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New Geographies of Work: A Case Study from Sweden

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Abstract

This paper describes and analyses the geography of work, i.e., the spatial patterns in where paid work is done. The geography of work may diverge from the geography of employment when paid work is done at the premises of client organizations, during commuting, on business trips, on external meetings, at home or at other places. The particular patterns in the geography of work depend on a number of factors, possibilities and constraints. The paper takes its point of departure from the debate about how structural economic changes resulting from evolving service industries and the development of Information and Communication Technology (ICT) entail new forms for the organization of paid work. Flexibility, reflexivity, flows and places are key concepts. The paper presents a case study from Stockholm that takes a workplace perspective and looks at knowledge-intensive work in a public sector organization. The empirical study analyses data from interviews, time diaries and a questionnaire. We analyse how the geography of work is the result of negotiations between different parties and in different arenas, and how this spatial pattern is the result of the character of work tasks and accessibility of ICT support. The discussion illustrates a complex picture of the coexistence of spatial fix and spatial flexibility, and how this may cause tensions but also convenient solutions for organizing and conducting paid work.

Keywords: geography of work, professional work, ICT

Introduction

This paper studies the ‘geography of work’, which refers to the geography of locations where paid work is done. The aim of the paper is derived from the idea that the emergence of the information technology society and the service economy have produced more flexible forms for work, and that this in turn has led to a growing divergence of the geography of work, and the geography of employment. ‘The geography of employment’ refers to the site of the workplace of employment or the site of the owned firm. The geography of work, as already defined above, refers to the site where paid work is done. The geography of employment and the geography of work often have the same location, but they may also diverge.

Debates about the role of information and communication technologies (ICT) in society raise questions about the decreasing requirement of the co-presence of actors in time and space, and whether this may lead to a growing divergence between the geography of work and the geography of employment. The geography of work can diverge from the geography of employment when work is done at clients’ premises, during commuting to work, during business trips, at home and at other sites. The geography of work depends on a number of factors, possibilities and constraints of a

material, technical, organizational and social nature. It seems a reasonable assumption that societal-economic structural change, involving the developing service industries and developments in ICT, may result in changing patterns in the geography of work. This is the focus of this paper, which aims to explore the geography of paid work. The discussion focuses on the knowledge-intensive service sector and on its advanced work, and we present an empirical study of such work in a public sector workplace in Stockholm, Sweden. We look at the spaces of flows, which involve personal travel and telecommunication and the spaces of place, which include the employer's office, partners' premises, venues for conferences and seminars, the worker's home or other places (cf. Castells 2000). We have identified three research debates that form a wider conceptual framework: (i) flexibility and reflexivity in society and in the organization of work; (ii) physical and virtual flows and movements in the ICT society; and (iii) knowledge work and telework.

Flexibility and Reflexivity

Flexibility is a central theme in the discussion of economic restructuring in the shift from Fordism to Post-Fordism. This restructuring has involved organizational changes in production processes and new industries grow while others diminish. Service industries and information-intensive, communication-intensive and design-intensive activities have increased. The term 'flexible' (as in flexible specialization) applies now in various areas, such as flexible production volume, production on demand, varying numbers of employees, flexible forms of work, flexible production machines and equipment, and flexible network organizations (Dicken 2007). The economic restructuring involves the emergence of entirely new sectors of production, new ways of providing financial services, new markets and intensified rates of commercial, technological and organizational innovation. It has given rise to a vast surge in service sector employment. Flexible organization may entail work schedules that average a 40-hour week over the year but oblige the employee to work much longer at certain periods, compensated by shorter hours at other periods. It has also seen a shift from regular employment to part-time, temporary or subcontracting employment (Harvey 1990). The average number of working hours in Europe is 59 hours per week (Lippe and Peters 2007). We want to explore the spatial pattern of flexible work and the question of what and who influence these spatial outcomes of flexibility.

Swan and Fox (2009) discuss the notion of flexibility from the perspective of workers learning to perform in this context, and they develop the notion of 'self-flexibility', a trait emerging within the detraditionalization, individualization and reflexivity of late modernity. In societies experiencing these trends, individuals may reflect on and make their own choices about who to be and how, and against this background, reflexivity is an important concept for our understanding of agency (Beck et al. 2003). Through reflexive choices, individuals construct the self and self biographies (Swan and Fox 2009). Reflexive individualization and reflexive choice are both subjective phenomena and aspects influenced by structural factors relating to institutions, such as the labour markets, the education system and societal norms (cf. Atkinson 2007). Agency through self-reflexivity and self-flexibility involves choosing. How individuals choose depends on many things including subjective understandings and preferences, competence to make choices, and different types of resources, institutions and structural settings. This set of factors influencing individuals choosing is constantly changing, and therefore also involves transformations in modes of action.

In our study, we are aiming to understand the subjective self-reflexivity through semi-structured interviews.

Flows and Places in the ‘ICT Society’

The ICT society allows for new possibilities for the organization of the geography of work. Castells (2001) describes the geography of the Internet from three different perspectives: those of technology, users and Internet production. The geography of technology refers to the Internet’s telecommunications infrastructure as constituted by the connections between computers. The geography of users is strongly uneven. International comparisons show that the density of users in the Nordic countries is relatively high. In Sweden, Internet usage and ICT communication has spread to large parts of the population and, in principle, to all economic activities (Nilsson 2008). Persons are virtually mobile when they use ICT, and this may be in the form of distance work, teleconferences, distance education, e-retailing, e-service, chatting, etc. (Fränberg et al. 2005).

Physical places and virtual spaces complement each other. A common conclusion about the relationships between ICT communication and personal contacts is that increasing ICT communication generates increasing demand for personal contacts, thereby also increasing demand for infrastructure for personal transport (Gillespie and Richardson 2000). Vilhelmson and Thulin’s (2008) study on the situation in Sweden confirms the finding that the deployment of ICT has not decreased the need for personal travel for work. In our study, we investigated how the geography of knowledge work is developing through the combination of ICT communications and face-to-face meetings.

The Spatiality of Knowledge Work

‘Knowledge work’ or ‘knowledge-intensive work’ are widely used terms, and there is a large literature on the definition of knowledge and on what knowledge work may entail. In this paper, we understand knowledge work to entail theoretical knowledge, intellectual skills and creative processes (cf. Frenkel et al. 1995). Typically, knowledge workers have academic education backgrounds.

The phenomenon of taking the office to the home is particularly widespread among highly educated employees (Felstead et al. 2005a). Men work more at a distance than women (Bailey and Kurland 2002). Surveys in Sweden on distance work, defined as “work outside the ordinary premises with some regularity... and at least once every week - and through ICT communication with the employer organization”, have shown that the practice is widespread. It is undertaken by employees of more than one-third of private firms in Sweden and is more common in larger firms (SIKA 2004). Through ICT, paid work can be done at home, which then becomes a ‘cyber household’, in which the rhythms of home, family and paid work are integrated and adjusted in relation to each other. The divisions of time and place between paid work and household work are continually negotiated. This lack of a given time-place rhythm may increase the pressure on individuals (Kaufman-Scarborough 2006). Studies show that those who do paid work at home work more hours and sleep less. They adjust their work effort to the demands of work tasks (Crang et al. 2006).

It is now technically possible to work round the clock. It is possible to log on to the Internet at hotels, airports and on trains. Places that were unsuitable for efficient work are now being transformed into time-spaces for paid work (Felstead et al. 2005a, Urry and Sheller 2006). A study in Great Britain showed that the number of persons

working in different types of places has increased dramatically (Felstead et al. 2005b, 419).

Major components of the type of knowledge-intensive activities and work that we are exploring in this paper are being conducted in cooperation with client firms and other partners, and involve business travel. Surveys in Sweden show that personal travel has increased, and that this involves increasing length and frequency of commuting to work (Boverkett 2005). In addition to the more practical driving forces behind personal travel, such as business travel to client firms or commuting from home to work, travelling may also be an aspect of one's identity and way of life (Urry and Sheller 2006, 214). This relates back to the discussion above about self-reflexivity and the idea that agency is steered by the forming of the individual self.

Work-related travel may cause conflicts between demands from paid work and demands from family, relatives and friends, and such conflicts tend to be handled differently by women compared to men (Gustafson 2006). Compared to men, women, on average, work closer to home. They do more travel for household consumption and to take their children to and from childcare and school, and less travel in paid work. Women travel shorter distances and drive shorter distances than men (Fränberg et al. 2005). The lower wage structure for women contributes to the gendered structure of personal travel and commuting (Friberg 2005). Many workers, and particularly women, try through different means to adjust private time and work time. This can be through reduced hours in paid work, through being self-employed or through distance work. Studies show that women and men organize distance work at home in different ways. Women try to combine paid work and household, and thus the consequences of distance work are different for men and women (Hultén 2006). However, gender relations in the labour market and in households are being continually negotiated, and the changing conditions for generating incomes mean that these structures are constantly challenged.

A Case Study

We present a study that investigates the geography of paid work from a workplace perspective. We take this approach because we believe that the type and character of the employer organization have a fundamental influence on the spatial organization of paid work. Through the compilation of primary empirical data from the workplace - its managers and its employees - we have a supply of information on the context and form of paid work. The study used semi-structured interviews, time diaries and a questionnaire survey. The research context of reflexivity, flexibility, ICT, communication and flows and knowledge work, as discussed above, steered the design of the empirical study and how we formulated our questions.

The workplace investigated in this study has been guaranteed anonymity. The study was conducted in 2007 and in 2008. Interviews were conducted with six employees who also kept time diaries and with one person in the management team responsible for human resource (HR). The questionnaire survey was distributed to 27 employees and we received 23 responses.

We conducted this empirical study at a public-sector organization located in Stockholm. A major task for this organization is to produce background reports, as well as strategy and vision documents. It employs 47 persons of whom 27 are professionals (experts). Table 1 gives some background information about the 23 respondents in the questionnaire survey. All respondents have extensive formal education and most of them live in the region. The exceptions to this residential pattern involve two persons

living in neighbouring counties and one living further away. The size and compositions of the households of the respondents vary. Slightly less than half of the respondents are living in households with children. The workplace had a low turnover rate and most of the respondents had been working there for many years. The work is primarily organized in projects, and the work tasks involved the responsibility to lead and coordinate projects.

Table 1: Presentation of the 23 Respondents in the Questionnaire Survey

<i>Criteria</i>	<i>Number (%)</i>
Education at university	23 (100)
Place of residence: in the region (i.e., Stockholm County)	20 (87)
Living in households with two or more persons	22 (96)
Living in households with members younger than 20 years / with children in childcare age	10 (43) / 5 (22)
Employed for less than two years	5 (22)

Place for Work: During an ordinary week, all respondents worked at the office and almost all did some paid work at home. One of our respondents commuted weekly from another part of Sweden and, to make this situation less stressful, he regularly worked one day a week at his home. More than half of the respondents did work at the premises of partner organizations, and approximately half did paid work while on business travel and at conferences. In the interviews, respondents explained that they conducted most of their meetings with colleagues and with external partners at their workplace, which explains the large proportion of working hours spent at the employer's own office.

Communication Through Personal Meetings or ICT: Face-to-face contacts in planned and unplanned meetings are very important for the experts at this workplace. One-third of the respondents used more than 50 per cent of their working hours for personal contacts and only a couple used less than 25 per cent. More than half of the respondents stated that if they are absent from the office they risk missing important information that is continually exchanged in unplanned personal contacts.

The laptop computer was the major means for ICT communication, with e-mail being the main application. Different employees had different ideas about what ICT infrastructure was available online at the office and about the possibility of connecting to a common server. Some of the respondents used their cell phones for e-mail, particularly on business travel. The following quotation is an interesting illustration of the effect of ICT on work and, as discussed above, of the fact that places formerly not available for efficient work are now being transformed into places for conducting paid work.

“During business travel there is always some time left while waiting at an airport or going by train that can now be used to check e-mails. This contributes to a feeling of security that one easily knows whether someone has tried to get in touch and wants something to be done”.

All the same, the interviews and the questionnaire gave an overall picture of some reluctance to see more extensive use of ICT for communication. It seems that electronic calendars were not used widely, nor were there any indications of regular use of ICT for meetings and discussions between more than two persons. Thus, our respondents did most of their work in personal meetings, on the one hand, and on the other, in front of the computer for word processing, getting information from the Internet and for communication through e-mails.

Distance Work Means Extended Working Hours: Almost all of the respondents stated that there was a working hours policy at the workplace. The interesting thing, however, is that there were divergent ideas about how this was regulated by management. Several of the respondents believed that there were restrictions on working at night (after 10 pm or 11 pm, and before 6 am). The person in the management team responsible for HR declared that there were no regulations for work hours at the office other than those laid down by law.

Almost all of the respondents to the questionnaire regularly worked outside office hours and this was mostly at home. This work represented, with only one exception, less than 25 per cent of the weekly working hours. Almost half of the respondents worked during evenings and less than 20 per cent worked during weekends. The home as a workplace was also considered to have advantages, offering a quiet work environment and the possibility for concentrated work. Several respondents declared that the home was a place that offered a pleasant work situation and a complement to the office, in which most of the staff had their workspace in an open-plan layout.

Approximately half of the respondents did paid work on their commuting travel, while several stated that they rested, slept or “cleared their head” while commuting.

Employers’ Controls: The large majority of the respondents to the questionnaire had documented agreements with their employer about their right to do distance work. Nevertheless, they found that they were generally required to ask for permission to work at home during regular office hours. Only one respondent would have liked extended possibilities for more flexible work. The respondent from the management team held that only those who did not handle the possibility of distance work responsibly were obliged to ask for permission.

It is also interesting to consider who bears the costs of distance work. The employer has chosen to provide open-plan offices, which generally lowers the costs of office space. One effect of this layout is the lack of quiet space, which employees compensate for by working at home. The costs of working at home, however, seem to have been partly covered by employees, through their private payments for broadband and for printers. Several of the respondents commented on this, possibly because they did not think it to be a totally fair arrangement.

Household Demands: More than half of the respondents to the questionnaire survey acknowledged that other persons in their households influenced their working hours. This was most obvious in the case of respondents who had to adjust their work in relation to school hours or the hours of childcare. The majority of respondents whose working hours were influenced by others were in households with persons under the age of 20. This group of eight respondents worked up to 25 per cent of their work time at home, and most worked some hours after regular office hours.

Conclusions

The aim of this paper has been to explore the spatiality of knowledge work and to identify factors influencing its patterns. The results show that employees experience the geography of work depending on the character of their work tasks and as the results of negotiation of or adaptation to requirements and preferences on the part of the household and the employer. The high frequency of personal meetings at the office was a major factor behind decisions about the location for paid work. There was little use of ICT for virtual meetings.

The literature discussed in the first part of the paper highlights some concepts that we now seek to relate to our results. Starting with flexibility, this is evident in how the employees described their working hours. The respondents had different and vague ideas about working hours and they used time outside regular office hours to catch up with their work tasks. This office had low labour turnover and flexibility here was not a matter of changes in the composition of the employed staff. However, the work is project driven, and for individual projects, teams were put together comprising staff from the office and from external suppliers hired for particular projects. This organizational form for project work appears to be standardized, even though project tasks change and the staff needs to be self-monitored to define interesting questions for investigation.

The notion of reflexivity is about individual choices, but also about how these are restricted in institutional settings. Data from the questionnaire survey and the interviews illustrated different strategies among the employees. Agency varied in accordance with a number of different factors, such as how workers used ICT, and how they used different situations for paid work (business travel, commuting travel, evenings, etc.). The competence to be 'self-flexible' also seemed to vary depending on knowledge and awareness of the employer's regulations and resources. Although respondents share the same institutional setting being their employer, its influence varies between individuals. Also households are important institutions affecting the strategies among the respondents.

Besides the more practical requirements and organizational forms for the workplace and households, there are also more abstract institutions that are related to conventions and traditions for this type of work. These more abstract institutions guide expectations of both employers and employees, and how workers reflect on and make choices about how to develop their work practices. In the workplace we investigated, there appeared to be a convention that employees take responsibility for large workloads through work outside ordinary office hours. There also appeared to be a convention that the employee should expect to organize his or her home so that it can be used for paid work. The study has also illustrated several connections between the organization of paid work and the organization of family and private life. This result supports our findings from the literature about increasing difficulties for employees in distinguishing between work and time off, so that the distinction between the office and the home becomes blurred.

Considering flows, e-mail through the computer was the dominant means of ICT communication. Most of the respondents commuted relatively short distances and did not have frequent or long-distance business travel. The main workplace was the employer's own office, where most individual work was done in front of a computer, and where most meetings occur.

The aim of this paper has been to explore the new geographies of paid work by analysing a detailed case study from Stockholm, Sweden. We have done so through a lens comprising the concepts of flexibility, reflexivity, flows and places in the ICT society. We have presented a case study of a workplace with knowledge workers. The results from the empirical study indicate combinations of institutional restrictions and room for self-reflective choices determining the organization of work in time and space. The understanding of the new geographies of work requires the understanding of a complex of factors among which techniques and objective possibilities are one set of factors that may or may not be deployed or explored depending on the more subjective

factors of understandings and reflections among workers and their employers. We think the notion of 'self-flexibility' developed by Swan and Fox (2009) is particularly helpful as a tool for understanding the importance of subjective factors behind the development and transformation of the geography of paid work.

References

- Atkinson, W. 2007. Beyond false oppositions: A reply to Beck. *British Journal of Sociology*, 58(4), 707-715.
- Bailey, D.E. and Kurland, N.B. 2002. A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior*, 23, 383-400.
- Beck, U, Bonss, W. and Lau, C. 2003. The theory of reflexive modernization. Problematic, hypotheses and research programme. *Theory, Culture & Society*, 20(2), 1-33.
- Boverket. 2005. *Är Regionförstoring Hållbar? The National Board of Housing, Building and Planning*. Sweden: Karlskrona. Available online at: www.boverket.se [accessed: 14 June 2010].
- Castells, M. 2000. Materials for an exploratory theory of the network society. *British Journal of Sociology*, 51(1), 5-24.
- Castells, M. 2001. *The Internet Galaxy: Reflections on the Internet, Business, and Society*. Oxford: Oxford University Press.
- Crang, M., Crosbie, T. and Graham, S. 2006. Variable geometries of connection: Urban digital divides and the uses of information technology. *Urban Studies*, 43(13), 2551-2570.
- Dicken, P. 2007. *Global Shift: Mapping the Changing Contours of the World Economy*. London: Sage.
- Felstead A., Jewson, N. and Walters, S. 2005a. *Changing Places of Work*. New York: Palgrave Macmillan.
- Felstead, A., Jewson, N. and Walters, S. 2005b. The shifting locations of work: New statistical evidence on the spaces of employment. *Work, Employment & Society*, 19(2), 415-431.
- Fränberg, L., Thulin, E. and Vilhelmson, B. 2005. *Rörlighetens Omvandling, om Resor och Virtuellt Kommunikation – Mönster, Drivkrafter, Gränser*. Lund: Studentlitteratur.
- Frenkel, S., Korczynski, M., Donoghue, L. and Shire, K. 1995. Re-Constituting Work: Trends towards knowledge work and info-normative control. *Work, Employment & Society*, 9(4), 773-796.
- Friberg, T. 2005. *Speglingar av Rum: Om Könskodade Platser och Sammanhang*. Stockholm: Östlings Bokförlag Symposion.
- Gillespie, A. and Richardson, R. 2000. Teleworking and the city. Myths of workplace transcendence and travel reduction, in *Cities in the Telecommunication Age. The Fracturing of Geographies*, edited by J. O. Wheeler, Y. Aoyama, and B. Warf, London: Routledge, 228-248.
- Gustafson, P. 2006. Work-related travel, gender and family obligations. *Work, Employment & Society*, 20(3), 513-530.
- Harvey, D. 1990. *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Oxford: Blackwell.

- Hultén, K. 2006. Leva och arbeta i hemmet. Effekter av distansarbete i hemmet för privatliv och arbetsliv. *Arbetsmarknad & Arbetsliv*, 11(2), 123-136.
- Kaufman-Scarborough, C. 2006. Time use and the impact of technology: examining workspaces in the home. *Time & Society*, 15(1), 57-80.
- Nilsson, D. 2008. *Digitala klyftor – Delrapport*. SIKA. Stockholm: Swedish Institute for Transport and Communications Analysis.
- SIKA. 2004. *Fakta om Informations – och Kommunikationsteknik i Sverige 2004*. Stockholm: Swedish Institute for Transport and Communications Analysis.
- Swan, E. and Fox, S. 2009. Becoming Flexible: Self-flexibility and its Pedagogies. *British Journal of Management*, 20(1), 149-159.
- Swan, E. and Fox, S. 2009. Becoming Flexible: Self-flexibility and its Pedagogies. *British Journal of Management*, 20(1.1), 149–159.
- Urry, L. and Sheller, M. 2006. *Mobile Technologies of the City*. New York: Routledge.
- Van der Lippe, T. and Peters, P. 2007. *Competing Claims in Work and Family Life*. Cheltenham: Edward Elgar.
- Vilhelmson, B. and Thulin, E. 2008. Virtual mobility, time use and the place of the home. *Tijdschrift voor Econmische en Sociale Geografie*, 99(5), 602-618.