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Informationswissenschaft zwischen virtueller Infrastruktur und materiellen Lebenswelten

Information Science between
Virtual Infrastructure and Material Lifeworlds

Unter Mitarbeit von Judith Peffing

Proceedings des 13. Internationalen Symposiums
für Informationswissenschaft (ISI 2013)

Potsdam, 19. bis 22. März 2013

vwh

Verlag Werner Hülsbusch
Fachverlag für Medientechnik und -wirtschaft

Our turn?

An evaluation of the turn to the practice based approach in information science

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Abstract

The paper evaluates the turn to practice in information science, through a summary of the theory and exploration of empirical data about the use of collaborative software. Themes of practice theory, namely: change, socio-materiality, relational thinking and knowing are summarised and previous use of practice based approaches to studying the adoption of information technologies are discussed. The empirical data is thirty interviews with Human Resource professionals involved in a project in a large Mexican University. The strength of the analysis using the practice based approach is to deepen our understanding of context emerge from an analysis of the data. The sociology of translation can be used to further deepen understanding of the political process around the project. Remaining issues point to a major issue with practice based approaches, namely the adequacy of its treatment of structural power.

In: H.-C. Hobohm (Hrsg.). Informationswissenschaft zwischen virtueller Infrastruktur und materiellen Lebenswelten. Tagungsband des 13. Internationalen Symposiums für Informationswissenschaft (ISI 2013), Potsdam, 19.–22. März 2013. Glückstadt: Verlag Werner Hülsbusch, 63–80.

1 Introduction

A turn to practice theories (Schatzki/Knorr Cetina/Savigny 2001) has been identified across a number of fields within the social sciences, and is now apparent in the study of strategy (Jarzabkowski 2004; Chia 2006), knowledge management and organisation (Gherardi 2000; Østerlund/Carlile 2005; Nicolini 2011), consumption (Warde 2005; Shove/Pantzar/Watson 2012), media (Postill 2010) and information behavior (Savolainen 2007; Savolainen 2008; Lloyd 2009, 2010; Huizing/Cavanagh 2011; Cox 2012). However, its application has been informed by a number of different flavours in which varying emphases have been given to aspects of the approach such as embodiment, routine, materiality, open-endedness, and knowing. In addition, specifically in the realm of information systems adoption and use a number of authors have also been inspired by practice theories (Orlikowski 2000; Schultze/Boland 2000; Schultze/Orlikowski 2004; Boudreau/Robey 2005; Venters 2010).

It is timely, therefore, to seek to weigh up the strengths and weaknesses of what will be referred to in this paper as the Practice Based Approach (PBA) (Gherardi 2009a). The purpose of the article is to evaluate the use of the PBA applied to a classic information science problem: the take up and use of ICTs. It explores the strength of the approach, and how weaknesses around the conceptualisation of change and power can be partly addressed using the sociology of translation from Actor-Network Theory (ANT). The argument is based on empirical data from a study of participation in an online community created to support an human relations (HR) project in a multi-campus university in Mexico.

The paper first introduces the PBA and distinguishes it from other approaches. It then outlines the debates about strengths and weaknesses of the PBA, and discusses how it has been used to inform the study of the adoption and use of technology. The paper then introduces a case study example. An analysis is offered from PBA. In discussing this a number of limitations to the approach are identified, and the case is developed that Actor Network Theory can be used in conjunction with the PBA. Remaining weak points are discussed.

2 The practice based approach

One of the main reasons the ‘practice turn’ has gained ground in different fields is because PBA presents itself as an alternative to positivist, cognitivist and rationalistic perspectives (Reckwitz 2002; Schatzki 2002; Geiger 2009). Reckwitz (2002) for example distinguishes practice theory from two classical models ‘the homo-economicus’ and the ‘homo sociologicus’ traditions and locates PBA as a form of ‘cultural theory’. The ‘homo-economicus’ tradition explains action as purpose-oriented; social order is the consequence of the combination of single interests, in which the primacy of individual choice prevails. The ‘homo sociologicus’ tradition presents a norm-oriented model of action, where social order is the product of normative consensus. Unlike these two approaches, the aim of the practice-based approach is to offer an account of social action that allows for structure and for agency. With this central concern in mind, what follows introduces four core themes of practice theory.

2.1 Ability of practices to change

The multivocality of practice theory is reflected in the different emphasis highlighted by different authors towards the ability of practices to change. Whereas the accounts by Schatzki, Gherardi and Wenger are found at one end of the continuum and highlight the productive, emergent and temporally evolving aspect of practices. Reckwitz’ definition of practice is found on the other side of the continuum, and emphasises the reproductive quality of practices: “Social practices are routines” (Reckwitz 2002: 255).

2.2 Socio-materiality

A second commonly found theme among practice theories is the stress given to the material world and embodiment. Schatzki, for instance defines practice as “embodied, materially mediated arrays of human activity” (Schatzki/Knorr Cetina/van Savigny 2001: 2). This attention given to embodiment is also apparent in the definition by Reckwitz (2002) who emphasises the routinized bodily movements. The focus on the material is clearly highlighted by Orlikowski (2007) who has suggested the term socio-material practices rather

than social practices to highlight the critical role of the material in the shaping of human action.

2.3 Relational thinking

One of the core principles permeating practice theories is its relational thinking (Østerlund/Carlile 2005). Two main aspects of the relational thinking of the PBA are highlighted here. Firstly, the relational thinking of PBA stipulates interconnectedness in the sense that no phenomenon can be understood in isolation or taken to be independent of other phenomena: organizations are arenas of interconnected practices (Schatzki 2006; Nicolini 2009). Thus, only when looking at the totality of interconnected practices, events and entities, can one grasp the meaning of human action (Nicolini/Gherardi/Yanow 2003: 8).

The second aspect of relational thinking is that the PBA overcomes problematic concepts treated dichotomously in other theories. Thus, in looking at practices as “the locus for the production and reproduction of relations” (Østerlund/Carlile 2005:92), some of these concepts could be seen as entailing relations of mutual constitution and recursive interaction: structure and agency (Giddens 1984), the social and the material (Orlikowski 2007), knowledge and knowing (Cook/Seely Brown 1999), knowings and practices (Nicolini 2011), or mesh of practices and social orders (Schatzki 2002).

2.4 Knowing and taste

Practice theorists move away from understanding knowledge as an object, to understanding knowing as an activity (e.g. Gherardi 2001; Orlikowski 2002). Thus, knowing becomes a “knowledgeable activity, a knowing-in-practice” (Corradi/Gherardi/Verzelloni 2008:26) that shows practitioners’ sensitivity to feel what is appropriate and what is not within a practice (Nicolini/Gherardi/Yanow 2003: 16). Knowing is therefore seen not an abstract idea solely situated “in the brain of the human body or the organisation” (Gherardi/Nicolini/Strati 2007: 318), but also embracing passion, emotion and desires (Gherardi/Nicolini/Strati 2007), attachment to the object of practice (Gherardi 2009b), sensible knowledge (Nicolini/Gherardi/Yanow 2003), routinised bodily movements and ways of wanting and feeling (Reckwitz 2002).

Given the multidimensional character of knowledge practices show room for diversity every time they are enacted. This makes practices be internally differentiated which in turn can also generate debates about taste (Warde 2005: 139). According to Gherardi, a “minimum agreement is necessary for the practice to continue to be practiced” (Gherardi 2009a: 357). It is this minimum agreement among practitioners that characterises the specific taste of a particular bundle of practices. It follows that, while different knowings can be enacted within a (bundle of) practice(s), they all most probably share the same taste. In turn, as Nicolini (2011) suggests, when shifting sites or bundles of practices, a different set of knowings and taste will transpire. To summarise, whereas practices are to be seen as the house of knowings, taste is to be seen as the colour of the house.

2.5 Applications of the PBA to technology use and adoption

The PBA has already influenced some of those writings about information system adoption and use, notably Orlikowski (Yates/Orlikowski 1992; Orlikowski 2000; Schultze/Boland 2000; Schultze/Orlikowski 2004; Boudreau/Robey 2005). Such literature develops four major themes in the understanding of information system use. Firstly, these studies have in common an interest in understanding the adoption and use of technologies through investigating people’s everyday activities via scrutinizing the micro-dynamics of practices. A second theme in studies adopting PBA as a lens is that the use of a particular technology is a highly contextualised phenomenon that cannot see technologies as isolated entities. A third theme is that practice-based studies of technology adoption have helped understand how human activity is a historically-shaped and constantly evolving phenomenon. A fourth theme is that studies adopting a practice-based approach look at practices, rather than at individuals, as the unit of analysis. In so doing, they avoid exploring the adoption of technologies as if they were determined by individuals’ attitudes, intentions, motivations and interests. Rather, these studies highlight that the use of technologies is informed by collective ways of doing things within practices.

3 The online community CODECO

This paper investigates the value and issues with the PBA through empirical material drawn from a study of the adoption of a collaborative technology. CODECO was a system proposed to support knowledge sharing during the implementation of a human relations (HR) project within a large multi-campus University system (INTEC). When he envisioned a new performance measurement approach to be deployed across all 31 campuses of INTEC, the head of HR felt there was a need to cultivate an online community to support collaboration. Therefore, CODECO was formally introduced to all HR staff with the expectation that it would become “the exclusive media to be used during the implementation (...) to support the deployment of the project”.

A launch session took place and HR staff attended the presentations. Accompanying this initiative, policies of participation for the community were established and support documentation regarding CODECO was made available. Those supporting the adoption of CODECO attempted to further develop all the applications of CODECO, however, they failed to get the necessary resources to accomplish this aim. After its launch, CODECO was initially used as a document repository, however, after some time the collaborative technology remained unused. Even those initially supporting its adoption neglected it. Instead, they continued using existing media to communicate during the project. From the views expressed by HR practitioners, the online community was perceived to be a failure. The purpose of the study became to understand why CODECO failed. A PBA was seen as a plausible starting point to conduct such a study.

3.1 Data collection and analysis

Observing the low level of activity in the online community led the researchers to conduct seventeen semi-structured interviews with HR professionals playing roles in the performance measurement project. A further thirteen interviews were conducted a year later to further explore how pre-existing practices shaped participation. Other methods for data collection were used to a lesser degree, namely attendance at online seminars and meetings, and project-related documentation.

Interviews were audio recorded and fully transcribed. In terms of analysis, the study adopted a hybrid process of inductive analysis to identify themes within the data and also make sense of them through theoretical lenses. Thus it incorporated both the data-driven inductive approach suggested by Braun and Clarke (2006), and a more theory-driven analysis guided by the particular preoccupations of PBA and ANT. A number of strategies were adopted to ensure the quality of the research. Among these strategies, the researcher endeavored to make his research practices transparent, ensured that different voices from research participants were taken into account, and used triangulation of methods for data collection and theoretical resources through which to make sense of the data.

3.2 Analysis of CODECO using the PBA

HR practices were perceived by practitioners themselves as ‘supporting practices’, providing a service to the core practices of the University (e.g. teaching). This also implied that it was a marginalised area within the institution. This marginalisation was in turn reflected in practitioners continuously experiencing work overload, receiving the minimal amount of resources to operate, and in the wide variation of types of activities in which HR practitioners were involved that were not related to their duties. HR practices were further perceived as embracing a mixture of different feelings and emotions. It was difficult to practise HR without getting emotionally involved. Positive feelings such as sense of accomplishment, empathy, becoming a better person, self-confidence and pride, and negative feelings such as frustration, powerlessness, and uncertainty were commonly mentioned as a central aspect of the role.

These features of HR practices showed that HR practitioners’ experiences were alike in many ways, regardless of the differences among them and the particular conditions of their campuses e.g. in terms of age, gender, seniority, scope of activities and hierarchical positions. A set of knowings were collectively and routinely enacted so that practitioners get their work done. Six shared knowings were identified:

1. Relationships were seen as “key within the area of HR”. They encouraged the maintenance and development of relationships and continuous interaction.

2. Collaboration and support. Given that the HR area was perceived to be one of the most marginalised areas of the institution, mutual support was seen as a key aspect of the role.
3. Learning was highly valued. Learning is “embedded in our daily work” as one practitioner put it.
4. Knowing how to communicate. There was a shared understanding that being a HR practitioner required “special modes of communication and interactions.” This had two main features: a purpose-oriented aspect, and secondly, being the public face of INSTEC requiring them not only to adopt particular ways of verbal communication, but also embracing the enactment of specific behaviours, bodily actions, ways of dressing, and ways of addressing people.
5. They showed a devotion to employees. This knowing was reflected in the considerable effort made to provide their employees with “a well-deserved service and support”.
6. They prioritised operational continuity over other activities (e.g. their participation in institutional projects).

The analysis showed why when CODECO was introduced, HR practitioners did not find it ‘fitting’ the taste of their practices. As one director put it: “It just does not go with how we work here, do not forget that we are HR, you know, we are not very technologically oriented”. CODECO did not offer practitioners opportunities to develop and maintain existing relationships, nor occasions to create new ones. Interviewees also commented that they did not find the same attitude of collaboration and support when using CODECO, that were found via other forms of interaction. Nor was it perceived to support the learning that they so highly valued .

Within a site in which other practices were performed and to which HR practices were highly interconnected, HR practitioners’ choices of technology were not only shaped by the performance of their own practices, but also by this interconnection among practices. Practitioners’ media choices were necessarily shaped by the way in which the institution as a whole communicated: “... to some extent you have no other choice but to use the media that everybody else uses”. Furthermore, practitioners’ position of continuously interacting and giving service to other departments increased their tendency to reproduce the use of certain media, giving them the feeling that there was “no way to escape” from the use of existing channels e.g., email.

HR practices consist of a bundle of actions repeatedly performed, so that an element of routine developed. They tended to develop routine ways of

using technologies that, after being repeatedly enacted, became ‘natural’ ways of communicating and thus they found it difficult to switch to the use of CODECO once it was introduced. Even when a policy was explicitly set up to embrace participation, practitioners did not follow it; but rather, reproduced their previous patterns of media usage.

Other characteristics of the taste of HR practices not supported by CODECO were 1) its time-consuming nature which conflicted with work overload and time constraints faced by practitioners, 2) practitioners’ preferences for face-to-face interactions, 3) the emotional dimension of HR practices was not fully supported.

4 Discussion

4.1 The value of the PBA

Adopting the PBA gives context life, avoiding the view of participation as merely about what is taking place within a ‘community’ itself. Through the notions of site, taste and knowings the relevance of the context in shaping participation is foregrounded. Context is not merely treated as a background rather as constituting and interacting with the phenomenon under investigation. Moreover, the relational thinking of PBA suggests that participation was not only influenced by the features and the particular taste of HR practices, but also by the interconnectedness among practices within the site. PBA reveals that the adoption and use of technology is a historically-shaped phenomenon, being influenced by what was done in the past, reflected in aspects such as routinisation, inertia and reproduction of patterns of interaction and media use. This challenges the view of participation as just a static and isolated event.

The PBA also stresses the social character of practices and of technology adoption and use in which the collective is privileged over the individual and the material is included. Thus the adoption of technologies is seen as a collective engagement and shaped by shared ways of doing things, the taste of HR practices, mutual understandings, and shared concerns and priorities. The relational approach of the PBA captures the messiness of real world phenomena, avoiding reductionist tendencies to define independent variables

ena, avoiding reductionist tendencies to define independent variables with predictable relations.

The PBA is particularly useful to zooming in on practices. Studying the real time practices and local accomplishments allows the analysis to highlight different aspects of practices: sayings, doings, knowings, taste, routines. Adopting this perspective also serves to foreground materiality and the role of body in the performance of practices and phenomena in general.

PBA is positioned as a meso level theory locating itself at an intermediate level of analysis allowing for agency to be observed and for awareness of how forces of context shape individual action. Practices as seen as the point of departure from where one can move up and down to explore the performance of practices and what practices do within the larger context.

4.2 Further analysis using the sociology of translation

Although a powerful way of looking at CODECO, the PBA is far from offering a complete account of the case. Significant features of the data were not integrated in the analysis, therefore a second analysis was performed using the sociology of translation (Callon 1986; Law 1986, 1992). In particular, the analysis sought to address known issues with the PBA around the role of actors in changing practice and the treatment of power relations.

One of the primary interests of ANT is to describe the relations between actors that can potentially lead to the formation of actor-networks. Through ANT the implementation was seen as a heterogeneous network of human and non-human actors. Actors not able to adapt, or to align to the network were excluded and isolated. Such was the case of CODECO which remained under-developed due to the failure of the supporters of CODECO to involve other actors to facilitate CODECO's development. This situation generated false expectations among those leading The Implementation in each campus creating a sense of betrayal and thus affecting the adoption of the technology.

Furthermore, practitioners perceived little need for CODECO to be used at all. When CODECO was introduced, pre-existing media (e.g. email) posed themselves as non-human actors which were difficult to ignore or abandon, and became strong competitors of CODECO.

Moreover, the envelope that surrounded CODECO failed to influence its ability to act in accordance to the interest of the Implementation network. Among the relevant actors conforming to the envelope of CODECO were

those such as the launching session when CODECO was initially introduced, the policies of participation declared by its promoters, and the efforts made by the initial supporters of CODECO to promote its use. Yet these initiatives and strategies acted as a weak envelope that ended up reducing its ability to impose itself as a taken-for-granted actor to others.

Thus, from an ANT perspective, what shaped the adoption of CODECO were continuous processes of negotiation, failures of enrolment, deployment of strategies, and processes of betrayal and competition that occurred over time. Furthermore, the complexity of this dynamism showed how some actors betrayed, resisted, supported, disrupted, or competed the use of the technology supporting participation.

4.3 The analytic contribution of ANT

Although PBA sees innovation, learning and change as intrinsic features of practices (Corradi/Gherardi/Verzelloni 2008: 17) one of its weaknesses arises from privileging the collective over the individual, missing the opportunity to fully recognise the contributions of individuals to innovation in their practices (Fox 2000; Miettinen/Paavola/Pohjola 2012). In contrast, translation is by definition a process of change generally led by particular agents in which they use political power to accomplish their own goals. Indeed, ANT showed how despite the powerful position the focal actors held in the corporate hierarchy, they failed to negotiate the allocation of resources to further develop the technology. Moreover, by treating human and non-humans symmetrically ANT recognises the power of human actors but also to things, technologies, documents, ideas. Non-human actors, such as CODECO are seen as active agents with the ability to constrain or enable the performance of some actions. The very notion of problematisation, points to the existence of a conflict in which the problem statement is stated from the viewpoint of a particular agent.

A second limitation with the PBA that has been identified relates to power issues at different levels of analysis both within particular communities by assuming consensus and coherence (Fox 2000; Roberts 2006) and by under-exploring relations of power at a higher level (Contu/Willmott 2000; Handley et al. 2006). Again, ANT seems to be particularly relevant to shed light on power issues in the political sense and to look at how particular members of a community can align the interests of many in a chain and how they come to

speak for many, or represent the intent of the multitude (Fox 2000: 862). However, ANT has also been widely criticised itself for its “flat ontology” (Reed 1997) which leads it to pay little attention to how broader social structures influence the local (Walsham 1997). This is clearly reflected in the emphasis put on arguing that nature and society are effects of networks, not causes; or in the view that “social structure is not a noun but a verb” (Law 1992: 385). Latour’s claim “networks are immersed in nothing” (Latour 1999: 128), clearly shows how ANT tends to neglect the regulating role that social structures play in shaping the course of local phenomena.

Interestingly, critiques of both the PBA and ANT way of dealing with power, have pointed to the same concern of giving primary attention to focus to practices in situation and their micro level dynamics reflected in the clear preference of these approaches for ethnographic methods (Nicolini 2009; Huizing/Cavanagh 2011). For example Kuhn and Jackson (2008) have observed that those who use PBA tend to over-examine patterns at the micro-level ignoring the organisational imperatives guiding practices or making simplistic assumptions about intra-community consensus that silence issues on power. Similarly, as Reed puts it when criticising the flat ontology of ANT:

“They feel no need to look beyond these micro-level processes and practices, because as far as their advocates are concerned, there is nothing, ontologically or analytically there.” (Reed 1997: 29)

Coming back to CODECO, the challenges faced by ANT and PBA to explore power issues at the institutional level was reflected in the relative failure of the two interpretations to explore how macro actors, macro-forces, or social structures such as religion, capitalism, or gender shape the adoption of the collaborative technology. This is indeed one of the main limitations of ANT and PBA: their problem with exploring how macro-phenomena retroact at the level of local practices. For example, this study paid little attention to Catholicism, which shapes many of the practices (i.e. educational, work-related, entertainment) within Mexican society. Neither theory prompted the research to look at how Catholicism might influence the way HR practices were performed. Similarly, little attention was directed to the issue of gender, such as to ask how does the fact that most HR practitioners are women (except for the top two highest positions) affect participation or would this pattern explain why HR was perceived to be marginalised.

To avoid this issue when studying information technologies, Walsham (1997) has suggested combining the methodological and conceptual ideas of

ANT with insights from other social theories. One possibility could be institutional theories (Lounsbury 2007). Precisely because institutional theories have been criticised for underestimating the relevance of individuals' agency when looking at how organisations work because this is the strength of praxeological approaches (Reckwitz 2002; Huizing/Cavanagh 2011). ANT and PBA have seen an opportunity in institutional theories to deal with power issues (Nicolini 2009). This would in turn require the need to adopt different angles for observation allowing moving upward and backward to look at practices and their connections, to address the connections between "the here-and-now of the situated practising and the elsewhere-and-then of other practices" (Nicolini 2009: 1392).

5 Conclusion

The turn to practice across the social sciences, with Schatzki's work at its heart, offers powerful conceptualisations for studies of information technology adoption and use, as it does for information behaviour and practices. This paper has sought to evaluate the turn to practice thinking, by providing an overview of the theoretical foundations, summarising previous applications to the study of technology use and then applying some of the theoretical resources to a particular case. A PBA account of the failure of an online community provides the empirical material for the paper, and draws particularly on theoretical influences from Schatzki, Gherardi and Orlikowski.

The strength of the PBA is in deepening our sense of context and the historical character of closely intertwined social practices. Its relational thinking engages with the complexity and messiness of real world phenomena. Its stress on the social character of activity, shifts attention from the individual and their choices, motives and needs. Nevertheless, the PBA has some limits, particularly in its treatment of power. It was found that ANT's sociology of translation provided a plausible complementary perspective, at least in so far as exploring the politics of how certain social actors seek to make significant innovations in practices. Yet there remain limits on the explanatory power of even these two praxeological approaches in combination, particularly in relation to shaping of micro level activity by wider social structures.

Postill (2010) debates with other authors in his edited book about whether practice theory should be a new paradigm for media studies. He concludes that it should not, partly because there are already some very powerful other theories that satisfyingly address particular problems. In information science there has already been a strong influence from practice thinking. This paper has found there are further rich theoretical resources available within the tradition that can be further developed, but that it does have its limits.

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