Chapter 12
Governance Mechanisms in Web 2.0: The Case of Wikipedia

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ABSTRACT
This chapter documents the findings of research into the governance mechanisms within the distributed system known as Wikipedia. It focuses in particular on the role of normative mechanisms in achieving social self-regulation. A brief history of the Wikipedia is provided. This concentrates on the debate about governance and also considers characteristics of the wiki technology which can be expected to influence governance processes. The empirical findings are then presented. These focus on how Wikipedians use linguistic cues to influence one another on a sample of discussion pages drawn from both controversial and featured articles. Through this analysis a tentative account is provided of the agent-level cognitive mechanisms which appear necessary to explain the apparent behavioural coordination. The findings were to be used as a foundation for the simulation of ‘normative’ behaviour. The account identifies some of the challenges that need to be addressed in such an attempt including a mismatch between the case findings and assumptions used in past attempts to simulate normative behaviour.

INTRODUCTION
This chapter presents the findings of primary research into governance mechanisms operating within anonymous computer mediated production environments, now commonly referred to as Web 2.0. In this case the platform examined is Wikipedia. The chapter is presented in two parts. The first deals with theory relevant to both understanding and modelling the effect of rules and norms on social self-regulation in computer mediated environments such as Wikipedia. Alternative theories of governance relevant to Web 2.0 are discussed. The concept of norms is identified as central to understanding Web 2.0 governance. The concept of norms is, however, problematic from a social theoretical standpoint as it points to conflicting origins of order. This is considered
Governance Mechanisms in Web 2.0

briefly in the context of the micro-macro/structure-agency debate. An emergentist account of norms is argued as necessary to describe the relationship in a way which can be made operational.

The second part of the chapter provides a fine grained analysis of how speech acts are used by Wikipedian’s to influence one another. The relationship between these (micro) speech acts and emergent (macro) patterns of social regulation are described. Through this analysis a tentative account is provided of the individual, social and technological artefacts which appear necessary to explain the behavioural coordination observed within Wikipedia discussion pages. This analysis was designed to support identification of the minimum mechanisms which would need to be included in a multi-agent simulation which would support the further study of social self regulation in Web 2.0.

Wikipedia was chosen, as when people encounter it for the first time and learn how it works, they commonly express surprise. The expectation is that an open collaborative process of such magnitude should descend into chaos. Yet Wikipedia has thrived, growing rapidly since its inception and spinning off many non-English language equivalents. Furthermore, Wikipedia has been shown to produce credible encyclopaedic articles (Giles, 2005) without the top down controls typically employed for this type of production. While the number of rules and etiquettes have also grown rapidly from the original ‘no rules’ standpoint (Sanger, 2005), Wikipedia appears so far to have avoided the formation of an editorial elite or oligarchy (Konieczny, 2009). Wikipedia therefore offers fertile ground for understanding the mechanisms of governance at play in this form of Web 2.0 environment.

Wikipedia’s sheer size, the extent to which every transaction is logged, and its length of time under development offers a valuable and rare source of social science data (Medelyan, Milne, Legg, & Witten, 2009). For those of us interested in understanding and modelling the dialectic between individual behaviours and social structures and order, Wikipedia is attractive, as the way in which people can influence one another is constrained when compared to non-computer mediated environments. In Wikipedia actions at the level of the individual are restricted to communicative (speech) acts and edits.

This research focuses on how speech acts are employed by editors to influence the behaviour of others. Particular attention is given to how editors use the illocutionary force of utterances (Searle, 1969) and deontic commands to influence one another to comply to rules, etiquettes and social norms and the role these play in the actual order observed.

Conclusions are drawn about how the order observed in Wikipedia may be explained as well as the apparent influence of social artefacts, goals and the wiki technology on the achievement of that order.

PART ONE: THEORETICAL RELEVANT TO UNDERSTANDING SOCIAL REGULATION IN COMPUTER MEDIATED ENVIRONMENTS

Governance Theory

According to the relevant Wikipedia article, the word ‘governance’ derives from the Latin that suggests the notion of “steering”. The concept of governance is used in a number of disciplines and a wide range of contexts and the range and type of steering mechanisms differ depending on whether the focus is with States or institutions. While both have been applied to understanding Web 2.0, it is most common (and arguably most appropriate) to use institutional concepts of governance. Institutional steering mechanisms may be: formal (designed rules and laws) or informal (emergent as with social norms); extrinsic (involving contracts and/or material incentives) or intrinsic (involving values and principles); and