Liability for System and Data Quality

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INTRODUCTION

Accompanying the proliferation of computers in almost every facet of life is an underlying risk to financial well-being related to computer system and data quality. The viability of a business often depends upon the continual and reliable operation of its computer system. The consequences of low-quality computer hardware and software are not infrequent or insubstantial. A recent report from the U.S. Department of Commerce states that total U.S. software sales in 2000 were approximately $180 billion (RTI, 2002). The report estimated that the lack of an adequate software testing infrastructure costs U.S. software users over $38 billion per year, principally through error avoidance and mitigation activities.

In just about every instance, a computer system is acquired, software is used, or data are accessed through a contract-based commercial transaction. Therefore, whether a computer, software, or data vendor will be held liable for defects or errors depends on the language of the contract itself and the law of contracts. Most contracts impose scant liability for vendors. Although aggrieved users have pursued other avenues of relief through non-contract-based legal theories, they have met with little success. For computer, software, and data users, the Latin maxim of *caveat emptor* still applies—let the buyer beware.

BACKGROUND

In the United States, commercial transactions are governed by contract law; a collection of rules of law which provides a basis for predicting whether a court will permit a certain contract provision to be enforced. Most courts and legal commentators now agree that in transactions in which an ultimate software product is to be delivered, the software is classified as a "good" and the associated contracts are governed by the Uniform Commercial Code (UCC or "Code") (Horovitz, 1985; Rodau, 1986). Article 2 of the UCC applies to contracts for the sale of goods. Technically, most software is acquired through a license rather than a sale. As far as the courts are concerned, however, software licenses are treated as ordinary contracts accompanying the sale of products, and therefore are governed by the UCC (ProCD, 1996).

Aggrieved computer and software users, and particularly users of inaccurate information, have sought redress through non-contract-based theories based on a separate body of law known as torts. However, without being able to show some form of injury to a person or destruction of physical property, these claims generally fail.

SOFTWARE CONTRACTS

Application of the UCC to software contracts means that the Code's provisions relating to warranties, consequential damages, and disclaimers of liability will also apply. Warranties can provide legal protection to the buyer regarding the quality of the goods (such as computer hardware or software) that are the subject of the contract. The UCC, however, also allows the seller to limit or exclude any or all of the warranties. When a vendor does provide a limited warranty—for example, that a hard disk drive will function properly for one year after purchase or that a software program will carry out its basic instructions with minimal errors—it is usually accompanied by a limitation of remedies. By contract, the purchaser agrees that in the event the product does not live up to its represented quality, the purchaser's remedies (and, hence, the vendor's liability) will be limited by the terms of the contract's limitation of remedies clause—usually a repair or replace option for defective hardware or a refund of the purchase price of software.

Often a computer hardware or software customer suffers damages beyond the cost of the hardware or software if there is a problem. The customer's business may be effectively shut down, or severely curtailed, if the computer system is not functioning properly. This type of damages is known as consequential damages—occurring indirectly as a result of the problem with the product. The UCC provides that consequential damages may be limited or excluded unless the limitation or exclusion is unconscionable. Limitation of consequential damages for injury to the person in the case of consumer goods is, on its face, unconscionable, but a limitation of damages where the loss is commercial is not.

The exclusion of consequential damages in commercial transactions under the UCC is considered merely an allocation of unknown or indeterminable risks and is almost always upheld. It has become standard practice in the computer industry, particularly for software publishers, to provide very limited express warranties, disclaim all other warranties, and severely limit remedies in the event of a breach of contract. These disclaimers and limitations of remedies are invariably enforced by the courts.

The initial premise under which disclaimers and limitations are allowed is that the parties negotiate the terms of the underlying agreement. In today's software transaction, however, "bargaining," at least on the part of the buyer, often consists of clicking on an "I Agree" button during software installation. Most software is acquired through a shrinkwrap (or clickwrap or browsewrap) agreement. Despite the lack of bargaining power on the part of the purchasers, in nearly all cases, shrinkwrap agreements have been held enforceable. The result is that a vast amount of software is acquired through a form contract with no opportunity to bargain for warranties or remedies.

The historic context of contracts was that the parties negotiated the terms of the agreement. In particular, it was believed that the purchaser was willing to assume some risk that the acquired product may not meet all expectations—through limited warranties and remedies—in exchange for a lower price. In the modern computer-related contracting scenario, however, the purchaser assumes all the risk. Despite theoretical underpinnings surrounding the creation of the UCC to provide buyers and sellers equal protections (Alces, 1999), the reality is that modern contracting practices provide no protection against the substantial losses businesses may encounter, and have encountered, when they cannot operate their business because data are lost or the computer system fails to operate properly.

TORT-BASED FORMS OF LIABILITY

Since software is generally considered a product for contracting purposes, it is logical to consider whether a vendor would be held liable for damages resulting from defective hardware or software under the doctrine of products liability. Products liability law protects those who suffer injuries as a result of a defective product. The law imposes upon a vendor strict liability for placing a defective product in the stream of commerce. This liability applies regardless of the amount of care exercised by the vendor in the preparation and sale of the product.

However, the vendor of a defective product is only strictly liable for certain types of damages suffered by the product's users: personal injury or damage to other physical property. To date, there has been no reported successful products liability lawsuit regarding defective computer hardware or software. All courts that have directly addressed the issue of whether products liability applies to defective computer hardware or software have ruled against application on the basis that the damages sustained are categorized as *economic loss*—a remedy not available under products liability law.

The "economic loss rule" provides that where no person or other property is damaged, the resulting loss is purely economic (East River, 1986). A few computer purchasers have argued that data lost due to defective hardware or a defective computer system constitutes damage to "other property." The courts that have considered this argument have uniformly rejected it. The courts consider the data as integrated into the computer system (Transport Corporation of America, 1994).

Even when the software vendor knows of a defect in the software and fails to notify the user, if the damages suffered are limited to economic losses, a tort claim of negligence will also fail (Hou-Tex, 2000). The economic loss rule provides a substantial barrier to any recovery for defective computer hardware or software, regardless of whether the purchaser pursues a claim for products liability or negligence.

LIABILITY FOR PUBLISHING INACCURATE DATA

The Internet has revolutionized the mass delivery of information. However, information was delivered online long before the commercialization of the Internet. A critical dimension of online information delivery is the speed at which information is disseminated, not necessarily the extent of that dissemination. Due to the speed of dissemination, however, information delivered online is not always accurate. The legal issue that arises is whether someone who claims damages as a result of an inaccuracy can hold the electronic publisher of that information liable for those damages. As a general rule, they cannot.

Historically, the courts have generally not held publishers liable for inaccuracies in the information they have published. There is an almost absolute immunity for publishers of information they do not author (Birmingham, 1992). Where the publisher does not author or guarantee the contents of the publication, it has no duty to investigate and warn its readers of the accuracy of the contents of its publications.

Courts have, however, carved out an exception when the information involved is highly technical in nature. For example, some courts have held a publisher liable for injuries suffered as a result of inaccurate aeronautical

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