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Chapter 5 Consuming Distance or (all) Consuming Work? The Case of Telework

Michael Hynes

Introduction

Work takes up a considerable portion of many people’s daily lives. A symbol of personal value that provides status, economic reward, and a means to self-realisation and efficacy (Grint, 1998), its ongoing transformation through new technologies also influences broader aspects of societal development, production and consumption. Perhaps most importantly, work constitutes a human activity that significantly shapes the biophysical environment through the consumption of resources such as fuels, water and clean air, as well as the production of waste. For example, physical mobility related to paid work outside the home has been identified as a major source of Greenhouse Gas (GHG) emissions from the private sector, with car-based commuting causing significant environmental damage both in Ireland and elsewhere.

Telework, that is, ICT-aided arrangements that enable employees to work from home or over-distance, has been promoted as a potential solution to environmental problems arising from work-related physical mobility. This comes with the expectation that moving the work to the workers rather than moving the workers to work (Nilles, 1998) will eliminate the daily commute. Telework, therefore, is a prime example of a ‘technological fix solution’ to environmental problems, prioritising potentially profitable solutions in an effort to reconcile economic growth and environmental protection. This way of thinking exemplifies a ‘shallow’ Ecological Modernisation (EM) approach and has dominated environmental policy in Ireland and Europe over the past two decades. As a peripheral European Union member-state with a low population density, Ireland offers a unique test case for the (in)effectiveness of telework as an environmental policy option. Ireland’s workforce is frequently promoted as highly educated, mobile, and technically savvy (Irish DoJEI, 2012) and there is a strong emphasis on attracting foreign direct investment, including in the technology and services sectors. At the same time, the effects of urban sprawl and spatial fragmentation associated with the recent ‘Celtic Tiger’ economic boom (1995-2007), including lengthy commuting times and traffic congestion, make the country an ideal test site for telework. This chapter critically examines telework’s strengths and weaknesses as a ‘virtual mobility’ option, that is; as an alternative to physical mobility that potentially reduces the need for corporeal travel and its associated economic, social, and environmental costs.
Researching telework also offers opportunities to explore the impact of EM thinking on environmental policy design, and the broad consequences of Society-Technology-Environment-Interactions (STEI). The development, adoption, and use of ICT – a critical element of telework – and its role in environmental protection, affords a valuable context to assess the worth of current policy in this area. Evidence from this particular research encourages more critical reflections on telework policies and their effectiveness. Importantly, it allows employers and employees to make more informed decisions on this significant adjustment in work and social practices before committing (or not) to working from home. This research also examines the strengths and weaknesses of telework as a sustainability opportunity and asks if the current approach brings the three pillars of sustainability – economic growth, social justice, and environmental protection – into conflict.

To assess the practice of telework, the author undertook an extensive review of national and international publications, policy, legislation, and evidence of public debates, in addition to primary research in Ireland combining quantitative and qualitative methods of enquiry (cf. Bryman, 1988, 2012). The quantitative element combined three separate surveys. The Telework Survey targeted workers in a multinational organisation which has pioneered flexible working arrangements in the past. The number of potential teleworkers was estimated at 114, based on figures provided by the HR department. A total of 53 individuals took part in the survey, a response rate of just over 46 per cent. The CONSENSUS Lifestyle Survey (Chapter 3 in this volume) sought an understanding of people’s attitudes and behaviours towards sustainable household consumption and sustainability lifestyles, including transport decisions. Finally, the Smart Moves Survey was developed to obtain an understanding of how workers commute to and from work. It also sought opinions and attitudes on general issues of mobility and transport, and the environment (see also Chapter 4 for details). Existing national and European statistics complemented the data from these three surveys. The qualitative element of the research consisted of 16 semi-structured, in-depth interviews with male and female teleworkers. Interviewees were chosen to reflect the broad range of teleworkers currently operating in Ireland (cf. MRBI, 2002) comprising of nine male and seven females, a mixture of management, employees, and self-employed, and between the ages of 25 and 65 of age.

The remainder of the chapter is divided into five sections. Section Two presents a discussion of the key features of EM thinking and the relevance to the study of telework as a possible ‘mobility suppressant’ that depends heavily on the development and adoption of technology. Section Three presents a critique of telework followed by a discussion on the prevalence and impact of the practice and relevant policy considerations. Section Four explores telework in the context of teleworker’s actual experience whilst Section Five considers its impacts on mobility and consumption practices. Section Six draws the chapter together with a discussion and conclusions on the implications for
policy-making in Ireland (and elsewhere) and an overall understanding of the complexities of telework with regard to environmental and social sustainability.

**From the shallow to the deep end: emerging strands of Ecological Modernisation (EM) thinking and their policy relevance**

Ecological Modernisation (EM) is an optimistic school of thought that expects economic benefits to arise from moves towards greater sustainability in production and consumption. It is argued that environmental productivity can be the source of future growth and increasing resource efficiency (Mol, Sonnenfeld, & Spaargaren, 2009). However, two distinct schools of EM thinking have emerged over time. Christoff (1996, 2000) identifies and outlines some important differences between ‘weak’ and ‘strong’ EM (see also Table 1 below). Weak (or shallow) EM forms part of mainstream development theory, which views environmental management as the next step in a unitary evolutionary process of modernisation (Revell, 2005: 346). It is often narrow in nature and concerns are depicted in terms of monetary value, with technical fixes being recommended as the main solution to environmental damage. Strong (or deep) EM promotes a more radical change to society with a view to making it more responsive to environmental concerns. It is ‘ecological rather than economicist, institutional rather than technical, integrated and systemic rather than piecemeal, diversifying rather than hegemonic’ (Christoff, 2000: 346-347). Shallow EM merely sustains the dominance of economic considerations over environmental and social protection, whilst deep approaches to EM are more likely to lead to significant and sustained structural changes to tackle negative environmental impacts. Conceptualising political, economic, and ecological developments in diverse and open-ended terms is also a key part of deep EM thinking, which accepts that there is no single correct or accepted view of what EM must entail but multiple possibilities to which EM might provide an orientation (Berger, Flynn, Hines, & Johns, 2001). Deep approaches to EM have broadened over the recent past to encompass transitions management literature and their translation into public debates and transition movements.

<table>
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<tr>
<th>Shallow EM</th>
<th>Deep EM</th>
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<td>Technological solutions to environmental problems</td>
<td>Broad changes to institutional and economic structure of society incorporating ecological concerns</td>
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<tr>
<td>Technocratic or corporatist styles of policy-making by scientific, economic, and political</td>
<td>Open, democratic decision-making with participation and involvement from individuals</td>
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Elites and groups

Restricted to developed nations who use EM to consolidate their global economic advantages

Concerned with the international dimensions of the environment and global development

Imposes a single, closed-end framework on political and economic development

An open-ended approach with no single view, but numerous possibilities with EM providing orientation

**Table 1 - Characteristics of Shallow & Deep EM (as based on Christoff, 1996: 490)**

Efforts to reconcile the desire for economic growth with aspirations for greater social justice and better environmental protection have influenced international sustainable development debates since the 1980s, with shallow variants of EM thinking dominating Irish, European, and global environmental policy agendas (cf. Wurzel & Connelly, 2010; UNEP, 2013). With respect to such policy design, it is important to draw a distinction between the various interpretations of EM. Almost all EM approaches are reformist in nature, in that they do not advocate a radical or abrupt rejection of current ‘Western’ patterns of production and consumption, the role of the state, or indeed capitalism. This said, there is considerable variation over the rate, ambition, and nature of reform among EM advocates. Some stress the need for a very restrained capitalism and a strong state while others could be described as green neo-liberals. Further, some proponents merely adopt EM as a strategy of practice (rather than a deep-seated principle) that is most likely to get Western states to green themselves. Conversely, deep EM advocates often share many values with deep greens and other radicals, but believe such radical accounts lack a credible political strategy by ignoring the state or calling for the rejection of capitalism.

Drawing on the available literature, the author developed a typology that broadly identifies four expansive discourses underpinning deep EM considerations (Table 2). Whilst not meant to be definitive, this typology provides a schematic overview of some of the broad areas of reform and debate within EM thinking.

<table>
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<tr>
<th>Themes</th>
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| Ecological Modernisation as a way to reconcile economic growth and environmental protection | - The economy & environment can be aligned & synergised  
- High environmental standards are a means of developing market | The belief that a clearer understanding & appreciation of environmental protection is a precondition for sustained |
advantage
• Economic growth, industrialisation, and capitalism are drivers of environmental reform
• Environmental concern is reflected through pricing, product development, and service provision

Economic development and growth

Environmental concern is reflected through pricing, product development, and service provision

Ecological Modernisation as the driver of transformation in policy-making arrangements
• The nation-state will become more decentralised, flexible, and consensual
• Non-state actors & groups will assume new operational roles in policy-making
• It will be a break from the ‘top-down’ approach to one driven by social movements
• ‘Political Modernisation’

The belief that the nation-state can be transformed leading to former non-state actors assuming regulatory and administrative roles

Ecological Modernisation as a technological solution to environmental damage and protection
• Technological development can have favourable consequences for the environment
• Technology can be used to increase energy & resource efficiency
• Product and process innovation will allow clean technologies and substitutes for hazardous substances to materialise

The belief that technology is not just a source of environmental damage but can promote efficiency, environment repair and protection if used judiciously

Ecological Modernisation as a means of curbing (over)consumption
• Producer and consumer shape each other through information exchange
• Market dynamics will transform propagating environmental good, reflected ultimately by product demand
• Product life-cycle change – from ‘cradle-to-grave’ to ‘cradle-to-cradle’ to take account of product waste

The belief that producers will be shaped by consumer choice and their pro-environmental decision-making, and will in turn develop eco-friendly products & services

Table 2 – Discourses of Ecological Modernisation

Many proponents of deep EM thinking seek to allocate appropriate weight to structural constraints and human agency respectively, thereby attempting to move beyond highly polarised environmental protection debates in the 1970s and 1980s that pitched heavy-handed state-led regulation against individual choice (cf. Dunlap, 1997). Conversely, there are signs that narrow techno-centric
approaches to environmental management – an indication of shallow EM thinking – now dominate actual environmental practice both in the developed and developing world, with insufficient attention paid to social and political processes and conditions (Oelofse, Scott, Oelofse, & Houghton, 2006; Edmondson & Rau, 2008; Szarka, 2012).

Critics claim that EM fails to adequately protect the environment, doing nothing to alter the impulses within capitalist economic modes of production and consumption that inevitably leads to environmental degradation (Foster, 2002; Baker, 2007; Jackson, 2009; Barry, 2012). Further, the dominant focus of concern is the economy and growth, with fewer commitments to issues of actual ecological harm. Finally, EM can be reconciled rather comfortably with the belief in continuing liberalisation of the world economy, attracting criticism for its ‘business as usual’ outlook (Blowers & Pain, 1999; Barry & Doran, 2006). The next section provides a brief critique of telework, in addition to exploring its prevalence as a practice and its broad impacts, within the milieu of EM considerations.

**Telework: an example of shallow or deep EM thinking?**

An illustration of a shallow, techno-centric EM approach is the case of telework. Telework occurs when ICT is applied, enabling work to be accomplished at a distance from the location where results are required or where work would traditionally have been performed. The practice of telework has been heralded as a cure for various organisational and social problems. It has been proposed as a strategy to help organisations reduce their infrastructural and utilities costs (Egan, 1997; Van Horn & Storen, 2000), meet employee needs for an enhanced work-life balance (Shamir & Salomon, 1985; Hilbrecht, Shaw, Johnson, & Andrey, 2008), and promote social inclusion for people with disabilities or other who have been previously excluded from the workplace (Hesse, 1995; Anderson, Bricout, & West, 2001).

Telework is proposed also as the means of diminishing traffic-related environmental impacts, such as air and noise pollution, by reducing or eliminating the daily commute to and from work (Irwin, 2004; Dwelly & Lake, 2008). In an apparent shift in transport policy, the Irish government’s *Smarter Travel* initiative sought to promote more ecologically sustainable modes of transport, such as walking, cycling, and public transport, in opposition to the prevailing and environmentally damaging car-dependent travel behaviour (Irish DoT, 2009). A central feature of *Smarter Travel* is the promotion of

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1 In a 2009 interview US President Barrack Obama stated: ‘all of us are going to have to work together in an effective way to figure out how do we balance the imperative of economic growth with the real concerns about the effects we’re having on our planet. And ultimately I think this can be solved by technology’ (CBC, 2009).
telework\textsuperscript{2} as part solution to lessening carbon-intensive commuting practices thus helping to decrease the overall ‘consumption of distance’.

Yet, telework continues to be poorly understood, particularly in terms of its actual social and environmental impacts and consequences. There is international evidence, for instance, that the use of ICT does not inevitably lead to the substitution or suppression of travel (Mokhtarian, 1990, 1991, 2003). Further, additional consumption arises from the need to acquire or update technological equipment, infrastructure, living space, and other such lifestyle adjustments (Arnfalk, 2002; Moos, Andrey, & Johnson, 2006). A more critical sociological engagement is required to assess telework and its social and resource impacts. The research discussed in the following sections uncovers some frequently concealed features of the practice to highlight how this way of working can (or indeed if it should) be further developed and widely implemented. Significant domestic and social implications for people who choose to work from home are explored as telework functions as a test case for wider sustainability questions regarding the consumption of resources and its social consequences. By connecting shallow EM thinking and telework strategy and practice in Ireland, it is possible to demonstrate some of the pitfalls of neoliberal, techno-optimist environmentalism in the areas of work, transport, and consumption. Advocates of telework, nonetheless, contend that it should be embedded in the philosophy of many organisations, as well as being endorsed by local, national, and European decision-makers. But the reality of telework in Ireland suggests a much more cautious approach.

The prevalence and impact of telework

The foremost national telework data, from an Irish perspective, was published ten years ago in the Quarterly National Household Survey in which merely 3.5 per cent of the workforce were considered teleworkers (CSO, 2003). More recently, the Telework in the European Union report investigated rates of telework within the European Union (EU), particularly in the context of the European Framework Agreement on Telework (Eurofound, 2010). This report revealed that the rate of teleworking in Ireland was 4.2 per cent of the workforce, with the European average standing at 7 per cent. Indeed, across Europe the report found a marked difference in regional, national, and even local and organisational terms. The figure for teleworkers within the EU had been expected to triple by 2010 (Bates & Huws, 2002) but the actual figure has fallen short of these optimist expectations. In fact, the recent announcement by Yahoo CEO Marissa Mayer to discontinue all telework arrangements within that company (The New Yorker, 2013), in addition to Google’s CFO, Patrick Pichette counterintuitive anti-telework stance (Amerlan, 2013), suggests a potential reversal in such trends.

\textsuperscript{2} Smarter Travel refers to telework as eWork.
The numbers of individuals who telework remains low in Ireland and there is little indication of promotion or growth of such working arrangements. While the potential benefits of telework for the economy are somewhat apparent, its adoption as an instrument of environmental protection is not directly evident, and, indeed, its impacts remain unknown. There is a strong indication of people’s general concern for environment protection in the surveys but this unease did not translate into practical environmental activism or changes in work practices, including the decision to telework. Instead, it is frequently economic, social, personal, and political issues that take precedence in these decision-making processes. For example, a similar question was asked; ‘which of the following statements best describes how you feel about the environment’. In the ConsEnSus Lifestyle Survey 62.7 per cent of respondents answered they were somewhat concerned, while 23.2 per cent claimed they were very concerned. The Smart Moves Survey showed a figure of 62.6 per cent somewhat concerned and 26.4 per cent very concerned. The Telework Survey revealed figures of 76.1 per cent somewhat concerned and 17.4 per cent very concerned. Nevertheless, when participants in the Telework Survey were asked ‘did environmental considerations play a significant part in your decision to telework’ 70.6 per cent replied ‘no’.

It was anticipated that deregulation of telecommunications, price reductions and performance improvements, would allow telework to become a conventional method of working (Callanan, 1999). However, results of the telework desktop studies in this research reveal that despite early enthusiasm there is an absence of policy or regulation in this area, which has led to improvised arrangements and structures being put in place for many such schemes. In an Irish context, three separate government departments allude to telework strategy: 1) Environment, Community and Local Government, 2) Transport, and 3) Jobs, Enterprise and Innovation. As a result of such imprecise demarcation of responsibility and the resulting lack of leadership, telework has ‘fallen between the cracks’ of various departments of government. Prevailing ‘silo thinking’ within and between government departments and a vague understanding of the realities of telework and its impact on workers’ lives have also led to ambiguous policy and gaps in legislation.

New technology has the potential to contribute to environmental protection and repair. However, a noninterventionist approach to technology development and adopted processes by key decision-makers regularly fails to consider the ways in which people select and appropriate their artefacts, and the strong production and consumption forces at work. The inherent unavoidability and unpredictability of unintended consequences postulates that there are always positive and negative effects in relation to technology adoption (Huesemann & Huesemann, 2011). In the case of telework, the use of ICT is suggested as a positive approach to reducing the daily commute to work, in addition to decreasing additional requirements for work travel, with little or no negative impacts. Thus, in this instance, technology use in the context of changing work and organisational practices is viewed as a
source of environmental good (Verbeke, Schulz, Greidanus, & Hambley, 2008). But is this simply techno-optimist rhetoric in the absence of empirical evidence?

(Working) home alone: teleworker’s experiences

According to many of the teleworkers who were interviewed for this research, telework is frequently implemented in an ad-hoc and unregulated manner leading to unpredictable and erratic administration:

I would say they don’t condone it or they don’t condemn it’s whatever your manager says and if you are as productive as you need to be, but they probably won’t take a stance either way they won’t say ‘oooh we want you to work from home’ because then they’re just afraid of the cost of it ‘oooh I might look for expenses’ or ‘I might look for…’ [Teleworker 7, female, aged 40-45, employee].

One manager articulated the view that the absence of regulation, and indeed disregard for existing employment legislation, was responsible for the lack of acknowledgment of the practice of telework, in addition to mistrust of potential teleworkers:

I think people just got so scared when they realised all the implications and they say ‘we’ll do everything ad-hoc instead because we don’t want to acknowledge it’, I mean officially I’m not acknowledged as doing this because I’m breaching the amount of hours I do, it breaches the health and safety act if I had to record them all, but the real issue was we didn’t want to have a precedent that other people who wouldn’t be productive workers would use [Teleworker 11, female, aged 40-45, management].

Nevertheless, there are a number of potential benefits that can accrue to individuals, organisations, society, and the environment from having people work from home for part or all of the week (cf. SusTel, 2003). Individuals can improve their work/life balance with the additional autonomy and flexibility afforded, in addition to savings in travel costs. Organisations could profit from a more contented workforce, in addition to out-of-office hours working, crisis planning, and productivity gains. Society benefits from the enlargement of the work pool and allowing people to live and work in rural and remote communities, whilst the decrease in commuting helps alleviate the damaging environmental effects of unnecessary travel. But many of these benefits are challenged by increasing domestic changes and the often stressful conflict between private and work domains some individuals struggle with when working home alone (Othman, Yusof, & Osman, 2009). Frequently, uncritical interpretations of telework fail to account adequately for teleworker’s actual experiences leading to the implementation of ad-hoc schemes and unintentional outcomes.
The meagre uptake of telework is emblematic of a lack of any practical legitimacy for the practice amongst policy-makers, business leaders, and indeed workers themselves. This position was repeated in different ways throughout the interviews when teleworkers discussed the practice:

Within our organisation locally and nationally I think it’s a relatively rare phenomenon [Teleworker 1, male, aged 25-30, employee].

No I don’t think it’s promoted at all, I certainly have heard absolutely nothing with regard to teleworking [Teleworker 12, female, aged 30-35, employee].

Despite the dearth of telework arrangements and schemes, teleworkers strongly claim to regularly work longer hours and suggest they are more productive working from home alone. This was a recurrent and prominent theme running through most of the interviews and epitomised by the statement of one teleworker:

I would work longer hours because I wouldn't be standing at the printer chatting or going for coffee [Teleworker 16, female, aged 35-40, employee].

Although there are obvious organisational benefits from increased working hours, greater flexibility, and possible productivity gains, there continues to be considerable misgivings about telework and a level of distrust for the practice which emanates from management and employers. Many managers interviewed, were apprehensive about the transformation in their traditional role of supervising work and workers, although they themselves frequently teleworked.:

As a manager you’ve no way to monitor the hours people are working or what they’re doing [teleworker 2, female, aged 35-40, management].

For many workers, the social consequences of telework are often neglected in favour of the economic benefits for employers. Indeed, many of the costs of telework are outsourced to the individual worker with limited assistance from employers. Personal, family, and community issues are often subordinate, again de-legitimising telework for many. The sense of isolation felt by teleworkers working from home alone was reflected by one interviewee:

She (interviewee’s fiancé) normally leaves at seven o’clock in the morning and it can often be that I don’t see a soul until she comes back, so it can be a bit isolating [Teleworker 1, male, aged 25-30, employee].
Teleworkers spoke openly of the diverse overlaps between work and private domains, which may or may not create tensions. It was expressed as a feeling of intrusion at time by some who spoke of planning and unravelling their complex time commitments:

    If you’re working from home you need to make that difference between what’s my time and what’s work time, and sometimes it’s possible, sometimes it’s not [Teleworker 6, male, aged 35-40, employee].

The consequence of telework on the individual’s home life, and a lack of control and employee participation in many telework arrangements, is changing the nature of work for teleworkers, often unconsciously established and frequently skewed in favour of employers. There is intrusion into the private sphere but also an acceptance of its inevitability:

    There’s this overwhelming desire to say ‘oooh what’s on that there now’ [referring to content on his mobile device] and that can be a little bit intrusive […] there is a little bit of an expectation to take work things in-between, but I have no problem with that [Teleworker 14, male, aged 35-40, employee].

For other (exclusively female) teleworkers, the temporal flexibility afforded when working from home allows domestic chores to replace the social elements of working in an office with others:

    At eleven o’clock I might put a wash on or do a quick hover (vacuum) rather than where if I was in the office I might sit down for fifteen minutes have a cup of tea and chat to the girls [Teleworker 12, female, aged 30-35, employee].

The issue of gender and its association with telework suggests that women’s daily life patterns continue to be heavily influenced by this private/work dualism when working from home (Gurstein, 2001). Gurstein (2001) maintains that such dualism impedes the legitimacy of women’s home-based work. Each interviewee was asked if they felt that telework was more suitable for men or for women. The male interviewees all replied that there was no difference and at issue were the tasks or job to be performed. The female interviewees were much more reflective and circumspect in their answers. Many echoed their actual experience of juggling work and domestic commitments and were cognisant of the conflict between the private and work domains from time-to-time:
I would imagine it would be easier for men because if you’re at home in a house, women are the one who see things that need to be done [Teleworker 7, female, aged 40-45, employee].

I think in Ireland it’s assumed that the mother looks after the kids and does the ferrying around [Teleworker 10, female, aged 35-40, employee].

Among some workers there is a perception of damage to upward organisational mobility and harm to promotional opportunities for people working from home, which was echoed in a number of the interviews. Much of this relates to the reduction, or indeed total absence, of face-to-face co-presence afforded individuals working at the same location:

If you have face-to-face contact with them you get promoted, they know you [Teleworker 6, male, aged 35-40, employee].

Worker control or influence over telework conditions and arrangements is limited. In some instances, teleworkers expressed a feeling of autonomy and independence to work in a very personal manner, but also felt the pressure to meet imposed deadlines (largely emanating from traditional centrally-located nine-to-five worksites) while working longer and irregular hours to meet additional global organisational commitments. Several interviewees stated that working arrangements were largely planned and controlled by their employers to meet the nine-to-five needs of other countries, while others felt the unstructured nature of telework has allowed organisations to abdicate some responsibility for their employees:

It’s just something that they turn a blind eye to because there’s no support structure in place [Teleworker 4, male, aged 40-45, employee].

The lack of worker participation and weak control of many telework schemes, policy and decision-making has allowed a vacuum of practical and helpful information, legislation, and structure to emerge over time. Individuals spoke about the absence of any information and training with regards to telework and the skills needed to work in this way:

I wouldn’t know where you’d get some info in terms of how best to engage with time management and task analysis or anything like that [Teleworker 15, male, aged 35-40, management].

Despite this, teleworkers felt a sense of gratitude to their employers for being allowed to work from home, and this was common throughout the interviews. Many acknowledged that they worked longer
and suggested they were more productively but yet were grateful to their employers for the opportunity to work from home:

You get a little more time out of people when you've given them the freedom to work on their own and in their own environment [Teleworker 15, male, aged 35-40, management].

Little in the way of additional or high-end equipment or technical skills are required to work in this way with many interviewees stating the importance of discipline, coping, and self-motivation:

The most important thing about working from home is that you have to be the type of person who can cope with working on your own in isolation… you have to be self-motivated [Teleworker 9, female, aged 35-40, contract employee].

The day-to-day experiences of teleworkers suggest that pre-existing communication equipment, long established and now orthodox within working environments, is what is required to work effectively from home. At the same time, domestic disruption stimulated by individuals setting up office in their home is often underestimated. Personal coping mechanisms and building on existing communications skills rather than the ability to use technology are key competencies required for successful teleworking. This suggests a role for technology in telework development but highlights the significance of prevailing social practices in relation to work.

Travelling without moving? The impacts of telework on mobility and consumption practices

With regards to mobility, workers in Ireland continue to be dependent on private vehicles to travel to work at a central location (CSO 2012). There is an absence of practical validity for telework despite evidence that such workers appreciate the flexibility and autonomy and also work longer hours with potentially improved productivity gains. Additional issues that are contributing to a lack of legitimacy include some management’s persistent mistrust of telework and the obscuring of boundaries between work and private domains evident in the following statement:

There’s a sense of not being at home when you’re at home, there’s a sense of still being at work [teleworker 2, female, aged 35-40, management].

Telework is transforming consumption in other, heretofore underreported or overlooked ways. For instance, some teleworkers have relocated their families further away from their workplace than would otherwise have been practical, thus increasing the distance between their home and workplace:
I lived in Dublin but then once I got married we moved down the country so teleworking was more appealing really, although it was an option whenever I lived in Dublin but because I lived so close I didn’t avail of it [Teleworker 8, male, aged 25-30, employee].

The study of telework, in the context of such life-cycle changes, is not widely explored in the literature but the interrelationship of home-based telework and (changing) family life and circumstances is a crucial consideration for understanding the development of the practice and its environmental consequences, especially with regard to physical mobility. Research on life-cycle changes would suggest that an understanding of such issues can lead to improved selection criteria for choosing potential teleworkers, to the generation of guidelines for such workers, assist with longer term staff planning, and highlight problems which may arise between teleworkers and managers (Haddon, 1991). Ultimately, and given the nature of telework, situations and preferences may vary between families and individuals but such life-cycle stages research would provide the basis for managers and staff to discuss the details of any telework arrangements, particularly in the context of suggested social and environmental good.

Further, the changing nature of work for many has led to teleworkers travelling more due to new working activities and connections. Telecommunications, in this regard, is complementary rather than a direct substitute for co-presence and close proximity interactions. Such new travel and mobility requirements were summed up by the statement of one teleworker:

I’m going in two weeks’ time to the UK and the whole team’s coming together from all over the world from America from parts of England there’s a good few people from Dublin as well [Teleworker 1, male, aged 25-30, employee].

Moreover, teleworking, given the flexibility afforded, facilitates additional shopping opportunities as individuals have autonomy and particular freedom of movement during break times when working from home. Such changes to daily routine (which are habit forming) have significant implications for consumption. Many aspects of consumption are habit-like (Warde & Southerton, 2012) and Shove (2003) maintains that habits are not just changing but are changing in ways that imply escalating and standardising patterns of consumption.

During the day, maybe during lunchtime we’d say, I might pop out and do a quick bit of shopping [Teleworker 3, male, aged 35-40, management].

Other teleworkers considered the shifting or additional consumption practices associated with working from home, both in terms of economic and environmental costs. This was primarily
additional energy usage, such as heating, lightings, and electricity, associated with communications equipment and conventional domestic practices such as eating:

if you have to add up everything every small thing say like I’m using up electricity I’m using up heat I’m using up say I’m boiling up my kettle I’m using up electricity at home rather than (at work) and my Internet [Teleworker 6, male, aged 35-40, employee].

Telework and its environmental sustainability attributes are not comprehensively understood and there is need to broaden the scope of inquiry to include other general consumption practices (Hynes, 2013). All the environmental implications of telework must be made explicit through empirical research to validate its sustainability reputation. While travel may decrease due to a reduction in commuting, it may also increase on days when workers actually commute, as teleworkers elect to live further away from their place of employment. In addition, the nature of working over-distance forges new relationships that need to be developed through face-to-face contact, stimulating new travel opportunities. Other underreported patterns of consumption for teleworkers include increased technology and energy use in the home, and the flexibility afforded to individuals helps to generate additional opportunities for shopping and overall occasions of consumption. The extent to which this additional consumption is offset by reduction in the workplace remains poorly understood.

Discussion and Conclusions
While the technology to allow individuals to work from home has been widely available for some time now, there is continuing reluctance and apprehension on the part of many employers, and indeed employees, to embrace the practice of telework. Whilst it must be stated that many existing teleworkers express satisfaction with their arrangements, what is largely neglected in much of the research and discourses on telework is the private/work dualism, that is, the multifaceted domestic and social interactions individuals struggle with when working from home. Merely promoting the apparent environmental sustainability merits of telework ignores the potential conflict between the other two pillars of sustainability (economic and social). Moreover, the environmental benefits of telework are often uncritical accepted without due attention to social and cultural dimensions, or indeed in the absence of robust empirical evidence. As this research has shown, the environmental impacts of telework are by no means clear-cut, given the emergence of new resource-intensive (mobility) practices as a result of telework. The cost of increased domestic resource use arising from working from home is also largely shouldered by teleworkers themselves, raising important equity questions.

Ecological Modernisation (EM) is an attempt to move environmental protection debates away from the confrontational positions of the past, within the confines of existing growth-centric economic
models of development and production. But EM discourses are wide and varied and shift between shallow techno-optimist positions and deep structural change approaches to environmental protection. In this chapter, a typology of four key themes that underpin the deeper aspects of EM thinking was presented, in line with existing debates and literature on the subject. Whilst there is some evidence of the rhetoric of deep EM in telework public discourses, little in the way of practical application and implementation of such radical change approaches is apparent. Instead, an approach suggestive of neo-liberal environmentalism is evident in which individual organisations are given absolute freedom over any such working arrangements leading to a stagnation of the practice overall.

The lack of any concrete policy or regulation in relation to telework in Ireland is leading to haphazard and confused working arrangements, confounding already complicated work and domestic activities. Given this legislative and regulatory vacuum, policy-makers and key decision-makers must assume that technology, with respect to its inherent nature, is value-neutral and autonomous (Huesemann & Huesemann, 2011) bringing about only positive impacts and consequences. Many such decision-makers adhere to an (over)optimistic understanding of the power of technology in terms of its social and environmental good, and often hold an uncritical acceptance of innovation and development.

Telework lacks the necessary oversight essential to legitimise it for both employers and employees. In the Irish case, an existing neo-liberal state, chronic car-dependency, and a lack of telework guideline or schemes reflect classic shallow EM thinking. The laissez-faire approach adopted by policy-makers allows employers to retain ultimate discretionary powers over the success or failure of telework arrangements and schemes. Further, many employers fail to truly appreciate or recognise the real issues and concerns of teleworkers, which is leading to ad-hoc and disorganised arrangements to the detriment of this way of working. Telework needs to be re-evaluated by policy designers in a more holistic manner and strong protection for any potential environmental and social benefits need to be incorporated into any progressive policy initiative. Further, there is a need for longitudinal research to ensure that any environmental sustainability gains brought about by telework are properly evaluated, in particular in relation to possible consumption changes with regards to energy, water, food, and technology use, and if these are (or can be) offset by diminishing consumption in the workplace. Much of the early enthusiasm shown on the subject of telework has long since faded in an atmosphere of ambiguity and uncertainty, along with out-dated web portals and reports. In a world frequently characterised by technological progress, the time is now right to re-visit the subject of telework in a more pragmatic and critical manner if we are to obtain any inherent social and environmental gains associated with the practice.
References


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