



## **Chapter II**

# **The Societal Impact of the World Wide Web— Key Challenges for the 21<sup>st</sup> Century**

Janice M. Burn  
Edith Cowan University, Australia

Karen D. Loch  
Georgia State University, USA

## **INTRODUCTION**

Many lessons from history offer strong evidence that technology can have a definite effect on the social and political aspects of human life. At times it is difficult to grasp how supposedly neutral technology might lead to social upheavals, mass migrations of people, and shifts in wealth and power. Yet a quick retrospective look at the last few centuries finds that various technologies have done just that, challenging the notion of the neutrality of technology. Some examples include the printing press, railways, and the telephone.

The effects of these technologies usually begin in our minds by changing the way we view time and space. Railways made the world seem smaller by enabling us to send goods, people, and information to many parts of the world in a fraction of the time it took before. Telephones changed the way we think about both time and distance, enabling us to stay connected without needing to be physically displaced. While new technologies create new opportunities for certain individuals or groups to gain wealth, there are other economic implications with a wider ranging impact, political and social. Eventually, as the technology matures, social upheavals, mass

*This chapter originally appeared in the Information Resources Management Journal, Vol. 14, No. 4.  
Copyright © 2001, Idea Group Publishing.*

This chapter appears in the book, *Social Responsibility in the Information Age: Issues and Controversies* by Gurpreet S. Dhillon.

Copyright © 2002, Idea Group Publishing.

migrations and shifts in economic and political power can be observed. We find concrete examples of this dynamic phenomenon during the Reformation, the industrial revolution, and more recently, as we witness the ongoing information technology revolution.

Before the Reformation, the church controlled an effective monopoly on knowledge and education. The introduction of the printing press in Western Europe in the mid-15<sup>th</sup> century made knowledge and ideas in book form widely available to a great many more people. Printing hastened the Reformation, and the Reformation spread printing further. By the early 16<sup>th</sup> century, when Martin Luther posted his 95 theses on the castle church, the political movement was well underway. The printing press changed the way in which we collected, transmitted, and preserved information prior to that time. Mass production and dissemination of new ideas, and more rapid response from others were instrumental in launching a worldwide social phenomenon.

Dramatic changes in the economic and social structures in the 18<sup>th</sup> century characterized the industrial revolution. Technological innovations were made in transportation and communication with the development of the steam engine, steam shipping, and the telegraph. These inventions and technological innovations were integral in creating the factory system and large-scale machine production. Owners of factories were the new wealthy. The laboring population, formerly employed predominantly in agriculture, moved in mass to the factory urban centers. This led to social changes as women and children were introduced into the workforce. Factory labor separated work from the home and there was a decline of skilled crafts as work became more specialized along the assembly line.

The inventions of the telegraph and telephone dramatically changed the manner in which we conduct business and live our daily lives. They allowed the collection, validation, and dissemination of information in a timely and financially efficient manner. More recently, we are experiencing the information technology revolution, led by the introduction of computers. The rate of change has accelerated from previous times—with generations of technology passing us by in matters of months rather than decades. We are witnessing significant shifts in wealth and power before our eyes. Small start-up high technology and Internet companies, and their young owners, represent a very wealthy class—and an extremely powerful one. Small countries such as Singapore and Ireland, through the strategic use of information technology and aggressive national policy, have transformed their respective economies and positioned themselves in the competitive global economy.

The Internet, a complex network of networks, is frequently spoken of as a tool for countries to do likewise. The Internet removes the geographical and time limitations of operating in a global economy. The banking industry has been revolutionized with Internet banks—who can collect, validate, and disseminate information and services to any people group—internal to the organization and external to its customers—in a timely and financially efficient manner. Similar scenarios exist in the worlds of retail, healthcare, and transportation.

16 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: [www.igi-global.com/chapter/societal-impact-world-wide-web/29233](http://www.igi-global.com/chapter/societal-impact-world-wide-web/29233)

## Related Content

---

### Re-Conceptualising Research: A Mindful Process for Qualitative Research in Information Systems

Kay Fielden (2012). *Societal Impacts on Information Systems Development and Applications* (pp. 130-141).

[www.irma-international.org/chapter/conceptualising-research-mindful-process-qualitative/65007](http://www.irma-international.org/chapter/conceptualising-research-mindful-process-qualitative/65007)

### Introduction - The Emerging Interaction Society

Mikael Wiberg (2005). *The Interaction Society: Practice, Theories and Supportive Technologies* (pp. 1-25).

[www.irma-international.org/chapter/introduction-emerging-interaction-society/30357](http://www.irma-international.org/chapter/introduction-emerging-interaction-society/30357)

### A Framework for Analyzing Online Communities: Sponsor and Member Value Proposition

M. Gordon Hunter and Rosemary Stockdale (2012). *Technological Change and Societal Growth: Analyzing the Future* (pp. 129-143).

[www.irma-international.org/chapter/framework-analyzing-online-communities/62781](http://www.irma-international.org/chapter/framework-analyzing-online-communities/62781)

### Influence of Perceived Risks on Consumers' Online Purchase Behaviour: A Study

Rama Mohana Rao Katta and Chandra Sekhar Patro (2017). *International Journal of Sociotechnology and Knowledge Development* (pp. 17-37).

[www.irma-international.org/article/influence-of-perceived-risks-on-consumers-online-purchase-behaviour/198450](http://www.irma-international.org/article/influence-of-perceived-risks-on-consumers-online-purchase-behaviour/198450)

### Reflections on the Second Life Platform used in the Development of a Virtual University Campus

Maria Vargas-Vera (2016). *International Journal of Knowledge Society Research* (pp. 12-23).

[www.irma-international.org/article/reflections-on-the-second-life-platform-used-in-the-development-of-a-virtual-university-campus/174397](http://www.irma-international.org/article/reflections-on-the-second-life-platform-used-in-the-development-of-a-virtual-university-campus/174397)