



## **Chapter 1**

# **Web-Enabled Technologies Assessment and Management: Critical Issues**

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### **Abstract**

During the past two decades, advances in computer technologies combined with telecommunication technologies have lead to the development of the Internet and its most popular application, the World Wide Web. Like many other technologies, the WWW has not been free of problems and challenges. A Delphi technique was utilized to assess a list of issues identified in the existing literature. In addition to this list, the panel of experts who participated in the Delphi study identified other critical issues and eventually ranked them in their order of priority and importance. The critical issue identified in this study provides closer insights into issues affecting the overall utilization and management of Web-enabled technologies and offers many implications and challenges for businesses, governments, and the user community.

### **Internet Technology Evolution**

During the past two decades, the world has witnessed a technological evolution that has provided a totally new medium of communications entirely new to mankind. Through the use of networks, information in all forms has been disseminated throughout the world. What is known today as the World Wide Web (WWW) grew out of a project that began with a different

intent (ARPANET). The ARPANET was designed and developed in 1969 by Bolt, Beranek and Newman under a contract for the Advanced Research Project Agency (ARPA) of the U.S. Department of Defense. The purpose of the Network was to study how researchers could share data, and how communications could be maintained in the event of a nuclear attack (Gilster, 1993). The ARPANET Project was eventually turned over to the National Science Foundation (NSF) and ultimately became known as “Internet” which the NSF allowed access to businesses, universities, and individuals (Mosley-Matchett, 1997). In the beginning, many resources such as electronic mail, news, telnet, FTP, and Gopher were offered through the Internet to its users (Mistic, 1994).

One of the early applications of the Internet was its most popular application, the World Wide Web (WWW) or sometime known as “the Web”. The WWW is one of the software tools that through the use of hypertext allows computers to link information in new ways different from a sequential reading approach, to make it easy to retrieve and add information from different computer sources through the use of communication links (Berners-Lee, 1992). In the short time since its inception, the Internet has indeed revolutionized business, in that it redefines the methods used in traditional business practices and offers another important channel for mass communication (Foo, et al., 1997).

During the early days of the Internet, the technology was primarily utilized as a medium for communication (e.g. e-mail) purposes. Soon after many organizations from both public and private sectors began to discover that in addition to use of the Internet and its popular WWW, they could utilize this technology in support of marketing and information dissemination purposes. This resulted in companies realizing that the greatest payback in investing in the technologies of WWW would be in sharing information about the firm’s products and services to the firms’ stakeholders (Gardner, 1997). As a result, successful organizations of all sizes and types have been

*Table 1: A List of Reasons for Utilizing the Web for Marketing*

<ul style="list-style-type: none"> <li>• To establish a presence</li> <li>• To network</li> <li>• To make business information available</li> <li>• To serve customers</li> <li>• To heighten public interest</li> <li>• To release time-sensitive data</li> <li>• To sell products and services</li> <li>• To reach a highly desirable demographic market</li> <li>• To answer frequently asked questions</li> </ul>	<ul style="list-style-type: none"> <li>• To stay in contact with salespeople</li> <li>• To open international markets</li> <li>• To create 24-hour service</li> <li>• To make changing information available quickly</li> <li>• To allow feedback from customers</li> <li>• To test market new services and products</li> <li>• To reach the media</li> <li>• To reach a specialized market</li> </ul>
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