

The Academy and the Digital: Knowledge, practices, devices

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Abstract—This paper outlines a position on the relation between ‘the Academy’, seen as a broad collectivity of people involved in academic knowledge work, and ‘the Digital’, seen as a broad range of socio-technical arrangements that involve digital devices. Some principles for understanding these notions are discussed, and an approach to studying the emerging ‘digital academy’ is proposed.

Index Terms—the Academy, the Digital, digital academy, digital device, knowledge culture, scholarship, textuality, social literacy

INTRODUCTION

This paper works towards the idea of a ‘digital academy’ – seen to be emerging from the reciprocal shaping of digital devices/applications and the social practices of researchers, academics, students and others pursuing ‘higher’ learning or knowledge-related goals. It presents a broad social-theoretical perspective on the relation between ‘things academic’ and ‘things digital’ and briefly discusses two approaches to researching this relation: one focusing on the stable and generic affordances of the particular category of technological devices that we call ‘digital’, and the other building on this enquiry to investigate the textuality of the social literacy practices that are being called ‘digital scholarship’.

THE ACADEMY

‘The Academy’ is a term often used interchangeably with ‘the university’, however here we wish to blur the relation to the formal institution and use ‘academy’ to signify broader collectivities through which researchers, teachers, students and other scholars organise themselves and delineate their subjects and disciplines. In this we hark back to notions of ‘invisible colleges’ (Price 1963, Lievrouw 2010) and point forward to the ways in which digital technologies might allow for different kinds of academic and scholarly engagement (Wagner 2008, Shirky 2010). We also want to position ourselves in relation to current discourses of ‘digital scholarship’ (e.g. Borgman 2007, Weller 2011), ‘e-research’ (e.g. [Wouters & Beaulien 2007](#)) and ‘e-teaching’ (e.g. Lee & McLoughlin 2007).

THE DIGITAL

We use the expression ‘the Digital’ as many contemporary social theorists do, to encompass not only digital devices but a broad range of ‘sociotechnical arrangements’ that might include: ‘...different actors, institutions, regulations and controversies...’ (Savage *et al.* p.7). This approach defines technology as rooted in social, political, economic, and psycho-social dimensions of peoples’ transactions with and through devices, and allows us to talk in terms of the reciprocal shaping of publics, practices, identities, and technical affordances rather than the one-way ‘impact’ of technology on people. (Woolgar 2002, McKenzie 2010, Selwyn 2011).

We use the term 'digital device' to refer to a particular category of technological devices that incorporate computer processing. The outputs of these devices can be reprocessed and mashed together in ways that were impossible with previous analogue technologies. We also refer to devices that are digital in general and not only those that access the Internet or Web. Many digital devices function without a network connection. By focusing on the digital, not only the electronic or the networked, we focus on the particular nature of these devices as computational artefacts.

KNOWLEDGE AND PRACTICE

We are drawing on a cultural conception of knowledge and the mechanisms of knowledge construction (e.g. Berger & Luckman 1966/1991, Knorr-Cetina 2007). This problematises the dominant economic definition of the much-debated social transformation from an industrial to a knowledge society and draws attention to the role that culture plays in the development of practices that materially embed knowledge in documents and devices (Schatzki et al 2001). Arguably we are moving towards object-oriented knowledge cultures (Knorr Cetina 2007) wherein the objects of everyday life are increasingly inscribed in digital devices that make relational demands on people in addition to the affordances they make available. Academic knowledge and learning in relation to 'the Digital', we would argue, are increasingly being defined in terms of practice rather than 'truth', through the capacity of digital devices to reify and externalise not only information but the cognitive and social processes through which it is produced (Säljö 2010).

HOW DO WE STUDY THE DIGITAL ACADEMY?

In this position paper we want to propose a two-level approach to researching the digital academy. Firstly we investigate the generic features of the digital understood as an assemblage of practices and devices (e.g. see Arthur 2009 Ch2). We don't focus on the particular affordances of specific devices, services or software, but try to abstract relatively stable and generic affordances that apply to digital technologies per se. In this we would draw on the kinds of characteristics discussed by others in the context of social networks (e.g. boyd 2010) and networked learning (e.g. Jones and Dirckinck-Holmfeld 2009). Secondly, we explore the way these affordances are realised in the context of particular socio-technical arrangements that involve transactions amongst researchers, scholars, and other participants in the larger knowledge cultures associated with academic work. For example, we might compare peer review as practised in the production and publication of formal papers and articles in a particular academic field (e.g. the scholarship of teaching and learning), with its equivalent as practised in comments on the blog posts of recognised or self-styled digital scholars.

One methodological approach to the social-theoretic study of digital practices that is of particular relevance to a research agenda that focuses on literacies, new media, and new forms of learning is the analysis of the textuality of digital transactions as social literacy. The notions of both textuality and literacy draw on conceptualisations that are broader than the purely linguistic, encompassing all types of multimodal meaning-making (Cope & Kalantzis 2009) capable of migrating sense from context to context. Textuality, sociality and literacy may be seen as closely related in digital transactions and the methods of social literacy studies (ethnographic, practice-focused, community-oriented) as both flexible and principled (see Lea & Jones 2011, Ivanic et al 2009).

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