A Process Model for Building Social Capital in Virtual Learning Communities

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Abstract

Social capital adds significant value to learning in virtual learning environments. Social capital is created when learners interact with each other, by exchanging rich and thoughtful experiences among themselves through storytelling. Little research has focused on how this stock of capital is valued in virtual environments. The goal of this paper is to describe how social capital is created, through storytelling. Trust is essential for building social capital in virtual learning environments. This paper presents a process model for creating and maintaining social capital in virtual communities based on trust.

1. Introduction

The appearance of advanced distributed and ubiquitous learning technologies has supported the emergence of virtual learning communities. These communities are mainly formed on the basis of common interests and goals. In the social sciences and humanities as well as in computer science there is much research about the value these communities offer to learning. However, one of the key issues that has not been investigated is the existence of social capital in virtual communities and how trust acts as a lubricant for the creation and maintenance of social capital.

The goal of this paper is to examine the notion of social capital, accrued from social interaction and knowledge exchange in virtual communities. We show how social capital is tied to trust and illustrate the processes by which it can be created and maintained. The paper argues that trust can be created through storytelling. The act of storytelling creates a rich environment in which learners come to know each other, connect and create social ties. Exposure to individual experiences leads to the establishment of shared history and identity. Sharing the same problems and experiences can be a fertile ground for the cultivation of trust, which in turn acts as the lubricant for the creation and maintenance of social capital.

2. The Concept of Virtual Communities

A virtual community is formed out of social interaction in cyberspace. However, there is little agreement in the literature on what actually constitutes a virtual community. The concept variously includes virtual community networks based on interests [6][4][3]; virtual learning communities of relationships, place, ideas, reflection and ceremony [7]; and communities of practice in the corporate world [8][9][10].

Although there are various definitions of virtual community, they share common elements. For instance, each community has a particular language and culture [5]. Language is the communication infrastructure of a community. Members use shared language to negotiate meaning, understand each other and build common vocabulary around their interests and goals. A culture in a virtual community does not necessarily equate to a natural human culture, (but rather is an underlying way of doing things peculiar to the community). Each community also maintains a shared history and identity.

These elements encourage togetherness and promote active participation of members in virtual communities. As Schwier [7] has noted: “effective communities share common history, culture and identity”. Social interaction is created around a commitment among community members to exchange knowledge and experiences. Exchange of knowledge and experiences among different members does not necessarily produce trust, but it exposes them to the possibility of connecting to each other, and the development of social ties, and trust is negotiated on the basis of these ties.

3. Trust and Social Capital in Virtual Communities

Social capital is “a stock of active connections among people: the trust, mutual understanding, and shared values and behaviours that bind people as members of human networks and communities” [2]. There are many social networks in which social capital resides. Some of these are networks of civic engagement, associations, clubs, neighbourhoods, and virtual communities. The
notion of social capital is relevant to virtual communities because it suggests an abstract hidden resource, which can be accumulated, tapped, attained when people value relationships among each other, interact, collaborate, learn and share ideas. These elements depend on the levels of trust or distrust that exist in a community.

Trust refers to a subjective level of probability which one agent will perform a particular action in a particular context. Such a social phenomenon is situational and manifests itself in many ways. Nonetheless, it is an important element of social capital. There are limited computational models of trust, and how these are created and maintained remains unknown.

In order to fully understand and value trust, and work towards development of computational models to support social capital in virtual communities, we are developing a process model for building social capital based on trust. Figure 1 illustrates the process of building social capital based on time and space.

![Figure 1 Process model for building social capital in virtual communities.](image)

The process of creating and sustaining social capital is mainly influenced by two key factors: space and time. Space is social space, and refers to the contexts in which appropriate social interaction can occur and the trust that accrues from such interaction. Time refers to a period of time in which learners interact long enough to inculcate trustworthiness among themselves.

Our future work will involve fleshing out these notions of (social) space and time. In particular we will formulate computational models of trust and design tools that support the creation and sustainability of trust. We will then show how such trust (over space and time) builds social capital in virtual communities, and how that social capital can, in particular, be useful in virtual learning communities to foster better understanding and enhanced learning.

4. References


