Chapter 7.13
Towards a Meta-Model for Socio-Instrumental Pragmatism

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ABSTRACT

We claim that a general conceptual framework for the IS field should provide some kind of common upper-level ontology to describe and explain artifact-mediated social interaction. Such an ontology, socio-instrumental pragmatism (SIP), has been suggested. Our aim is to refine and formalize this ontology by providing a meta-model in the form of a unified modeling language (UML) class diagram. We discuss the implications of such a model as well as its relation to other ontologies. The meta-model is validated by using it in the evaluation of an existing business modeling language.

INTRODUCTION

The rise in the use of information systems (IS) is undeniable, and every day IS become a more important part of organizations. But far from being perfect, the design and implementation of IS in organizations is still a very problematic task that is often fraught with failure (Ågerfalk & Goldkuhl, 2006). There is a need for a better understanding of IS, organizations, and their relation to come up with a framework capable of integrating these two concepts. For the past two decades, theories of communication have been imported into the IS field and the language action perspective (LAP) has been proposed as a way to understand IS and organizations based on communication (Goldkuhl, 1982; Winograd & Flores, 1986). Later on, an ontology to capture the social world was proposed and described in Goldkuhl (2001), Goldkuhl, Röstlinger, and Braf (2001), Goldkuhl (2005), and Goldkuhl and Ågerfalk (2002). This ontology was named "socio-instrumental pragmatism" since it aims at human actions which are supported by instruments and performed within the social world (Goldkuhl,

2002). Socio-instrumental pragmatism (SIP) presents a generic framework which allows for the analysis of the social world. Within this world there are six ontological categories:

1. Humans
2. Human inner worlds
3. Human Actions
4. Signs
5. Artifacts
6. Natural objects

Since SIP was intended as a generic framework which can serve as a base to analyze the social world, it is not aimed exclusively at the IS field. We think that a meta-model based on the SIP ontology but with a focus on the IS field is needed. This meta-model has its foundations in both LAP and SIP and presents a model that will allow us to view organizations and IS together with a focus on actions.
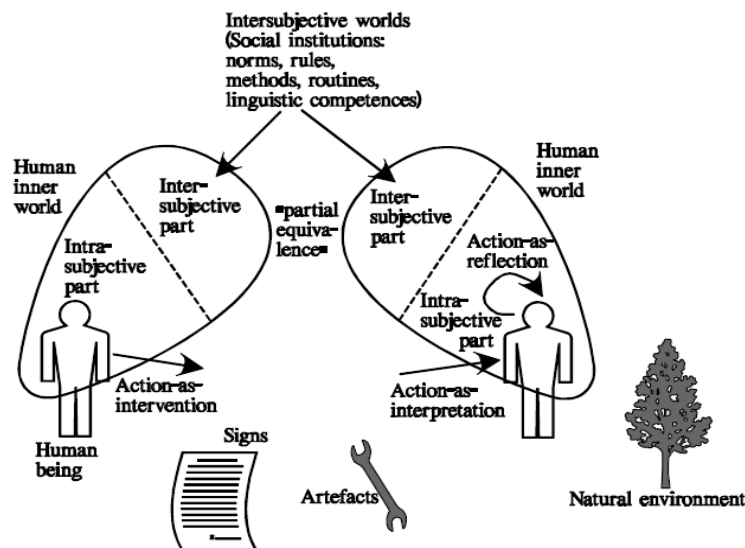
The model consists of the basic categories actions, actors, and objects. In addition to this we also consider other important aspects of organizations that are related to their functioning.

TOWARDS A META-MODEL SOCIO-INSTRUMENTAL PRAGMATISM

As mentioned before, there is a need for a framework that allows us to describe social systems in a clearer and more thorough way. Our work is based on the SIP ontology. Within the SIP ontology there are six ontological categories (Goldkuhl, 2002):

- **Humans** are the most important participants in the social world described by the SIP ontology; they act in the world based on

Figure 1. Realms of the world within the SIP ontology (Goldkuhl, 2002)

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