Exploring Ideology in the Adoption of Socio-Technical Assemblages

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ABSTRACT

In this paper the authors explore ideological influences on the organizational adoption and development of the Managed Learning Environment (MLE), an enterprise level approach to information systems development in Higher Education, that was advocated by UK national agencies such as the Joint Information Systems Committee (JISC). The authors present three detailed longitudinal case studies. To capture the ideological dimension of MLE we use the concept of Technology Action Framing. They find that the ideological dimension of the technology has a significant impact on organisational socio technical processes by shaping strong and often conflicting attitudes to the adoption of MLE. The findings contribute to better understanding of this pattern of socio technical adoption and development.

KEYWORDS

Computerisation Movements, Higher Education IS, Ideology, IT Adoption, Organisational Transformation

INTRODUCTION

Organisations are increasingly influenced by socio-technical assemblages involving standardised artefacts, often advocated by powerful commercial and political players in their respective arena of activity. The idea of organisational transformation is often embedded within and carried with these assemblages. This is certainly the case in Higher Education where pressure to modernise and ‘transform’ to adjust to market pressure have been growing for some years. As Williams and Pollock, (2012) point out: to understand social dynamics during the implementation process, the evolution of an IS needs to be studied in relation to these multiple influences.

Organisational transformation is often premised on a socio technical vision. Researchers have referred to the diffusion of technology Organising Visions between organisations (see e.g. Xavier de Vaujany, Carton, Dominguez & Vaast 2013; Wang, 2001; Firth, 2001; Currie, 2004) as a way of characterising this. For us this conceptualisation doesn’t capture the strong mobilising power of visions associated with drives for transformation. In our work we attempt to account for this by exploring the ideological aspects of socio technical assemblages and how these influence within organisational understanding and decision making over time. By ideology we refer to those systems of ideas, beliefs or ideals that influence the outlook of people upon their world.

Elliott & K. Kraemer (2001) have noted that within organisations actors often resort to utopian visions of technological potential to promote adoption. They draw attention to the ways in which utopian visions of what a technology might be able to ‘do’ and how it can be utilised shapes technology acceptance and diffusion. The broad environmental dynamic in which technology characterised as ‘revolutionary’ diffuses within and across organisations has been called a Computerisation Movement (Kling & Iacono, 1988). The theoretical perspective of Computerisation movements is built on
earlier work on web models of computerisation that viewed computer technology developments as “complex social objects constrained by their context, infrastructure and history” (Kling & Scaachi, 1982, p.69). Computerisation Movements reflect specific ideological beliefs about the potential of technology to change social situations.

In order to interpret ideological influence we developed a theoretical framework that drew on socio technical literature on computerisation movements (e.g. Kling, 1994) and technology framing (e.g. Orlikowski & Gash, 1992). Using discourse in the higher education arena MLE is framed as an ideological artefact using Technology Action Framing. We then evaluated its influence on organisational documents and communications and research participant’s perceptions of MLE adoption and development. The study is based upon three in-depth longitudinal case studies of UK universities, and tracks the development and diffusion of specific information technologies over several years across these institutions.

We find two distinct ways that research participants understand MLE. First, as a transformational vehicle that will rationalise the university for greater efficiency premised on the adoption of ‘off the shelf’ standard IT. The second way is more critical of standardisation through such systems and advocates an evolutionary path of localised innovation. It seems that meaningful dialogue is often missing, leaving incongruent views on the complexity of the development unresolved. This is particularly so in complex areas such as teaching. For the former strand, there is a desire for shared understanding of socio technical development which resonates with what Bednar, P & Welch, C. (2014) describe as a richer process of change, where new understanding emerge through stakeholder participation and deeper level learning than merely ‘black box’ acceptance. Checkland and Poulter (2006, p. 56) also refer to the need to think ‘richly’ about organisational change by relating structure, processes and attitudes. Though perhaps not fully synonymous with ideology, we find in-organisational attitudes crucially influenced by ideology.

The paper is structured as follows. First, an evaluation of literature explores computerisation movements and Technology Action Frames, arguing for their utility in longitudinal studies of IT adoption and diffusion. This is followed by a section describing the specific example of technology that is the focus of our research. Elements of the context of UK Higher Education are then discussed. A discussion of the research methods is then followed by an outline of each of the case studies, drawing upon relevant data to sustain the subsequent analysis. The latter sections of the paper are given to analysis, discussion, and, finally, a conclusion.

COMPUTERISATION MOVEMENTS AND TECHNOLOGY ACTION FRAMES

Computerisation movements (CM) are primarily associated with the framing of information technology (IT) in various social settings, such as organisations. The work of framing IT can help, for example, to legitimate relatively high levels of investment for many potential adopters, and to package expectations about how technology may be used in daily work routines. Such framing can present a vision of a future based on that IT use, be it utopian or otherwise. CM frames are referred to as Technology Action Frames (TAFs) (Iacono & Kling, 2001). TAFs are built up within computerisation movement discourse and circulate in public discourse where they can be used as a form of currency, the structure and meaning of which remain relatively constant across a variety of practices and settings. As with social movement framing, such TAF processes can serve to mobilise potential adherents, to garner support and to demolish antagonists (Snow & Benford, 1988).

In CMs, ideological beliefs are communicated which frame and shape perceptions about the interrelation between the IT and a preferred social order. Such beliefs may in turn help promulgate and
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