ABSTRACT

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Engineering Knowledge

How Engineers and Managers Practice Knowledge Management

The concepts of Knowledge Management and Best Practice are today frequently understood as recipes for how work should be organized in a modern company. This thesis studies the attempts made by a group of engineers and managers at Engico – a large Scandinavian manufacturing company – with developing and implementing a Knowledge Management technology in the form of a tool for identifying, managing and spreading best practices throughout the organization.

The thesis does so by describing in detail the practice of "innovation work:" the efforts put into constructing the Best Practice Tool (BPT) – guided by the engineering dream of replacing chaos with system – as a solution to many of the problems that the managers assumed their company to be experiencing. BPT was envisioned to be intranet-based with a focus on the establishment of a number of communities-of-practice across divisional boundaries and eventually to be used by engineers from Engico's headquarters to the farthermost reaches of the organization as part of their everyday work activities. However, soon after the launch of the tool in the organization in 2000 problems appeared on the horizon and over the following years the innovators repeatedly described their efforts as not particularly successful. After almost four years the BPT project was eventually "put on ice" for good in September 2003.

The thesis combines an approach used in the studies of science and technology with that of ethnographically-inspired organization studies, acknowledging that innovation is hard work and not an act of revelation. In contrast to the commonly shared picture of plans implemented in a manner that leads to either success or failure this study of the BPT project at Engico depicts the role of contingencies and alliances in innovation work, its continuous process and uncertain outcomes.

The thesis shows that there is no master plan for innovation and no initial energy which moves a new Knowledge Management technology along a trajectory from Point A to Point B. There is no automatic diffusion as is often assumed in traditional research on technology change and innovation, but there are plenty of unexpected and uncontrollable translations.

Key words: innovation work, Knowledge Management, Best Practice, information technology, engineering, plans, change, translation, mimesis, black box