Chapter IV

Ethical Elements of Security and Developments in Cyberspace that Should Promote Trust in Electronic Commerce

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INTRODUCTION

The perspective that trust raises confidence and enhances business reputations provides the underling theme for this chapter. In it, we consider the implications of security and trust in Electronic Commerce (EC) and we show that the establishment of ethical policies that support trusted transactions are an important part of the security/trust equation. However, how Internet businesses can approach and integrate ethical concepts and how they can best communicate their security policies to the public are likely to be major challenges for the future. Professionals, such as software engineers, designers of electronic business systems, and others who work with EC need to be aware of the ethical and trust issues that surround their work and the implications of non-ethical behavior. All business people need to recognize that there is a major problem with general users who are very sceptical when it comes to matters involved with trust in electronic commerce transactions. It is important for anyone (consumers and vendors etc.) when entering business on the Internet to have some basic understanding of the security functions involved in business transactions.

However, it is equally important to look at the risks and possible threats involved when entering a system of networks. Therefore, they need to be aware of cyber crime, Internet fraud and some of the many permutations known to be possible from criminal and fraudulent activities through the networks in cyberspace. Consumers should be careful not to fall victim of a fraudulent web site, and businesses need to be concerned about criminal infiltration, both external and internal. Both consumers and businesses need to have confidence that the information they are giving is not being illicitly interfered with, copied, collected or distributed in any way which they do not know about.

The following sections of this chapter report current and future aspects of EC related to the concept of trust. In the next section we review the current climate surrounding electronic business. In particular we consider: customer relationship management, risks related to business on the Internet, the factors that are driving electronic business and issues related to infrastructure and security. We also consider issues related to cyber crime such as the threat from hackers, Web fraud, and the perils of neglecting threats of internal attack. Then in the third section we concentrate on the technological developments in EC related to security and consider in detail two particular aspects: the authentication of transactions and mechanisms which support electronic payments. Following this in the fourth section we look to the future and provide our recommendations with regard to Trusted EC. Here we look at three areas: the role of computer ethics, management issues and a future model for EC. In the last section we present our overall conclusions.

CURRENT ELECTRONIC BUSINESS ISSUES

Customer Relationship Management

Customer relationship management is a very important component in electronic business. It should be designed to enhance customer trust and therefore encourage repeat customers and result in lasting customer loyalty. The Internet has enacted a general shift of power in favor of customers reports Stobie (1999) in his interview with Martin Butler, chairman of the Butler Group. Butler believes that every company wishing to maintain a business presence on the Internet should rethink almost everything about their business. He further suggests that when a person comes to a Web site they want to know what sort of business it is and if it is reputable. Therefore the Web site has to address these uncertainties and if the site content does not make sense, then it is not information but just data. Solomon (1998) reports that the president of E*Trade of Canada believes that companies should make sure there is value in what is sent to customers, as people will not sit around and let companies download junk to them, nor are they going to click on banners for financial services, as people never turn on their TV to ask for more advertisements. On-line commerce must offer interesting content and functionality and deliver both to a very high standard. This would indicate that new technology standards must enhance speed, offer the right information and top security to satisfy future consumer demand for functionality.

Strengths, Weaknesses and Pitfalls of Internet Business

The true success of Internet businesses may depend on how the effects of new strengths and weaknesses are managed as and when they emerge. If the right security issues are addressed, states Norfolk (1999), EC will be as safe as any other way of trading although