

Chapter 7.10

Social Cognitive Ontology and User Driven Healthcare

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ABSTRACT

The chapter starts from the premise that illness and healthcare are predominantly social phenomena that shape the perspectives of key stakeholders of healthcare. It introduces readers to the concepts associated around the term ontology with particular reference to philosophical, social and computer ontology and teases out the relations between them. It proposes a synthesis of these concepts with the term ‘social cognitive ontological constructs’ (SCOCs). The chapter proceeds to explore the role of SCOCs in the generation

of human emotions that are postulated to have to do more with cognition (knowledge) than affect (feelings). The authors propose a way forward to address emotional needs of patients and healthcare givers through informational feedback that is based on a conceptual framework incorporating SCOCs of key stakeholders. This would come about through recognizing the clinical encounter for what it is: a shared learning experience. The chapter proceeds to identify problems with the traditional development of top down medical knowledge and the need to break out of the well meaning but restrictive sub specialty approach. It uses the term de specialization to describe the process of breaking out of the traditional top

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down mold which may be achieved by collaborative learning not only across various medical specialties but also directly from the patient and her “other” caregivers. Finally it discusses current efforts in the medical landscape at bringing about this silent revolution in the form of a Web-based user driven healthcare. It also supplies a few details of the attempts made by the authors in a recent project trying to create electronic health records in a user driven manner beginning with the patient’s version of their perceived illness with data added on as the patient traverses his/her way through various levels of care beginning from the community to the tertiary care hospital. The data contained within these records may then be effectively and anonymously shared between different patients and health professionals who key in their own experiential information and find matching individual experiential information through text tagging in a Web 2.0 platform.

INTRODUCTION

The human body has a limited range of physiological responses to deal with disease and injury. However, humans have developed social responses to dealing with disease and injury; on the individual level they express their experience as illness (being or feeling unwell), and socially an ill person is allowed to adopt and be accepted in a ‘sickness role’ (Skoyles 2005, Sturmberg 2007).

Healthcare emerged in hunter and gatherer societies who started to look after their sick and weak group members as this proved to enhance the survival chances of the whole group. Over time the role of caring for a sick or weak group member was ascribed to one person – the birth of the first medical professional – the shaman or medicine man (Sturmberg 2007).

Disease and injury are biological phenomena; illness, sickness and healthcare are social phenomena (Skoyles 2005, Sturmberg 2007). Disease and illness transcend the individual in

a socially interconnected world, hence disease and illness and the resulting responses can only be fully appreciated by patients, doctors, policy makers and researchers if viewed as the result of interdependent interactions in broad networks.

Networks function as complex adaptive systems. In brief, complex adaptive systems consist of a large number of components that interact in non-linear ways through many feedback loops. Such systems are open, they interact with their environment. The characteristic of a system is determined by the patterns of its interactions which cannot be reduced to the behavior of its specific components – systems are ‘emergent’ (Cilliers 1998).

THE DIFFERENT ‘NATURES’ OF HEALTHCARE

Throughout the ages medicine has always been a collaborative problem solving effort between an individual patient and health professional. However, with time and globalization there have been major changes. The ‘localized expert’, and thus opinion driven, physician approach to clinical decision-making (as a first step to medical problem solving) has emerged to a ‘global expert’, collaborative evidence based approach that uses aggregated information as the basis to individual patient care (Biswas 2007 b).

Much of this aggregated information is now available on the Internet allowing patients and health professionals to learn about diseases and their current treatment approaches. (Murray 2003, Lerner 2006, Tan 2006, Giustini 2006). Increasingly this mode of information sharing drives the individual consultation, our understanding of acceptable practice and health service planning.

The impact of this information sharing ability can be viewed as ‘User driven healthcare’. We previously defined user driven healthcare as a process leading to improved healthcare achieved with concerted collaborative learning between multiple

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