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The Constitution of Technology Choice

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Abstract

This paper attempts to provide a reflective conceptual framework by using Castoriadis (1987) social and political theory to establish a structured understanding of the interaction between technology, institutions and markets. The aim of this position is neither to test Castoriadis ideas, nor to exemplify every aspect of his theory. Rather, this paper attempts to explore the applicability of some of Castoriadis ideas, and therefore to address the complex patterns of interaction between the perceived, the rational and the imaginary components of significations within the context of technology choice.

Keywords: technology choice, imaginary significations, Castoriadis

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Over the last 20 years considerable attention has been given to the social study of technology across academic communities in Europe and the US. While some writers have tried to analyze the social context of the technology design process with a focus on the interpretive flexibility of artifacts, others again by following a more systematic approach tried to analyze the socio-political context of technology development and consumption and the heterogeneous associations between human and non-human elements within the actor-network. Accordingly, each approach treats technologies and the social realm that constitute them as ‘seamless webs’ (Hughes, 1986), ‘socio-technical ensembles (Bijker and Law, 1992) or ‘networks of human and non-humans’ (Latour, 1987). An important characteristic that all those different approaches share is the view that the black box of technology and therefore of society must be opened in order to understand the social origins and workings of technological development. However, variously these approaches have been criticized for overlooking and/or oversimplifying the processes of technology acquisition and the social consequences of technical choice and thus for their exclusive focus on the design stage of technology development and use (Pollock and Williams, 2007; Mackay and Gillespie, 1992; Winner 1993).

This paper attempts to provide a reflective conceptual framework by using Castoriadis (1987) social and political theory to establish a structured understanding of the interaction between technology, institutions and markets. The aim of this position is neither to test Castoriadis ideas, nor to exemplify every aspect of his theory. Rather, this paper attempts to explore the applicability of some of Castoriadis ideas, and therefore to address the complex patterns of interaction between the perceived, the rational and the imaginary components of significations within the context of technology choice. Castoriadis’ (1987) thought offers a reflective resource for the analysis of the complex character of technology choice and its relations to institutional desires, fantasy, and *imaginary practice*. Drawing upon his interest in Marxist theories of economics – which he later rejected – Castoriadis sought to understand the formation of social and political life by exploring the constitutive and interrelated elements of the “radical imagination” of the psyche and the “social instituting imaginary of society” through a closer examination of philosophical and psychoanalytical conditions.

A core element of Castoriadis (1987) thought - which this paper will attempt to explore in the context of technology choice - around the constitution of society and its institutions is the idea of *imaginary significations* as the main sources of meaning in social and cultural life. Drawing upon Castoriadis (1987) imaginary significations can be understood as conscious and/or unconscious ‘symbolic representation(s)’ of human activity towards the creation of meaning and sense making. For Castoriadis ‘symbolic representation(s)’ project significations which entail perceptions of the real-rational, but also a further imaginary component, which ultimately stems “from the original faculty of positing or presenting oneself with things and relations that do not exist, in the form of representation (things and relations that are not or have never been given in perception)” (Castoriadis 1987, p. 127). As such “the social world is, in every instance, constituted and articulated as a function of such a system of significations, and these significations exist, once they have been constituted, in the mode of what we called the actual imaginary (or the imagined)” (*ibid.* p.146). These imaginary frameworks play an important role in shaping the ‘choice’ of ‘symbolic representation(s)’ made by every society, and in particular the choice of its institutional symbolism as well as the ends to which it subordinates ‘functionality’ (*ibid.*).

In the context of technology choice, this paper suggests that these imaginary significations are the outcome of both rational techno-economic behaviour and discursive imaginary struggles that emerge at various points and in many forms by providing repositories of meaning about the content of technology and its application (Pollock and Williams, 2007). For the purposes of this paper, these significations and dominant interests are reflected in the form and functioning of technology in *imaginary practice*. This is an imaginary domain which individuals and institutions create in order to sustain and manifest ‘representations’ and ‘projections’ of possible alternative realities and visions of possible futures related to the content and application of a technology. Because of this symphysis between the perceived, the rational and the imaginary components of these significations this paper suggests that technology and its choice encapsulates not only the preferred techno-economic significations of the technology itself, but also the inscribed imaginaries of technology in society, work, institutions (i.e. the wider socio-political conditions of

technology in context). For example, the acquisition of certain technologies (i.e. Oracle, SAP, Microsoft etc.) can simultaneously provide evidence of membership of certain social groups, indicate valued relationships and incorporate imaginaries about knowledge practices, expertise (i.e. professionalism) and relations to other actors by encouraging new aspects of subjectivity (Bourdieu, 1984; Douglas and Isherwood, 1996). All the different levels of significations are intertwined in complex processes of negotiation of social order. The negotiated ‘level of ordering’ is somewhere in between the inscribed imaginary significations about technology in society, work, institutions and the performative techno-economic assessment of technology as ordered by developers, users and institutions in situated action. Indeed, it is the dialectic between all these different levels of significations that both technology choice and institutional practice become constituted.

These different forms of significations highlight the complexity of the IT markets and the importance of the circular and recursive relationship between actors, institutions and technology choice. As such designers, developers, suppliers, consultants, and users become intertwined together with institutions and social and material practices (i.e., markets, laboratories, and regulative bodies) in complex performative patterns of imaginary created significations which influence the trajectory of IT markets. Together these various actors frame and constitute markets, define available choices, and develop methods of evaluating outcomes through the creation and performance of significations to support these markets (Callon, 1998; 1999). These points are important in understanding the distinctive constitution of technology choice as a complex institutionally embedded pattern of imaginary significations. Indeed, technology choice cannot be understood as being pre-determined in any social or technological context, but rather as being ‘performed’ over time in the local and situated frame through the creation and constitution of imaginary significations.

Guided by these understandings, technology choice can be understood as a function of such a system of imaginary significations through the creation of the images and performative figures that support these significations. Subsequently, technology choice becomes stabilized through performative processes of negotiation of significations aiming to achieve rhetorical closure and community consensus. Indeed,

performative imaginary significations, influenced by various socio-political, economical and technical conditions, affect and constitute the technology selection process by providing a stabilized form of accountability.

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