# Chapter 2.18 The Role of Virtual Communities in the Customization of e-Services

#### **Bill Karakostas**

City University London, UK

#### **Dimitris Kardaras**

Athens University of Economics and Business, Greece

#### Adéla Zichová

City University London, UK

#### **ABSTRACT**

Virtual communities are groups of people with similar interests who meet online and together act as a learning environment, place for social support, or as bodies for influencing public opinion. In this paper, the authors identify characteristics of a virtual community that influence its members to customize e- services provided to or received by the virtual community. The authors propose a theoretical framework of factors influencing service customization in a virtual community that has been validated with two case studies conducted in health-focused virtual communities. The findings confirm that the quality of the learning environment, social support, and the virtual community's ability to influence public opinion, positively contribute to the perceived usefulness and active participation in the community by its members. In turn, these factors were found to have a positive influence on customization of e-services by the members, based on the community's suggestion. The research also suggests several areas of focus to enhance e-service customization through virtual communities.

# INTRODUCTION

Rheingold (2000) defines virtual communities as social aggregations that emerge from the Internet where a sufficiently large number of people carry on public discussions long enough, with sufficient human feeling, to form webs of personal relationships. As the Internet and Web has evolved, so have the virtual communities, from simply "meeting places" to discuss topics of interest, to places where e-services are provided, enhanced and consumed. In business environments, virtual communities such as customer groups can evaluate products and services offered by a company, and can provide valuable feedback to both their members and to the service providers themselves.

Hagel and Armstrong (1997) emphasize the need to recognize the business potential of virtual communities by arguing that commercial success online will belong to those who organize virtual communities that meet multiple social and commercial needs.

Today, there is a demand for products and services that are flexible enough to match exactly the requirements of different individuals or groups. Mass customization is the process of applying technology and management methods to provide product variety and customization through quick responsiveness and flexibility (Kotha, 1995). In services, mass customization is an enabler in order to meet the needs and wants of customers (Rust & Kannan, 2002). Customization is a process that can be applied by the providers of the product/services, by the recipients (customers) of the products/services, or by both. Virtual communities are often formulated around the provision of a service electronically (e-service). For example, virtual communities are created around the provision of e-health services, allowing their members to obtain better information about the provided e-services, offer mutual support, and, in general, maximize the benefits obtaining from such e-services. To make the most of the offered services, virtual community members may seek to customize them, following experience, suggestions and advice from other community members.

The research question posed in thus paper, therefore is: can a virtual community act as the enabler or the motivator of e-service customization for its members? If so, what are the essential functions and features that are required from the community in order to support or enhance the service customization activities of its members?

In the rest of the paper, first we survey research in the areas of virtual communities, e-services and e-service customization. Then, we introduce a causal model and hypothesis for e-service customization enabling factors in virtual communities, and describe the research methodology we employed in order to prove the research hypothesis made. Next, we discuss the findings from applying the e-service customization factors causal model to two case studies on health related virtual communities. Finally, we discuss the implications from the findings on e-service customization and virtual communities more generally.

## LITERATURE SURVEY

The definition of virtual communities varies, depending on the perspective from which they are considered. From a business perspective, Hagel and Armstrong (1997) define virtual communities as online groups of people with common interests and needs. Preece (2000) looks at virtual communities from the e-commerce perspective and argues that, according to e-commerce entrepreneurs, any communication software such as a bulletin board can be regarded as a virtual community. Balasubramanian and Mahajan (2001) consider the virtual community from an economical perspective, and they define them as any entity that exhibits the following characteristics:

- It is made up of an aggregation of people.
- Members are rational utility-maximizers.
- Members interact with one another without physical collaboration; however, not every member must necessarily interact with every other member.
- Members are engaged in a social-exchange process which includes mutual production and consumption. Each member is engaged in the consumption process; however, not everyone is involved in the production.
- Social interactions between members revolve around a well-understood focus that encompasses a shared objective, shared property, or shared interest.

In addition to their contribution to the spread of virtual communities, Internet and the Web have also been responsible for transforming services into e-services. E-service examples 14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

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