

## Chapter 20

# A Theoretical Method of Measuring Virtual Community Health and the Health of their Operating Environment in a Business Setting

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### ABSTRACT

*This chapter discusses how virtual communities are associated with business and describes how the communities support the overall business effort. The chapter then examines the ways that the execution of certain business processes – such as the ‘lessons learned process’ – can have a strong supporting role in maintaining the health of virtual communities. Quantitatively measuring key aspects of these business processes provides a strong indication of the health of virtual communities that are linked to the process. The chapter introduces a measurement by objectives system, describes how it can be used to assess the health of virtual communities and how this can be extrapolated to assess the supportive nature of the overall business environment the communities are operating in.*

### INTRODUCTION

Virtual communities exist within the business community and within businesses themselves. They are a key part of the knowledge transfer system within a business. Companies invest money in supporting the virtual communities, not just the internal ones but external ones as well. Companies

tend to invest only in things which bring a net return, so their investment in these virtual communities suggests that many companies believe there is value in them and that they will have a net positive return on their investment. Because there is perceived value in business-based virtual communities, there needs to be a way to measure their health and provide those making the investment with information related to the health of their communities.

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The business environment in which a virtual community operates will impact its overall health. If the environment is supportive of virtual communities, they will have a better chance to succeed than if the environment is toxic. Since the investment is made, it is reasonable to measure the health of a virtual community's business environment to ensure it is supportive.

There are several business processes that can benefit from developing linkages with virtual communities. Benefits accrue to both the process and the community. Processes become more robust and the communities have a continual stream of relevant discussion topics.

As opposed to attempting to directly measure the health of a virtual community, indirect measures based on the performance of key elements of linked business processes may be established. Using a modified version of the Productivity Measurement by Objectives methodology (Felix and Riggs, 1983) provides a sound method of measuring the interface activity between any business process and the virtual communities that support it. The quantitative output values support clear presentation of virtual community health to those with an interest. Aggregating the output values across various groupings of communities provides a relative measure of the health of environment they operate in.

The goal of the chapter is to present a measurement method that can be used to provide those with an interest an understanding of the health of business-based virtual communities and the overall health of the environment they operate in. The measurement method is presented with a template that can be adapted for use by practitioners.

## **BACKGROUND**

Rheingold (1993) defined *Virtual communities* as "social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human

feeling, to form webs of personal relationships in cyberspace." (Chapter 1). Wenger, McDermott, and Snyder (2002) define a Community of Practice as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis." (p. 4). Distributed Communities of Practice (DCOP) (Daniel, Sarkar, and O'Brien, 2006) focus on communities of practice that are wholly supported by virtual means.

A question to be addressed is whether DCOPs in the workplace are a subset of virtual communities. Simply because web-based technologies are used by businesses does not mean that businesses have created virtual communities. Rheingold's definition weaves an emotional component with a technology component, forcing the question 'does utilizing web-based technology in a business setting constitute a virtual community?'

From a technological perspective, we are all aware that businesses have begun to utilize web-based technology as a means of enhancing business performance. Technological components of DCOPs that businesses are using include email, online forums, discussion areas, websites, and libraries – most of which are routinely used by employees in small and large business enterprises for world wide communication.

In any business-related internet and intranet setting, anonymity is difficult and use of actual names and – often – additional contact information is expected. Because names are used and there are often professional settings where 'names' meet, communication does form a sense of community.

In small to medium-sized businesses, the most common means of electronic communication is email. Other forms of communication are typically web-based and involve targeted web and discussion sites which provide support for employees in the business enterprise. Professional and other associations have discussion sites where business-related issues are posted and addressed, web sites where current news is posted, and directories

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