Chapter 3.17
On the Social Shaping of the Semantic Web

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ABSTRACT

Addressed in this chapter is the Social Shaping of the Semantic Web in the context of moving beyond the workplace application domain that has so dominated the development of both Information and Communications Technologies (ICTs), and the Social Shaping of Technology perspective. The importance of paradigms and the values that shape technology are considered along with the utility value of ICT, this latter issue being somewhat central in the development of these technologies. The new circumstances of ubiquity and of uses of ICT beyond mere utility, as a means of having fun for example, are considered leading to a notion of the Semantic Web, not just as a tool for more effective Web searches, but also as a means of having fun. Given this possibility of the Semantic Web serving two very different audiences and purposes, the matter of how to achieve this is considered, but without resorting to the obvious and rather simple conceptual formulation of the Semantic Web as either A or B. The relevance of existing Social Shaping of Technology perspectives is addressed. New thoughts are presented on what needs to be central to the development of a Semantic Web that is both A and B. Key here is an intelligent relationship between the Semantic Web and those that use it. Central to achieving this are the notions of the value of people, control over technology, and non-utility as a dominant design principle (the idea of things that do not necessarily serve a specific purpose).

INTRODUCTION

When computing and communications technologies merged and moved from the industrial, commercial, academic and government settings in which the technologies initially developed, into society at large, something fundamental and quite profound happened. On achieving ubiquity, Information and Communications Technologies (ICTs) ceased to be the primary preserve of the professional developer and the work-based user, and became, in effect, public property. No more can the use of ICT be perceived as the domain of a select few. And the World Wide Web is the quintessential embodiment of this new circumstance. But it is not just the user community that has changed, for it is also the case that professional software developers also now operate in a world where anyone, potentially, can become a software or applications developer.

However, with the movement of ICT out from, and beyond, the workplace, into society at large, there is a need to look beyond traditional concerns with problem-solving, efficiency, utility, and usability. These are the criteria of the business world, of government departments, and the like, who are single-mindedly focused on delivering against targets set from high above. To these types of organization, computers, software, the Internet, and the World Wide Web are but functional utilitarian tools deployed in the service of profit, in the case of business, or policy as the embodiment of high political principles, in the case of governments.

Step beyond this well ordered world, into the life of an everyday citizen in modern society–the information society–and all these conventional concerns with problem-solving, efficiency, utility and the like, sit side-by-side, often uncomfortably, or are often substituted by, a second dimension representing a whole spectrum of other interests. The defining characteristics of this second dimension to the Web are typically: fun, enjoyment, happiness, fulfillment, excitement, creativity, experimentation, risk, etc. These in turn raise a much wider range of values and motivations than those of business, and embody notions such as freedom, individuality, equality, the human right to express oneself, and so forth. Moreover, these lead to a World Wide Web as a place, not of order, but of chaos, anarchy, subversion, and sometimes, even the criminal. And into this world moves the notion of semantic technologies, potentially transforming this chaotic and unpredictable environment into a place of order and meaning, taming this wild frontier, making it more *effective* and *useful*. But order, meaning, effectiveness, and usefulness for whom?

This chapter addresses this rather simple, yet profound question. It is argued that the Semantic Web, as originally conceived, is not, as has been claimed, an improvement upon the first generation of the World Wide Web, but potentially a destructive force. What the Semantic Web may end up destroying is the unpredictability of interactions with the Web. This unpredictability, it is argued, is one of the Web's most appealing characteristics, at least to those who are *not* seeking to be more efficiency, or effective, and the like. And with the loss of unpredictability goes serendipity, which is something that has a value beyond quantification, for both the workplace user and the non-workplace user.

However, this outcome is not inevitable: there is no immutable law which states that the Semantic Web has to be such that all unpredictability in encounters with the Web has to be eliminated. The Semantic Web, like all technologies, can be shaped to produce outcomes (MacKenzie & Wajcman, 1985), and these do not have to be dominated by the need for efficiency and utility. In other words, insights form the social sciences can be used to design a technology that is different from one where purely technical and business considerations dominate.

To understand this perspective it is first necessary to understand how design paradigms influence the development of technology, and how these paradigms have failed to adapt to the age

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