

Chapter 5.14

Reconciling Information Privacy and Information Access in a Globalized Technology Society

George T. Duncan

Carnegie Mellon University, USA

Stephen F. Roehrig

Carnegie Mellon University, USA

ABSTRACT

Government agencies collect and disseminate data that bear on the most important issues of public interest. Advances in information technology, particularly the Internet, have created a globalized technology society and multiplied the tension between demands for ever more comprehensive databases and demands for the shelter of privacy. In reconciling information privacy and information access, agencies must address a host of difficult problems. These include providing access to information while protecting confidentiality, coping with health information databases, and ensuring consistency with international standards. The policies of agencies are determined by what is right for them to do, what works for them, and

what they are required to do by law. They must interpret and respect the ethical imperatives of democratic accountability, constitutional empowerment, individual autonomy, and information justice. In managing confidentiality and data-access functions, agencies have two basic tools: techniques for disclosure limitation through restricted data and administrative procedures through restricted access.

INTRODUCTION

We continue to see advances in the technology of computing and communications allowing the capture of enormous amounts of data, storage in very large databases, complex analyses, and

the dissemination of information products to individuals, governments, businesses, and other organizations. This technology has increased the tension between information privacy and information access, adding significant stress to those, like government statistical agencies, that broker between data providers and data users. With technology as its driver, the context of this dynamic is an ever-globalizing society exemplified by e-commerce across national boundaries, international outsourcing, and worldwide terrorism. This article will examine the implications of a globalized technology society for confidentiality and privacy, exploring technical, ethical, and policy issues.

A globalized technology society could raise the spectre of a world devoid of humanity, its sparse landscape dominated by robotic automatons. Or it could facilitate meaningful and productive human interaction across the globe. Perhaps less to the extremes, a globalized technology society might promote economic efficiency while testing privacy through new tools for data capture, storage, integration, and dissemination.

As far as privacy and confidentiality are concerned, a globalized technology society is one that processes information in ways radically different than the world has ever experienced—not that globalization itself is a new phenomenon. In fact, history suggests a remarkable series of stages of globalization, each made possible by quite different technological advances. Specifically, building on Thomas Friedman's (2005) formulation in *The World is Flat: A Brief History of the Twenty-First Century*, we put forward three stages:

1. **Globalization 1.0** (1400 A.D. to WWI) with changes in transportation technology allowing the great explorers like Vasco de Gama (1460-1524) and Christopher Columbus (1451-1506) and culminated in steamships and airplanes
2. **Globalization 2.0** (WWI to 2000) with changes in communication key, giving us telephones, fax, radio and TV, and e-mail
3. **Globalization 3.0** (2000 to now) with computing power key, allowing PCs (personal computers) to be linked by fiber optics and the initiation of GRID computing (an emerging global, distributed parallel processing infrastructure)

Each stage has had more impact on the way people can work with information. Globalization 1.0 allowed mail packets—now dubbed “snail mail” packets—to be sent around the world in months and then days. Globalization 2.0 made communication electronic and cut the global circuit to seconds. Globalization 3.0 not only makes communications links quicker, but also makes them more complex, increasing the density of the web of connections.

THE CSID DATA PROCESS

Taking a broader view of what happens with information, we can examine the CSID data process (Duncan, 2004).

- Capture (the process of obtaining data from individuals, households, organizations, and enterprises)
- Storage
- Integration
- Dissemination

The purpose of the CSID data process is to get information in the hands of analysts who can turn data products into information that serves the legitimate needs of a democratic, free-market society. However, the information organization (IO) must also keep information from those who use the data to violate the rules and harm individuals and society. Today, technology enables

19 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/reconciling-information-privacy-information-access/8007

Related Content

Is Extreme Programming Just Old Wine in New Bottles: A Comparison of Two Cases

Hilkka Merisalo-Rantanen, Tuure Tuunanen and Matti Rossi (2005). *Journal of Database Management* (pp. 41-61).

www.irma-international.org/article/extreme-programming-just-old-wine/3341

Discovering Quality Knowledge from Relational Databases

M. Mehdi Owrang O. (2009). *Database Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 238-256).

www.irma-international.org/chapter/discovering-quality-knowledge-relational-databases/7915

Impact of Flow and Brand Equity in 3D Virtual Worlds

Fiona Fui-Hoon Nah, Brenda Eschenbrenner, David DeWester and So Ra Park (2010). *Journal of Database Management* (pp. 69-89).

www.irma-international.org/article/impact-flow-brand-equity-virtual/43730

Inclusion Dependencies

Laura C. Rivero, Jorge H. Doorn and Viviana E. Ferragine (2001). *Developing Quality Complex Database Systems: Practices, Techniques and Technologies* (pp. 261-278).

www.irma-international.org/chapter/inclusion-dependencies/8279

Fuzzy Database Approaches

Jose Galindo, Angelica Urrutia and Mario Piattini (2006). *Fuzzy Databases: Modeling, Design and Implementation* (pp. 45-59).

www.irma-international.org/chapter/fuzzy-database-approaches/18759