The emergence of EMERGENCE:

the challenge of designing research on the new international division of labour

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ABSTRACT

This paper anatomises a pioneering international research project on the global relocation of telemediated employment. It outlines the intellectual origins of the project in the literature on globalisation, the knowledge society, teleworking and other related bodies of work and discusses the limits of the empirical information available up to 2000, when the project was launched. It then summarises the conceptual and methodological framework developed for the project, before discussing some of its limitations, drawing lessons for future international collaborative research on the changing international division of labour.

Introduction

Whipped up by media scare stories about offshore outsourcing and all-too-real experiences of telephonic encounters with call centre workers in Asia, Latin America, Eastern Europe or Africa, public interest in employment relocation has soared during the early years of the 21st century. It is becoming increasingly apparent that the globalisation of world trade in combination with the use of information and communications technologies is bringing about a new international division of labour, not just in manufacturing industry, as in the past, but also in work involving the processing of information. The implications of this are far-reaching, both for policy and for scholarship.

However there is surprisingly little hard empirical evidence on the extent and characteristics of these developments. Neither have clear conceptual frameworks been developed within which it is possible to analyse and model future trends. So far, at least, the dynamics of this new global division of labour cannot be captured adequately within the framework of any single academic discipline. On the contrary it seems that these developments can only be understood in the light of a combination of insights from fields including political economy, the sociology of work, organisational theory, economic geography, development studies, industrial relations, comparative social policy, communications studies, technology policy and gender studies.

The new scholarly and public interest in the topic provides an opportunity to review critically such past work as exists in order to see what can be learned

from it. This paper focuses mainly on the EMERGENCE project, which was funded by the European Commission from 2000-2003 in order, in the words of its acronym, to 'estimate and map employment relocation in a global economy in the new communications environment'. The work of the European project was augmented by that of sister projects in Australia (2001-2004), Asia (2002-2004) and Canada (2003-2006) to produce a large body of quantitative and qualitative data. The purpose of this chapter is not to summarise the results of this research (which has been done in Huws, 2003a; see also Flecker; Standen; and Gurstein, all in this volume) but to trace retrospectively the intellectual journey which made it possible to develop a framework within which such research could be carried out, to sketch out the main ingredients of this framework and, with the benefit of hindsight, to comment on some its limitations and outline some of the work that remains to be done if we are to develop further research in this area.

Any such retrospective reconstruction is of course fraught with difficulty because one cannot 'unlearn' what has been understood since. Neither is it helpful to the reader deliberately to suppress relevant information that has been published subsequently simply for the sake of strict historical accuracy. So this account is not so much a literal reconstruction of the mental processes that went into designing the EMERGENCE methodology and approach as a reprise of the main bodies of thought that contributed to the development of these ideas, many of which had been evolving over the previous two decades as a result of my research in related areas.

Globalisation

One obvious source of relevant information is the large literature about globalisation. The term 'globalisation' is extremely widely used in a range of different contexts ranging from popular journalism and protest movements to academic discourse in economics, political science, cultural studies, geography and sociology. However it takes on different meanings in many of these contexts and is defined in a large number of different ways.

Some of the phenomena to which it is applied include the dominance of world markets by transnational corporations, the unchecked international flows of capital, the globalisation of culture, the hegemonic political dominance of the globe by a few powerful states, or groups of states, the growing power of supranational bodies such as the World Trade Organisation, World Bank and International Monetary Fund, and the development of a global division of labour. Sometimes the term is used as a synonym for concepts such as 'the neoliberal world order', 'the Anglo Saxon model' or simply 'US power'. On other occasions it is used with much more specific, not to say technical meanings.

In such a context, it is often difficult to tease out those aspects of globalisation that are of direct relevance to the restructuring and relocation of work. In order to develop some conceptual clarity it is at the very least useful to exclude those dimensions in which we are not interested.

One starting point is to see globalisation as the development of a historical pattern whereby capitalism has a continuing need to expand territorially. In Luxemburg's classic 1913 formulation (Luxemburg, 2003) this tendency is attributed to capitalism's

need for a market 'outside itself' in order to dispose of the surplus produce which cannot be bought by workers from their wages (if their wages totalled the same value as the goods produced, then of course there would be no profit and the system could not be characterised as capitalist). It is possible to argue that the search for new markets is only one of several reasons for capitalism's need for territorial expansion, some of which can be seen as evolutions from economic imperatives that predated capitalism (Abernethy, 2000). One of these is the search for raw materials and new sites for plantation agriculture. Another is the search for new sites of capital accumulation, described by Harvey as a "spatial fix" to capitalism's internal contradictions (most notably registered as an overaccumulation of capital within a particular geographical area) which is necessary because 'without the possibilities inherent in geographical expansion, spatial reorganization, and uneven geographical development, capitalism would long ago have ceased to function as a political-economic system' (Harvey, 2000: 23). Other reasons for territorial expansion include the search for new activities to commodify (Huws, 1999) and new sites for dumping the waste generated as a result of extraction and production activities elsewhere. Most important for our purposes is yet another reason: the search for new sources of labour.

Plotting the inter-relationships between these different drivers of expansion is no easy task. The decision by a company to open a branch in another country may be driven by several of these reasons simultaneously, or one reason may be embedded in another, or follow consequentially from another. For instance a company may decide to buy up a subsidiary company in a developing country to invest some of its surplus profitably (a 'spatial fix', in Harvey's terms), but in the process it may also gain access to new markets or to cheap sources of labour. If the location is one where environmental controls are laxer than in the 'home' country, it might also transfer some of its more polluting activities there, using it, in effect, as a dump. Despite the difficulties of disentangling these motives, it is useful to bear such distinctions in mind if we wish to develop an understanding of the dynamics of the global restructuring of work.

According to Radice, globalisation is most commonly defined as 'a process through which an increasing proportion of economic, social and cultural transactions take place directly or indirectly between partners in different countries' (Radice, 2004: 154). However, as he points out, this approach suggests that it is synonymous with 'internationalisation' and assumes a pre-existing landscape of autonomous nation states, ignoring the long history of economic, social and cultural interpenetration of states under various forms of imperialism and colonialism and the extreme inequalities of power between states that resulted from this.

Such a pragmatic definition has enabled some 'globalisation sceptics' (e.g. Hirst and Thompson, 1996; Zysman, 1996) to argue that the extent of economic globalisation has been greatly exaggerated. Others (e.g. Cox, 1987; Hutton and Giddens, 2000; Grieder, 1997) support the more mainstream view that a fundamental change took place in the world economy during the 1970s after the breakdown of the Bretton Woods Agreement (and with it the gold standard) which ushered in a new era characterised as 'globalisation', or 'neo-liberal globalisation' or 'accelerated globalisation' (Mittelman, 2000: 19) in which capital developed an unprecedented ability to flow freely from country to country.

Duménil and Lévy (2004) posit a two-stage process: the collapse of the gold standard in 1971, followed by a '1979 coup' which marked the end of Keynesian economics (though not of Keynesian institutions) and the launch of a period of neo-liberal global hegemony (Duménil and Lévy, 2004:245).

Some commentators have gone so far as to argue that to all intents and purposes the world now forms a single global market. Ohmae, for instance, said in 1990 that 'on a political map, the boundaries between countries are as clear as ever. But on a competitive map, a map showing the real flows of financial and industrial activity, those borders have largely disappeared' (Ohmae, 1990:18).

Crucial to the question of whether the 'competitive' map should take precedence over the 'political' one is how the relationship of the national state to the global economy is conceptualised. Are nation states still the most powerful entities in the world? Or is their ability to control the activities of their citizens being dissolved in a global tsunami of economic forces which sweep all before them, vesting the power instead in the hands of transnational corporations, international bodies like the World Trade Organisation, the World Bank or the International Monetary Fund, the financial institutions of Wall Street, or supranational regional groupings like NAFTA and the EU?

Hirst and Thompson's (1996) 'globalisation sceptic' thesis used data on trade flows and their relationship to national GDP to demonstrate that the world in the 1990s was little more global than it had been at the beginning of the 20th century, during the heyday of the British Empire, and pointed out that most international trade took place within the 'triad' of the US, the EU and Japan and, furthermore, that most multinational corporations had a clear 'home base' in one (or at the most two) of these three locations where most of its market was to be found. Linked to such views are a number of variants of the 'varieties of capital' school (e.g. Hall and Soskice, 2001; Coates, 2000; Gray, 1999) which claim that the universalising tendencies of globalisation are limited and 'path dependent'—shaped by national histories, and the specific nature of the national 'deals' struck between the state, national capital and labour in the period after World War 2 (Coates, this volume).

Panitch (2004) argues that to view the problem as a dichotomous contest between state power and the power of international capital is to miss the point. Rather, what has happened has been a change in the role of the state vis-à-vis its citizens on the one hand and international capital on the other. Rejecting Cox's notion of the state as a mere 'transmission belt from the global to the national economy' (Cox, 1992:27) he substitutes a state role of 'mediation' suggesting that in the process of adaptation, changes take place within national institutional structures, whereby those state institutions 'which directly facilitate capital accumulation and articulate a competitiveness ideology are the ones which gain status, while those which fostered social welfare and articulated a class harmony ideology are those which lose status ... Ministries of labour, health and welfare are perhaps not so much being subordinated as themselves being restructured' (Panitch, 2004:21). This position can be seen as lying mid-way on a spectrum between Cox and Coates who, in describing the options open to a state in relation to the market says that 'It can act to orchestrate the relationship between different sections of the capitalist class. It can act to orchestrate

relationships between capital and labour. And it can act to orchestrate the reproduction power of labour itself' (Coates, 2000:225).

Where exactly on this spectrum any individual state lies (and it seems likely that they may occupy different positions) and whether the role is defined as one of 'transmission', 'mediation' or 'orchestration', it is clear that national states continue to play a role in determining a number of specific features of markets, including labour markets. We can therefore hypothesise that, although a particular organisation's reasons for locating its activities in any given country may be complex and multifaceted, the specific local institutional regime plays a role in making particular locations more or less attractive as sites for employment¹.

This insight is useful for developing further research. However the literature on globalisation provides us with no concrete evidence of the extent or characteristics of employment relocation.

The knowledge economy

Even less specific than the literature on globalisation, although sometimes overlapping with it, is a large literature on what is variously known as the 'new', 'information', 'networked', 'digital' or 'knowledge' economy.

The term 'information society' can be traced back to a discussion launched by Alain Touraine in 1969 using the phrase 'la société post-industrielle' (Touraine, 1969). Daniel Bell (1973), still using the term 'post-industrial society', identified several key differences from an 'industrial society', most important of which were: an economy that has changed from producing goods to producing information and services; an occupational distribution dominated by professionals and technical classes; and the centrality of theoretical knowledge as the source of innovation and policy-making. Such ideas were popularised by a number of futurologists such as Toffler (1981). Bell later rechristened this 'post-industrial society' the 'information society'.

Among the critics of this model was Gershuny who pointed out that the development of a 'self-service economy' was actually leading to a replacement of services by goods (Gershuny, 1978); Miles, 1988; Lyon, 1988) also critiqued the Bell model. However, the dominant concept during the rest of the 1980s and early 1990s (usefully summarised in the mid-1990s by Webster, 1995) continued to assume an 'information society' or 'information age', increasingly prefixed by the term 'global'. The most magisterial attempt to integrate the evidence into a general sociological model was by Castells (1997) who adopted the phrase 'network society'.

During the 1990s this literature became increasingly entangled with other overlapping bodies of work, from a range of different disciplines (including economics, sociology, geography, organisational theory and technological forecasting). In this discourse a large number of different phrases were coined to characterise what appeared to be similar phenomena, for instance the 'Death of Distance' (Cairncross, 1997), 'Weightless World' (Coyle, 1997), the 'Connected Economy' (Davis and Meyer, 1999), the 'Digital Economy' (Tapscott, 1995), the 'Knowledge-based Economy' (e.g. Neef, 1998), or the 'Virtual Organisation' (e.g. Norton and Smith, 1998). In fact,

1 This point is substantiated by evidence presented in the articles by Weiss and Benner in this volume.

however, the underlying concepts were often strikingly different, derived from different theoretical traditions and models; assumptions that they were referring to the same phenomena often created more confusion than they solved. In particular, there was often an elision between economic, social and geographical concepts which were not necessarily co-terminous (Huws, 1999).

This lack of conceptual clarity did not pose particular difficulties to those who simply wanted to draw attention to some of the ways that the world was changing. The notion that we were witnessing the emergence of a 'new economy' was very widely discussed from the mid 90s onward, in the pages of general economic and 'new media' journals, such as *The Economist*, the *Wall Street Journal*, the *New York Review of Books* and *Wired* and in more specialist publications such as *New Economy Watch* as well as in the academic literature. However major difficulties arose as soon as any attempt was made to map empirically the contours of this 'new economy', measure its growth or model its dynamics.

One approach is to use the term 'new economy' descriptively, to define the new industries which have developed using digital technologies – the 'dotcom' companies, a loosely defined group of overlapping sectors which include software development, web-site development and management, broadcasting, publishing, multimedia and other content provider industries, together with hardware and telecommunications companies (Pattinson, Montagnier & Moussiegt, 2001; Mesenbourg, 2000). In practice, however, such attempts are extremely problematic. Many of the leading companies in this sector have evolved from ancestors in traditional sectors which historically had little to do with information technologies (for instance toy manufacturers or office machine manufacturers) and continue to have interests over a diverse range of fields. Despite recent revisions designed to modernise the international sectoral classification systems², when 150 anonymised examples of companies generally agreed to belong to the 'new economy' were given by the STILE project to professional coders in six different national statistical institutes in the EU, huge variations were found in the way that they were coded to sectors. In fact, using the NACE classification system, only one case was coded the same at a 4-digit level, and even at a two-digit level only twelve cases were coded the same (Huws, 2005). It is clear that the existing economic statistics based on industrial sectors cannot begin to capture the dimensions of the changes taking place in the economy. Without such information, not only is it impossible to assess the extent to which a 'new economy' can be said to be emerging; it is also impossible to study what relationship it has to the 'old economy'.

An alternative to trying to identify the sectors which constitute the 'new economy' is to try to identify and classify 'knowledge work' and model its role in the economy. Here too there is a considerable body of literature. Soete, for instance, distinguishes three forms in which knowledge contributes to growth. These are 'easily transferable codifiable knowledge', 'non-codifiable knowledge, also known as tacit knowledge (skills)' and 'codified knowledge' (Soete, 1996). These categories are not, however, easily translated into occupational or other definitions that could serve as a basis for designing empirical

2 notably, NAICS, the North American Industry Classification System and NACE, the *Nomenclature generale des Activités économique dans les Communautés Européennes*,

research. Indeed the STILE³ project, which carried out an occupational coding exercise in parallel with the sectoral coding experiment quoted above, found even greater discrepancies in occupational coding to ISCO (the international standard classification of occupations) than it had when coding to sectors (Huws, 2005).

It can be concluded that the literature on the knowledge society, whilst it may provide fruitful material for the development of hypotheses about the nature of the changes to be expected in the composition of the workforce, does not provide a clear framework for carrying out empirical research.

Telework

A second large and disparate body of literature with some potential relevance for our topic is that on 'telework', a term whose precise definition is disputed, but which relates in general to work that is, or has the potential to be, carried out at a distance using a telecommunications link for delivery. I have reviewed this literature extensively elsewhere (e.g. Huws, 84, Huws, Korte & Robinson, 1990, Huws. 96) so will not address it in any detail here. It is however worth pointing out that much of this literature takes as its starting point a broader body of literature on the flexibilisation of employment (e.g. Huws, Hurstfield, & Holtmaat, 1989) in which flexibility is seen as a multidimensional phenomenon.

These dimensions have been broken down in a number of different ways by different researchers. One common approach is to distinguish between 'internal' and 'external' forms of flexibilisation, from the perspective of the employing company (e.g. Atkinson & Meager, 1986; Curson, 1986; Beatson, 1995). Here, 'internal' forms refer to redeploying employees within the organisation both in terms of their working hours (for instance by introducing flexitime systems, or annual hours contracts) or in terms of task allocation (for instance by introducing multi-tasking or forms of team working that break down traditional forms of demarcation). External forms include the use of a variety of contractual forms including part-time, temporary or 'on-call' contracts, the use of agency staff, the use of freelancers or outsourcing to an external company. Cutting across this internal/external divide is an alternative typology that breaks down flexibility across the dimensions of time, function, contract and space. Home-based teleworking is seen by many (e.g. Murphy, 1996; Simmons, 1996) as a paradigmatic form of flexible working because it can combine all these forms. Most obviously, it illustrates an extreme form of spatial flexibility, with the worker able to work not only from his or her home but also, in principle (if the right technology is available) from any other location. The fact that the worker no longer needs to attend the employer's office in order to work also creates the possibility for time flexibility, making it easy to switch seamlessly between tasks, including between those that are work-related and those that are not. The distance from the employer's office makes it difficult to sustain traditional task demarcations, however, since any support requiring proximity is difficult to provide to a remote worker. This in turn creates the need for the teleworker to be multi-skilled and able to be self-servicing in relation to a range of technical and administrative tasks. Finally, the nature

³ STILE stands for Statistical Indicators of Labour in the eEconomy, see <http://www.stile.be> for further information.

of the remote working relationship, which requires the worker to be managed by results achieved rather than monitored in real time, encourages the use of various forms of contractual flexibility.

Unfortunately, this very focus on multiple forms of flexibility means that, at least up to the end of the 1990s, the literature on teleworking was largely based on studies of what might be called 'individualised' forms of teleworking, involving work carried out fully or partially from the home, or using the home as a base. It included a large number of studies of ICT-using homeworkers and a rather smaller number of studies of ICT-using mobile workers but extraordinarily few studies of work which had been relocated en masse to a remote office. The exceptions to this were a couple of studies of workers involved in offshore data processing in Brazil (Soares, 1991) and the Caribbean (Pearson, 1991).

The literature on teleworking, then, also failed to provide empirical evidence of the scale or characteristics of work being relocated internationally. However an analysis of the data on teleworking from the UK Labour Force (the first to collect information systematically on work carried out away from the office using a telecommunications link) did make it possible to analyse which jobs (by sector and occupation – with all the limitations implied by these terms) were currently being carried out in this way. This made it possible to develop some assumptions about which types of activity were potentially 'delocalisable' (Huws, Jagger & O Regan, 1999). The teleworking literature also provided some useful insights into corporate restructuring strategies.

Other bodies of literature

For reasons of space, we do not summarise here the other bodies of literature which fed into the development of the EMERGENCE project. For the record, we merely note that they included a large and rich range of studies on technological change, from which the concept of 'social shaping' of technology emerged as particularly important. Also sampled was the vast development studies literature, including the branch which deals specifically with gender and development. Two other large seams that were mined selectively were those of organisational theory and the sociology of work.

The empirical evidence

The empirical evidence available at the time can be summed up in the following sequence of statements:

First, a broad and increasing range of tasks involve the processing of digitised information capable of being transmitted over telecommunications networks.

Second, these tasks cannot be identified easily in the existing statistics in terms of sector or occupation.

Third, some organisations (but we do not know how many) are taking advantage of ICTs to relocate work, but (apart from home-based teleworking) little is known about the forms that this relocation takes.

Fourth, there is some anecdotal evidence of the relocation of information-processing work from developed to developing countries, but we do not know

whether these cases are typical or exceptional, and little is known about the drivers of such decisions, their success or failure, the factors determining the choice of location or the impacts on employment, whether qualitative or quantitative.

Developing a conceptual framework for the research

In bringing together the results of this overview, one important underlying concept was that of commodification (Huws, 2003) as a driving force underlying the contractual and spatial extension of value chains. In this model, the quest for standardisation and replicability of products and processes is associated with the transformation of tacit knowledge into explicit knowledge, often termed the codification of knowledge. Once the knowledge has been codified and tasks broken down into standard and repeatable forms, it becomes possible for them to be managed by results. This in turn makes it possible for them to be carried out away from the direct supervision of the manager. It also makes it possible for each group of tasks to be costed separately. These developments make it possible for the work to be carried out either by another organisation (outsourcing) or on another site (relocation) or both. If the work involves the processing of digitised information which can be transmitted over a telecommunications link ('telemediated') then it can be carried out at a distance in real time, thus eliminating the transport costs and delays associated with geographical distance in the division of labour in the past. The only preconditions for this remote work, therefore, are that the work should be fully capable of being telemediated, that the right infrastructure should be in place, and that workers with the appropriate skills should be available in the chosen location.

In operationalising this concept, the concept of the value chain was also found to be very useful. Although it overlaps with it, this concept is not quite the same as the traditional notion of the 'supply chain', which is essentially a linear concept, implying a hierarchy of subcontractors whose intermediate products are eventually assembled into a final product. Rather, it provides a means of describing the interconnections between different nodes in an increasingly complex technical division of labour where, as sub-processes are broken down into smaller and smaller units, they are capable of being reconfigured in different permutations and combinations whose inter-relationships can be conceived as inputs and outputs. The traditional concept of the 'firm' residing in a 'sector', which forms the basic building block of most economic statistics, is increasingly inadequate as a unit of analysis for studying this process. In a rapid process of simultaneous decomposition and recomposition, not only are 'firms' increasingly fragmented into smaller and smaller cost and profit centres; these activities are also being reassembled into large wholes in forms which do not fit the traditional categories.

After much thought, and some pilot testing in other surveys⁴, it was decided that the most stable, coherent and readily understood unit of analysis for our purposes was that of the business function. Any given workplace (or 'establishment'⁵) can be seen

4 Including the 1992 Training and Employment in London Survey and the 1996-7 Telework and Teletrade surveys in Mumbai and Malaysia.

5 the term 'establishment' describes an organisation spatially, in relation to a single geographical location, as opposed to the 'enterprise' which is a legal definition that might encompass units on several different sites..

as a supplier or user of a range of different generic business functions (for the purposes of the EMERGENCE project we focused only on those functions which seemed likely to be telemediated and grouped these under seven broad headings: design; software development and maintenance; data entry; financial services; sales; customer services; and management, human resources and training functions. There are also, of course, many other functions including production, cleaning, transport etc. which we did not study). Each of these business functions may be carried out on the premises or supplied as an input from some other geographical location (either by employees of the same organisation or by an external supplier). The establishment may also be supplying any of these functions as an output either to another organisation, to another branch of the same organisation or to another end user such as a business customer (see Figure 1 in Standen, this volume).

This framework made several things possible. At the practical level it made it possible to design research which could quantify the extent to which information-based business services (ie. business functions capable of being telemediated) were in practice being relocated, the forms taken by this relocation (whether outsourced or in-house; whether to individuals working away from office-type premises or to remote offices), the scale of this relocation (the number of workers involved), the locations selected, and the reasons for this choice (some of the results of this survey are summarised in Standen, this volume).

At a conceptual level it made it possible to see the 'new economy' not as an autonomous sphere with its own internal dynamics but as a simple expression of new developments in the technical division of labour expressed simultaneously both in new forms of contractual and spatial separation and in new forms of contractual and spatial concentration. The 'new economy', in other words, can be seen simply as those parts of the 'old economy' which are capable of being spun off as separate activities using information technologies to store and process the codified information which was previously held tacitly within organisations, and using communications technologies to transmit it.

Finally, by placing specific technological changes in the context of broader ongoing processes of commodification, it made it possible to see that reskilling and deskilling processes are not mutually exclusive but, on the contrary, can be seen as opposite sides of the same coin, each new development (and hence each new step in the technical division of labour) creating a new potential separation between creative or managerial 'head' roles and standardised and routinised 'hands' ones.

For the purposes of designing the research, these insights were combined with another series of assumptions. Taken together, they can be summarised as follows:

First, the workplace forms a crucial locus where the individual citizen encounters global economic forces. However, the interactions between the individual and the global which take place in the workplace are neither inevitable nor uni-directional. Work organisation is shaped interactively both by structural forces and by the agency of individuals at a local level. In order to understand the dynamics of restructuring is therefore necessary to combine the study of institutions with that of individuals, or, in sociological terms, to attempt the optical trick of simultaneously 'seeing' both of structure and agency.

Second, the social impacts of changes in work affect groups differentially according to their specific social positions, gender, ethnicity, age, educational background and other social variables.

Third, regional and national institutions continue to play an important role in shaping the relationships between employers and workers within their territories. This is a factor in locational choice and contributes to distinctive trajectories, thus making it necessary to carry out comparative research and develop explanatory models for differing regional development paths. In an interactive process, the practices of transnational corporations both influence and are influenced by the practices of national institutions and regimes.

Fourth, similarly, there is nothing inevitable about the form that any particular technological development takes. In another mutually interactive process, technological innovations both shape and are shaped by the practices of the social actors who form and use them.

Fifth, there is unlikely to be a single simple explanation for any pattern identified. On the demand side of the labour market, drivers of change include the globalisation of markets, the liberalisation of trade, the development and spread of new information and communications technologies, the deregulation of labour markets, the marketisation of the public sector and policy initiatives such as the development of eGovernment. On the supply side they include changing household structures, the emergence of a tele-literate generation of workers and consumers and the appearance on the labour market of new groups. The complexity of the mutual interactions between these many variables serves as a warning to avoid not only simplistic explanations but also deterministic models which predict inevitable outcomes.

Sixth, employment is not a zero sum game. The globalisation of employment is so intricately entangled with general processes of economic development and the restructuring of companies is so interconnected with changes in market position that it will inevitably be impossible to estimate numbers of jobs 'lost' or 'gained' as a result of offshore outsourcing in any simple sense.

What did we learn?

The details of how the EMERGENCE proceeded in its research and some of its many empirical findings are presented elsewhere in this volume⁶ as well as in a number of project reports and articles (summarised in Huws, 2003) and on the project's website⁷. Here, I will content myself with reflecting on some of the limitations of the research and lessons learned for the future.

In general, most of the broad concepts we developed, including the concept of the 'elaboration of value chains' and the concept of the 'business function' proved their worth, and the choice of the 'establishment' (ie the geographical unit) rather than the 'firm' as the unit of survey was vindicated. These did, however, bring with them major problems in relation to the quantitative dimensions of the research. In practical terms, because in many countries the only databases that exist are at the firm (or

6 See in particular the articles by Flecker (this volume) and Standen (this volume).

7 <http://www.emergence.nu>

'enterprise') level, it was often extremely difficult to construct a representative sample of 'establishments' to survey and even more difficult, once the survey had been carried out, to develop weighting factors to enable international comparisons. Nevertheless, had the 'enterprise' been the unit of sampling it would have been impossible to establish the spatial division of labour within a multi-branch company, so it can be concluded that the choice of the geographical unit here represented the lesser evil. The choice of the 'business function' as the unit of analysis was productive in terms of providing good insights into what sorts of activities were being relocated and how. However because this is not a concept that exists in any of the official data sets that are available in a longitudinal form, this made it impossible to derive any trends. In other words, the EMERGENCE survey provided only a one-off snapshot of the situation in Europe in 2000 and in Australia in 2001, enabling comparisons between countries to be made but not comparisons over time. Our original hope was that because we were collecting the sector codes of all the establishments surveyed at a detailed level we would, when the data were analysed, be able to look at the sector codes of all the establishments involved in the supply (as opposed to the demand) of business services and that these sector codes could then be presumed to provide us with a profile of the sectors involved in the providing these business services – in effect showing us where in the standard industrial classification schemes the 'new economy was to be found. Unfortunately, the results of this exercise produced an extremely incoherent picture and demonstrated very clearly that there was little discernable logic in the way that business services mapped onto sectors as these were recorded (Huws, 2001). This discovery gave birth to a new research project (the abovementioned STILE project⁸) with the specific aim of investigating statistics on the labour market and the 'eEconomy' more deeply. However it took us no further on the path towards monitoring the new international division of labour in telemediated services.

Turning to the qualitative research, we found that some of our initial assumptions had been too simplistic. For the sake of clarity and comparability we had originally developed an extremely focused approach to the selection of case studies. The results of the establishment survey (approximately 7,500 interviews carried out in 18 European countries in the first wave) were used to construct a purposive sample of case study organisations, with the aim of producing a balance of business functions and company size categories that roughly corresponded to the distribution of telemediated relocations of work found in the survey. Furthermore, a balance was sought between in-house relocations and those which were outsourced.

Each case focused on a specific business function in which a significant relocation had taken place within the previous two years, with separate investigations carried out at the 'source' (the location at which the work had previously been carried out) and the 'destination' (the location to which the execution of these tasks could be moved). In practice, this turned out to be an over-simplified model. In some cases it was extremely difficult to isolate a single 'relocation' from a more general corporate restructuring, and in others we found that the 'source/destination' distinction did not adequately cover the situation, either because third parties were involved in intermediary roles or because

8 See <http://www.stile.be> for further information.

the restructuring involved a dispersal of activities to multiple locations or conversely a concentration in a single location of activities previously carried out on many sites. The limitations imposed by our initial assumptions did sometimes feel a little like a straitjacket. Nevertheless, without it there would have been too many variables to enable any serious comparative analysis to be undertaken, and this disciplined approach did produce a number of extremely valuable insights (summarised in Flecker & Kirschenhofer, 2002) some of which have been used to develop research questions to be addressed in further research⁹ (see also Flecker, this volume). The larger the number of cases to be studied, the greater is the need for clarity of focus and collective discipline in the selection from multiple variables of those which are crucial for general comparative analysis.

One striking feature of the cases that were investigated was the speed of change. In some cases, this could be witnessed over the 2-3 months during which the interviews were carried out. In other cases, we were able to revisit in 2003, as part of the Asian EMERGENCE project, some cases originally studied in 2000-2001 and were able to see major changes that had taken place between the two dates (Huws & Flecker, 2004). This implies a strong need for a longitudinal approach in future research if the dynamics of change are to be captured.

A number of general lessons for the design and conduct of international comparative case study research can be drawn from this experience. Most obviously, it is clear that such research involves several difficult balancing acts. There is a need to balance the requirement for international comparability with sensitivity to local conditions. This in turn involves striking another balance between on the one hand deciding in advance, and sticking to, certain key common research questions, common definitions, common approaches and common research instruments and on the other hand leaving a space for addressing unexpected findings. This is rather closely linked with an even more delicate balance: between overall conceptual coherence on the one hand and respect for individual researchers' particular knowledge, experience, national and disciplinary traditions and research interests on the other. Every researcher, of course, brings to a project his or her own particular expectations and explicit or implicit hypotheses. For effective collaborative working, it is important to ensure that these are articulated as clearly as possible in the design stage, so that they can be fully discussed and shared amongst the partners and accommodated in the research design. This in turn implies a democratic way of working and a willingness by all parties to make some compromises in the interests of reaching a consensus (which does, not, of course, necessarily imply that any intellectual compromises need to be made in the way in which each individual chooses to interpret the results once the research has been completed). When compared with hierarchical, top-down research management models, such democratic processes are relatively costly in terms of time and other resources. Ensuring adequate communications may be slow and difficult since the same form of words can mean very different things in different disciplinary or language contexts and much patient explication may be

9 Notably the WORKS project; for further information see www.worksproject.be.

required. There is also a need for resources for face to face meetings and continuing dialogue as well as for translation of the results of research which is carried out in many different languages. Linguistic differences also pose practical difficulties in interpretation. For instance it is impossible to use the standard software packages normally used for qualitative data analysis when the interview transcripts are in different languages. Not only would it be prohibitively expensive to translate every word of every interview into the same language for coding; the very act of translation would inevitably distort the process, with the translator's hidden assumptions constituting a barrier to the direct interpretation of the respondents' original verbatim responses. This implies a two-stage or even a three-stage interpretation of the results, with each researcher constituting an additional filter in the process.

What can we learn from this for future research?

First, there is a need for a careful preparatory phase in which a clear conceptual framework is developed for the research with the full and active participation of all partners in order to produce a collective ownership of the concepts used, a clear common understanding of the research questions and shared research goals.

Second, there is a need to develop clear definitions of any indicators to be used in quantitative research and, wherever possible, to ensure that they are capable of being triangulated with indicators which already exist.

Third, there is also a need when designing the qualitative research methodology to ensure that the results will be comparable across as many dimensions as are addressed in the research questions.

Fourth, there is a need for a longitudinal dimension in research on the restructuring of work.

Finally, whilst a number of lessons have been learned about international working in a European context, it is apparent that the development of in-depth international collaboration in qualitative research at a global level is still in its infancy. There is still a huge need for resources to develop mutual cultural understanding and sensitivity in order to create an environment within which shared conceptual frameworks can be developed, and genuinely collaborative comparative research carried out.

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