capital. Kerala's tradition of the matrilineal system, social reforms, high literacy and higher educational levels has contributed both to women's well-being and to empowerment. Yet, contradictions and paradoxes in asymmetrical gender and power relations within the Kerala model have been much documented (Arun, 2018; Devika and Thampi, 2010; Kodoth and Eapen, 2005), including lower economic participation, rising levels of violence against women and persistent dowry practices. The state's development trajectory has hinged much on its social and human development record amid lower economic growth; hence, Bourdieu's theory of social reproduction offers a paradigm of social analysis, and is highly relevant to the Kerala context, where material and symbolic power relations are at play. The specific contexts and impacts on the activation of capital for women within IT group enterprises in the Indian state of Kerala are critical in a human capital-endowed state (Pillai and Shanta, 2011). Over the years, many initiatives enabled the Kerala state to be in the forefront in implementing IT projects and e-governance activities with a significant impact on low-income livelihoods and women's empowerment (Heeks and Arun, 2010; Pillai and Shanta, 2011).

The Kudumbashree programme (meaning 'prosperity of family-through women') is a women-oriented participatory and integrated approach to fighting poverty in Kerala and has operated since 1999 as part of local governance measures. Women's groups are formed through Neighbourhood Help Groups (NHGs), or *ayalkootams*, with 20 women in these primary units, the membership structure and functions of which are structured through bye-laws, with regular meetings held for income generation, loans and savings. These NHGs are integrated into the middle tier Area Development Societies (ADSs) and Community Development Societies (CDSs), the local government structures for women's empowerment and poverty eradication, and setting up of group enterprises. At present there are 277,000 NHGs, over 19,854 ADSs and 1073 CDSs, with support provided for the setting up of 11,777 individual enterprises and 19,484 group enterprises (Kudumbashree, 2021).

Women from such units fall in the lower income groups as they are classified as from 'Below Poverty Line' (BPL) or just 'Above Poverty Line'(APL) groups. Diverging from the higher end IT production work environment in software firms, these units engage in consumption-related IT work through institutional support and group enterprise models. The women running these units have moderate levels of human capital, including technical qualifications such as basic computing skills. From 1999 the IT units focused on three main activities – hardware, software training and training in schools – with the nature of these operations changing over the years. By working directly with the Motor Vehicle Department (MVD) as a joint project with the Kudumbashree Department from 2016, these units now operate around 30 E-Seva Kendras (ESKs) across the state. Out of these, four are based in the capital, Thiruvananthapuram. Based in the MVD premises, these units facilitate services such as the remittance of fees and the online submission of various applications.

These Kudumbashree women entrepreneurs benefit from institutional support, in the form of set-up funding for infrastructure, including computers. The Road Transport Office (RTO) and Sub-RTO offices provide physical space (approximately 150 sq. ft of space) and access to electricity, with the main Kudumbashree office providing training

and facilitation in the setting up of centres. Training is provided for members in the online processing of driving licences, hypothecation, cancellation of hypothecation, driving test dates, payment of taxes, and other MVD services as described in the web portal of the MVD (see Kudumbashree, 2021). In addition to charging for various services (amounting to INR 20 per service), the ESK can collect 0.5% for tax collection and payment through the MVD portal. In 2018, the ESK main office moved to the locality of Kazakootam, closer to the IT park in the city, and in addition set up two other units in the capital.

In all, Kudumbashree, as a state institution, has evolved as an effective grass roots-based women's Self-Help Group (SHG) as part of its participatory development agenda. Its innovative and inclusive agenda to empower poor and marginalised groups in Kerala aligns with Streeck and Thelen's (2005) observation that institutional changes can be incremental but cumulatively transformative processes and that changes can be significant outcomes as a product of both rule-following and interest-maximising behaviours (Steinmo, 2008). Next, a description of data and methods is provided.

Data and methods

All stages of the research were informed by a qualitative perspective to deconstruct the meanings, contradictions and interpretations of participants themselves, by associating with work and enterprise practices, everyday interactions and IT-related contexts. This is drawn from Ricoeur's (1996[1983]) 'hermeneutics of empathy' where interpretation proceeds from the bottom-up and the aim is to get closer to the intended meaning. Recognising that research remains an inherently hierarchical process, our positionality aligns with the mindfulness of both our influence in the research process, and efforts for transformative social outcomes (Vanner, 2015). For unlocking power structures and political differences, our role as researchers motivated by feminist concerns is simultaneously guided by broader (often western influenced) processes of research and ethics, but also complemented by 'situated ethics' of community relations in the global South (following that of Simons and Usher, 2000). Here, specific local practices of a given context are determined through continuous negotiation with research participants, be it women of diverse social origins, community members or institutional decision makers. Hence, the research themes navigate through overlapping systems of domination such as gender, class and social origins, notions of work status and geographical differences.

We conducted the fieldwork in several phases in 2016 and 2018 and employed a mix of observations and interviews, structured and unstructured, building on research from Arun (2018), Arun et al. (2011) and Heeks and Arun (2010). We collected data from two ESKs in the state capital of Thiruvananthapuram, as these were the first units established. Based on a purposive sampling method, data were collected from 12 women, and among them six had worked in the first phase of IT centres for over 15 years. The main criteria for selection related to years of experience; owner status; family obligations to children or care responsibility; caste and religion; and work-related responsibility. In total, 17 interviews were conducted for this study, with a further eight repeat interviews with the same women (from 2016 and 2018). Participants were aged between 34 and 48 years, with middle-level education (higher secondary schooling and/or IT education). All

women had children, and identified themselves as working class, belonging to either the BPL or APL groups, using multi-dimensional indices of poverty, including income, as identified through their ration cards, the main means of identification in India. Of these 12 women, seven disclosed their caste grouping, with three Dalits, two Latin Catholic Christian, one Nair and one Ezhava. Some broadly indicated Backward Caste (BC) and religious grouping, with eight Hindus, two Christians and two Muslims.

The sample women were from the longest-established Kudumbashree IT units in the capital city, charting their experiences and their relationships with Kudumbashree and the other state departments. They were also involved in training units in several other geographical locations of the state. Interviews were conducted in Malayalam, the local language familiar to the researcher(s), so no translation was required. The participants did not wish to be recorded, so notes were made in both Malayalam and English and shown to participants for confirmation of their veracity. The individual interviews ranged from 45 to 60 minutes in length and were carried out at the work sites. All personal details were anonymised before analysis.

In addition to the interviews described above, three interviews were conducted with Kudumbashree officials to understand the evolving perceptions of such workers from the beginning of their group formation, and how this has changed over time and during their association with the state department. These officers had senior responsibilities for designing and supporting groups of women from SHGs to come forward and set up enterprises. In addition, two interviews were included with officers from the MVD (middle management and processing officer level) to understand the dynamics of women positioned within busy state departments. Through these interviews, additional information was gained on the groups' experiences of the early days in the ESK, including their many struggles and achievements.

We used an interview guide to prompt narratives about IT work and enterprise practices, everyday interactions and gender relations. Participant observations were conducted, where the researcher spent two to three hours per day for over 15 days at the site during 2018 to unravel the nature of interactions, patterns in behaviour and attitudes among clients and respondents, officials and respondents, and agents external to the site, and interactions between respondents. Observations took place in the site offices at different times, during busy periods of client interaction and when there were no clients present, and were combined with interviews. In all, a total of six visits were made to the two sites, to elicit experiences of a diverse but consistent sample of women.

The empirical research focused on themes of how work affected gender relations beyond the public–private binary; relations with peers or women's groups; challenges in working with technology-based enterprises; and relations with state structures such as Kudumbashree, the panchayats, and IT and the MVD, as well as local community relations more broadly. Such themes helped to elicit data to explore how women entrepreneurs of the ESK activate forms of gender capital and how these capitals interact with material and gendered contexts through interactions with institutions that shape broader gender relations in the workplace and beyond.

The changing nature of IT work since the inception of these group enterprises was significant in the fieldwork. For example, the move from hardware/software work and IT training towards more specific service provision, such as in the ESK, and a smaller

sample of women in ESKs compared to other units; also, their interpretation of IT-related work evolved from production (digitisation) to e-governance. There was some change in group membership, reflected in the hesitancy of newer members to open up in discussions of relational issues with peers; hence repeated visits and trust-building was required.

The data were analysed using thematic analysis as it allowed the research team to organise, identify and analyse common patterns and themes, in line with the interpretation of meanings and experiences in IT work; relations in group enterprises; gender relations within family; and building interactions with stakeholders. Interviews with Kudumbashree women were identified as (IKW) and interviews with Kudumbashree officers were (IKO), while interviews from MVD were (IMVD). The common themes resonated with longitudinal change (over 10–19 years) and experiences of such group enterprises, grouped into: (1) the ways in which women made sense of gender capital as worker-entrepreneurs; (2) the struggles and barriers women faced due to their social and/or class location; (3) how the women managed family–work life through group enterprises; and (4) how women's meanings and emotions were built around their IT work. These issues are described below.

Findings

'Working' entrepreneurs: Building gender capital/s in IT

All the women described efforts from 2016 when a cohort of seven women started the first ESK. The groups were formed through old contacts in the NHG, and the advice of Kudumbashree contacts. Participants described how they pooled savings and completed work in setting up cabins and workspaces within the MVD office, which cost up to INR 200,000 (£200). This was different from the first enterprise set up in 1999, as it was directly based in a state service department. By setting up and managing such group enterprises, starting from a relatively low-skill end of the IT spectrum, these groups of semi-skilled women put a vital foot on the IT work ladder (Heeks and Arun, 2010), and continue to do so with these new service units. Over the 15 years, gradual changes in personal and professional approaches to building long-term networks were evident from the interviewees, who had spent a long time working on Kudumbashree activities. They built a range of skills and experience, many from what could be seen as 'from scratch'. At least five participants had a basic qualification in data entry and at least a pass in Secondary Schooling. The levels of human capital through training and accumulated investment had transformed these women's confidence and economic earnings. The principal affirmation of such gradual building from harsh beginnings to setting up the ESK represents a step-change in both stability and scalability, as detailed below:

> We have been here for a period of 20 years. I cannot begin to think where we were then, in a small office and doing just data entry. We were scared of all these documents, the fast-paced work, lines in English and the proximity of high-ranking officials in the state. Our work in these IT units has also changed, we moved from data entry, giving up hardware and school training units, we are now with one main state department. (IKW 7, co-owner)

Building social respect

During data collection, the observations and expressions portray the women's desire to be respected and valued in the domestic sphere through organising, hard work, resilience and income generation, characterised by long working hours, managing anxieties in the work sites and frequent travel between sites both in the city and at times across the state. The women explained how often family savings, personal loans and even the pawning of jewellery is continually used to raise investment, and often families and friends cautioned about their 'risk-taking behaviour' as business women.

One of the Kudumbashree officials who had worked with the women for many years reported that:

> These women have come a long way from the initial years of setting up data entry units. Not only have they acquired practical skills in relation to computer operational skills, financial and management skills, they are confident in conversing with officials, clients and even men on a daily basis. Most importantly, they have started to think as 'entrepreneurs' and owners and not just women who kept saying '*sari saar*' (*yes sir*) through servitude. (IKO 2)

From their responses, women felt they were confident in such risks and this kind of reflection was premised on their humble beginnings. In many ways, it also rejects and contradicts the impression that IT-related fields are those sites of work that give automatic status and dignity. Most of them come from 'BPL' backgrounds with a desperate need for earnings to support families and be aligned more as workers than entrepreneurs. Such a journey also echoes a kind of transformational trajectory through shaping skill sets, partnerships and relationships, and gaining confidence in dealing with a range of clients, state officials and peers:

> We are seen as less privileged due to our class, caste and religion (as Latin Catholics are perceived as both lower caste and lower class), but ask our families and neighbours, they always are proud of us as we have made possible some of the dreams for our children. Through our earnings, we have given them the best education, now most of our children are in professional colleges training to be engineers or doctors, our success is seen through the success of our children. (IKW 8, worker)

Two women admitted they contended with feelings of 'otherness' in offices of high authority and power, symbolised by hierarchy and language and status dominance. However, their experiences over the years have allowed them to break free from these feelings of inferiority. Here they further reflected on their aspirations for better lives and better chances for their children through constant contributions to their education, private tuition and additional expenses.

Gender capital as straddling both female and feminine capital

Working in a busy MVD is pressurising, with the persistent hustles and bustles of a typical public sector office. Such units function to facilitate access to public services without middlemen. As part of data collection, the research team spent time in the small cabin

within the main office, which had long queues of clients (mostly men) waiting to present new or renew motorist documents. For example, the cabin was continuously busy as women directly facilitated applications for meeting motorists' needs, mostly male auto-rickshaw (three-wheeler taxis) or taxi drivers. These men are rarely digital-literate, in both accessing appropriate forms and the online submission of documents. In other cases, older men who were less confident of such digital services often approached the cabins for help. The contradictions, confrontations and paradoxes occurring in these small cabins provided valuable observations.

In our observations, it was apparent that male clients who queued for long hours to present their applications were grateful for the speedy help provided by the ESK. Here women are 'perceived' as IT savvy, navigating through many documents and stages of submission, and accessible for help with motorist-related applications, rather than presenting themselves as intimidating state officers in such offices. Hence, they were addressed as 'madam' by men from similar socio-economic backgrounds working as drivers. Some felt 'boosted with pride' to see familiar faces from their neighbourhoods approach them in their 'official' spaces. Such a perception of 'feminine' capital by presenting, and being perceived as, kind, compassionate, caring service providers, and non-elitist, boosted their presence in the offices, which were often perceived to be sites of bureaucracy and red tape.

One of the MVD officials commented that:

> It is important to note that this is a busy, bureaucratic public service department, and these women were once seen as outsiders, treated with suspicion by the high ranking MVD employees. However, through assisting clients with online applications, explaining forms and directing submissions to those less confident with these documents, often with meekness, patience and a smile, thus they carefully managed to build relationships with colleagues and clients. (IMVD 1)

Gendered challenges and conflict in the workplace

The women in our sample reported many instances of compromise and confrontation. First, all women in tier interviews pointed to how the basic requirement of cabin space adhering to 150 sq. ft was not provided. They had to meet additional costs in remodifying the cabin even before starting the unit. The women felt that they had to navigate the 'porous' border between owner and worker in dealing with masculine cultures and aggression in public offices. Being more assertive as women and dealing with forms of domination from staff or some clients were cited as a common struggle in the discussions. The women felt they had quietly managed many forms of aggression with firm tactics and patience, and often explained the procedures with confidence, which helped reduce aggression towards them.

Four women reported instances of constant confrontation with other MVD department members on several fronts. Foremost, hostilities came from employees of the RTO and (male) agents in the field who joined forces with others to undermine their positions in motor vehicle documentation. These agents operate informally throughout the city but charge a hefty fee. Many crowd around the premises of the RTO office and access clients easily through their networks. For example, the agents would stop clients, particularly

women, to aggressively request that they be approached to submit documents, so clients do not have to be inconvenienced in these large offices. Such 'masculine cultures' often dissuade many clients from approaching the ESKs, even when their fees are extremely low. Hence, misinformation, lobbying and passive aggression are something that these women have to contend with daily.

The Kudumbashree official echoed this observation:

> In reality, these units have helped eliminate middle agents and have reduced transaction costs for customers, but it takes time for the public to realise this as there is no advertising for their service, so they are targeted unfairly by those with vested interests, and often intimidated. (IKO 2)

The agents and some employees see the ESK women as 'meek' and possible to intimidate. Often the traits of feminine capital such as meekness and subordination seem to work against these women. In some instances, such behaviour has been confronted by the women by drawing on their group strength, and on support from the Kudumbashree and MVD. But some level of micro-resistance to these groups is also displayed by the women:

> These agents who are presented outside the office, and who may lose their business, refer to us as '*aa Kudumbashree pennungal*' meaning 'those Kudumbashree women', who are not much trained or knowledgeable about processing critical documents related to motor vehicles. But we are accustomed to such language, and often encounter it in our everyday interactions. (IKW 9, co-owner)

This resonates with Skeggs' (1997) study of working-class women and reveals the emotional politics of class and how social and cultural positioning generates denial, dis-identification and dis-simulation rather than change. The women in our sample to some extent circumvented such behaviours through leveraging partnerships across and within groups, through 'affective ties', particularly among older women in the group, inspiring confidence for the younger and less experienced workers, and enabling them to work with confidence and authority.

Emotional capital at work: Juggling domesticity and work–life balance

The simultaneous pressures of domesticity and flexible work practices lead to perpetual emotional working in women's quest for economic and cultural capital and their intergenerational mobilities and aspirations. This same emotion and devotion can be seen in their 'Kudumbashree group' that they have invested in for over 20 years, over different ventures and trajectories, despite continuous struggles and challenges in a desire to achieve 'work–life harmony' from the blurred boundary between the roles of 'worker', 'mother' and 'business-woman'. A few women reported they had some support from their husbands or their in-laws, but protracted concerns about debts, inadequate earnings and a lack of knowledge of advanced IT skills meant they had to exert far greater effort to achieve a level of success. Here, flexibility is not an external factor that constrains women's lives but something inherent that these women control and value.

All the women in the sample relied on a range of networks that help their working lives. These social networks are a form of enhanced social capital. The findings also pointed to women's perception of work and achievement through personal and professional network-building and stimulated a sense of confidence. From this, there was spillover into community networks, where women felt that contact from local *panchayat* offices, schools and political representatives such as councillors was important for building social capital and social networks. These contacts have benefited women in terms of improved household welfare, such as obtaining identity cards, gaining school admissions, getting approval for personal loans and securing jobs for close relatives – all of which lead to improvements in their levels of respectability in their homes, neighbourhoods and communities. Their sense of pride is portrayed here. As one of the women said:

> We as a group started working since 1999, I feel so privileged to have had so much experience. Not many know of us as IT workers, but we have done hardware assembly, then digitalisation of state records and now work directly with the Transport Department, one of the most important state service providers. I can say that my community members (being a Muslim) feel proud when they walk into such public offices and see how we have so much leverage with government services, that was once intimidating even to men. (IKW 12, co-owner)

Nonetheless, these women persistently acknowledge that they rely on their emotional capital in daily transactions. They are seen as working mothers and are judged based on their children's educational success, demonstrable through cultural notions of *grihasta* (the ideal domestic notion of the Indian housewife). This shows that emotional capital emerges as a gendered resource but a simultaneously rigid yet dynamic one that individuals possess and employ. The struggles these women endure ultimately benefit their households and their children. This relates to Reay's (2004) description of the gendered nature of women's practical and symbolic work, which draws on devotion, generosity and altruism, assuming women's prime responsibility in intra-household relations.

'IT worker' as a 'classed' and 'social' status in a hierarchical system

There is still clear gender stereotyping around women's choices in group enterprises and in the processes by which women are assigned traditional women's activities within the Kudumbashree units. The most common choices of 'woman's work' being assigned to food preparation and processing units, which are more profitable. These were less complex than IT units as they did not require high investment or human skills. For the women who took part in the research, however, the branding of IT work as a form of cultural capital was key, as women have invested their own time, emotions and struggles to maintain these enterprises. In our interviews, women preferred to resist traditional work choices, and as one woman reported:

> Our working hours usually exceeded the normal eight hours per day, and [we] even worked on some Saturdays. This does not mean that we make more earnings compared to those activities such as catering or food production, where monthly earnings reached 25,000 INR. (IKW 2, worker)

Yet for many of the women in the sample, the phrase of *Kudumbashree pennungal* was normalised in languages, labelling and attitudes, and used widely in common discourses to denote women from Kudumbashree *ayalkootams*. It also referred to their social locations as low or working class (and caste groups), often more or less aligned with traditional feminine roles and behaviour. Women from the middle or upper-middle class and caste groups are referred to as *sthree* to denote their elitist social status conforming to feminine conduct and norms.

However, not all the women in the sample are seen as homogenous, though they are from similar economic backgrounds, as social tensions exist within these groups too. For example, rules in group enterprises, such as group savings, pooled resources and debt prepayment, exert pressures from repayments that are not prioritised within households and disadvantage some women, who then drop out of these units. This also touches on other differences. One of the members openly spoke about simultaneous pressures – social, economic and cultural – and how these tensions manifest:

> I am aware of my own status about being from 'lower' caste, this is not openly spoken about. Only 'referred to' in passing observations such as 'showing caste behaviour' when one previous member quit the group as she defaulted on many payments. We are not excluded due to our caste, but such thoughts are often demeaning, it is only when another woman from my caste joined the group that I felt more confident and feel a sense of solidarity within the group. However, I must admit that above all these, we are propelled by economic pressures so put our differences aside and work with each other. I need to make regular payments for school fees, as my daughter goes to a private English-medium school she will complete in two years, and this income helps to pay for additional tuitions too. That is a priority, I want my daughter to graduate as an engineer and attain a 'proper' IT job so she does not have to face the constraints on caste or poverty as I did. (IKW 4)

These reflect the anxieties and struggles, some relational and other constructed, through assertions and expressions of meanings and attachment to work through IT. Together, these pinpoint constructions and deconstructions of building 'capital', and the women's struggles to maintain long-term careers. The 'class and gender ceiling' remains a major challenge for these women who experience constant insecurity. Specifically, some participants feel a general 'misrecognition' that poorer women cannot be IT workers and are deprived of that status and prestige associated within the IT profession. This resonates with Devika and Thampi's (2010: 178) observation that women's induction into the public spheres of Kerala, such as in local governance bodies, has forced them to adopt an approach of 'honorary masculinity'. Here then, notions of femininity and feminine traits have been simultaneously devalued or disadvantaged in the public sphere, as they have become 'feminine selves, with limited conversion' (see Huppatz, 2009). Through a sense of identity, based on group membership and shared struggles, identified through social groupings, the women bring about social change for themselves and for others, and this resonates with forms of solidarity, guided by relationships motivated by affective ties of care or concern (Gould, 2007).

Conclusions

Digital technologies provide many opportunities for work and employment in the global South. We have illustrated ways in which forms of digital work simultaneously

challenge patriarchal structures to some extent and reproduce both classed and gendered work practices. Here we highlight the importance of juxtaposing the realms of the sociology of work with global feminist studies, exposing the intersectional connections between class, gender and work within changing economic contexts. Our findings point to expectations and aspirations of being both an IT worker and micro-entrepreneur, a sign of women's educational status in Kerala, and associated higher aspirations for gender equality. In Kerala, the interventions of the Kudumbashree and public service departments have helped in the emergence of such e-service providers. Through engaging in group-based IT work and generating steady income streams, there are spill-over effects on gender and work relations. Such altered ways of organising and working in class-based groups raise questions of how social and gender norms continue to shape and inform working women's daily lives. These motivated working-class mothers pursue IT work as routes to upward mobility, but drawing attention to intra-generational trajectories in social mobility and intersectional inequality research. We find that even when the income raised from IT units was comparable to or lower than other groups of enterprises, women preferred to remain in this line of work.

While there is a clear divide between the higher (software/hardware skills) and lower spectrum of IT work, women from low-income backgrounds can benefit from their human capital stemming from middle levels of education and IT skills. Through their roles in high-intensity public service providers, such as the MVD, these groups of women exhibit a non-elitist approach to IT through simplifying access to services, particularly to male clients. These women 'crack' the glass ceiling as they can leverage relationships with Kudumbashree and public service departments and convert such leverages into viable enterprises through resilience, resistance and group tactics.

In calling for critical analysis of IT as a tool for empowerment, Pillai and Shanta (2011) argue that the Kerala experience shows there are limits to the extent of income generation, sustainability and scalability in IT work for women from low-income groups. This article reveals how gendered or patriarchal ideologies persisting in both domestic and work fronts penalises women more through reproducing gendered hierarchies emanating from a gendered habitus of learned gendered behaviour and norms. The challenge is negotiating family–work life, with simultaneous domestic and work pressures, and being perceived as 'working-class entrepreneurs' or as mothers who are framed within the gaze of gendered social reproduction.

A central insight into disaggregating IT work types, mediated through class and contextualising low-income women's challenges as employees and entrepreneurs, is important for policy building. Friedman (2012) writes about how social, cultural and emotional challenges persist for those aspiring to be upwardly mobile. As can be seen when challenged by male agents, women use tactics of resilience and solidarity as forms of resistance to circumnavigate these tensions and through leveraging partnerships with the state, public service departments and communities. These navigations fit in with emerging discussions on new forms of solidarity in and through work (see Beck and Brook, 2020) affected by changing fractured terrains across workplaces and institutions. This deconstruction of women's experiences through class identification and building 'capital' shows the diverse ways meaning and emotions are built around IT, and how they manage

as workers and entrepreneurs. For the younger and less experienced workers, such forms of ties and networks, primarily with women through work and with formal institutions, inspired confidence and solidarity.

Through a gender capital approach and intersectional analyses, the article exposes some of the fault lines and points of anxiety in relation to how identity and class work in the field of IT. Often, acts of aggression or erasure of identities leading to emotional distress and low self-esteem bring out self-imposed perceptions of the class ceiling where lower-class women are perceived as unable to perform IT work. Within such group enterprises, some feel the burden of raising investment more than others and have dropped out of these groups. Here group differences such as caste identities do create tension and divide, which 'puncture' class struggles.

Undeniably, technology is socially deterministic, and as the impact of digital economies deepens, so do the gendered, social and caste structures. These reinforce positionality and marginalisation in reproducing intersectional inequalities, and such social matrices need unravelling in future social policies. Batliwala and Dhanraj (2007) show how India's policies and interventions could disempower poor women and distort to serve agendas of patriarchy and fundamentalism. Such reproduction of intersectional inequalities leaves us with important questions to consider for future research on how digital technologies are involved in legitimating and reproducing gender relations. The potential increase in using information technology in the post-pandemic period will continue to have differential effects on diverse social groups, primarily low-income groups, with further challenges beyond the gender digital-divide debate.

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Notes

1. The main aim of the article is to build on the scholarship of women's work experiences in the IT sector rather than discussing aspects of gender and entrepreneurship within the IT sector, but acknowledges the vast scholarship in this field.
2. India's caste system is unique in its complexity and diversity (see Searle-Chatterjee and Sharma, 1994) with significant regional differences in caste practices. The main caste groups in Kerala, and identified in this article, are Brahmins, Nairs, Ezhavas and Scheduled Caste or Scheduled Tribe groups.

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