

A SEMIOTIC APPROACH TO ORGANISATIONAL MODELLING USING NORM ANALYSIS

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Abstract

This paper explores a theoretical perspective to information systems engineering, correlating requirements modelling techniques with Norm Analysis, to elicit organisational semantics and to formalise complex business rules. At present noticeable disparity exists between systems models, and the actual, 'real' organisation information systems. The modern multifaceted organisational disposition is complicated further with exceptions in business rules, and volatility in the behaviour of normative agents. Traditional systems approaches do not fully address these complications, and disparity in systems models; Norm Analysis, however, offers a viable alternative, which until now has not been extensively explored. These inherent systems design issues may be alleviated with the introduction of norms, to address the complexity of organisational information systems. We propose utilising Norm Analysis, a branch of Organisational Semiotics, for the elicitation of IS requirements to encapsulate rigorous business behaviour, and formalise intricate business rules. We believe this approach will contribute to the overall usability and coherence of organisational models. The second part of this paper considers the adequacy of representing norms in deontic logic, rules operands and temporal based systems, with an illustration of a constabulary crime-reporting case study.

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