Chapter 16

The Wicked Relationship Between Organisations and Information Technology

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The concept of the “wicked problem” is useful in coming to terms with any studies, which involve people, organisations and information technology. It helps to define the shortcomings of traditional positivist approaches in areas which display social complexity. This paper describes how the relationship between an organisation’s business processes and its legacy IT systems is considered under the RAMESES project as a wicked problem. The way in which this conceptualisation has led the authors to adopt the grounded theory methodology is discussed. The particular, detailed method undertaken within this framework is outlined; some results presented and conclusions about the success of the approach are drawn.

The relationships between people, organisations and IT (information technology) present a complex range of factors to be disentangled. Our approach has been to find a way to conceptualise this complexity which would give us a way of defining our problem and formulating a solution. The concept of the “wicked problem” (Churchman, 1967) has been particularly helpful to us and is further described in Section 2. It provides a mechanism by which the relationship between people, organisations and IT can be unravelled. The concept of the “wicked problem” does not lead the researcher to attempt to reduce the problem to isolated variables, and a series of steps to be followed
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sequentially. Instead, it advocates a pragmatic oscillation between problem and solution, so that our understanding of each of them evolves concurrently.

The project in which this conceptualisation was tested out was the RAMESES project (further described in Section 3). The overall objective of this project is “to provide a strategic model for the risk assessment of legacy software systems within SMEs (Small-to-Medium Enterprises) considering business process change.” Thus the relationship between the organisation, the way its staff carried out its processes and their legacy IT systems was at the centre of our concerns.

In order to allow our problem definition and our solution to evolve together, we chose grounded theory (Strauss & Corbin, 1997) as our methodology and populated that with a method which helped us to focus on both the problem area and solutions at the same time. This paper describes how the broad conceptualisation of the problem led to a detailed method to address it and the results available to date.

THE PROBLEM OF ORGANISATIONS

Wicked Problems

The term wicked problem was used by Rittel and Webber (1984) in a design context and Budgen (1993) picked out the four characteristics most relevant to the process of software design. These are also those most relevant to the more general study of information systems in organisations and are as follows:

- **There is no definitive formulation of a wicked problem.** A wicked problem cannot be reduced to a series of steps that need to be followed in order to reach a solution. Any series of steps so designed will address only part of the problem. By following a series of steps one may not even arrive at a partial solution, the process may actually make the problem worse.

- **Wicked problems have no stopping rule.** Wicked problems are dynamic. One may derive a solution, which appears to solve the problem at one point in time, but that solution will in itself affect the problem. People will react to the solution that they are given and the problem will evolve in new and unexpected ways. Often the scenario, which is nominally designated as the solution, is only acknowledged as such because time and/or money have run out on the problem. Concepts such as “structuration” (Giddens, 1984) are important for tackling wicked problems. They acknowledge that the way in which people interact with the structures within which they operate acts upon the structures themselves to change them.

- **Solutions to wicked problems are not true or false, but good or bad.** Because the way to tackle the problem is not reducible to a series of steps
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