

**Before the  
Federal Trade Commission  
In the Matter of  
High Technology Warranty Project  
FTC File No. P994413**

---

**Comments of  
Cem Kaner, J.D., Ph.D.  
Professor of Computer Science  
Florida Institute of Technology  
150 West University Blvd.  
Melbourne, FL 32901  
and  
David L. Pels  
Manager of Customer Operations  
Snap-on Diagnostics  
(A Division of Snap-on Tools)  
San Jose, California  
September 11, 2000**

**NOTE: THE AFFILIATIONS LISTED ARE FOR  
IDENTIFICATION PURPOSES ONLY. THE OPINIONS  
EXPRESSED HEREIN REFLECT OUR PERSONAL  
VIEWS AND NOT THOSE OF OUR EMPLOYERS.**

## **SUMMARY**

We provide legal history associated with the acceptance of post-sale warranty disclaimers and the software legal community's expectation as to the applicability of the Magnuson-Moss Act to consumer software. In short, for the last century, most courts in the United States have routinely rejected post-sale warranty disclaimers. And most commentators, including the Reporter of the UCITA project and the contracting guides from the Software Publishers Association, have stated that the Magnuson-Moss Act does apply to consumer software.

Additionally, we provide market-related and technology-related information.

Perhaps the most important point of our comments is our emphasis on the impossibility of creating a stable, reasonable, legal distinction between embedded and non-embedded software. The contracting and warranty rules for sales of goods are radically different from those for sales of software licenses. This provides an incentive to manufacturers to bring any software that they include in their products within the scope of UCITA and (if possible) out of the scope of the Magnuson-Moss Act. It also provides an incentive for manufacturers to move as many of their product functions into software as possible, in order to take advantage of the relaxed disclosure and liability rules and the enhanced use restrictions that are available under UCITA.

We contend that the efforts to define "smart goods" and "integrated software" and "embedded software" and "software that is integral to goods" and so on are doomed to failure. If the gap in legal treatment of software and other goods is great enough, manufacturers will simply redesign their products to bring them over to the software side of the line. The solution is to harmonize the treatment of the products, not to create an unworkable distinction.

## **BACKGROUND**

The term "consumer" is ambiguous. The Magnuson-Moss Act (15 USC Sec. 2301) provides the following definitions:

"For the purposes of this chapter:

"(1) The term "consumer product" means any tangible personal property which is distributed in commerce and which is normally used for personal, family, or household purposes (including any such property intended to be attached to or installed in any real property without regard to whether it is so attached or installed). . . .

"(3) The term "consumer" means a buyer (other than for purposes of resale) of any consumer product, any person to whom such product is transferred during the duration of an implied or written warranty (or service contract) applicable to the product, and any other person who is entitled by the terms of such warranty (or service contract) or under applicable State law to enforce against the warrantor (or service contractor) the obligations of the warranty (or service contract)."

In contrast, UCITA<sup>1</sup> Section 102(a)(15) defines consumer as follows"

" 'Consumer' means an individual who is a licensee of information or informational rights that the individual at the time of contracting intended to be used primarily for personal, family, or household purposes. The term does not include an individual who is a licensee primarily for professional or commercial purposes, including agriculture, business management, and investment management other than management of the individual's personal or family investments."

Suppose that a person buys a product that is normally used for personal, family, or household purposes, but intends to use this product in her home office, perhaps to prepare lessons (if she is a teacher) or to search electronic databases (if he is a librarian) or to bill clients. Under the Magnuson-Moss Act, this person is a consumer, but under UCITA this person is not a consumer.

UCITA Section 102(a)(45) defines another type of consumer-like customer, the mass-market licensee, as follows:

" 'Mass-market transaction' means a transaction that is:

"(A) a consumer contract; or

"(B) any other transaction with an end-user licensee if:

"(i) the transaction is for information or informational rights directed to the general public as a whole, including consumers, under substantially the same terms for the same information;

"(ii) the licensee acquires the information or informational rights in a retail transaction under terms and in a quantity consistent with an ordinary transaction in a retail market; and

"(iii) the transaction is not:

"(I) a contract for redistribution or for public performance or public display of a copyrighted work;

"(II) a transaction in which the information is customized or otherwise specially prepared by the licensor for the licensee, other than minor customization using a capability of the information intended for that purpose;

"(III) a site license; or

"(IV) an access contract.

Consider again the customer who buys a copy of a consumer product for use in a home office. Under UCITA, this is not a consumer contract.

---

<sup>1</sup> All references to UCITA are to the Uniform Computer Information Transactions Act approved by NCCUSL in July, 1999, available at <http://www.law.upenn.edu/bll/ulc/ucita/ucita200.htm>, and to the amendments in the July 28-August 4, 2000 draft "Amendments to the Uniform Computer Information Transactions Act" available at <http://www.law.upenn.edu/bll/ulc/ucita/ucitaAMD.htm>.

It is also not a mass-market contract to the extent that the product includes an access contract (such as a contract with Compuserve for internet access). Nor is it mass-market if the customer obtains a license that allows use on all computers in the same household (site license) or if she buys more than one or two copies (quantity consistent with ordinary retail transactions) or even, perhaps, if she buys it at a deep discount on sale or if she gets a discount for buying multiple copies.

Finally, consider a sales model that presents the customer with a range of options for a product. The customer selects options and receives a product that is specifically configured according to those options. The product is also customized with that person's (or business') name and contact information. And from time to time, the product accesses the vendor's web site, sometimes downloading updates or advertisements. It could easily be argued that this product is non-trivially customized and that it includes an access contract. Perhaps this too is not a mass-market product, but this is a model that is being applied increasingly by vendors in the mass market.

Our point is that the Magnuson-Moss consumer may be neither a UCITA consumer nor a UCITA mass-market licensee.

## **COMMENTS ON THE STATED QUESTIONS**

The comments address only a few of the questions listed in the call for comments at 65 Federal Register 92 (May 11, 2000) 30411-30413. Several other people are doing a fine job on the legal analysis. Our goal is to highlight some related technical and market issues within the legal context. We hope that these will be useful in your analysis.

### **FTC Question 1. What warranty protections exist for consumers who purchase software and other computer information products and services?**

All or almost all mass-market software products come with a disclaimer of express and implied warranties. Products that are delivered on a disk or a chip probably carry a warranty that the physical media is not defective. Some products carry a warranty that they will perform "substantially" in accordance with the user documentation. These warranties and disclaimers are almost always presented to the customer only after the customer has paid for the product and opened the package. They are often unavailable until after the customer has started to use the product (such as, by using its installation functions to copy the product to her disk).

- Until recently, Article 2 jurisprudence was quite consistent: warranty disclaimers that were not presented to the customer until after the sale were not enforceable.<sup>2</sup> The

---

<sup>2</sup> In *Bad Software*, Chapter 7, we reported the results of an extensive search on this point. We found that across industries, post-sale or shrink-wrapped warranty disclaimers were highly disfavored and were consistently rejected for large and small customers alike. The following notes are taken from our footnotes 40-44 (pages 196-200).

*Bowdoin v. Showell Growers, Inc.* 817 F.2d 1543, 1544 (11th Cir., 1987) involved a sale of a high pressure spray rig, "The district court concluded that a disclaimer found in the instruction manual that accompanied the spray rig when it was delivered to the purchaser was conspicuous and therefore effective. We disagree. Even assuming that the disclaimer was otherwise conspicuous, it was delivered to the purchaser after the sale. Such a

---

post-sale disclaimer is not effective because it did not form a part of the basis of the bargain between the parties to the sale."

In *Step-Saver Data Systems v. Wyse Technology & The Software Link, Inc.*, 939 F.2d 91 (3rd Cir., 1991), the court ruled that The Software Link's warranty disclaimer was invalid as an attempt to make a material change after the contract had been made. Similarly, in *Diamond Fruit Growers, Inc. v. Krack Corp*, 794 F.2d 1440 (9th Cir. 1986), the court said at 1444

"One of the principles underlying section 2-207 is neutrality. If possible, the section should be interpreted so as to give neither party to a contract an advantage simply because it happened to send the first or in some cases the last form. Section 2-207 accomplishes this result in part by doing away with the common law's "last shot" rule. At common law, the offeree/counter-offeror gets all of its terms simply because it fired the last shot in the exchange of forms. Section 2-207(3) does away with this result by giving neither party the terms it attempted to impose unilaterally on the other. Instead, all of the terms on which the parties' forms do not agree drop out, and the U.C.C. supplies the missing terms."

and at 1445,

"If the seller truly does not want to be bound unless the buyer assents to its terms, it can protect itself by not shipping until it obtains that assent."

Barkley Clark & Christopher Smith (1984, supp. 1994), *The Law of Product Warranties*; at 7-18)

"The disclaimer may be found in an operator's manual, or in sales literature not sent to the buyer until sometime later, or it may be hidden away in the package that also contains the goods, with no warning on the outside of the package. In all of these cases, it is as though the seller were determined that the buyer should not see the disclaimer until after the fact. Given this seller perversity, it is not surprising that the courts generally nullify such post-contract disclaimers."

*Arizona Retail Systems, Inc. v. The Software Link*, 831 F.Supp. 759 (D. Ariz. 1993) followed the ruling of Step-Saver and extended the reasoning.

*Glyptal, Inc. v. Engelhard Corp.*, 801 F.Supp. 887, 894 (D. Mass, 1992)

"The case law concerning whether warranty disclaimers are material alterations is more uniform. Courts have held consistently that warranty disclaimers materially alter a contract under Section 2-207(2)(b)."

*Pawelec v. Digitcom, Inc.* 471 A.2d 60 (1984) involved the sale of a milling machine:

"Digitcom also urges that its limitation of warranty and remedy set forth in the operating manual attached to its control unit should be given effect. . . . there was no showing that [the customer] saw the warranty or limitations, which were strapped to the machine in an envelope."

There are dozens of additional cases like these. Jonathan Sheldon & Carolyn L. Carter (1997) *Consumer Warranty Law*, Section 5.7 cite many of them. James J. White and Robert S. Summers (1995, volume 1, Section 12-5) cite plenty of others. In that section, they say (quoting from Williston's classic text on contracts):

"The buyer might be given a disclaimer at the time of the delivery of the goods. That disclaimer may be printed on a label, in an operator's manual, or on an invoice. According to most pre-Code law, '[I]f a bargain with even an implied warranty has once arisen, a subsequent disclaimer of warranty when the goods are delivered will not avail the seller.' The same rule has generally prevailed under the Code."

**As part of our final editorial process, in the summer of 1998, we shepardized *Belcher, Diamond Fruit Growers, Gateway 2000, Sanco, Step-Saver, and ProCD*. Over the five years that we researched and wrote this book, we shepardized dozens of other cases. Here are the results of our search for cases that *disagree* with our conclusion that courts have upheld post-sale warranty disclaimers rarely and only under special circumstances.**

- 
- *Belcher v. Versatile Farm Equip. Co.* 443 So.2d 912 (Ala. 1983) is sometimes cited as an example of a contrary case, but it illustrates our point (special circumstances) well. Belcher bought a tractor. The owner's manual came with the tractor, and Belcher probably didn't see it until after the sale. The warranty in the manual restricted the buyer's remedy to repair or replacement. The tractor's spindles broke several times. A repair shop authorized by the seller to do warranty repairs did repair the spindle each time until the last time, when Belcher sued rather than seek warranty repairs. The key defense involved a section of the owner's manual that said that unauthorized modifications of the tractor would void the warranty. Among other modifications, Belcher partially filled the tires with water (to add ballast) to an extent that went beyond the seller's authorized limits. According to the evidence presented at trial, this appeared to be the cause of the damage to the spindles. The court stated that Belcher "disregarded the terms of the warranty" (p. 915). Given this conclusion, *Belcher* is not a case about a seller that breached its warranty.
  - In the case of *Hahn v. Ford Motor Corp.* 434 N.E. 2d 943 (Ct. App. In., 1981), the court upheld a limitation of the implied warranty of merchantability (to 12 months, the same length as the express, written warranty) even though it was contained in a Warranty Facts booklet that was in the car's glove compartment and not seen by the customers until after the sale. However, the case had two unusual features. First, the jury was given evidence (testimony of the customer) that, at the time of sale, the customer knew the car had only a twelve-month warranty. Second, the appellate court wrote at length that it might have found the warranty limitation void if it had been given the chance. It cited many cases in support of its statement that "A modification of warranty or limitation of remedy contained in a manufacturers manual received by purchaser subsequent to sale has not been bargained for and thus does not limit recovery for implied or express warranties which arose prior to sale. In essence, the parties have not consented to and are not contractually bound by the modification or limitation." (p. 948) However, the argument made by the customer's lawyer was not that the limitation was void because it wasn't given to the customer until after the sale. Instead, "The specific argument advanced by the Hahns . . . alleges the booklet was inadmissible on evidentiary grounds . . . We are, of course, limited in our scope of review and address only those issues properly raised by the parties." (p. 948) The court then ruled that Ford had been entitled to show the booklet to the jury. If we understand this opinion correctly, the court implied that if the case had been argued and briefed differently, the court might well have ruled differently.
  - *Sanco, Inc. v. Ford Motor Co.*, 771 F.2d 1081 (7th Cir., 1985) is another case that is sometimes cited as an example of a post-sale warranty disclaimer that was upheld. The purchaser bought 42 heavy trucks from Fairway Ford. The trucks came with a limited written warranty that excluded the implied warranty of merchantability. (This is *not* consumer merchandise, so the Magnuson-Moss Act is not applicable here.) Sanco argued that this warranty disclaimer should be void because it was delivered at the time of sale. However, Fairway Ford's president was also the president and controlling shareholder of Sanco. In his capacity as president of Fairway Ford, the president of Sanco did know about the disclaimer. The court's ruling that that the disclaimer was enforceable tells us that when the seller is the same person as the buyer, the law doesn't require him to tell himself in writing that there is a warranty disclaimer.
  - In the case of *Seekings v. Jimmy GMC*, 638 P.2d 210 (Ariz., 1981), the court enforced a disclaimer of the implied warranty of merchantability (of a mobile home) by the dealer. The customer argued that such a disclaimer was unconscionable under the circumstances, but the court ruled that it was not. First, there was a written, limited warranty from the manufacturer, and several repairs were made under that warranty. Second, the written disclaimer appeared in the purchase order and in the purchase money security agreement, both of which were signed by the customer. The fact that the customer *didn't read them* at the time of sale didn't make them any less binding. Additionally, despite the disclaimer, the Arizona Supreme Court awarded a refund plus consequential and incidental damages to the customers.
  - In *Tolmie Farms, Inc. v. Stauffer Chemical Company, Inc.*, 124 P.2d 613 (Ct. App. Id., 1992), the court enforced an oral express warranty (for a soil fumigant), but also enforced a disclaimer of implied warranties even though the disclaimer appeared in an acknowledgment form that the customer

---

received after the sale. The court said, "The general rule is that a disclaimer presented after the sale is made is ineffective to exclude a warranty. However, the U.C.C. recognizes that certain circumstances are in themselves sufficient to call the buyer's attention to the fact that no implied warranties are made or that certain implied warranties are excluded. Accordingly, the U.C.C. provides that implied warranties can be effectively disclaimed by a 'course of dealing.' A 'course of dealing' is a 'sequence of previous conduct between the parties' which is fairly to be regarded as establishing a common basis of understanding for interpreting their expressions and other conduct. Hence, where parties engage in repeated sales transactions, a seller's otherwise inconspicuous or untimely disclaimer can become part of the parties' contract." (Citations omitted). Several other cases, such as *Diamond Fruit Growers* and *Step-Saver* have reached the opposite conclusion (holding that a course of dealing wasn't enough to establish that the customer assented to the disclaimer), but the point to note here for your purposes is that the customer made many purchases from the seller, negotiated transactions on credit over a period of years and never objected to the warranty disclaimer. This is a much closer relationship than the purchase of mass-market software under non-negotiable terms.

- *Waukesha Foundry, Inc. v. Industrial Engineering, Inc.*, 91 F.2d 1002 (7th Cir. 1996) is similar to *Tolmie Farms* in that the court held that a warranty disclaimer was no longer a material change to a contract if it had appeared in the seller's packing slips and invoices (to the same buyer) over a period of years. This is a 7th Circuit opinion, subsequent to the *ProCD* case. In *Waukesha Foundry*, the court adopted a new definition of the word "material." It said, "The district court determined that 'courts in Wisconsin and elsewhere generally consider warranty disclaimers and limitations of remedies to be material alterations.' Although the district court cited to two cases of potentially persuasive authority for this decision . . . we do not share its interpretation of the term 'material.'" Note, though, that this case reflects a long course of dealing between a merchant buyer and a merchant seller. As with *Tolmie Farms*, there is no indication, *in this opinion*, that this decision would spill over to one-shot non-negotiable mass-market transactions.
- We have a copy of the defendant's (The Software Link's) appellate brief in the case of *Arizona Retail Systems, Inc. v. The Software Link* 831 F.Supp. 759 (D. Ariz. 1993). This case involved the same defendant as the *Step-Saver* case, and the issues were similar. The court ultimately ruled that the disclaimer attached to one package (a demo copy that could be upgraded to a full product) was effective because the customer saw it on the packaging before accepting the product. Later (non-demo) copies of the product were all purchased by mail order and the disclaimer was not mentioned or agreed to during the order and acceptance discussions on the phone. The court ruled that these disclaimers were invalid. The brief was *Arizona Retail Systems, Inc. v. The Software Link: Response to Plaintiff's Motion for Partial Summary Judgment and Defendant's Cross-Motion for Partial Summary Judgment*, August, 1992. The brief cited only one case for the proposition that a warranty disclaimer should be enforceable if it is given to the customer at the same time as the product, *McCrimmon v. Tandy Corp.* 414 S.E. 2d 15 (GA Ct. App., 1991). But in *McCrimmon*, the customer received the warranty disclaimer at the cash register, at the time of purchase, and so it is not surprising that the Court said it was binding.
- We checked Robert W. Gomulkiewicz, & Mary L. Williamson's "A Brief Defense of Mass Market Software License Agreements", 22 *Rutgers Computer & Tech. L. J.* 335 (1996) <[www.2bguide.com/docs/bdsw.html](http://www.2bguide.com/docs/bdsw.html)> Mr. Gomulkiewicz is a senior corporate attorney at Microsoft Corporation, and was an active participant in the Article 2B/UCITA project. Ms. Williamson is an attorney at Preston Gates & Ellis (Seattle office), which often represents Microsoft. Their paper criticizes *Step-Saver* and *Arizona Retail Systems* but cites no cases in which a post-sale warranty disclaimer was upheld.
- We checked the Software Publishers' Association's (1996) *Brief of Amicus Curiae* in the appeal of the original *ProCD* decision. *ProCD, Inc. v. Zeidenberg* 98 F. Supp. 640 (W.D. Wisc., 1996). We also checked the jointly submitted *Brief of Amicus Curiae* of the Information Industry Association, the American Medical Association, and the Association of American Publishers (1996). In the original *ProCD* ruling, the United States District Court ruled that a shrink-wrapped restriction on the use of the software was invalid. These two briefs argued, convincingly to the appellate court, that shrink-

situation is slightly less clear now because some courts have very recently begun to accept post-sale disclaimers as valid.<sup>3</sup>

---

wrap licenses should be enforced. Neither of them provide examples of enforcement of post-sale (e.g. shrink-wrapped) warranty disclaimers. (*ProCD* did not involve a warranty disclaimer. No one thinks that *no* terms in a shrink-wrapped contract can be valid. The question is whether material terms that are required to be conspicuous, such as warranty disclaimers, can be put into the contract post-sale.)

- We checked all of the cases mentioned by Raymond T. Nimmer (1997, 2nd supplement 1998) *The Law of Computer Technology: Rights, Licenses, Liabilities* (3rd Edition), in his sections on warranty disclaimers. Professor Nimmer is the Reporter of the Article 2B/UCITA Drafting Committee. He cited cases already mentioned, plus *ProCD Inc. v. Zeidenberg* 86 F.3d 1447 (7th Cir. 1996) (this case did not involve a warranty disclaimer) and *Hill v. Gateway 2000, Inc.* 105 F.3d 1147 (7th Cir. 1997). (For a more extensive treatment of the factual allegations made by the plaintiffs, which were largely ignored in the appellate opinion, see *Hill v. Gateway 2000, Inc.*, 1996 U.S. Dist. LEXIS 16581 (N.D. Ill. Nov. 7, 1996) and *Hill v. Gateway 2000, Inc.*, *Petition for cert.* (filed May 5, 1997, copy on file with the author). The petition was denied, 66 U.S.L.W. 3254 (U.S. Oct. 6, 1997) (No. 96-1760).)
- As to the other disclaimer cases in Nimmer (1997), several involved enforcement of conspicuous disclaimers that appeared in signed contracts. One case enforced a disclaimer that didn't appear conspicuous (not contrasting type, etc.). However, the disclaimer was in a negotiated contract between two sophisticated businesses. The court determined that between these parties, any of the terms would have been seen and therefore they should all be treated as conspicuous (*AMF Inc. v. Computer Automation, Inc.*, 573 F.Supp. 924, S.D. Ohio, 1983) Another case, *Alloy Computer Products, Inc. v. Northern Telecom, Inc.*, 683 F.Supp. 12 (D. Mass, 1988) was described by Professor Nimmer as follows "disclaimer on acknowledgment form shipped with tape drive units enforceable when buyer did not object." (Nimmer, 1997, Section 6.08[4] footnote 157). However in its *Alloy Computer Products* opinion, the court specifically stated that the decision was based on *Roto-Lith, Ltd. v. F.P. Bartlett & Co.*, 297 F.2d 497 (1st Cir., 1962). The court said, "Plaintiff points out that Roto-Lith has been subjected to academic and judicial criticism, because it reverses the outcome that the plain language of section 2-207 would lead parties to expect. . . . Nevertheless, *Roto-Lith* continues as binding precedent within this circuit." (*Alloy Computer Products*, p. 14).
- Recently, the First Circuit Court of Appeals overruled its *Roto-Lith* decision in *Ionics, Inc. v. Elmwood Sensors, Inc.*, 110 F.3d 184 (1st Cir., 1997, p. 189): "Our decision brings this circuit in line with the majority view on the subject and puts to rest a case that has provoked considerable criticism for courts and commentators and alike." (*Ionics*, p. 189). The court placed its Footnote 4 at the end of this sentence, and gave examples of court cases that illustrated the majority view. The first case listed was *Step-Saver* (a 3rd Circuit case.) Given the change in position of the 1st Circuit Court of Appeals, we would expect that if *Alloy Computer Products* were decided after *Ionics*, the result would have been different.
- It is dismaying that after the much-maligned *Roto-Lith* was finally overruled, we have picked up UCITA, which resurrects the last shot rule that should have finally died with *Roto-Lith*.

One other myth that we want to dispel here is that the implied warranty of merchantability is in some way a consumer protection statute. None of the cases cited in this footnote involve consumers. *Step-Saver* wasn't a consumer, it was a reseller. Few of the cases cited by Sheldon and Carter or White and Summers on this matter are consumer cases. The implied warranty of merchantability applies to all sales of goods, including big sales between sophisticated parties.

<sup>3</sup> *Peerless Wall & Window Coverings, Inc. v. Synchronics, Inc.*, 2000 U.S. Dist. LEXIS 1952 (W.D. Penn. Feb. 25, 2000). This case appears to validate shrink-wrapped warranty disclaimers, but the court stops just short of this, noting at \*21 that "I need not rely on the validity of the shrink-wrap license agreement, however, because Fran Lando signed the software registration form on which was a recitation that she had read and agreed to the license terms." *Rinaldi v. Iomega Corp.*, 1999 Del. Super. LEXIS 563 (Del. Super. Ct. Sep. 3,

- Under UCITA, these disclaimers are fully enforceable.

**A related question would be this: "What expectations do consumers have about warranty protections when they purchase software and other computer and information products?"**

**(A) CONSUMERS WILL EXPECT THE SAME WARRANTY RIGHTS FOR SOFTWARE AS FOR OTHER PRODUCTS.** Regardless of any licensing claims presented to customers in post-sale legalese, software is presented to customers as a finished product. Customers have no reason to expect their rights to differ for software products and other goods. They buy packaged software in stores, on the same shelves as books, records, and radios. They can buy software by mail order, just like they can buy everything else by mail order. Similarly for ordering over the internet, ordering from catalogs, from telephone solicitations, or from shopping at trade shows.

**(B) CONSUMERS WILL EXPECT MANUFACTURERS TO STAND BEHIND THEIR WRITTEN CLAIMS.** Our society has a widely-used cliché, "Get it in writing." People expect a manufacturer to stand behind its written claims, whether those are in the user manual, the help file, the read.me file, or books published by the vendor as "official" guides to the product. Customers also expect vendors to stand behind statements of fact that their representatives make at trade shows or in other face-to-face product demonstrations.

And well they should. Written representations and fact-asserting demonstrations by the vendor to the customer create express warranties. Under Article 2, which is normally applied to packaged software transactions, these routinely create express warranties if the customer relies on them in making the purchasing decision. Such representations can also create express warranties if the customer becomes aware of them and relies on them post-sale.<sup>4</sup>

Customer expectations reflect themselves outside of legal claims. We have years of experience talking with complaining or questioning customers. They consistently expect the

---

1999) and *M.A. Mortenson Co., Inc. v. Timberline Software Corp.*, 140 Wash.2d 568, 998 P.2d 305 (2000) held that a shrink-wrapped warranty disclaimer is enforceable.

The Mortenson case is remarkable for its contrast with *Cox v. Lewiston Grain Growers, Inc.* 936 P.2d 1191 (Court of App. Wash, 1997) "Washington disfavors disclaimers and finds them to be ineffectual unless they are explicitly negotiated and set forth with particularity"

Other equally recent cases have not enforced shrink-wrapped terms. *Klocek v. Gateway, Inc.*, 104 F.Supp.3d 1332 (D.Kan. 2000)(applying Kansas and Missouri law, and questioning *ProCD v. Zeidenberg* in ruling on preliminary motion); *Novell, Inc. v. Network Trade Center, Inc.*, 187 F.R.D. 657 (D.Utah 1999).

<sup>4</sup> *Daughtrey v. Ashe* 413 S.E.2d 336 (Supreme Court of Virginia, 1992). Uniform Commercial Code Article 2, Section 313, Official Comment 7 states "The precise time when words of description or affirmation are made or samples are shown is not material. The sole question is whether the language or samples or models are fairly to be regarded as part of the contract. If language is used after the closing of the deal (as when a buyer when taking delivery asks and receives an additional assurance), the warranty becomes a modification, and need not be supported by consideration if it is otherwise reasonable and in order." For further discussion, see R.S. Adler (1994), "The last best argument for eliminating reliance from express warranties: 'Real-world' consumers don't read warranties," 45 *South Carolina L.R.* 429; Barkley Clark & Christopher Smith (1984), *The Law of Product Warranties*; P.L. Dykas, (1991) "Opinion v. Express Warranty: How Much Puff Can a Salesman Use, if a Salesman Can Use Puff to Make a Sale?" 28 *Idaho Law Review*, 167.

product to conform to written statements. They probably don't look at the manual or in a published book until after they have a problem with the product,<sup>5</sup> but when they do look, they expected to be able to rely on what they read. If we tell them that the writing is mistaken, they typically express disbelief, distrust, or anger.

During the five-year period that we researched our book, *Bad Software: What To Do When Software Fails*, we talked with many other software technical support staff and managers. They consistently told us that customers expect the product to conform to written claims. They told us of staff members who resigned in frustration when they received repeated calls about a product that did not conform to the manual, behaved unsatisfactorily, and the staff member either could not offer the customer an immediate refund or was strongly discouraged by the vendor from doing so.

In his book, *Managing Software Support*, Bill Rose, the President of the Software Support Professionals Association, said that "Error[s] in the product documentation . . . may be the single most critical area for software vendors to improve . . . Poor documentation is a surprisingly large problem that is guaranteed to generate calls."<sup>6</sup>

**(C) MARKET SEGMENTATION AND CONSUMER EXPECTATIONS:** It is not a simple matter to state consumer protections about warranty protection because the consumer market is segmented and members of different segments have different expectations. One useful approach to understanding the segmentation of the software market considers the process of diffusion of innovations through the population. Markets for new technologies are often divided into five groups, labeled innovators, early adopters, early majority, late majority, and laggards.<sup>7</sup>

- **Innovators** (about 2.5% of the potential market for a product) are technology enthusiasts. They don't expect a product to work. They expect it to show them a new idea that captures their imagination. In terms of warranty expectations, these people don't expect the product to work well.
- **Early adopters** (about 13.5%), also called visionaries, can be sold on a dream. They are willing to invest heavily in projects to develop an application of new technology into something that will be useful in their environment. Expectations of people in this category are all over the map, and managing their expectations is a substantial

---

<sup>5</sup> Customers do look at the manual when they have trouble. A study by Dataquest found that more than 80% of customers solved their own problems by looking up information in the manual, through online help, or by using other electronic documentation. Bob Johnson (1995) "Electronic Services: What Do Users Think?", *Software Support '95 Conference Report*, San Francisco, CA, December 1995. Kaner studied documentation-related patterns in support calls for a client. When customers called for support, they were asked whether they had checked their manuals or online help before calling. They usually said "Yes" and so they were asked a follow-up question--what did they find when they looked and what was inadequate about the documentation that made them still feel that they had to call? Nearly 90% of the callers would specify why the manual or online help had not answered their question.

<sup>6</sup> Bill Rose (1990) *Managing Software Support* at 11.

<sup>7</sup> Rogers, Everett M. (1995, 4th ed.) *Diffusion of innovations*. Geoffrey A. Moore (1995) *Crossing the Chasm : Marketing and Selling High-Tech Products to Mainstream Customers*. A good starting point on the web is Dr. Bruce C. Klopfenstein's "Diffusion of Innovations on the Web" page at <http://www.bgsu.edu/departments/tcom/diffusion.html>.

challenge. But they are generally aware that they are not starting with a finished product or (for products made available to the mass market) a mature and fully polished product.

- **Early majority** (about 34%), also called pragmatists, expect the product to work and expect to be able to do something useful with it. "When pragmatists buy, they care about the company they are buying from, the quality of the product they are buying, the infrastructure of supporting products and system interfaces, and the reliability of the service they are going to get. In other words, they are planning on living with this decision personally."<sup>8</sup> We might expect these people to understand that a poor decision will subject them to a poor product, but they probably expect products to be at least minimally fit for ordinary use and they will probably look for and rely on express warranties and other promises of service and support. It is relevant to these expectations that the risk of buying products of unacceptable quality in the American consumer market has steadily declined since 1960 (perhaps reflecting the cumulative impact of laws that hold manufacturers to an implied warranty of merchantability), and that risk now is (not counting software) low.<sup>9</sup>
- **Late majority** (about 34%), also called conservatives, don't buy new products in new categories. They are not risk takers. They expect a mature, finished product that works predictably and reliably. They almost certainly expect products to be merchantable and to conform to the manufacturers' representations.
- **Laggards** (about 16%), also called skeptics, buy products long after the initial versions were introduced into the market.

Many of us in the software industry joined the field (or have been trained by or retained to represent people who joined the field) in the 1970's or early 1980's, when consumers of software were innovators and early adopters. Back in those earlier days, software products were simpler, we relied on them less, and many companies went out of their way to help customers help themselves. For example, *Apple Orchard* magazine, often bundled with early Apple computers, carried articles that were designed to help customers reverse engineer and modify the Apple II system software. That level of self-reliance is not expected today. In contrast, for example, software licenses typical purport to ban reverse engineering.

More than half of American households now have computers. Computers are widely used in schools and libraries. Several universities require their students to have and use computers. Rather than dealing primarily with early adopters, now software companies are selling into all segments of the mainstream market.

Many people who entered the industry at an earlier time, whose peer group and/or supervisors formed their expectations about the market at that time, still look at the market as if it was an early phase market. They expect customers to be more tolerant of failure and more willing to anticipate and manage risks posed to them by commercial software. It's

---

<sup>8</sup> Geoffrey A. Moore (1995) *Crossing the Chasm : Marketing and Selling High-Tech Products to Mainstream Customers* at 43.

<sup>9</sup> Mary L. Carsky, Roger Dickinson, & Mary F. Smith, "Toward Consumer Efficiency: A Model for Improved Buymanship," 29 *J. Consumer Affairs* 442, 447.

difficult to break out of this impression. For example, companies often try to learn more about their customers' probable reactions to new products by working closely with beta testers. But beta testers, who volunteer to try out new versions of software that don't yet work, are typically enthusiasts or early adopters. They reinforce old perceptions.

It was fascinating sitting at the opening session of the 1997 Association for Support Professionals' Customer Support Conference, as Ron Schreiber, Chairman of SoftBank Services Group, systematically disabused a room full of software technical support specialists of their perceptions. He started the session by asking how many people in the room thought that their company provided excellent software technical support service. About 90% of the room raised their hand. He then dragged the room through a long and dismaying series of statistics showing the extent to which customers were not being anywhere near well enough served by software support groups.<sup>10</sup>

We expect that the Federal Trade Commission will receive input, submitted in complete good faith, that are based on an outdated characterization of the software mass market.

Friends of ours sometimes complain that today's customers expect too much and invest too little in educating themselves in the proper use of software. We understand their feelings. It would be helpful if the newer customers were like the earlier customers. But when a business pushes its products into the broader mass market, it is making its money, the enormously increased sales volume that is available from the mainstream, from people who are predictably less tolerant of technological risk. Broader markets bring broader responsibilities.

Here are a few examples of the change in pattern:

- Software support transaction volumes nearly tripled over two years (1991-1993) for many major software vendors.<sup>11</sup>
- Over a seven year period, the ratio of technical support staff to total employees in computer software and hardware companies grew from 1 in 12 to 1 in 6.<sup>12</sup>
- Complaints to consumer protection agencies about bad software, bad computer hardware, and bad consumer electronics have increased dramatically. For example, in 1995, computers and software became the Better Business Bureau's eighth most complained about industry (replacing used car dealers in the BBB's top ten listing).<sup>13</sup>

---

<sup>10</sup> We summarize much of this data in our paper, "Article 2B and Software Customer Dissatisfaction," which we presented to the NCCUSL Article 2B Drafting Committee in 1997. A copy of the paper is available at [www.badsoftware.com](http://www.badsoftware.com). The kind of data cited were massive numbers of support calls going unanswered, long hold times (callers were left on hold for about 15 minutes), high percentages of problems that were never resolved and long resolution times for problems that were resolved.

<sup>11</sup> Richard Gallagher (1995), *Effective Software Customer Support*, at 32.

<sup>12</sup> Bob Johnson and Amy Gately, (1996) "SystemSoft to Develop Products to Automatically Identify and Resolve PC Users' Most Common Problems," *Dataquest* (March 12). (Access this through [www.dataquest.com](http://www.dataquest.com)). These data were supported also by data from the Association of Support Professionals (1997) 1997 Technical Support Cost Ratio Survey, which reported that on average, customer support staff make up 15 percent of software publishers' total employees.

<sup>13</sup> Better Business Bureau (1996) *Annual Inquiry and Complaint Summary (1995)*. Available at [www.bbb.org](http://www.bbb.org). Council of Better Business Bureaus, Inc., Press Release: "Better Business Bureaus Release 1995 Data:

In 1996, the industry jumped to seventh place.<sup>14</sup> By 1999, "computer dealers" hit second place in the BBB's list of top 15 sources of complaints.<sup>15</sup>

- A 1996 market research study of the retail consumer software market conducted for the Software Publishers Association listed as the first item in its opening list of "Key Industry Issues" that "There is an apparent lack of consumer focus by both [software] publishers and retailers." Also that "Retailers claim publishers are focusing too much on technology and not enough on market research in developing titles."<sup>16</sup>
- A 1997 study of the small business market conducted for the Software Publishers Association asked, "For software which is critical for your business, please indicate the importance of each of the following factors to your software selection and purchase decision?" Respondents could identify factors as Very Important or Important or Somewhat Important, Slightly Important, or Not At All Important. Of the 18 factors, here were the ones most often rated Very Important: Features and functions, 73.8%, Prompt notification and correction of any bugs, 71.1%, Compatible with existing hardware and software, 58.3%, Easy to learn, 55.1%, Free product service and support for 90 days, 51.7%. Price came in sixth, at 38.3%.<sup>17</sup>
- Customer satisfaction with software publishers' technical support services dropped steadily for the 10 years ending in 1995.<sup>18</sup>

## **FTC Question 2. What expectations do consumers have about reliability of software and other computer information products and services? Are these expectations met?**

In our experience, based on discussions with customers in the normal course of our work, we believe that most customers expect products to work and they are upset if a product fails in a way that blocks their work or costs them appreciable time, business, or data.

*What is our experience?* Pels has been involved in computer and software sales or support for almost 20 years. Kaner has worked with computers since 1976, primarily in software

---

Work At Home Companies And Roofing Services Tops In Inquiries; Computer Sales/Services Hit Top 10 Complaint List For First Time." Available at [www.bbb.org](http://www.bbb.org)

<sup>14</sup> Better Business Bureau (1997) *Calls To Better Business Bureaus Soar In 1996: Rapid Rise In Inquiries and Complaints On Telephone-Related Services*. Available at [www.bbb.org](http://www.bbb.org).

<sup>15</sup> Better Business Bureau (1997) BBB System Announces "Top 15" for 1999, Available at [www.bbb.org](http://www.bbb.org), <http://216.46.241.4/alerts/20000601.asp>.

<sup>16</sup> Ernst & Young, LLP and Software Publishers Association (1996), *The Retail Consumer Software Market: Category Management and Beyond* at 6.

<sup>17</sup> International Data Corporation & Software Publishers Association (1997) *1997 Small Business Market: Report on Software Use and Purchase Patterns in U.S. Businesses with Fewer than 50 Employees* at 40.

<sup>18</sup> Bill Rose, (1996) "Email: Software Support's Secret Weapon" downloaded from [www.sspa-online.com/publications/email.html](http://www.sspa-online.com/publications/email.html). Ron Schreiber, (1997, March) "How the Internet Changes (Almost) Everything," presented at the Association for Support Professionals' *Internet Support Forum*, San Jose, CA. According to J.B Wood, this trend had bottomed out by the 11th year (1996, October) "Linking customer loyalty to the bottom line," *Software Support Professionals Association Executive Forum*, San Diego, CA.

development but also in retail software sales. Kaner is the senior author of *Testing Computer Software*, which is apparently "The bestselling software testing book of all time" (this statement was recently put onto the book's cover by the publisher). Working for the same publisher for a few years, we worked together to study customer calls/complaints about products that Kaner managed, in order to drive down the publisher's support costs. Later, we co-authored a book, *Bad Software: What To Do When Software Fails*, and did extensive interview-based research on customer attitudes and expectations. Our consistent impression from magazines that served the software consuming public was that customers expected reliable software unless they were told that the software was in some way experimental.

Publishers differ strongly in the extent to which they meet customers' reliability expectations.

Publishers routinely ship software with known, undisclosed defects. Some of those, as in the case of *M.A. Mortenson Co., Inc. v. Timberline Software Corp.*, 140 Wash.2d 568, 998 P.2d 305 (2000), turn out to be quite serious. Some software publishers track the number of "surprises" in the field, where a surprise is a defect reported post-sale by customers that was not initially discovered (before product release) by the publisher's programming, quality control, or support staff. In our experience, and according to data provided to us by others, there are relatively few surprise bugs. Some software testing groups pride themselves on keeping their surprise rate down to numbers as low as two surprise bugs per typical release.<sup>19</sup>

During the Article 2B / UCITA debates, several individuals and organizations proposed that software vendors be strongly encouraged to reveal known defects to customers. The proposed mechanism to accomplish this was to (non-waivably) hold vendors / publishers accountable for defects that they knew about and did not disclose at time of sale, but to free software vendors / publishers from liability for consequential damages arising out of defects that were either unknown to the vendor / publisher at time of sale or were known and disclosed in the product documentation. Such proposals came from Todd Paglia (representing Ralph Nader), the Association for Computing Machinery, the Institute for Electrical and Electronic Engineers, the Independent Computer Consultants Association, and from us. (We proposed that in mass-market products, accountability for consequentials be limited to reimbursement for provable out of pocket expenses, to a maximum of \$500 per claim. The goal was to create an incentive for disclosure, not to subject vendors to unlimited liability.) These proposals were repeatedly ignored or rejected.

Vendors should be required or incented to reveal their known defects. This information allows the knowledgeable customer to avoid or mitigate losses. It allows the customer to discover the basis of a failure without having to make a long and often expensive call to the publisher's support department. (Publishers often charge up to \$5 per minute for support calls. Our impression is that most of them will waive the fee for a known defect if the customer requests or insists on this, most publishers will take the money if they can get it.) Finally, it allows customers to compare products on the basis of their defects.

---

<sup>19</sup> For more details, see Cem Kaner & David L. Pels (1998) *Bad Software: What To Do When Software Fails*, at 23.

Throughout the Article 2B/UCITA process, publishers' representatives repeatedly asked the Drafting Committee for understanding that software cannot be made perfect. We agree. Kaner even wrote a paper for distribution to the Drafting Committee that explained the technical basis for this.<sup>20</sup> But the fact that someone can't find all the defects doesn't mean that they're entitled for a free ride as to the defects that they have found and have chosen not to fix.

Customers have every right and reason to expect that there are no serious known, hidden (unseen until the program fails and undisclosed by the company) defects in products that they buy. There is no reason that customers should expect software vendors to be less honest with them than other vendors. And there is no reason that a government should make it easier for software vendors to treat their customers badly than vendors in other industries.

### **FTC Question 3. What remedies are typically available to consumers if software or another computer information product or service fails to perform as the consumer expected?**

In practice, a wide range of remedies are available to software customers but only to the customers that negotiate for them. Chapters 3, 4, and 5 in *Bad Software* discuss the types of remedies that publishers actually give to complaining customers and suggest strategies for negotiating for these remedies.

A few publishers offer satisfaction guarantees (refunds) for 30 days, 90 days, or even a year after date of purchase. Most publishers offer nothing, but will negotiate for more.

### **FTC Question 3a. What warranty remedies are available to purchasers of such products and services?**

Most publishers disclaim all implied warranties. There are no warranty remedies for breach of a non-existent implied warranty.

Many publishers claim to make no express warranties, and therefore offer no warranty remedies for breach of express warranty.

Many publishers warrant that the product's physical media (the disk on which the software is copied) is not defective and they offer a replacement disk. They offer no remedies for errors in the software itself, not even for serious errors that were known to the publisher but not disclosed to the customer.

A few publishers warrant that the software will perform substantially in accordance with the written documentation. In our view, all statements in the written documentation are or should be considered express warranties. "Substantial accordance" with the documentation gives the publisher's support staff member plenty of negotiating room to claim that a particular nonconformity between the program and the documentation is not substantial. This helps the publisher who does not want to give a refund talk the complaining customer out of believing that he has the right to a refund.

---

<sup>20</sup> Cem Kaner (1997) "The impossibility of complete testing", 4 *Software QA*, #4, 28; available at [www.kaner.com](http://www.kaner.com).

Remedies for breach of contract (such as breach of this warranty) are normally limited to the purchase price, at most. Incidental and consequential damages are excluded, and so in practice the customer might get a refund of the purchase price but spend more than the purchase price on the telephone calls for support and for refund authorization (these costs are incidental expenses).

### **FTC Question 3c. Do consumers seek to invoke these remedies, and if so, how often are they successful?**

Customers seek redress for product defects. They make millions of telephone calls for technical support. They made about 200 million calls for support in 1996.<sup>21</sup>

Publishers vary widely in their handling of these calls. Some publishers answer their phones promptly, while others explicitly and deliberately plan to staff their support centers at a level that will leave the average caller on hold for 1.5 hours. (Solid statistical models for staffing call centers, including predicting the average wait time for callers, were developed in 1917. For an example of this type of analysis, see Tourniaire & Farrell (1997).<sup>22</sup> Tutorials and sessions on support center staffing are routinely offered at technical support conferences. Spreadsheet templates for determining staffing levels are also widely circulated.) Obviously, if you can't get through, you can't get a refund.

In 1996, customers were left on hold for an average of 15 minutes.<sup>23</sup> Interestingly, the Software Publishers Association data<sup>24</sup> gives a mean time of 12.2 minutes but a median time of 2 minutes. If half of the publishers dealt with their callers in less than two minutes, but the average is 12.2, the other half must have left their callers on hold for about 20 minutes. There are massive differences in support practices between the large part of the industry that acts responsibly toward customers and that part that exploits them.

---

<sup>21</sup> Dataquest predicted this number early in 1996. See Bob Johnson, & Amy Gately (1996) "SystemSoft to Develop Products to Automatically Identify and Resolve PC Users' Most Common Problems," *Dataquest* (March 12). (Access this through [www.dataquest.com](http://www.dataquest.com).) The same estimate was provided by several industry experts in 1997 conference talks, such as Patrick Bultema & Greg Oxtom, "Emerging Standards for the Support Industry", *Software Services Conference East*, Nashville, TN, March 11, 1997; Schreiber, Ron, "How the Internet Changes (Almost) Everything", *Internet Support Forum*, San Jose, March 26, 1997.

<sup>22</sup> Françoise Tourniaire & Richard Farrell (1997) *The Art of Software Support: Design & Operation of Support Centers and Help Desks*.

<sup>23</sup> Ron Schreiber ("How the Internet Changes (Almost) Everything", *Internet Support Forum*, San Jose, March 26, 1997) estimated that 200 million callers were left on hold for 66,000,000 hours (3.96 billion minutes, which would correspond to a mean hold time of 19.8 minutes per call). Estimates of call hold times vary widely. For example, survey results from the SPA show a median of 2 minutes and a mean of 12.2 minutes. *1995 Technical Support Survey Report*, Software Publishers Association, Washington D.C., 1995, p. 17. The Customer Care Institute reported a median time of 4 minutes, but no means (*1994 Customer Care Survey, op cit.*, Note 6.) The Software Professionals Association estimates average hold time at 15 minutes for PC/Shrinkwrap products and less for UNIX and mainframe products. SSPA Support Center document rtr0018. We think that these studies carry a sampling bias—the companies that service their customers least well are probably also least likely to answer these lengthy questionnaires. The SPA and the Customer Care Institute listed the companies that responded to their surveys and we noted the absence of several companies that we regard as troubled. Industry consultants frequently estimate 15-20 minutes at meetings.

<sup>24</sup> Software Publishers Association, *1995 Technical Support Survey Report*, at 17.

As we researched *Bad Software*, we called publishers to report known defects. We'd get the defects from a service called BugNet. We'd call to find out how the publisher would respond to our complaint. We believe that all of these publishers were aware of the BugNet reports, but all of the people who answered our calls initially claimed that they had never heard of the problem we were reporting. Several of them attempted to convince us that the problem had must be the result of a problem in our equipment, such as an incompatible video card. Even when we provided data to prove that this could not be the problem, and even after we escalated the call to someone who claimed to be the support department's manager, some still persisted in trying to convince us that their known defect was our fault. No matter what they claim in their license agreements, these companies offer no remedies to their customers, though a few knowledgeable customers might succeed in demanding remedies.

**FTC Question 4. Are consumers able to comparison shop for different computer information products or services based on the terms of warranty coverage? Are consumers interested in doing so? Do manufacturers or sellers of software and other computer information products and services compete with each other on the basis of warranty coverage?**

It is almost impossible for consumers to discover the terms of warranty coverage or post-sale support until after they have paid for the product, taken it home, opened it and started to install it. During our research for *Bad Software* and for Article 2B meetings, we attempted to collect software publishers' licenses. We gave up. Dan Coolidge (who chairs the Computer and Technology Division of the ABA Law Practice Management Section) was intrigued by these claims, and checked publishers' websites. He reported at a session of the ABA Law Practice Management Section in the Spring of 1998 that few publishers do post their licenses. In fact, he said, 95% of the sites that he checked didn't post their licenses.

Over the past five years, we have received dozens of requests for copies of license terms. People reviewing or participating in the Article 2B/UCITA project have repeatedly told us how frustrated they are that they cannot build a decent collection of licenses. You're the Federal Trade Commission. How hard have your staff tried to build a collection of licenses? How successful have you been?

As to customers' interest, it is obvious that warranty information is important to some marketing campaigns. Think of the amount of advertising of cars' warranties, for example. Less anecdotally, the following research summary is of interest. According to Agrawal, Richardson & Grimm (1996),<sup>25</sup>

"Research suggests that consumers believe that warranty terms are an important source of information regarding brand reliability. For example, Boulding and Kirmani (1993)<sup>26</sup> report the result of an experimental study in which consumers relied on warranty scope and manufacturer reputation to make inferences about brand reliability. Other studies show that more comprehensive warranty terms alleviate perceived financial and

---

<sup>25</sup> Jagdish Agrawal, Paul S. Richardson & Pamela E. Grimm (1996), "The Relationship Between Warranty and Product Reliability", 30 *J. Consumer Affairs* 421, 422.

<sup>26</sup> William Boulding & Amma Kirmani (1993) "A Consumer-Side Experimental Examination of Signalling Theory: Do Consumers Perceive Warranties as Signals of Quality?" 20 *J. Consumer Research* (June) 111.

performance risk associated with purchase decisions (Bearden & Shrimp, 1982; Shrimp & Bearden, 1982).<sup>27</sup> In a recent nationwide survey, one out of every two consumers interviewed reported using warranty information to judge products reliability (U.S. Department of Commerce, 1992)."<sup>28</sup>

We believe that customers are very interested in learning the warranty, including post-sale support terms associated with the products they buy. Based on discussions with journalists, we believe that warranty terms would appear in product comparisons for software and would influence purchase decisions.

We believe that the current process, in which the customer discovers the terms only after buying the product and starting to install it, imposes such a huge cost on comparative shopping that almost no one would do it. Since the publication of Stigler's economics of information search model,<sup>29</sup> it is widely accepted that consumers do a conscious or unconscious cost/benefit analysis when seeking information about products. The more expensive it is to find comparative information about competing products, the less information consumers are likely to gather. Time is a valuable resource. UCITA allows customers to recover the cost of postage or gasoline required to return a product if they choose to reject a product because of bad warranty terms. But they are not reimbursed for their time. Our time is a lot more valuable than the cost of postage. UCITA makes it very expensive to comparison shop.

#### **FTC Question 4 Continued. An Example**

Even if the customer discovers the terms of the contract pre-sale, this means little under UCITA because the vendor can include a clause (non-negotiable click-wrapped) that allows it to change its terms any time that it wants.

On September 8, 2000, the Federal Trade Commission announced final consent agreements with BUY.COM, Inc., Office Depot, Inc., and Value America.<sup>30</sup> The conduct that led to these actions involved advertisement of computers at low prices, conditional upon the customer accepting a 3-year service contract with MSN, CompuServe, or Prodigy.

Paragraph 6 of the FTC Complaint against BUY.COM<sup>31</sup> stated that:

"In truth and in fact, the total cost of a Compaq Presario 5304 computer system is not \$269. In order to obtain the Compaq Presario 5304 computer system for \$269,

---

<sup>27</sup> William Bearden & Terence Shrimp (1982) "The Use of Extrinsic Cues to Facilitate Product Adoption", 29 *J. Marketing Research* (May) 229. Terence Shrimp & William Bearden (1982) "Warranty and Other Extrinsic Cue Effects on Consumer Risk Perceptions", 9 *J. Consumer Research* (June) 38.

<sup>28</sup> United States Department of Commerce (1992) *Product Warranties & Servicing: Responsive Business Approach to Consumer Needs*, revised, at 1 (as cited by Agrawal, Richardson & Grimm, *op cit.* Note 25).

<sup>29</sup> G.J. Stigler (1961) "The Economics of Information", 69 *J. Political Economy* 213.

<sup>30</sup> Federal Trade Commission, *For Your Information: September 8, 2000*. Available at [www.ftc.gov/opa/2000/09/fyi0050.htm](http://www.ftc.gov/opa/2000/09/fyi0050.htm).

<sup>31</sup> Available at [www.ftc.gov/os/2000/09/buydotcomcomplaint.pdf](http://www.ftc.gov/os/2000/09/buydotcomcomplaint.pdf)

consumers are required to subscribe to CompuServe 2000 Internet service for 36 months at an additional cost of \$21.95 per month or a full pre-payment of \$790.20."

This is probably not quite accurate. If CompuServe can change the price of its service any time, then the true cost is not \$21.95 per month. It is whatever CompuServe charges over the three years after the customers signs up for the service.

How can this be? Consider UCITA section 304(b):

"If a contract provides that terms may be changed as to future performances by compliance with a described procedure, a change proposed in good faith pursuant to that procedure becomes part of the contract if the procedure: (1) reasonably notifies the other party of the change; and (2) in a mass-market transaction, permits the other party to terminate the contract as to future performance if the change alters a material term and the party in good faith determines that the modification is unacceptable."

Under UCITA section 304(c):

"The parties by agreement may determine the standards for reasonable notice unless the agreed standards are manifestly unreasonable in light of the commercial circumstances."

There is no requirement that the contract provision authorizing changes be conspicuous or negotiable. Clauses like this show up in boilerplate<sup>32</sup> and few customers ever realize that

---

<sup>32</sup> For example, the following is from the eFax Plus terms of service, which we obtained from <[www.efax.com/ps\\_terms.html](http://www.efax.com/ps_terms.html)>:

"4. MODIFICATIONS TO TERMS OF SERVICE AND PRIVACY POLICIES eFax.com may automatically amend this ETS or its privacy policies at any time by (i) posting a revised eFax.com Terms of Service document or privacy policies document on the eFax.com World Wide Web site, and/or (ii) sending information regarding the ETS or privacy policies amendment to the email address Member provides to eFax.com. Member is responsible for regularly reviewing the eFax.com World Wide Web site to obtain timely notice of such amendments. Member's continued use of Member's membership account after such amended terms or policies have been posted or information regarding such amendment has been sent to Member shall be deemed acceptance by Member of the amended ETS or privacy policies. Otherwise, this ETS and the privacy policies may not be amended except in writing signed by both parties."

Similarly, here's what we find at America Online, <[www.aol.com/copyright.html](http://www.aol.com/copyright.html)>:

"AOL.COM Terms and Conditions of Use. ACCEPTANCE OF TERMS THROUGH USE. By using this site, you signify your agreement to all terms, conditions, and notices contained or referenced herein (the "Terms of Use"). If you do not agree to these Terms of Use please do not use this site. We reserve the right, at our discretion, to update or revise these Terms of Use. Please check the Terms periodically for changes. Your continued use of this site following the posting of any changes to the Terms of Use constitutes acceptance of those changes."

We obtained the following statement from the MSN web site (capitalization as in the original) at <http://memberservices.msn.com/gettingstarted/guidelines/memberagreement.htm>, downloaded on 9/11/00.

"MICROSOFT RESERVES THE RIGHT TO CHANGE THIS AGREEMENT AT ANY TIME BY POSTING CHANGES ONLINE AT LEAST 30 DAYS IN ADVANCE OF THE EFFECTIVE DATE OF ANY CHANGES. YOU ARE RESPONSIBLE FOR REGULARLY REVIEWING INFORMATION POSTED ONLINE IN THE "MSN HELP & SUPPORT" AREA TO OBTAIN TIMELY NOTICE OF SUCH CHANGES. YOUR NON-TERMINATION OR CONTINUED USE OF MSN AFTER CHANGES ARE POSTED CONSTITUTES YOUR ACCEPTANCE OF THIS AGREEMENT AS MODIFIED BY THE POSTED CHANGES."

they are there, let alone dream that they might authorize *any* change, no matter how material.

For non-mass-market transactions, which will include many of the non-negotiable, standard form transactions entered into by tiny businesses, the customer is simply stuck with the new terms. Agreeing to a contract with a modification clause is tantamount to signing a blank check. The non-mass-market customer cannot terminate the contract rather than accept a material change.

Consumers at least have the (apparent) right to terminate the contract in the face of a material change. However, the consumer first has to discover the change. Under UCITA section 304(c), the seller can specify that posting the notice to its own website is sufficient notification.<sup>33</sup> This approach to notification is so easy and cheap for the vendor that it is bound to become widespread, but consider the effect. Those customers who want to know what contracts they are bound by will have to constantly waste time checking a long list of websites to see if any contract terms have changed.<sup>34</sup>

---

We were unable to find the Prodigy Terms of Use for the Prodigy internet access service at its website. However, the terms of the prodigy.com web site specify at [http://www.prodigy.com/pcom/prodigy\\_internet/pi\\_index.html](http://www.prodigy.com/pcom/prodigy_internet/pi_index.html) that:

"9. Prodigy may at any time revise these Terms and Conditions by updating this posting. You are bound by any such revisions and should therefore periodically visit this page to review the then current Terms and Conditions to which you are bound."

We were unable to find the terms for CompuServe 2000.

<sup>33</sup> eFax, AOL, MSN, and Prodigy all required this in the licenses quoted above.

<sup>34</sup> This is not just a consumer issue. The Motion Picture Association of America submitted a collection of memoranda to NCCUSL on July 17, 1998 (cover letter by Simon Barsky). Within this packet, in the document identified as 46355.01, the MPAA stated:

"Approval of 'Posted' Modifications—Section 2B-304(b) allows contracting parties to modify their agreement with respect to future performances by any pre-established procedure including '[a] procedure that calls for posting changes in an accessible location of which the other party is aware.' The acceptance of posting as reasonable notice, however, may validate the surreptitious modification of key contract terms and place an unfair burden on contracting parties to monitor changes to their agreements."

The next memo in the series, *Trouble Spots for the Motion Picture Industry in Uniform Commercial Code Article 2B*, said at 11:

"Suppose 20th Century Fox negotiates and enters an agreement with Lexis/Nexis which grants Fox the right to conduct research on Lexis/Nexis on-line databases. The agreement specifies that the charges to Fox will be based on the number of searches Fox conducts, but also permits Lexis/Nexis to modify its applicable rates and fee structure by publishing new terms on the Lexis/Nexis website. Lexis/Nexis eventually decides not to charge Fox by the number of searches performed, but by the amount of time spent on-line and posts this new billing regime on its website. The Reporter's Note [to Section 2B-304(b), which said that posting changes in an accessible location of which the other party is aware is acceptable] would hold that Lexis/Nexis has satisfied the notice requirement and that the modifications to the financial terms are therefore valid. [P] Of course, Fox employees who had grown accustomed to limiting the number of their searches but spending countless hours online pondering the retrieved information would be shocked to see Fox's monthly Lexis/Nexis bill increase a thousand-fold for the same use as that in the prior month. Under the standard of reasonable notice suggested in the Reporter's Note, all the studio could do to protect itself from this surprise is reread the terms posted on the service's site every

Additionally, the consumer contract might specify a penalty for early termination,<sup>35</sup> making the right to cancel almost as illusory<sup>36</sup> as the concept of a “contract” appears to be under this rule.

The 24 Attorneys General who wrote NCCUSL in opposition to UCITA singled this provision out for detailed criticism.<sup>37</sup>

---

day in the hopes that it could identify any changes. This system of agreement is both inequitable and inefficient."

<sup>35</sup> For example, see the discussion of the CompuServe \$400 rebate below. CompuServe's termination clause reads:

"Membership termination prior to contract commitment term requires payment of a cancellation fee plus rebate repayment according to the following schedule: (1) \$400 Rebate: \$50 cancellation fee plus rebate repayment of \$400 in Months 1-12, \$300 in Months 13-24, and \$200 in Months 25—36; (2) \$100 Rebate: \$25 cancellation fee plus \$100 rebate repayment."

Available at <[www.compuserve.com/gateway/promo/default.html](http://www.compuserve.com/gateway/promo/default.html)>

<sup>36</sup> The cultural wisdom “Get it in writing” is turned on its head. What you get in writing, buried in pages of legalese detail that look like a traditional contract, is a statement that the vendor has the right to change the contract any way it wants. Under this clause, none of the rest of the terms matter. It is worth wondering whether or how much this clause scales back, by statute, the doctrine of illusory contracts. Only time, and the courts, can tell.

<sup>37</sup> Letter from Attorneys' General to Gene Lebrun, President of NCCUSL (July 23, 1999) <[www.badsoftware.com/aglet1.htm](http://www.badsoftware.com/aglet1.htm)> (Cosigned by 11 additional Attorneys General (July 28, 1999) <[www.badsoftware.com/aglet2.htm](http://www.badsoftware.com/aglet2.htm)>)

"In the area of contract modification, section 304 of UCITA allows vendors to unilaterally make enforceable modifications to contracts involving continuing performances, requiring only minimal notice as a condition for doing so. The sole remedy available to persons against whom such modifications would operate is cancellation, and even that remedy is limited to parties to mass market contracts. The value of that limited remedy is further diminished by the fact that is unavailable to parties to access contracts, such as contracts with as internet service providers and online information services, that will probably comprise the largest class of contracts subject to section 304.

"There is great peril in section 304 for persons to whom modifications are proposed. Section 304(b) allows a contract to specify a modification procedure if the procedure reasonably notifies the other party of the change. The modest safeguard in section 304(c) that permits a court to reject standards of notice that are manifestly unreasonable would, if interpreted in accordance with the reporter's notes, permit procedures that are highly unlikely to result in any notice at all. The reporter's notes seem to approve a procedure whereby terms of service can be modified simply by posting the changes to a particular location or file. Such a procedure places the entire burden of discovering whether a modification has been proposed upon the offeree, rather than the offeror. It requires parties to whom such a modification may be proposed to continuously monitor the designated location to determine whether a modification has in fact been proposed.

"From a practical point of view, it has been the experience of the Attorneys General that offerees simply do not monitor online locations for contract modifications. Indeed, attempting modification in such a manner is so unlikely to actually inform offerees of a proposed modification that the Attorneys General have taken the position that any such modification procedure is illegal under current law. In a highly publicized recent case, America Online agreed to make just over \$2.5 million dollars in refunds to consumers who may not have received a price change notification that was posted in the manner suggested in the reporter's note.

Now, let's apply this to the offering of \$400 rebates to buyers of computers, so long as they sign up for 3 years of service from a specific Internet service provider. CompuServe is one such provider, and it lays out the terms of the deal at [www.compuserve.com/gateway/promo/default.html](http://www.compuserve.com/gateway/promo/default.html). Here is an excerpt from those terms:

"The \$400 . . . Rebates require (1) the purchase of any eligible computer; and (2) . . . a contract commitment to a 3-year (36 months) subscription . . . to CompuServe 2000 Premier Internet service at \$21.95 per month. Full prepayment of the contract amount . . . is possible during your first month of service. . . . Offer subject to . . . your acceptance of CompuServe's Terms of Service. Membership termination prior to contract commitment term requires payment of a cancellation fee plus rebate repayment."

In 1999, one of us (Cem Kaner) repeatedly searched CompuServe's website for these Terms of Service and could not find them. (Nor can we find them now, in September 2000). He sent e-mails to CompuServe asking for a copy of the Terms of Service but did not receive them. He downloaded a copy of the CompuServe 2000 software and started to install it,

---

"From a simple economic point of view, it makes much more sense to place the cost of discovering a modification upon the offeror rather than the offeree. This is particularly true for UCITA, because in almost every instance that will be subject to section 304, the parties will have the means to communicate electronically at very little cost to the sender of the transmission. The deficiencies of the recommended procedure become quite clear when projected into likely practices of the near future, in which a person, much as a person now may have multiple magazine subscriptions, may subscribe to numerous different sources of information and entertainment via contracts governed by UCITA. There really is no possible common sense justification for requiring such a person to monitor numerous services on a daily basis to learn of possible changes in terms.

"The cancellation provision in section 304(b)(2) is hollow. The largest category of contracts to which section 304 applies are contracts with internet service providers and online information service providers who are not bound by section 304(b)(2) because contracts with such entities are access contracts excluded from the definition of mass market contract. Purchasers of such services may well be faced with a modification, proposed in good faith but which deprives them of the benefit of their bargain, that they have no choice but to accept.

"There is additional danger here because of the nature of the billing relationships between the parties for the kinds of contracts to which section 304 applies. In many instances, particularly in agreements with internet service and information providers, the user of the service authorizes the service provider to automatically charge amounts due under the agreement to the user's credit card or checking account. In the case of a price increase implemented by posting online, it will likely be the case that the user will only discover the increase after it has been paid. The fact that payment has already been made substantially reduces the user's bargaining power in seeking a refund of the amount of a surprise price increase.

"The Attorneys General believe that reasonable notice should be defined to mean a method of notice that is calculated to give actual notice. If the reporter's notes are to give any example of a type of notice that meets this standard they should use as an example of such notice an electronic mail notification to an address designated by the recipient of the notice. In addition, the Attorneys General believe that there is no instance in which it is acceptable to enforce a modification of terms if the offeree is unwilling to accept them. In such instances, unless the ability to cancel is otherwise provided for, the party offering the modification should be required to perform as originally agreed. In the event that an offeree does not discover a proposed modification until after he or she has suffered financial loss as a result of the modification, as may be the case when a party with preauthorized bank account or credit card access proposes a price increase, the offeree should not only be able to cancel the contract, he or she should be able to recover any loss suffered on account of the unaccepted offer of modification."

hoping to get to a display screen, but stopped installation at the point that the software requested his credit card number. This request came several screens after the start of installation, but before any link to a screen showing the Terms of Service.

The CompuServe transaction is an access contract. Under UCITA section 102(a)(44)(b)(IV), this is not a mass-market transaction unless it is a consumer contract.

Suppose that the CompuServe 2000 Terms of Service allow for modification of terms at CompuServe's discretion, as the terms cited above for eFAX, AOL, MSN and Prodigy.com do.

- A consumer will be able to cancel the contract on discovering the modification clause or in the face of material changes to the terms, but will have to repay the rebate. The rebate may have been a material factor in the consumer's choice of computer or computer vendor, but the consumer has no right of return against the computer vendor if she objects to the access contract with CompuServe. Thus, the consumer who rejects the CompuServe Terms of Service pays what is tantamount to a \$400 penalty.
- The non-consumer who pays for the service and then discovers this clause in the Terms of Service has no right to cancel the contract. UCITA section 112 (e)(B) states that "a right to a return is not required if: (B) in a case not involving a mass-market license, the parties at the time of contracting had reason to know that a record or term would be presented after performance, use, or access to the information began . . . ."

From here, section 304(b) kicks in and allows CompuServe to modify its terms. The non-consumer who is "reasonably" notified of the change (e.g. by a posting on CompuServe's website) is stuck with those terms, whatever they might be. Changes in the price are just one example of the material terms that could be changed.

**FTC Question 5. Do the current protections encourage efficiency in the timing, selection, and amount of detail in information conveyed to consumers?**

No. Customers are learning critical information about the product only after the sale and they are often unable to obtain this information until after the sale. This is a questionable pattern of doing business under current law (UCC Article 2) but it is an approved practice under UCITA.

Another important anti-informative aspect of UCITA is its blessing of contractual use restrictions, including restrictions on disclosure. UCITA 102(a) (19) states that "Contractual use term" means an enforceable term that defines or limits the use, disclosure of, or access to licensed information or informational rights, including a term that defines the scope of a license. In the mass-market, we have seen licenses from McAfee and Netscape that state that

the customer is not allowed to publish benchmark studies without the publisher's permission. McAfee also bars product reviews without permission.<sup>38</sup>

A ban on publishing benchmark studies in an Oracle license blocked PC Magazine from publishing a comparison of products by Oracle and Microsoft.<sup>39</sup> These were non-mass-market products. We don't believe that pre-UCITA law would make such bans enforceable in mass-market products, but on its face, UCITA makes these enforceable now.

A third important anti-informative aspect of UCITA is its blessing of contractual use restrictions. In this case, we are thinking of contractual use restrictions that ban reverse engineering. Reverse engineering is done for many reasons that have nothing to do with any possibility of unfair competition.<sup>40</sup> For example, consumers would be interested in discovering that there are security issues in a product, such as its ability to transfer usage information back to the publisher (or a third party) or the software that enables remote shutdown (even if remote shutdown of a mass-market product is banned in UCITA, the code can still be there and UCITA provides no remedies if a third party unlawfully shuts down your system by exploiting the security hole that the publisher puts in its software and does not disclose to you.) The security-related risks created by UCITA were criticized by the President of the Association for Computing Machinery (USA)<sup>41</sup> As another example, reverse engineering can reveal or prove defects in a mass-market product. We discussed the case of Synchronys Software in detail in Chapter 7 of *Bad Software*. This case was the subject of enforcement action by the FTC.<sup>42</sup> According to published reports, reverse engineering revealed that benefits alleged for this product were not present in the code.<sup>43</sup> By the way, Dr. Dobbs Journal reported that Synchronys attempted to block publication of critical information about their product.<sup>44</sup> Under UCITA, this attempt could well have been successful.

**FTC Question 7b. What role, if any, would be appropriate for the federal government with respect to protecting consumers who purchase software or other computer information products and services? What role, if any, would**

---

<sup>38</sup> "The customer will not publish reviews of the product without prior consent from Network Associates.", This was downloaded from <[www.mcafee.com](http://www.mcafee.com)>, the website for VirusScan, on July 20, 1999.

<sup>39</sup> See *The Test That Wasn't*, PC MAG. (Aug. 1999) at 29 (discussing Oracle's refusal to allow publication of benchmarks of its product).

<sup>40</sup> Cem Kaner (1998), "Article 2B and Reverse Engineering", *UCC Bulletin*, November, 1.

<sup>41</sup> Letter from Barbara Simons, President of the Association for Computing Machinery to NCCUSL Commissioners (July 12, 1999) <[www.acm.org/usacm/copyright/usacm-ucita.html](http://www.acm.org/usacm/copyright/usacm-ucita.html)>; Barbara Simons, *From the President: Melissa's Message*, 42 COMM. ACM 25 (June, 1999) <[www.acm.org/usacm/copyright/p25-simons.pdf](http://www.acm.org/usacm/copyright/p25-simons.pdf)>

<sup>42</sup> *In the Matter of Synchronys Software*. (1996) Docket C-3688. Complaint at [www.ftc.gov/os/9610/c3688cmp.htm](http://www.ftc.gov/os/9610/c3688cmp.htm). Decision and order at [www.ftc.gov/os/9610/c3688d&o.htm](http://www.ftc.gov/os/9610/c3688d&o.htm).

<sup>43</sup> Schulman, A. (1998) *SoftRAM95: "False and Misleading."* <ftp://ftp.uni-mannheim.de/info/Oreilly/windows/win95.update/softram.html>. This page has links to several disassemblies and articles about disassembly of the product. Reference checked 9/11/00.

<sup>44</sup> Cooper, C. (1996) "Synchronys Warns Dr. Dobbs Over Upcoming Review", *PC Week Online* (June 21). Available at [www.zdnet.com/eweek/news/0617/21esync.html](http://www.zdnet.com/eweek/news/0617/21esync.html). Checked 9/11/00.

## **be appropriate for state and local government? Consumer groups? Private industry?**

Consumer software is being sold in an international marketplace (the internet). Customers are often not even told what state (or country) their vendor is in. Over the internet, almost all commerce feels like interstate commerce. There is therefore reason for the federal government to occupy the field with respect to protecting consumers who purchase software or other computer information products and services.

Additionally, many of the rights that UCITA grants to software publishers appear to be circumventions of the Copyright Act. The most common use restrictions implicate the fair use and first sale doctrines associated with copyright and the patent doctrine of alienation. These are federal doctrines. Exceptions and refinements to them should be made federally.

## **FTC Question 8. What is the impact of characterizing a mass -market software transaction as a license as opposed to a sale of goods?**

There are two primary impacts.

- First the publisher can claim that it is selling an intangible, which should therefore not be subject to regulation as "goods" and therefore should not be within the scope of the Magnuson-Moss Act or state laws like California's Song-Beverly Act. Fred Miller, the Executive Director of NCCUSL, has written that such laws were never intended to apply to software.<sup>45</sup>
- Second, the publisher can create use restrictions, such as banning reverse engineering, banning magazine reviews, banning transfer of the product to a third party (see UCITA Section 503), or inserting time bombs that limit the length of use or the number of uses of the product. These are material issues, but they are typically not revealed to the customer until after the sale.

## **FTC Question 8b. What are the legal implications of this characterization?**

The critical implication that we want to raise involves embedded software. Many consumer products come with software built in. Because UCITA's rules are so vendor-friendly, vendors will have a strong incentive to characterize the software in their devices as software, rather than as an integral component of a piece of hardware that is not within the scope of UCITA. If the Magnuson-Moss Act does not extend to licensed software, and if a vendor succeeds in characterizing its embedded software as licensed, then the Magnuson-Moss Act will not extend to that software either.

We believe that manufacturers can reengineer any embedded software in such a way as to make it non-embedded for legal classification purposes. Because of that, we believe that if licensed software is pulled out of the scope of consumer protection laws, the scope of those laws will narrow drastically, excluding routine behavior (and defects) of many traditional consumer products.

---

<sup>45</sup> Fred H. Miller (1999), "Speaking Frankly About U.C.C. Article 2B", *U.C.C. Bulletin*, (March) at 1.

Here's an example. Consider the following advertisement for an after-market fuel injector computer.

"Our Turbo City Corvette '82 - '84 Crossfire Upgrade Kit gives you: a 90's computer to make the Crossfire Fuel Injection react more quickly and more accurately. The package includes the 90's Crossfire upgrade computer with Eprom, crimping pliers, connectors and instructions to change-out the '82-'84 ECM. This will improve low and midrange performance, and fuel and spark delivery. The ECM will have our custom stock Crossfire chip. Once your upgrade computer is installed, we can provide special programming for replacement chips that will compensate for almost any type of performance modification or added power accessory. Any number of custom performance or special requirement chips will be made for your request, for only \$129.00 +S&H per chip."<sup>46</sup>

This is being sold by a third party, not by the makers of the Corvette. Other discussions on the site make it clear that the software comes with a license. We believe that this transaction would be within the scope of UCITA. The chip is merely a medium on which the software is stored.

Note that this chip is an EPROM (erasable programmable read only memory). Once you install the chip in the car, you can probably upgrade the software without changing the chip. Surely, that software upgrade is software like a word processing program is software.

Cars can come from the manufacturer with software that can be upgraded merely by downloading new software into the chips rather than swapping out chips. On what basis would we call this software "embedded" or in some other way make it "goods"?

- Suppose that you try to define software as "goods" (within the scope of Magnuson-Moss and Article 2) by saying that it comes with the product and is not independently licensed. This is no problem for the manufacturer, who will simply start making customers sign one more piece of paper (the software license) when they buy their car.
- Suppose that you try to define the software as "goods" by saying that it is somehow essential or integral to the functioning of the goods that it comes with. A manufacturer who wanted to pull the software out of this definition could simply offer optional software. Imagine that when you buy your car, you are given three choices of fuel injector software. One is part of a "good mileage" package. A second is part of a "high performance" package. A third is from a third party vendor (a company separately incorporated from the car maker and the car dealer) that optimizes the car in some other way. When you choose the software, it is loaded into the appropriate chip(s) on your car. You sign a license agreement specific to that software. No one of these versions of the software is integral to the car because it can be replaced any day that you want to replace it.
- Another definition of embedded software stresses that it comes on devices that have no RAM or no mass storage that is usable by the embedded software. But this doesn't work. With the drop in prices of RAM and disks, modern network printers now come

---

<sup>46</sup> Turbo City Performance Headquarters, *Hey There Corvette Crossfire Owners!*  
<[www.turbocity.com/CorvetteCrossfileECMUpgrade.htm](http://www.turbocity.com/CorvetteCrossfileECMUpgrade.htm)>. Checked 9/11/00.

with up to a gigabyte of RAM and a disk drive. In a few years, as prices continue to drop, we'll probably see disks built into consumer printers. Does this mean that the software in the printers is not embedded? If that software is sold subject to a separate license (just another piece of paper in the box) and can be field-upgraded or upgraded over the internet (I can upgrade the embedded software in my modem by downloading new code over the internet, does that make it non-embedded?), then is it non-embedded?

- Another definition of embedded software stresses the limited functionality of the software. Back when memory and processors were more expensive, software had to be narrowly functional if the product (including chips and software) was to be affordable. But as memory has gotten cheaper, we see more functionality. For example, high end printers can not only intelligently queue and print documents, they can also take commands sent under a range of protocols, including TCP/IP, internet protocol. We already see other devices (cell phones, organizers) that can access the internet. If your printer can receive and interpret TCP/IP, and it has 1 gigabyte of RAM and a whopping hard disk, how long before someone can set their printer to receive web documents just like their phone receives web documents? A printer that can interpret multiple computer languages (some printers speak different versions of PCL, plus Postscript, plus PML, and others) and interpret different communications protocols, and have big hard disks and lots of RAM--is its software really embedded? How much more would we have to do in order to make it look like a general purpose computer? Give the thing a keyboard and a mouse? in a programming language, like JAVA (which is already used as a language for controlling devices)? Build in an HTML interpreter?
- Here's another example of a product whose software should (we think) always be subject to Article 2 and consumer protection, but which might fit under UCITA (and outside of Magnuson-Moss). The product is Johnson & Johnson's SureStep Blood Glucose Monitoring System.<sup>47</sup> Initially this device had very limited functionality. Prick your finger (to draw blood). Wipe the blood on a test strip. Insert the test strip into the LifeScan reader and the device presents you with a reading of blood sugar level. More recent versions of the device come with diagnostics. More recent versions of the device store the last several readings. Now, you can download software, get a cable, and transfer data from the monitor to your personal computer. One version of the device, which sells for under \$100, is available at many pharmacies and does not require a prescription, stores up to 150 tests and automatically creates 14-day and 30-day test averages. A newer model still, the Profile, can hold 250 tests, it records additional information about the user (such as insulin type and dosage), labels tests by events (such as exercise), thus creating fairly detailed database records that carry an activity code, a reading, a time stamp, a date stamp, and probably other information. This can all be downloaded to a computer. The value of this device lies primarily in its software. If that software is not upgradeable by download from a connected computer, we believe it would be easy to add this to the design. The manufacturer could easily create a separate license for the

---

<sup>47</sup> For current information on this product line, go to [www.lifescan.com](http://www.lifescan.com). Checked 9/11/00.

software (just toss another piece of paper in the book and add a click-wrap function to be executed on first use).

- We are concerned about using the limited functionality criterion, because the way that a manufacturer defeats it (thereby making their software non-embedded, non-goods, non-subject to consumer protection) is to multiply the functionality of the product. Consider the SureStep and Profile, for example. If these aren't already multi-functional enough, how much more do we have to add? Maybe we could monitor blood pressure. (You can buy those machines in the drug store too.) How about analyzing drug tests? Blood types? Special emergency telephone service to 911? Download health tips from the internet (the device already has an LCD display)? The possibilities are legion. At some point, surely we have passed the threshold (if we haven't passed it already).

A critical problem with incenting a manufacturer to add functionality is that the more functionality you add to a system, the less reliable and the less safe it probably is. By adopting a limited-functionality criterion, we might have the unintended and undesired side effect of encouraging manufacturers to make devices that are less safe.

All of this embedded software discussion (for some more, see Kaner, 1999)<sup>48</sup> is predicated on the assumption that the manufacturer will want to bring its device outside of consumer protection law and within UCITA. We think that manufacturers have a strong incentive to do this. Look at the benefits:

- Kill the market in used devices, by specifying that original purchasers may not transfer the product.
- Control the publicity associated with the product.
- Offer no warranties and no remedies, and you don't have to tell anyone until after they buy the product.
- If a customer wants to sue you, you can force it into arbitration. Or you can require the customer to sue you somewhere far from where they live.

Johnson & Johnson might not jump at bait like this (we have a lot of respect for them), but the worst players in the market might. And having limited their risks, they can lower their prices, putting severe pressure on the more honest businesses to adopt the same bad practices.

A wide range of traditional consumer goods can end up with their basic functions software controlled and out of the basic consumer protection rules. Think about cars and home medical devices, musical instruments, washing machines, home security systems, kitchen control systems (a network that controls your various cooking and dishwashing machines), televisions, radios, telephones, cameras, personal organizers, computer peripherals, games, etc., etc.

---

<sup>48</sup> Cem Kaner, "Software Engineering and UCITA", 18 *J. Computer & Information Law* 435 (1999).

We don't believe that the effort to pull software out of Article 2 and the basic consumer protection laws is limited to software. There is no reason to pull software out of these laws that doesn't apply just as well. We heard a wide range of rationalizations for not requiring software publishers to reveal the terms of their licenses to customers on request, and all of them are just as applicable to hard goods as to software:

- It's too hard for salespeople in a store because they'd have to open the boxes. *How is this harder for software than refrigerators?*
- It's too hard to put all that information (the license terms) in a catalogue. *They sell refrigerators in catalogues too.*
- It's too hard to say the terms to a customer during a telephone order. *You can order a refrigerator over the phone too.*
- It's too hard to create a link on a web page that can reach a simple text file that contains a product license. (How software publishers can say this with a straight face, we don't know. If someone can make a link to a routine that can handle an order for a product, they can just as easily make a link to a routine that displays a simple text file.) *You can buy a refrigerator on the web too.*

In fact, it was only very late in the UCITA process that software publishers started claiming that they were not subject to the Magnuson-Moss Act.

- Raymond T. Nimmer (1997, 2nd supplement 2000) *The Law of Computer Technology: Rights, Licenses, Liabilities* (3rd Edition), states at section 6.25[2] (citations omitted), "Section 2301 of the Magnuson-Moss Act defines a consumer product as 'any tangible personal property which is distributed in commerce and which is normally used for personal, family, or household purposes.' As this indicates, a distinction between goods and services is required in assessing application of various portions of the Act. The definition excludes contracts involving training and maintenance and, at least arguably, some custom software contracts. In the case of typical mass-market software products distributed on diskette or tape, the description of the product as tangible personal property clearly applies."
- In the Software Publishers Association's *Contracts Reference Disk and Manual* (1986), Contract 11, page XI-1, we see "The exclusion of implied warranties is unsuitable for use in licensing off-the-shelf software. Federal law prohibits the disclaimer of implied warranties in conjunction with the sale of consumer products that are accompanied by express warranties."
- In the Software Publishers Association's *Model PC Software License Agreement (and Explanatory Comments)* (1993), at page 35, we see "Consumer Product Warranties: The concepts of express and implied warranties apply to all software transactions. Additional rules apply to both of these types of warranties, however, when software is considered 'a consumer product' and sold as part of a 'consumer transaction.' The federal government and a number of states have enacted consumer warranty statutes designed to expand the scope of warranty protection provided to consumers. . . . The following discussion will focus on the most important of these statutes, the Magnuson-Moss Warranty Act. [P] A 'consumer product' is 'any tangible

personal property which is distributed in commerce and which is normally used for personal, family, or household purposes . . . .' Although it is clear that software will not be covered unless it is of a type used for personal, family, or household purposes, software need not be used exclusively for these purposes in order to qualify. As long as it is 'not uncommon' for particular software to be used for personal, family or household purposes, it may be deemed a 'consumer product. . . . Moreover where it is unclear whether a particular product falls within the definition of consumer product, any ambiguity will be resolved in favor of coverage. Consequently, it is reasonable to assume that software purchased for home computer use would be covered by the Act." (Note that this statement is in the context of a standard form license contract that is just like the forms that we still see in widespread use. Several of SPA's documents talk freely about "purchasing" software.)

- *The Software Publishers Association's Guide to Contracts and the Legal Protection of Software* (1993) makes the same statements as above at pages 87 and 88.
- Thomas J. Smedinghoff (1994) *The Software Publishers Association Legal Guide to Multimedia* makes the same points at 469-470.
- James R. Brennan, a consultant who had worked for his last 18 years as a warranty specialist at Texas Instruments, wrote in his book, *Warranties: Planning, Analysis, and Implementation* (1994) at 6 that "some relatively sophisticated items such as computer printers and private single-engine aircraft have been shifted into the consumer sector and therefore become subject to federal legislation" (i.e. the Magnuson-Moss Act.) Printers contain patented technologies. If we can license the software, we can license the printers. If we licensed printers to consumers, would that eliminate the consumer protections?
- Gene K. Landy (1993) wrote in *The Software Developer's and Marketer's Legal Companion* at page 175 (in a section entitled "Legal Constraints on Shrink-Wrap Licenses on Consumer Products") that "The [Magnuson-Moss] Act applies to 'consumer products'--which means goods 'normally used for personal, family, or household purposes.' Software with both personal and business use, such as a word processor or a spreadsheet, would be covered under the Act."

Other commentators have also written about the Magnuson-Moss Act applicability to consumer software and concluded that it probably does apply. See for example, L.J. Kutten *Computer Software* section 10.03[3]; Cem Kaner, *Software Engineering and UCITA*, 18 John Marshall J. Comp. & Inf. Law 435, 459-62 (1999); David A. Rice, *Computer Products and the Federal Warranty Act*, 1 (#8) *The Computer Lawyer* 13 (Sept. 1984); Michael Rustad, *Making UCITA More Consumer Friendly*, 18 John Marshall J. Comp. & Inf. Law 547, 587-88 (1999).

Kutten makes a particularly convincing point. After citing a case that held that a microcomputer was a consumer product, he said (at section 10.03[3]) that:

"Some software must be a consumer product. Otherwise, society is caught in the dichotomy that (1) the hardware is a consumer product, (2) the software is not a consumer product, yet (3) neither product can be used without the other."

## **FTC Question 12e. What is the impact of license terms mandating certain types of alternative dispute resolution, such as arbitration?**

The case of *Hill v. Gateway 2000*<sup>49</sup> provides an excellent illustration of the impact of compulsory arbitration. The plaintiffs' allegations are only lightly covered in the 7th Circuit's opinion, but they are more extensively described by the District Court and in the plaintiff's petition for certiorari.<sup>50</sup>

In this case, a consumer alleged consumer fraud, breach of warranty, and violation of the Racketeer Influenced and Corrupt Organization Act. The District Court certified the case as a class action.<sup>51</sup> The appellate court redirected the suit into arbitration, honoring an arbitration clause that had not been presented to the customer until after the sale. The same reasoning would support enforcement of an arbitration clause when a software defect (covered by UCITA) caused injury, property damage, or death.

The appellate opinion did not lay out the basis of the underlying complaint. According to the District Court's summary:<sup>52</sup>

"Gateway offered the 10th Anniversary system through an advertisement in PC World Magazine and other media directed at computer buyers. The Hills learned of the special through the advertising. In addition, Gateway supplied information on the 10th Anniversary system to computer magazines.

"The 10th Anniversary system included Altec Lansing Surround Sound Speakers with Subwoofer, a 6X EIDE CD-ROM Drive, and a Matrox MGA 'Millennium' 2MB Graphics Accelerator. The Hills experienced numerous problems with their system. Their 6X EIDE CD-ROM Drive did not perform as advertised. Gateway had advertised a 'new blazing 6X CD-ROM Drive . . . the fastest EIDE CD-ROM anywhere.' The Hills' CD-ROM performed like a 4X drive and would jam while in various programs. This performance problem was allegedly due to sub-par materials used by Gateway. Moreover, a faster drive was supposedly available when Gateway made its claim.

"Gateway advertised that the Altec Lansing Speakers were the first speakers to create theater-type surround sound. The speakers came in surround sound packaging, but the Hills claim that the speakers did not have surround sound. In addition, the speakers produced static or hiss. Gateway allegedly told the Hills that Gateway did not offer the surround sound speakers and that there had been a misprint in Gateway's advertising. Gateway offered the Hills \$50 cash back and Altec Lansing 400 speakers, which were not surround sound, or a full refund.

---

<sup>49</sup> *Hill v. Gateway 2000, Inc.* 105 F.3d 1147 (7th Cir. 1997).

<sup>50</sup> *Hill v. Gateway 2000, Inc.*, 1996 U.S. Dist. LEXIS 16581 (N.D. Ill. Nov. 7, 1996) and *Hill v. Gateway 2000, Inc.*, *Petition for cert.* (filed May 5, 1997, copy on file with the author). The petition was denied, 66 U.S.L.W. 3254 (U.S. Oct. 6, 1997) (No. 96-1760).

<sup>51</sup> *Hill v. Gateway 2000, Inc.*, 1996 U.S. Dist. LEXIS 16581 (N.D. Ill. Nov. 7, 1996).

<sup>52</sup> *Id.* at \*3.

"Gateway also advertised a Matrox MGA Millennium 2MB WRAM Graphics Accelerator as part of the 10th Anniversary system. In an effort to cut costs, Gateway allegedly substituted an inferior accelerator without informing its customers. In all, the Hills would have had to pay an additional \$1,000 to obtain the system that they ordered.

Additionally, according to Hill:<sup>53</sup>

- Inside the shipping containers “was a four-page document entitled ‘Standard Terms and Conditions.’ There was no prior notice of such a document in the advertisement, on the outside of the box, or on the order confirmation that Gateway faxed to plaintiffs.”<sup>54</sup>
- The standard terms and conditions included an arbitration clause:  
"Any dispute or controversy arising out of or relating to the Agreement or its interpretation shall be settled exclusively and finally by arbitration. The arbitration shall be conducted in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce. The arbitration shall be conducted in Chicago, Illinois, U.S.A. before a sole arbitrator."<sup>55</sup>
- The Standard Terms and Conditions” purported to become effective thirty days after receipt of the computer system without any further action by purchasers; rejection would require that the consumer, at the consumer’s expense, repackage the computer system and return it to Gateway. The “Standard Terms and Conditions” do not contemplate a signed agreement to be so bound by the purchaser. The Hills did not acknowledge or sign an agreement to the ‘Standard Terms and Conditions.’<sup>56</sup>
- “The rules of the International Chamber of Commerce also require each side to pay an arbitration fee in advance of approximately \$2,000—half the list price of the Tenth Anniversary System.”<sup>57</sup>
- Gateway began including the ‘Standard Terms and Conditions’ in shipping containers for the first time in July of 1995. Gateway began taking orders for the Tenth Anniversary System on the last business day of June, 1995, and did not begin shipping the Tenth Anniversary System until August of 1995.<sup>58</sup>

We have no way of knowing whether Hill’s claims were true or false, but based on the reports in the press and on the Net, there appears to be evidence in support of his claims. According to these, Gateway shipped 10,000 of the 10th Anniversary Systems.<sup>59</sup>

---

<sup>53</sup> *Hill v. Gateway 2000, Inc., Petition for cert.* (filed May 5, 1997, copy on file with the author). The petition was denied, 66 U.S.L.W. 3254 (U.S. Oct. 6, 1997) (No. 96-1760).

<sup>54</sup> *Id.* at 4.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.* at 5.

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> Jeff Sengstack, *Anniversary PC Owners Fight Gateway—And Win*, PC WORLD, June, 1996, <[www.pcworld.com/hardware/desktop\\_pcs/articles/jun96/1406p050.html](http://www.pcworld.com/hardware/desktop_pcs/articles/jun96/1406p050.html)>).

Dissatisfied customers formed *The 10th Anniversary Club*, to share information and work collectively with Gateway.<sup>60</sup> They complained about hissing speakers that were less valuable than they expected.<sup>61</sup> They complained about faulty CD-ROM drives (too slow, lock up, or “faulty”)<sup>62</sup> and about a “stripped-down” video card.<sup>63</sup> Sengstack (writing for PC World) said the “Matrox MGA Millenium graphics card described in Gateway’s ads (which appeared in PC World and elsewhere) was actually different from the board sold in stores. Unlike the retail version, Gateway’s card could not be upgraded with hardware . . . and it used a slower RAMDAC chip.” Sengstack reported that a Matrox spokesperson said these cards were built to Gateway’s specifications. He also claimed that a faster Teac 6X drive was available when Gateway rolled out the 10th Anniversary System.

The *Hill* court (7<sup>th</sup> Circuit) noted that “Hill kept the computer for more than 30 days before complaining about its components and performance.”<sup>64</sup> The court then decided that “Terms inside Gateway’s box stand or fall together. If they constitute the parties’ contract because the Hills had an opportunity to return the computer after reading them, then all must be enforced.”<sup>65</sup> Following its reasoning in *ProCD*, the court ruled that the contract was binding on the customer, upholding an arbitration clause that was subsequently rejected as unconscionable by two courts.<sup>66</sup>

We will never know whether Gateway 2000 intended or committed consumer fraud, because there will never be a public trial. Whether or not Gateway crossed the line, we are disturbed by the holding of the case because it lays out a road map that can be followed by less ethical companies who want to engage in sharp practices without fear of a public trial.

The UCC Article 2 drafting committee has not adopted the reasoning or the holding of *Hill v. Gateway 2000*.<sup>67</sup> However, UCITA has embraced *Gateway’s* approach to contracting.<sup>68</sup>

---

<sup>60</sup> The 10th Anniversary Club, *What is the 10th Anniversary Club?* <[www.angelfire.com/sd/10thclub/te01000.html](http://www.angelfire.com/sd/10thclub/te01000.html)>. Ed Foster reported that the 10th Anniversary Club had “300 vocal members.” *BACs Harken Back to Product-Specific User Groups of Days Gone By*, INFOWORLD, May 26, 1997, available at <[www.pcworld.com](http://www.pcworld.com), Gripe Line column>.

<sup>61</sup> See Sengstack, *supra* note 59; The 10th Anniversary Club, *supra* note 60; Ed Foster, *supra* note 60.

<sup>62</sup> See Sengstack, *supra* note 59; The 10th Anniversary Club, *supra* note 60; Ed Foster, *supra* note 60; Robert X. Cringely, *Where has loyalty gone? Users grow weary of vendors’ cheating ways*, INFOWORLD, Mar. 4, 1996 <[www.infoworld.com](http://www.infoworld.com)>, Notes From The Field column (on file with author).

<sup>63</sup> Sengstack, *supra* note 59; The 10th Anniversary Club, *supra* note 60; Ed Foster, *supra* note 60.

<sup>64</sup> *Hill v. Gateway 2000, Inc.*, 105 F.3d 1147, 1148 (7th Cir. 1997). Here’s a reality check—if you had bought a computer with these problems, how long would it have taken you to figure out that the video card was an OEM version or that the 6X CD-ROM drive was slower than its competitors, or that a pair of speakers sold in surround sound packaging did not have surround sound capability? Is it reasonable to condition basic customer’s rights on early discovery of defects that will be difficult for a reasonable consumer to recognize?

<sup>65</sup> *Id*

<sup>66</sup> *Brower v. Gateway 2000*, 246 A.D.2d 246 (N.Y. App. Div. 1998); *Filias v. Gateway 2000*, 1998 U.S. Dist. LEXIS 20358 (N.D. Ill. Jan. 15, 1998).

<sup>67</sup> There was extensive discussion of this at two of the three Article 2 meetings that Kaner has attended. The agenda for the February 5 – 7, 1999 drafting committee meeting says “The so-called ‘Gateway’ problem is now treated in 2-207(d)” <[www.law.upenn.edu/bll/ulc/U.C.C.2/agenda.htm](http://www.law.upenn.edu/bll/ulc/U.C.C.2/agenda.htm)>; The January 5-7, 2000 meeting

Hill's complaint included a RICO cause of action, alleging mail and wire fraud. He filed a class action lawsuit. With 10,000 customers allegedly involved, there seems to be a public interest in having public proceedings, open to the press, so that the other customers would hear about it and perhaps participate in (or opt out of) the suit. The Seventh Circuit responded to this by saying:

"The Hills' remaining arguments, including a contention that the arbitration clause is unenforceable as part of a scheme to defraud, do not require more than a citation to *Prima Paint Corp. v. Flood & Conklin Mfg. Co.*, 388 U.S. 395 (1967). Whatever may be said pro and con about the cost and efficacy of arbitration (which the Hills disparage) is for Congress and the contracting parties to consider. Claims based on RICO are no less arbitrable than those founded on the contract or the law of torts. *Shearson/American Express, Inc. v. McMahon*, 482 U.S. 220, 238-42 (1987).<sup>69</sup>"

As the 7th Circuit court itself says, the same reasoning covers claims in tort. And so, under this precedent, shrink-wrap contracts should be able to be used to take personal injury cases and dangerous-product class action cases, out of court and into arbitration. Such personal injury cases will arise. There has already been at least one death due to defective automotive fuel injection control software.<sup>70</sup> Punitive damages were awarded against the defendant because the court concluded that the defect was known, not revealed to the customer, and the defective software was not recalled and replaced after the defendant developed a fix for the problem.

Imagine that the Pinto litigation<sup>71</sup> had been forced into arbitration. Do you think the plaintiffs would have received punitive damage awards? Do you think that the press would have been able to cover the arbitration hearings? Do you think that the auto-safety consumer protection laws would have been introduced that were introduced as a result of the Pinto's effect on the public? What result should we expect under UCITA for software that causes personal injuries, property damage, or deaths?

## Closing Recommendations

In considering the relationship between federal and state laws, we have five recommendations. We are not certain that these are all within the scope and interest of the Federal Trade Commission, but we noted several open-ended questions as to the relationship between these bodies of law and so we will answer them broadly.

1. For the purposes of any federal consumer protection law, we recommend that any mass-market software product (as mass-market is defined by UCITA) be considered equivalent to a sale of goods. An implication of this is that mass-market software

---

discussion of the Gateway problem was also quite spirited. See The December 1999 draft on UCITA § 2-207, available at <[www.law.upenn.edu/bll/ulc/U.C.C.2/21299.htm](http://www.law.upenn.edu/bll/ulc/U.C.C.2/21299.htm)>.

<sup>68</sup> UCITA §§ 102(a)(56), 112, 208, 209.

<sup>69</sup> *Hill*, 105 F.3d at 1150.

<sup>70</sup> *General Motors Corp. v. Johnston* 592 So. 2d 1054 (Ala. 1992).

<sup>71</sup> THE FORD PINTO CASE: A STUDY IN APPLIED ETHICS, BUSINESS, AND TECHNOLOGY (Douglas Birsch & John H. Fielder, eds., 1994)

should be subject to the usual warranty disclosure rules as all other consumer products.

2. Required warranty disclosures should also disclose, prior to the sale, the costs and policies associated with technical support for the product, and any use restrictions put on the product. It should be considered a deceptive and unfair practice to sell a license to use software or information without making it easy for the customer to determine, in advance of the sale, what restrictions apply to the use of the software or information.
3. For the purpose of any federal consumer protection law, we recommend that any access contract that primarily provides the customer with the ability to use software (perhaps this software is stored at the vendor's computer and remotely accessed by the customer) and that would be a mass-market license under UCITA except for the fact that it is an access contract, should be treated as equivalent to a sale of the software that is used by the customer.
4. It should be considered an unfair or deceptive practice to include a term in a mass-market contract or an access contract that is marketed to the mass market that allows the licensor / vendor to materially change the contract terms without obtaining the explicit agreement of the customer. If the contract runs for a fixed term, a customer who rejects a change should be able to continue to use the product or access the information until the term expires, without agreeing to the change.
5. In the case of contracts for any mass-market product or any access contract that is marketed to the mass market, federal policy should take precedence over UCITA in the event of a conflict regarding competition, innovation, or free speech.
6. In the case of mass-market licenses of software or information content, and of access contracts that are marketed to the mass market, the license should be treated as equivalent to the sale of a copy under the Copyright Act. Copyright policies regarding fair use and first sale should prevail in the event of conflict with UCITA-based contractual use restrictions.
7. As a fallback position, the Commission should consider banning certain specific license terms. For example, a customer should always be able to reverse engineer software in order to search for security risks, to make a product interoperable with another, to investigate the possibility that the software under study is itself based on an unlawful copy, to engage in scholarly research, or to fix product defects.
8. It should not be possible for a vendor to force into arbitration lawsuits that credibly allege personal injuries to more than one person arising out of the use of mass-market software or deceptive or unfair trade practices in the marketing or sale or licensing of mass market products or access contracts that are marketed to the mass market.