

Office Work: Transformations in Technology, Practice and Energy Demand

This project examines the ways in which office technologies and office work are changing, especially in the wake of the COVID-19 pandemic. The research investigates emerging complexes of technology (digital and otherwise) as they become embedded in working practices and as they modify the extent and distribution of energy consumption and carbon emissions. The research is designed to make new links between science and technology studies and sociological theories of practice and consumption. Specifically, it will develop new ideas about how and when digital technologies make reconfigurations of social practices possible. Empirically the research focuses on changing configurations of home/office working and their implications for carbon reduction in large organisations (to be selected). The method is to collect data on trends in home and office working (in the UK and in the selected organisations) as well as interview data about how organisations and their employees are negotiating and managing these changes.

The aim of the project is to identify and describe the processes involved in specific settings and to generate insights into the details of this sociotechnical transformation that can be extended to other organisations seeking to develop and adopt lower carbon ways of working.

Rationale and approach

Aspects of office work have been migrating into the home (and other spaces) alongside the rise of laptop computers, the internet and related software. The global pandemic accelerated this trend, forcing many organisations and employees to adopt new ways of working, including forms enabled by online platforms and software (Richardson, 2021; Carugati 2020). What were previously thought to be vital practices have been called into question along with the importance of co-presence, commuting, and face-to-face interaction. There is now a public reckoning about what office work entails, the efficacy of flexible working, and the value of real estate and office space. These debates feed into crucial issues of sustainability.

Established literature exists on 'working from home' and the energy and travel costs associated with these arrangements (Fouquet 2021; Burkinshaw 2018). One problem is that these approaches compare one formulation (home working) with another (working in an office). They consequently miss the point that office work – understood as a complex of practices (enabled by complexes of material arrangements and technologies) - is changing alongside the sites and spaces in which it is enacted. These dynamics are the heart of this project.

In focusing on the processes involved, this project connects concepts from science and technology studies (De Wit et al. 2002; Vertesi and Ribes 2019) and organisation studies (Orlikowski and Scott 2016) with theories of practice and consumption (Reckwitz 2002; Warde 2005; Shove et al. 2012; Hui et al. 2017), using aspects of each to conceptualise the transformation of office work.

The research focuses on four questions:

1. How is office work changing and with what consequences for mobility, space, location and energy demand? What trends can be observed in patterns of working, commuting, real estate, and office space?
2. How have organisations adapted working procedures, especially in response to the COVID pandemic and what plans do they have for the future?
3. How are practices of office work changing and how is this experienced by office workers themselves?
4. How does a conceptual focus on 'office working' unite otherwise separate debates about sociotechnical transition, practice, organisational culture and sustainability?

To answer these questions, the successful candidate will identify and recruit two organisations that face different challenges in terms of scale, space, estates costs, managing national and international networks, alongside employee’s requests for more home and flexible working. The methods described treat office work as an extended site of enquiry that cuts across conventional distinctions, for example between home and work, or between business organisation, commuting, travel and digital communication.

The first step is to identify trends in when and where office work is done from the start of the COVID pandemic to the time of the empirical research (likely beginning in summer 2024). This will involve reviewing secondary sources and surveys including those conducted by relevant organisations, management consultants, and the British Council for Offices.

The second step is to understand how digital technologies evolve alongside the spatial and institutional demands of office work, including forms of communicating, filing, storing and managing data and in the ‘de-tethering’ of office practices (Yli-Kauhaluoma et al., 2013). This will involve in-depth interviews with members of staff responsible for property management, for IT services and training, and for carbon reduction in the two collaborating organisations (approx. 10 interviews).

The third step is to consider changing procedures and practices as experienced by office workers themselves. The plan is to conduct 20 in-depth interviews with selected staff from the collaborating organisations. Respondents will be selected on the basis of their experience of ‘blended’ working arrangements. The aim is to identify the sociotechnical arrangements that matter for different re-configurations of office work in specific settings (Nicolini 2013).

In analysing these materials, the aim is to distinguish between the immediate (first order) consequences of digital technologies; the second order costs of installing and maintaining supporting equipment and infrastructure, and third order reconfigurations of practices including hybrid forms of office work and new patterns of interaction and travel (Røpke and Christensen 2013). This will enable careful and systematic articulation of the relations (e.g. of feedback, proliferation, and extension) that are involved in this ongoing transformation.

In the first year of the project, the successful candidate will recruit and build close working relationships with two organisations. Interviews will be conducted in the second year. At the end of the second year and in the third year the aim is to co-produce a programme of workshops focusing on what office work is, where office work is done, and what this means for working practices now and in the years ahead. Insights from these events will be captured in the form of two project reports, one for each organisational partner.

TIMETABLE, by quarter	1	2	3	4	5	6	7	8	9	10	11	12
Theoretical framework												
1 st order changes: Patterns and trends												
2 nd order changes: Background provision												
3 rd order changes: Experiences and practices												
4. Co-production and impact: develop/promote toolkit												

5. Analysis, integration and writing													
Ethical approval		x											
Conferences			x	x			x	x		x	x		
Annual review panels/Confirmation panel				x	x			x				x	

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