Chapter 4

LAUNCHING ORGANISATIONAL SEMIOTICS IN THE REAL WORLD: HOW TO PREPARE FOR IT?

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Abstract: Organisational Semiotics has been presented in the academic literature as a promise for system analysts to construct a better understanding of organisational issues, promoting better adherence between the software to be designed and the organisational needs. In this work we focus on how to carry a semiotic-based approach from the academy to the “real world” of systems development. The paper aims at discussing a training approach and investigating the meaning people in the role of developers make for the semiotic-based methods. The work is illustrated with a case study in which three teams of academics with previous experience in software development were exposed to a training situation in which they had to model a problem using methods and techniques from Organisational Semiotics. Findings of the case study inform the design of instructional material for training information system analysts and developers. The results achieved also point out difficulties experienced by the teams that could promote further discussion by the OS community of theorists and practitioners.

Key words: Information Systems Training, Organisational Semiotics, Information System Development.

1. INTRODUCTION

As discussed in Ehn and Lowgren (1997), the early approaches to Information System (IS) development can be characterized by a strong belief in methods for systematic design grounded in mathematical theories. Research interests in accuracy and technical control have guided these approaches. The main assumptions behind them seem to be that the users
(end-user, client, customer, stakeholder or problem owner) are supposed to
give complete and explicit descriptions of their demands in terms of the
system to be developed. This tradition was inherited by some widely spread
methods of Software Engineering (SE) and had a profound influence on the
curricula of courses in Computing and Information Systems Engineering.
Non-mainstream movements in IS development have tackled this problem
with software process models such as evolutionary development,
incremental development, etc. Sommerville (2001) offering a basis for a
solution to the problem of requirements. Nevertheless, even these efforts
lack good methods for investigating social constructs that influence the
signification of these systems to their users in the real world.

One of the major sources of inspiration for changes in orientation is the
theoretical discussion about the phenomenon of designing computer
artefacts. A reframing of the objectivist understanding of computer systems
has given place to a subjectivist view. Within this new paradigm, reality is
understood as being created subjectively and socially with subtle differences
between groups of agents. As a consequence, we can understand an
Information System as a semiotic system and the role of the analyst as being
to assist users to articulate their problems, discover their information
requirements and evolve a systemic solution. In other words, the role of the
analyst resembles a designer and “design” is understood in Winograd and
Flores (1986) and Adler and Winograd (1992): as the interaction between
understanding and creation.

Users, as mentioned before, do not have a clear and closed specification
about their needs and they have expectations in the analyst role in helping
them to elaborate a picture of the situation. We have had difficulties in using
methods from the objectivist tradition to deal with this problem. The
alternative usually adopted is to adapt the conventional models of system
development to include concepts from quality approaches, ISO series,
reengineering etc, which deal with process, behaviour and organisational
issues. We envisage in Semiotics and Organisational Semiotics, a way of
smoothly bringing together aspects of development process and
organisational issues. Our concern in this work is with how to carry an
approach grounded in OS from the academy to the “real world” of systems
developers working in companies. During this investigation, some questions
were raised, such as: How to prepare information system development teams
to apply Organisational Semiotics in a real business environment? What kind
of syllabus and text references should be used in this preparation? What
previous knowledge background would be necessary? Would the time spent
with theoretical foundations adequate for them?

In this paper we briefly show the project we have conducted in our
University, trying to answer the above questions and anticipating questions