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From boundary concept to boundary object: The practice and politics of care pathway development☆

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ABSTRACT

Care pathways are multidisciplinary care management technologies which map out chronologically activities in a healthcare process. In the UK, they are advanced as a mechanism for enacting the changes called for under clinical governance. The terminological imprecision of care pathway methodology has enabled it to align clinical, management and service user interests and helps to explain the growing popularity of care pathways as quality improvement tools. Whilst it is possible to identify a 'zone of agreement' between these social worlds, there exists a fuzzy periphery characterised by conflicting agendas, which presents challenges for those charged with inscribing these interests into the pathway artefact. Drawing on a qualitative case study of a mental health safety care pathway in the UK, this paper examines the processes by which originators negotiated and settled upon a given design. The data reveal inherent tensions within pathway technology and the knowledge developers draw upon in devising strategies to overcome these challenges.

Introduction

This paper examines care pathway development as a case study of the processes through which clinical governance is inscribed into infra-structure technologies. Healthcare organisations depend on textual practices to coordinate, monitor and organise activity (Smith, 1990) and scholars of technology-in-practice have pointed to the need for greater recognition of the role guidelines, protocols and records perform in work organisation. Research in this field has yielded ethnographies of guideline development (Gabbay & Le May, 2004; Moreira, 2005), historical accounts of protocols (Timmermans, 1999; Timmermans & Berg, 2003a, 2003b) and investigations into technologies in use (Goorman & Berg, 2000; Greatbatch et al., 2006). Despite their twenty-year history, care pathways have been relatively neglected within this research corpus. Pinder, Petchey, Shaw, and Carter's (2006) paper on the cultural cartography of care pathways and Hunter's (2007) work on the implementation of the All Wales Normal Labour Care Pathway are rare examples of social scientific studies in this field. This gap in the literature is all the more surprising because pathways are increasingly positioned by policy makers as agents of service improvement even though they remain under-conceptualised and their generative mechanisms poorly understood (Allen & Rixson, 2008). Berg (1999) has made the case for mundane technologies to be more 'fully fledged' actors in healthcare systems. He suggests that tool design should be about attempting to transform a practice towards a preset goal in and through the production and implementation of an artefact in which the goal is inscribed. This paper examines one case, in a wider qualitative study in which we were able to examine pathway development processes.

Background

Care pathways are multidisciplinary care management tools which map out chronologically key activities in a healthcare process. They are simultaneously a workflow system and a record of care. Unlike guidelines, pathways specify the activities to be accomplished and require documentation to indicate compliance or non-compliance with the planned trajectory of care. Their growing popularity reflects the emergence of new modes of governance in the context of a shift away from trust in professional expertise to confidence in systems and auditable rules and procedures (Power, 1997). Proponents claim that pathways are unique in being 'a clinical tool, whilst providing a powerful source of

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information for operational and strategic management' (NHS Cymru, 1999: 14.) A twenty-first century descendent of the scientific management of the 1920s (Pinder et al., 2006), care pathways were introduced into healthcare in North America in the mid 1980s, where they were used to improve service efficiency to meet the requirements imposed by healthcare insurers. Enthusiasm for their use has since grown across the world and they have become the technology of choice to address a range of healthcare agenda. There is now an international community of care pathway enthusiasts, a number of national associations and regional networks, a dedicated journal and an annual conference. In the UK, care pathways have been identified as a model for implementing clinical governance (Degeling, Maxwell, & Iedema, 2004; Degeling, Maxwell, Iedema, & Hunter 2004) and as a mechanism for creating the partnerships between clinicians and managers necessary to bring about improvements in service quality. In England, they were described by the Secretary of State for Health as the 'leading edge of good practice' (Department of Health, 2000) and in Wales they have been identified as the 'lynchpin' of integrated services (Wales Assembly Government, 2005).

Pathways were originally developed as a tool for managing nursing care (Pinder et al., 2006) and nurses remain key exponents of pathway methodology. Most of the leaders in the field have a background in nursing and nurses are most likely to be charged with leading pathway projects within healthcare organisations. Although it has not always figured prominently in the profession's public jurisdictional claims, nurses play a key role in hospital management. They are the guardians of organisational routines in managing a transient workforce, and they coordinate the activities of people over whom they have little authority (Allen, 2004). As a technology which supports and extends this work, pathways have an obvious appeal for this professional group.

Care pathways: a boundary concept

The emergence of care pathways has taken several commentators by surprise (Pinder et al., 2006). Their sudden popularity is all the more noteworthy given the limited evidence of their effectiveness. So how can their attractiveness be explained? Part of the answer to this question must be the sheer range of problems for which they are believed to offer a solution. Although more seasoned enthusiasts caution that pathways are not 'a universal tool to crack a nut', the claims that are made for them are 'prodigious' and are such that they could be considered the panacea for all the ills of the health service (Hale, 1997). There is also a growing cadre of private management consultants whose core business is pathway facilitation and training and who have a clear interest in marketing their broad application. However, arguably the primary reason for the appeal of care pathways is their ability to align clinical, management and service user interests around a healthcare quality agenda. The claim that is often repeated in the literature and in conference presentations is that pathways aim to have:

> "the right person, in the right place, doing the right thing, at the right time, with the right outcome and all with attention to the patient experience." (National Electronic Library for Health, 2005).

Despite the highly contentious meaning of the word 'right' in each of its uses here, who could argue with this aspiration for healthcare? It is precisely because of its vagueness that pathway methodology has become acceptable in principle to a wide range of stakeholders – clinicians, service managers, patients and policy makers – and in this sense may be considered a boundary concept (Löwy, 1992).

A boundary concept is a loose concept, which has a strong cohesive power. It is precisely because of their vagueness that they facilitate communication and cooperation between members of distinct groups without obliging members to give up the advantages of their respective social identities. Löwy applies this argument to the example of immunology to illustrate the importance of loose concepts in the construction of interdisciplinary alliances in science. Care pathway methodology can be considered in the same way. The popularity of pathway methodology can be explained by its effectiveness in aligning a range of interests in offering a single solution to shared health service problems. However, this breadth of appeal disguises tensions between clinical, management and service user agenda which presents challenges for those charged with inscribing this multiplicity of interests into the actual technology.

Pathways are intended to be a classic example of a boundary object; that is an object which inhabits several social worlds and which fulfils a role in structuring relations between them (Star, 1989). In seeking to link clinical, management and user interests, care pathways require the negotiation and reconciliation of different forms of action and as a consequence are always complex ensembles (Dodier, 1998). Given this complexity, it is not surprising that within the pathway community apocryphal stories circulate about pathways that were started but never completed or were rejected by clinicians for being insufficiently user-friendly. It also accounts for the range of interventions to which the term 'care pathway' has been applied (Cocker, Johnson, & King, 2007).

Leaders in the field have responded to these challenges by strengthening pathway development processes and refining terminology. At the Annual Care Pathways Conference, there is an emphasis on supporting neophytes, with several master classes arranged for novices. In addition, many regional groups have developed guides to support pathway development (See, for example, NHS Cymru, 1999) and there has been a growing emphasis on using particular models to ensure the project is brought to a timely conclusion. In addressing concerns about the range of interventions to which the term pathway is applied, the European Pathway Association refined pathway terminology (European Pathway Association, 2008) and Whittle (2004) has produced a validation tool which purports to assess whether the intervention in question meets the criteria for a care pathway. These developments are an understandable attempt to address the noise in the system and are seen by many as a necessary precursor to developing a research base in this field. However, there has been little rigorous research addressing these issues.

Theoretical orientation

The research reported here took its theoretical inspiration from studies of technology-in-practice. This body of scholarship draws from social constructionism but criticises its weaker forms from a combination of ethnomethodology, post-structuralism, feminist theories and actor network theory (Timmermans & Berg, 2003b). Central to these studies is the assumption that formal tools, such as care pathways, have the power to transform workplaces in different ways (Berg, 1997a). This can neither be attributed to the tool or its users, but arises from their inter-relationship. Actor network theory and its insistence on linking human and non-human actors together has been influential in this field, and has shown how it is possible to study human and non-human associations and to provide a vocabulary for the task. Actor network theorists have coined the term *delegation* to refer to the actions that a non-human entity is being asked to fulfil and the term *prescription* to refer to the activity that the non-human entity imposes back on its human users (Latour, 1998). Actor network theorists hold that formal tools