Chapter XXIII
Electronic Risk Management

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ABSTRACT

Doing business on the Internet has many opportunities along with many risks. This chapter focuses on a series of risks of legal liability arising from e-mail and Internet activities that are a common part of many e-businesses. Some of the laws governing these electronic activities are new and especially designed for the electronic age, while others are more traditional laws whose application to electronic activities is the novelty. E-business not only exposes companies to new types of liability risk, but also increases the potential number of claims and the complexity of dealing with those claims. The international nature of the Internet, together with a lack of uniformity of laws governing the same activities in different countries, means that companies need to proceed with caution.

INTRODUCTION

Within 48 hours after Katrina came ashore, a number of Web sites cropped up claiming that they are for hurricane relief. At the click of a computer Web site, you could donate money for the victims. Some of them even allowed you to donate money through a Red Cross Web site. Unfortunately, many of them turned out to be fraudulent. When you thought you were going to the Red Cross Web site, you would be taken to a different one and your credit card information would be stolen and sold to the highest bidder. In the electronic parlance, this process is called "phishing" (see Appendix for terminologies).

Electronic information transfer has become the backbone of our information society. Therefore, it is not surprising that it has also increased the

risks coming from electronic sources. The main risk comes from the Internet. For many businesses, and for many individuals, the benefits of being connected to the Internet have increased so much that not being connected to the Internet is no longer an option.

Companies who conduct transactions over electronic channels face a number of risks. Some of these risks, such as viruses, flow from the nature of modern technology. Others, such as theft, are age-old risks that have taken on new twists in the electronic age. For example, banks transfer huge amounts of money by wire, making them easy and lucrative targets for fraud, extortion, and theft. Other financial institutions, such as credit card companies, are prone to the same hazards. Software companies sell their products in electronic format. Copying files and programs is easy and cheap, making software companies particularly vulnerable to theft of their products. Electronic retailers that do all of their business online, such as Amazon.com, are subject to a wide array electronic risks associated with electronic money transfers and Web sites. However, even bricks and mortar companies face numerous risks emanating from (electronic) viruses, hackers, and the online activities of employees. These legal and technological risks associated with e-business—which may be referred to collectively as electronic or cyber risks—are the subject of this chapter.

The aim of this chapter is to survey a broad array of electronic risks that can cause their victims to lose money. It is beyond the scope of this chapter to provide advice on how to manage each and every one of these risks. Rather, this chapter seeks to raise awareness of a variety of risks so that readers will become conscious of the need to develop electronic risk management strategies. The best advice in this regard is to invest in expert advice. For example, where litigation risk exists, consult a lawyer early on regarding strategies to adopt that will avoid litigation or minimize the cost and risk of litigation should it become unavoidable. Where loose lips increase risks, develop strategies for managing the content of correspondence, whether traditional or electronic, such as educating and monitoring employees. Where the problem is primarily a technical one, invest in the necessary technology and expertise. Finally, where insurance is available to manage the financial risks associated with doing business electronically, buy it.

A GLOBAL PROBLEM OF VIRUSES

Computer viruses have become synonymous with electronic risk on a global scale. The method of electronic infection has changed dramatically. In 1996, e-mail attachments were responsible for 9% of infections whereas 57% of infections came from floppy disks. In 2000, 87% infections came from e-mail attachments and only 6% came from floppy disks. By 2004, the rate of infections from e-mail attachments had topped 99% of total infections (Source: ICSA Labs Virus Prevalence Survey, various years). As a result, in 1997, only 30% of all institutions used virus protection for e-mails whereas by 2004, the use of virus protection had almost reached universality (ICSA Labs Virus Prevalence Survey 2004, Figure 15). However, the rise of the use of virus protection has not reduced the rate of infection. Figure 1 shows how the rate of infection has changed over a period of 9 years. Despite the near universal use of antivirus software, the rate of infection has increased more than eleven-fold. The biggest jump in infection came between 1998 and 1999. It has not decreased since (see Table 1).

The number of problems and the associated cost of computer viruses have gone up steadily over the past decade. DARPA created the Computer Emergency Response Team Coordination Center (CERT/CC) in November 1988 after the computer worm Morris worm struck. It is a major coordination center dealing with Internet security problems run by the Software Engineering Institute (SEI) at Carnegie Mellon University.

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