

THE UNIVERSITY OF CHICAGO
THE LAW SCHOOL
1111 EAST 60TH STREET
CHICAGO • ILLINOIS 60637

Richard A. Epstein
702-9563
James Parker Hall Distinguished
0730
Service Professor of Law
epstein@uchicago.edu

Phone: (773)
Fax: (773) 702-
e. mail: r-

September 11, 2000

Secretary
Federal Trade Commission
Room H-159
600 Pennsylvania Avenue, N.W.
Washington, D.C. 20580

Re: High-Tech Warranty Project – Comment, P994413

I have been retained by the Digital Commerce Coalition (DCC) to express my personal and professional views in response to the Federal Trade Commission's Initial Notice Requesting Academic Papers and Public Comment regarding Warranty Protection for High-Tech Products and Service. I write in my individual capacity and my views should not be taken to represent those of the University of Chicago Law School or any of its faculty. I have been a law professor for 32 years, first at the University of Southern California, and for the last 28 years at the University of Chicago. I have taught, written and practiced extensively in the areas of contract, intellectual property, regulation and antitrust. A copy of my curriculum vitae is attached. My comments should be read in conjunction with the letter submitted on behalf of the DCC, dated September 11, 2000, which first outlines the mission of the DCC and supplies detailed answers to the specifics contained in the FTC Initial Notice.

One central question in this inquiry is the extent to which the rules found in Article 2 of the Uniform Commercial Code (UCC) carry over to the world of high-tech computer information products. In an ideal world, the transfer of legal rules insofar as they related to contract formation, express or implied warranties, and unconscionability should be total. In both areas the purpose of the law is to facilitate voluntary transactions, whether by sale or by license, for the benefit of both parties. In the present situation, however, some conceptual weaknesses of the UCC on these critical issues make any such carryover problematic. My analysis therefore often proceeds at two levels. First, it offers a critique of some of the basic UCC rules as it applies to ordinary transactions in goods. At other times, it acknowledges that these rules, even if defective, will apply to the sale of goods, and then demonstrates why their carryover

will result in greater dislocations in the markets for high-tech computer information products. I am well aware that a fundamental reform of Article 2 is not part of this program, but the soundness of the specific rules regulating the licensing of computer information technology necessarily entails some review of the basic UCC rules from which the Uniform Computer Information Transactions Act (UCITA) derives.

I. OVERVIEW .

In preparing this submission, I have been asked by the DCC to step back from these particular questions to address some of the fundamental questions about the operation of high-tech warranty markets. In particular I shall demonstrate that social welfare in high-tech markets is advanced, not retarded, by the full panoply of use restrictions, limited warranties and disclaimers found in standard licensing agreements for high-tech products. For these purposes, social welfare is defined as the sum of consumer and producer surplus— that is the total gain that all parties obtain through the realization of voluntary transactions. This social welfare standard is the correct measure of the effects of contractual practices and the regulations that might be imposed on them. Most emphatically, gains to consumers are important, but these are no more, or no less, important than gains to the producers of high-tech software and similar products. Any price that is paid is a loss to one side and a gain to the other, and can thus adjust the gains between the parties in ways that it is impossible to monitor or second-guess. The key element of these transactions lies therefore not in the cash transfer but in the gains that result from the vigorous production and prompt dissemination of the products, programs and data bases found in these high-tech products.

Any other measure of welfare must yield skewed results. If consumer welfare, narrowly conceived were all that mattered, then increasing it by a dollar could justify a million dollars in producer loss. Yet in the long-term that trade-off would benefit no one. Consumers are not a distinct class of persons. Many individuals and firms are consumers in one transaction only to be software or database suppliers in the next. Consumers also occupy multiple roles, as employees, suppliers and shareholders. The comprehensive definition of social welfare takes into account their interests in all their roles, not only in one. The proper frame of evaluation is one that takes all gains and losses into account, not just those of a single party to a single transaction.

The questions raised by the Initial Notice go to the length and breadth of the law. My major purpose in this letter is to show that the well-nigh universal form in which computer information of all kinds and description is licensed— order now, examine terms later— represents the most efficient form of product distribution, one which the FTC should foster and encourage at every opportunity.

The consumer advocates who take the opposite position wrongly attack these routine transactions as sources of inequity and abuse. More specifically, they incorrectly claim that the method of sale which involves "order now, examine later"

promotes unfair surprise, fraud and collusion in these high-tech markets. That claim is implausible on its face, for it does not and cannot explain how to square this gloomy assessment of these standard practices with the ceaseless innovation, the rapid expansion, and high level of consumer satisfaction found in every corner of this vibrant market. Adopting the proposals of these consumer advocates will lead to inefficient alterations in standard business practices, a reduction in the rate of product innovation, and an increase in the price of computer information for consumers. The recommendations of these consumer advocates should be stoutly resisted at every turn.

Before undertaking this specific analysis, however, it is important to stress that all members of the DCC hold the unshakable belief that the development and successful marketing of new computer information depends on the ability of licensors to establish the terms and conditions on which they offer their information and services to consumers. The members of the DCC recognize that different software packages, databases and other high-tech products require different kinds of solutions, which cannot be anticipated or implemented at a distance even by government agencies that act with the greatest of dispatch and the best of intentions. They also believe that the complex set of objectives that must be achieved in order to successfully market a new computer program or apparatus cannot typically be done by outright sales, and must in most cases be undertaken through the licensing arrangements with which information product users are by now well familiar.

The current set of legal rules has unleashed an unprecedented wave of new firms and new products in the computer information industries. The greatest boon for their consumers is to protect that product innovation and to preserve robust competition. These objectives can only be achieved if all companies large and small are as free to design their legal arrangements as they are to configure their products and services. The choice of institutional framework is thus of paramount importance to both the public and the industry. A wrong turn in regulatory policy can influence for ill the prospects of a large and growing segment of the economy. The basic message is clear enough: the basic set of open market rules that got us to this point of energy and development must be defended and strengthened in order to allow the industry in the future to duplicate its successes in the past.

In order to justify these conclusions, I have organized this response as follows. In part I, I establish an analytical framework by which to evaluate the rules that govern provision of information in various high-tech markets. In part II, I explain how the rules of offer and acceptance found in the UCC, most particularly in § 2-207 frustrate contractual expectations of both parties and allow a small opportunistic group of licensees to prey both on their licensors and their fellow licensees. In part III, I examine the relationship between the choice of default terms and the doctrine of unconscionability in contract damages, and urge that the current UCC rules not be extended into high-tech licensing arrangements, even if they are retained for ordinary sale of goods contracts. In part IV, I examine some of the particular objections that are raised to these standard practices in order to show that they do nothing to dash

consumer expectations or to facilitate unfair surprise, fraud, or collusive practices. In part V, I analyze some of the specific substantive provisions found in standard form contracts and show how these advance social welfare by preventing destructive cross-subsidization by one group of consumers as against another.

In dealing with these issues, it is useful at the outset to indicate my ambivalence about the UCC as it applies to its traditional domain, the sale of goods. As a general matter, the UCC has worked well over the past 50 years, and if subjected to an all-or-nothing-decision, should be retained and not abandoned. But that generally positive assessment does not imply that all innovations of the UCC are of equal success. In particular, the offer and acceptance rule in UCC § 2-207 is a grievous mistake, which should be abandoned for the sale of goods and repudiated for all high-tech licenses. Similarly the UCC sets out the wrong default rules for consequential damages, and, in the context of damages, relies on a vague and often unworkable definition of unconscionability in regulating commercial transactions in general and consumer transactions in particular.

In many cases the difficulties with the UCC are limited because of the nature of the underlying transactions that they regulate. But these difficulties become far more salient with software, data bases and other high-tech products. The differences are often matters of degree, not kind, but these differences matter hugely. A single book could be read by one person or by five. A single computer data base could be used to manage a single account or an entire industry. These differences in magnitude matter. In many cases, it does not pay for sellers of specific goods to impose restrictions on their use, because the cross-subsidization between users is not that large relative to the costs of its prevention. The opposite conclusion holds with high-tech computer products, so that the weaknesses in the UCC in dealing with these problems are more acute. It follows therefore that as a matter of first principle, the best solution— freedom of contract— applies to both traditional sales of goods and to modern high-tech computer licenses. Unfortunately, the costs of deviating from that ideal solution are greater with modern computer high-tech products than with traditional goods. It follows therefore that even if the UCC is left unaltered in dealing with sales of goods, its defective provisions should not be extended to licenses of high-tech computer products.

II. THE BASIC FRAMEWORK FOR THE EVALUATION OF SOCIAL WELFARE.

The question of social welfare that lies at the heart of the FTC inquiry involves at least three related questions, all of which are touched on in the various questions propounded in the FTC Initial Notice. These questions are:

(1) From the ex ante perspective what set of contracting practices and consumer warranties work best in any individual transaction between the maker and the user of high-tech software and other consumer information products?

(2) How does the demand for the mass marketing of computer software and information products influence the selection of legal rules governing the licensing of consumer products?

(3) What sort of protection should be provided to users of software and information products in the event of product failure?

In dealing with these three questions, it is important to understand the social need for constant adjustment and trade-off among the various elements. One great temptation that must be avoided in this context is to evaluate the success of a warranty or disclaimer clause solely by considering the level of damages that a software user, for example, may recover in the event of breach. The choice of remedies supplied to consumers ex post also exerts, ex ante, a powerful influence on the timing and mix of products available to consumers ex ante. Stated in its baldest form, the computer information industry does not receive any external cash subsidy from government sources to market its products: nor should it. This single constraint necessarily implies that the only source of funding for product warranty and damage claims arising out of licenses of information products is the revenue that those licenses generate.

A simple illustration makes the basic point. A company that has two distinct products will, moreover, price them separately and refuse to create any cross-subsidies between them. If one product makes on net \$1,000,000 after warranty claims are satisfied, and the other product loses \$250,000, it is not in the interest of the firm to supply both for a profit of \$750,000, when it can remove the second product from the market and thus increase its profits by \$250,000. Each product, indeed each particular license, has to be self-sufficient from the ex ante perspective. No product can be licensed unless the receipts from that product are sufficient to cover its costs, including the costs needed to fund any damage or service obligations associated from the licensing of the product.

One clear implication of this rule is that regulatory constraints on the marketing and servicing of computer information products (like those of a tangible product) are only justified if they produce benefits (e.g., increased consumer confidence in the product in question) that exceed their cost. Otherwise their net cost (regulatory costs less regulatory benefits) operates as a tax which will reduce the penetration of that product into the market, to the detriment of producers and consumers alike. As will be demonstrated later, there is no uniform correlation between the size of consumer recovery in the event of product failure and the overall success of consumers as a group. Quite the opposite, the prospect of a large award and expensive proceedings may well hurt consumers as a class from the ex ante perspective even if it helps a single aggrieved consumer or a small group of consumers after the fact.

The second major constraint on computer information markets is that they operate on a mass basis. Computer information products are costly to develop and easy to reproduce. This general cost pattern is such that a company can only remain in

business if it is able to market at low cost large quantities of the same item. In order to keep its own books and to maintain good relationships with its customers, it is imperative that all customers know and understand that they receive the same package of benefits when they license the same consumer product. The only acceptable differentiations are those that are introduced by design into marketing of various products, such as differences between personal, educational and commercial use. Any unintended distinctions between consumers who perceive themselves to be members of the same class are sure to sap the good will and confidence of potential consumers. The role of the product licensor in these cases should be seen as protecting some consumers against the opportunistic behavior of others, just as stringent provisions in a residential or commercial lease are needed to protect honest tenants against the misconduct of their less reputable cotenants.

Standardization of contract provisions and terms under this view does not offer firms a means for exploiting their customers: the industry is sufficiently competitive that this prospect can be dismissed in the absence of clear evidence of collusion or antitrust violation, of which none has been offered here. Standardization in this context is a source of efficiency, not a potential restraint of trade. By standardization, an information product supplier is able to reassure its less experienced customers that they are receiving value for money. In practice they are cushioned by having licensed products on the same terms accepted by more knowledgeable consumers or techies. Likewise, the firm that is able to group consumers in defined classes can better train its personnel to deal with them in an equitable and consistent fashion. But if firm personnel do not know into which class its customers fall, then they are not able to maintain a consistent approach so essential for preserving customer satisfaction, and through that, the firm's reputation and brand name.

In some cases, we should expect, moreover, that competing firms offering similar products with similar functions will license them with similar warranty provisions. Standing alone, that practice is only evidence that all firms have managed to move to the same sensible program by imitation or independent discovery. The resulting similarity or identity of terms serves useful public functions by facilitating intelligent consumer comparisons across different product lines. Yet by the same token, the target markets and functions of different information products make it highly unlikely that firms will necessarily license different products serving different groups with the same warranties, disclaimers and restriction. But here again the diversity offers nothing to fear, for particular user groups or products may require distinctive restrictions, warranties or disclaimers. Owing to the vast complexity of software and the multiple paths by which it is licensed, it is a mistake to approach standard term provisions with the presumption that they are not consumer friendly or need special justification for their validity.

Third, the licensing of information products can only be understood when set in the context of allied transactions. Warranties are often linked with service provisions from the same supplier. But many customers embed licensed high-tech products into

their own complex systems for which they supply extensive internal management. Sometimes the losses from program failures may be covered by insurance policies. The major losses are likely to occur to licensees who use their computer information for business purposes, and these losses might well be covered by business interruption or data loss insurance, for which a separate premium can if necessary be calculated by an insured that has far greater knowledge of the insured risk. If so, then a full evaluation of product warranties must take into account these collateral transactions. To what extent can local management mitigate loss? How does third party insurance guard against sudden changes in firm wealth from catastrophic losses? We can also learn something from the behavior of homeowner and rental markets, where these coverages are currently not available. That fact alone offers good evidence that the inherent uncertainty in these risks makes them generally uninsurable. Why then assume that suppliers of computer information products can write sensible insurance when specialists in the area cannot? Looking only at the warranties, conditions and disclaimers gives only partial information about the success of any computer product in the marketplace. The more comprehensive survey increases understanding of the overall picture.

The licensing of any information product then gives rise to a wide range of complexities that vary from product to product. Nonetheless, even at this abstract level, it is worth stressing that in the development of contract terms, a licensor does not have from the ex ante perspective any incentive to offer the potential licensee an inferior set of terms. Thus let us suppose that the present set of contract terms contains a warranty limitation that saves the licensor an estimated \$100 but denies the licensee \$250 worth of putative benefits. At this point that licensor has every incentive to offer the desired warranty provisions so long as it can increase price to offset its increased exposure. In the simple example just given, the provision of the desired warranty with a price increase of anywhere between \$101 and \$249 will make both parties to the transaction better off than they were before. Wholly without legal compulsion therefore it is in the interest of producers to offer cost-justified warranties. Yet when the numbers cut in reverse, such that the warranty provision in question costs \$250, but yields only \$100 in benefits, then neither the licensor nor the licensee has any interest in including the provision in the transaction. The great advantage of markets is that licensors (like vendors of goods) have the strong incentive to decide which warranties fall into which category--and they have every incentive to anticipate consumer demand for the warranty provisions that in fact yield net value to the consumer.

In response, it might be urged that consumers and producers do not have accurate information to estimate these costs or benefits. Mistakes of that sort will happen, and to the extent that they do, the efficiency of the market will necessarily be impaired. But the losses so generated are borne by the parties who make the mistake, who have therefore every incentive to make the appropriate adjustments for otherwise their market position will be eroded by competitors who tout the superiority of their own products. The alternative to private ordering is government regulation which is also susceptible to mistakes if it requires warranties that in fact cost more to service

than they are worth. Most critically, government officials operate under systematic disadvantages that suggest that they are more likely to make mistakes than the firms that they seek to regulate. In the first place, the firm imposes contractual terms for the products that it has designed and marketed. It has therefore acquired information, much of it proprietary, about the nature of the product and the features that make it suitable for its intended market. It can therefore select or draft contract terms in light of that information.

This local knowledge matters. Government agencies with multiple responsibilities cannot hope to acquire the same level of product knowledge, so when it precludes disclaimer of specific warranties, or precludes written warranties unless implied warranties are retained, they are more likely to make mistakes, and less likely to correct the mistakes when made. Just as with insurance, moreover, it is a mistake to assume that the computer information licensor is the only party that can supply information to a product licensee or user. User populations have the unquestioned ability to communicate with each other at low cost. Third party publications and commentators can publish product evaluations that not only speak to the strengths and weaknesses of finished products after general release, but also they can supply information that cannot be obtained from any single product licensor: namely, explicit and detailed comparisons of rival products, and explanations of how particular products interact with, for example, various network elements and other software applications. This ability to generate information is made evident by the recent rise of open source software, in which the collaborative efforts of unrelated individuals are able to eliminate software bugs quickly and to develop lasting improvements that are shared by all users. It is worth noting that the GNU Lesser General Public License contains (see clause 15) a total disclaimer of all warranties for the use of its libraries, which allows it to remain open for business.

This ability to generate and transmit information seems, moreover, especially true in the high-tech market which is populated with licensees that have deep familiarity with software and other consumer applications and who know how to voice their dissatisfaction with products that do not meet their expectations. If there is any market that is unlikely to be subject to systematic information shortfalls, the high-tech market is it. The cost of disseminating information is low, and the ability of players within that market to absorb and use information is great. Information failure does not seem likely. Quite the opposite, once individual suppliers of information run the risk of being held liable, then needed sources of information could quickly dry up to the detriment of all.

III. OFFER AND ACCEPTANCE IN THE CONTEXT OF SOFTWARE AND OTHER COMPUTER INFORMATION PRODUCTS.

It is important to show how the general theoretical considerations set out in the first section of the paper play out in connection with the specific issues. One vital question that has been frequently raised in the case law and the academic literature

concerns the proper rules of contract formation. As a general matter, the common law adopted the principle that contracts were most commonly formed by offer and acceptance, where the parties had to be in complete agreement with each other about the relevant set of contractual terms. In the simple case where two parties negotiate a specific agreement that both sign simultaneously, it matters little as to who counts as the offeror and who counts as the offeree. The signed assent by both parties to the same document before the onset of contractual performance establishes the requisite agreement.

The difficulties of contract formation become more manifest when the negotiations between the parties take place at a distance. In these settings, the two conditions noted above may not be present. There may be extensive correspondence, multiple oral communications, and an exchange of standard form between the parties (often known as "the battle of the forms") so that it becomes important to establish when the contract (if any) was formed, and, if so, what terms it contains. When played out against the rapid movement of commercial transactions, small differences in subsidiary contract provisions were, under the common law's mirror image rule, sometimes allowed to defeat the set of sound contract understandings. Thus in Poel v. Brunswick-Balke-Collender Co., 216 N.Y. 310, 110 N.E. 619 (1915), the contract called for the sale of a quantity of rubber, which the buyer refused to accept after a sharp break in the market price. It was able to escape from the contract because the buyer's standard form, not tailored for these negotiations, required the seller to acknowledge the order, which had not been done. The escape from the contract was not justified by any prejudice suffered from the absence of that acknowledgment. The clear sense is that the business objectives of the parties were frustrated by nit-picking technicalities.

The UCC contains a number of provisions that were drafted in response to this overall state of affairs. UCC § 2-204(3) provides: "Even though one or more terms are left open a contract for sale does not fail for indefiniteness if the parties have intended to make a contract and there is a reasonably certain basis for giving a remedy." This provision looks to the intentions of the parties to afford contractual protection when it can be done without having to make up the contractual provisions out of whole cloth. In general this provision has been a welcome corrective against the excessive demands for perfect agreement between buyer and seller. Small differences and loose ends are often part and parcel of business agreements. It can easily be a mistake for the law to deny enforcement to an agreement when both parties have acted on the assumption that it is binding.

A second, and related provision, UCC § 2-207 was also introduced to address the problem raised in Poel head on, but unlike § 2-204(3) it has no analogue anywhere else in the law. That section provides:

§ 2-207. Additional Terms in Acceptance or Confirmation

(1) A definite and seasonable expression of acceptance or a written confirmation which is sent within a reasonable time operates as an acceptance even though it states terms additional to or different from those offered or agreed upon, unless acceptance is expressly made conditional on assent to the additional or different terms.

(2) The additional terms are to be construed as proposals for addition to the contract. Between merchants such terms become part of the contract unless:

(a) the offer material limits acceptance to the terms of the offer;

(b) they materially alter it; or

(c) notification of objection to them has already been given or is given within a reasonable time after notice of them is received.

(3) Conduct by both parties which recognizes the existence of a contract is sufficient to establish a contract for sale although the writings of the parties do not otherwise establish a contract. In such cases the terms of the particular contract consist of those terms on which the writings of the parties agree, together with any supplementary terms incorporated under any other provisions of this Act.

Section 2-207 has been subject to extensive litigation under the UCC in connection with the sale of goods. The confusion and uncertainty that it has generated make it an unfit model to carry over to the licenses of software and computer information technology, which, properly analyzed, are not covered under the sale of goods provisions of the UCC. The basic conceptual difficulty is that § 2-207 typically yields results that are at variance with the intentions of one, indeed both, parties to the arrangement. The initial difficulty starts with the definition of both offer and acceptance in ordinary business transactions. One well established, if elusive common law distinction is that between an offer on the one hand and an invitation to treat on the other. In the ordinary case where goods are held for sale on a merchant's shelves or displayed for sale in his windows, the merchant is not held to offer these goods for sale to a customer who selects them inside the store. Rather, the initial invitation to treat, as it is called, cannot be accepted by the customer by presenting the goods at the cash register. Instead it is said that the customer offers to buy the goods, which offer is then accepted by the merchant. The point of the rule in effect is to delay the consummation of the transaction so that the merchant has, for example, the opportunity to correct any mistake in the pricing of the goods, or to escape liability to the extent that he has run out of a particular line of products. But even this distinction between offers and invitations to treat is only one of construction, not of law, and it may be varied by language that is pointed enough to convey a different intention.

The confusion as to what counts as an offer and an acceptance complicates the application of UCC § 2-207 in sales of ordinary consumer products, done by phone or

over the Internet. Let us assume that a customer asks for a specific product that has been advertised at a specific price. The statement by the agent of the company could be treated as though it were an acceptance of the particular offer. On this reading of the situation, it would follow that the contract in question does not include any terms that were contained in the written contract that was supplied by the firm, but which was only read by the customer after the delivery of the product. These terms, which often limit consequential damages, or which restrict the use of the licensed product, count as material alterations of the original contract, and these are not binding under § 2-207 because they were not accepted by the customer who was the original offeror.

But now change the scenario ever so little. Assume that the customer has no idea exactly what product he wishes to acquire, or that the product desired is out of stock and an alternative is offered up in exchange. This slight conversational variation means that the offeror is now the supplier and the delivery of the package contains the terms and conditions on which the sale takes place. Because his conduct does not count as a "definite and seasonable acceptance or a written confirmation," the supplier is out from under section 2-207 and can make the forceful case that the contract in question was only concluded when the customer opened the shrinkwrap and used the product—subject to the terms and conditions contained in the written documentation.

In any mass market, the uncertainty generated by § 2-207 is not acceptable. The provision should not be retained for the sale of goods, and by no means should it be extended to the licensing of computer information. It is highly regrettable that the fine points of the law of offer and acceptance should be allowed to routinely undo the security and parity of transactions needed for efficient market operation. The constant reliance on extrinsic evidence is inefficient in a world of mass transactions. By way of analogy, virtually every well drafted agreement contains a merger clause that provides that the interpretation of a particular contract should be done within the four corners of the agreement, and that evidence of any oral representations by either side should be excluded. These provisions, entered into by sophisticated parties, reflect the considered judgment that parole evidence destabilizes business transactions and upsets the shared understandings of the parties.

The parole evidence rule of course only applies once it is agreed that the contract has been formed, but that same commercial insight about the security of transactions applies with additional force within the rules of offer and acceptance for mass standard transactions done at low prices. It is not possible for any merchant to keep order among his customers, if every dispute over contractual terms requires oral testimony as to whether the customer took the role of offeror or offeree in any contractual negotiations. The customer can claim perfect memory of the single transaction that he or she entered into. The harried firm representative will be hard pressed to remember anything about the transaction, let alone the precise words. To the extent that section 2-207 complicates the task of contract formation, its negative effects ripple through the entire process, by raising the costs of contract formation, and by leaving parties to a litigation raffle to decide which terms under the written agreement bind and which do

not. It is clear that all suppliers of software and other computer information products draft detailed written agreements because they believe in the gains from standardization. There should be few, if any, consumers, who fairly believe that the silence of sales representatives is meant to displace the detailed terms of the written agreement found in the package in favor of the default UCC provisions that the firm has gone to great lengths to contract out of. The background expectations of these consumers is that all suppliers attach maximum weight to the conditions under which goods and services are sold or licensed. The law of contracts should not make offer and acceptance a treacherous voyage into the unknown. It should seek to reinforce the established patterns of doing business.

This position could be subject to some reproach if large numbers of consumers were surprised and dismayed by the set of warranties and conditions that were attached to the license of software and similar products. Given the condition of the computer information industry, this possibility is remote at best. First, the consumer who first discovers the warranty terms only after opening the package normally has a right of return. That was surely the position taken in such cases as *ProCD*, and that requirement is now mandated under § 209 of UCITA. In some cases, the original supplier will bear the cost of return shipment, but that practice is not uniform in either the world of goods or the computer industry. The lack of uniform industry practice is explained in part by the risk of strategic behavior by at least some consumers who, retailers fear, may open the package, copy the computer information, and then seek to obtain a refund on return. The issue is complex and UCITA imposes the risk on the retailer or the licensor by affording consumers a uniform right of return. Where UCITA does not apply, this difficult issue remains. It seems clear that working out an acceptable returns policy offers a greater challenge in the computer information industry than it does with the sale of goods, for sellers of goods do not run the risk of lost sales through copying. In light of these difficulties it is important to decide how to conceptualize these transactions. One way to explain the *ProCD* and UCITA rule is to say that the putative licensee only accepts by conduct, that is, by the use of the computer information after reception. Before that there is no agreement at all, so that the potential buyer in possession of the goods is like an involuntary bailee, who is entitled to recover his costs for the care and return of the goods in question. A more accurate way to state the legal position, perhaps, is that the original shipment constitutes a preliminary agreement that the computer information is shipped on approval that is to be granted or refused only after inspection of the associated licenses. But in many contexts even this right has to be carefully circumscribed. Often times the products furnished are lists whose value can be fully appropriated if read but one time: lists of new apartment rentals, for example. In such situations a rule that defers acceptance until after the product is inspected is wholly unworkable. As a general matter, however, if the information is used, then the contract is accepted. If not, then the product can be returned in accordance with the terms of the preliminary understanding. Either way, no firm wants to provoke the widespread return of its products because of simmering dissatisfaction with the underlying contractual terms. At the very least it will lose money because it has to bear the costs of making and

undoing a transaction from which it derives no revenue. Under UCITA at least, it must pay all or part of the consumer's incidental costs.

Second, the use of § 2-207 necessarily involves game playing not by the computer information licensor, but by the rogue putative licensee. As intimated in the previous discussion a robust antifraud policy must take into account the risk of fraud by, not on, the consumer. There surely have been tens of millions of transactions with simultaneous offers and acceptances. Yet it is doubtful that anyone could point to even a single dickered transaction in which a licensor or seller has waived any of the standard warranty limitations inserted in their contracts. It is thus extremely odd to hold that these written terms form no part of the contract when the sequence of negotiations is caught by UCC § 2-207. Yet that is just what happens when courts apply § 2-207 by knocking out the explicit contractual terms and inserting the default provisions of the UCC, C. Itoh & Co. (America), Inc. v. Jordan, Int'l Co., 552 F.2d 1228 (7th Cir. 1977). Under the common law rules the recipient of the goods retained the right to reject by the return of the goods. Under the UCC the shipper of the goods has no defense against a set of terms that his unwavering course of conduct indicates are wholly unacceptable to him, and known to be such by most recipients of those goods, many of whom have engaged in prior transactions in which the licensor imposed use restrictions and warranty disclaimers. In a profound sense that section is in direct commercial conflict with the general principle found in section 2-204(1), which finds a contract on the terms that the parties so intend.

Third, any extension or use of section 2-207 to various shrinkwrap or clickwrap transactions will surely induce costly, formulaic and unnecessary response from software and other computer information product sellers. In analyzing this question in ProCD v. Zeidenberg, 86 F.3d 1447 (7th Cir., 1996) and Hill v. Gateway 2000, 105 F.3d 1147 (7th Cir., cert. denied, 522 U.S. 808 (1997)), Judge Easterbrook sensibly predicted that all phone sales for example would be preceded by a dreary recitation of the terms and conditions of sale to negate the possibility of filling the gaps in the stated transaction with UCC default provisions on such matters as consequential damages, use limitations and arbitration. If that approach proves too tedious, phone interchanges might be prefaced with a shorter, but less emphatic, rote statement that "any transaction between the supplier and the company shall be governed by the terms contained in the package." There seems to be no reason to force firms and consumers to bear the time and the uncertainty to restate time and again what everyone in practice already understands or reasonably should understand: that the warranties, conditions and disclaimers contained in the original package are essential portions of any contract between the parties. The FTC could help consumers in this regard by making a public statement that announces to all licensees and purchasers of computer software and other computer information products that reasonable consumer benefits flow from the fact that transactions are subject to the terms and conditions found in the package that is sold, subject to a right to return. After all that is how manufacturers of goods communicate their warranties to consumers.

Two Seventh Circuit decisions of Judge Easterbrook offer a textbook explanation as to how the law of offer and acceptance should be applied to these high-tech transactions. See ProCD v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) and Hill v. Gateway 2000, 105 F.3d 1147 (7th Cir., cert. denied, 522 U.S. 808 (1997)). Judge Easterbrook's decisions have been cited and quoted sufficiently often that it serves no value to reproduce them again. Unfortunately, his decisions have been attacked by a number of recent dissents that opted for a case-by-case analysis of offer and acceptance encouraged by section 2-207 of the UCC.

For example, Klocek v. Gateway, Inc., 2000 WL 967459, **XXX** F. Supp. 2d **XXX** (D.C. Kan. 2000) rejected both ProCD and Hill. Klocek in turn relied on other decisions that had parted company with Judge Easterbrook's views. Klocek takes the familiar line that the package insert contained "different or additional terms" that were not binding on the licensee of the software. The technical point advanced in Klocek was that section 2-207 was not restricted to cases involving the battle of the forms, but also could apply to cases where an oral exchange preceded the shipment of the software package. There is surely some force in that point, in light of the observations made in UCC § 2-207, comment 1, which states that the section applies to initial oral offers. But the soundness of this criticism only underscores the need to repeal that section.

Klocek goes, however, badly astray when it further insists that Judge Easterbrook misspoke in arguing that "the vendor is master of his offer," observing that he offered no citation to support that proposition. But no citation is necessary, for if the offeror cannot set the terms of the offer, then just who can do so in its place? It is therefore widely understood that this doctrine is part and parcel of any regime of freedom of contract, which for the most part is the regime adopted under the UCC.¹ Thereafter, Klocek veers into a discussion on the relationship between an offer and an invitation to treat, without noting how the admittedly imperfect correspondence between that distinction and the categories of legal relations (vendor-seller, licensor-licensee) undermines the security of transactions that is so essential for the efficient operation of mass markets. When Klocek says that "it is possible for the vendor to be the offeror," it acknowledges the possibility that the vendor may also be the offeree, so that it is never clear whether § 2-207 applies. But what that opinion does not explain is why anyone should be forced to tolerate the cost of deciding which role a vendor (or in the case of computer information, a licensor) is playing, offeror or offeree, or whether it falls within, or beyond, the scope of section 2-207. Finally, Klocek never questions Judge Easterbrook's account of the commercial cartwheels that computer information licensors would have to turn if § 2-207 applied, or his analysis regarding the intrinsic

¹ For one example of the sentiment but not the words, e.g., *Boston Ice Co. v. Potter*, 123 Mass. 28 (1877). For the use of the words in connection with the sentiment, see Richard A. Epstein, *Contracts Large and Contracts Small: Contract Law Through the Lens of Laissez-Faire* 24, 34, in The Fall and Rise of Freedom of Contract (F.H. Buckley ed. 1999).

desirability of the substantive provisions at stake in ProCD (a restriction on use) or in Hill (an arbitration provision). Klocek should receive scant weight in these hearings because it offers no reasoned defense of the results reached under its analysis of § 2-207.

Fourth, the problems with UCC § 2-207 are compounded by its choice of default rule for incidental and consequential damages. UCC §§ 2-714 & 715 presume that these are covered in full. UCC §§ 2-719(3) allows the parties to contract out of the rule for consequential damages “unless that limitation or exclusion is unconscionable.” The UCC does not give any clear account as to what limitations and exclusions on consequential damages are unconscionable. But some believe that it views what has long been a standard industry practice in both goods and information markets with a presumption of distrust, even though, as I shall show later, there are strong economic reasons why limitations and exclusions of consequential damages work in the long term interests of consumers as a class.

The gist of the problem here is that the default rules set by the UCC do not mimic the common solution that the parties would have agreed upon if the matter were placed squarely before them. That result might be justified on the ground that it forces the party that does the drafting to make clear its intentions, and thus operates as a penalty default rule. See Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 *Yale L. J.* 87 (1989). Unfortunately, however, any strategy that relies on penalty default rules must offer contracting parties an easy way to reach some other solution, especially on the question of consequential damages. Yet the aggressive application of UCC § 2-207 often treats the default rule as the contractual term even when that term diverges from what is the well-nigh universal market solution. This problem can be gotten rid of either by a reversal of the default provision for consequential damages or by the repeal of UCC § 2-207. What is truly intolerable in the context is the operation of a legal fiction that prevents the parties from reaching a solution that works to their long-term advantage—the limitation or exclusion of contractual damages.

IV. THE WARRANTY DOCTRINES OF MAGNUSON-MOSS SHOULD NOT BE EXTENDED TO HIGH-TECH WARRANTIES.

One common feature of standard warranty practice in the high-tech industry is to disclaim the standard implied warranties under the UCC (by analogy or otherwise), and to impose in their stead a set of limited warranties that are accompanied with extensive restrictions on consumer recovery. In its regulation of sales of goods, 15 U.S.C.A. § 2308 (a) of Magnuson-Moss provides with minor exceptions that in the sale of tangible products no firm that offers an express warranty is allowed to disclaim the standard warranties, such as those of merchantability and fitness for use. Just that mixture of warranties and disclaimers characterizes virtually every high-tech warranty transaction. As with so many consumer protection provisions, it is hard to see what actual benefits to consumers are provided in the sale of ordinary goods. But in the

high-tech markets the ease of comparative shopping, the sophistication of consumers and (as will be shown in the next section) the strong internal logic of the system of disclaimers and warranties works in the interest of consumers. As the DCC letter points out, Magnuson-Moss was passed after a large number of complaints in the sale of automobiles and appliances. It is by no means clear that the revolution in market practices in these industries still requires the same form of prophylactic rules. But it is clear that no one has been able to point to any ground swell of fraud in the high-tech industry that requires that analogous rules apply to its product warranties. All antifraud rules come at a high price insofar as they slow down the pace and limit the content of ordinary market transactions. In their nature these prophylactic rules are always overbroad so that it is an empirical question whether they do more to prevent fraud or to inhibit sensible transactions. Whatever the answer to that question, I am not aware of a shred of evidence that speaks to systematic abuse in the high-tech information industries. As that is the case, the drag from Magnuson-Moss would remain, but its ostensible benefits would be nowhere to be found. Any extension of that section to this context would be most ill-advised.

V. THE VARIOUS OBJECTIONS RAISED TO STANDARD INDUSTRY PRACTICE SHOULD BE REJECTED AS GROUNDLESS .

In this part, I shall consider the various objections that have been raised against the standard industry practices with high-tech warranties to show that all of them misconstrue the nature of the underlying practices.

(1) **Consumer Expectations SUPPORT, NOT UNDERMINE, STANDARD MARKETING PRACTICES.** In its notice the FTC asks whether the standard marketing practices of computer information products is inconsistent with consumer expectations. The terms set out in shrinkwrap (or clickwrap, for electronic transactions) are invariably couched as license agreements that permit the use of the computer information in limited circumstances. They are never described as the sale that would allow the ostensible buyer to make unlimited use of the program contained on any disk or file. Any claim of disappointed consumer expectations is little more than a claim that consumers are duped by a form of bait and switch transaction in which they are promised more than they receive.

It is difficult to imagine a weaker context for making this claim, or analogous claim of fraud or sharp practice. In the first place, the setting is not conducive to any sharp practices. The FTC is not asked to target a single rogue supplier of products that uses one set of terms while the rest of the industry uses another. Quite the opposite, any examination of typical shrinkwrap agreements shows that they are all treated as license agreements and that they all contain without exception clauses, which differ in some particulars, but all of which contain two key features: limited warranty protection, and the exclusion of damages for consequential damages to the extent that the law allows. It does not matter whether these provision are contained in commercial transactions, charitable transactions, open source licenses, or even the information

supplied by consumer reports! The set of expectations relevant to regulatory proceedings are not the abstract sensibilities of (some) law professors and consumer advocates. Rather these expectations are shaped by the standard types of consumer transactions. It is impossible to argue that consumers who engage in repeat transactions with computer information firms never read the terms of their agreements, and are incapable of understanding that they offer only licenses for use. Consumers are not ignorant and the theory of consumer expectations should not be transformed into a paean implying that they are.

The basic concern with overall consumer expectations is, moreover, largely irrelevant in cases where the consumers have an option to read the proposed agreements before they are bound by the contract. As Judge Easterbrook notes, the return option protects the customer against unpleasant surprises. The constant use that consumers make of hot line and other support services shows that they know what these contracts contain. It counts as a massive and unprincipled assault of contract to posit that consumer expectations cannot be varied by explicit contract provisions that are made known to consumers in the ordinary course of business. To elevate some unarticulated set of consumer expectations to these undeserved heights will only block the orderly evolution of contractual terms.

In a related vein, Professor Jean Braucher has suggested that the standard industry practices deviate from consumer expectations because the "characterization of these transactions as 'licenses' means use of an obscure legal category that consumers do not understand." Memo from Jean Braucher regarding consumer objections to UCITA, at 4, (8/15/00). But consumers understand driving licenses, hunting licenses and fishing licenses. They know when they receive licenses to enter amusement parks, restaurants, and hotels. The licenses themselves explain that the consumer receives the use of the information contained on the disk, and not ownership of that information to do as he pleases. The terms in question are not, moreover, unique to consumer transactions, but are routinely adopted in all business-to-business transactions. A category that is in such common use, and which has generated such little difficulty cannot be called "obscure."

Professor Braucher also goes astray when she claims "Post-payment presentation of terms inhibits consumer shopping for the best terms." Memo from Jean Braucher regarding consumer objections to UCITA, at 3, (8/15/00). Her suggestion is that "at a minimum, terms should be available on line when products are marketed on line." But her comments again are far wide of the mark. At no point does Professor Braucher indicate where the inhibition takes place. As noted, many consumers are repeat customers who read the terms and conditions under which these products are sold. If they find them objectionable, they cannot only return the computer information (as a statutory right, under UCITA), but they can also go on-line to report their dissatisfaction. It is cheap for customers to disseminate information online and typically they do not have to worry as much as manufacturers do about the potential legal ramifications of all that they say. In large populations of software users, it is

inevitable that many dissatisfactions will be voiced. But those occasional dissents do not imply that the products themselves are in any sense faulty, or that the great bulk of consumers are actually dissatisfied. On this score, consumer behavior speaks with a far louder voice. The irresistible market trend shows that consumers continue to purchase computer information in ever more larger quantities and in ever more sophisticated and powerful formats. Those actions are just unintelligible if the standard contract terms are as egregious as their critics claim them to be. The most obvious explanation for consumer behavior is that the terms and conditions they receive are just what they expected in the first place. The key test of consumer acceptance is whether the seller can obtain repeat business. On this matter, a letter that William M. Elliott, Senior Vice President and General Counsel of Gateway speaks volumes. He first notes the extraordinary growth of Gateway's direct mail business from zero in 1985 to about \$8 billion in gross sales in 1998. He then concludes: "Any lingering concern over Gateway's terms is absolutely repudiated by the extraordinary volume of repeat business from its loyal customers— literally millions who are apparently not offended by these terms or the way they are offered for acceptance." Letter of February, 3, 1999, to Lawrence J. Bugge, Chairman of the UCC Article 2 Drafting Committee, National Conference of Commissioners on Uniform State Laws.

It is worth noting that these terms can evolve as technology changes. But the evolution of technology is far more rapid than the corresponding evolution of damage limitation provisions. We do see extensive reviews of the product design of software and similar devices precisely because consumers have something to learn from this new information. But so long as the legal framework under which consumer software and similar products are licensed remains stable, there is little need to inform people of what they already know.

Professor Braucher's suggestion that the terms and condition of these restrictions and warranties be posted on the web invites a number of responses. First, this approach will hardly solve the entire problem because it does not deal with orders that are made by phone, or by fax, or within stores, or orders that start with one method and shift to another. Second, even for orders by web, litigation could still take place as to whether the consumer read and internalized the limitations found on the site; whether the warnings were accurately reproduced; whether the system was down, and so on. Third, neither I nor Professor Braucher has ever tried to maintain a complex commercial web site with high volume of traffic that serves multiple product lines. We have no sense as to whether it would be necessary to keep the full contracts on line for all past as well as present products; nor are we sure how to organize this mass of information in ways that insure that individual consumers will be able to match the particular warranty with the specific date and product line that has been subject to license. Similarly, we have no sense whether the demands of service could overburden a particular site; or whether the cost of updating sales provision on line is worth the cost given the rapid changes in product lines, and given the need to tailor contracts to different jurisdictions. It may well be that firms will shift to that behavior if that is the only way to avoid the clutches of § 2-207 or the kindred disputes over offer and

acceptance. But it is one thing for an outsider to have a "good idea" about how to market goods. It is quite another thing to be confident enough in one's knowledge of the field to mandate that all firms within an industry adopt her approach without a clear command of the complex technical and operational issues involved and a firm grasp of all consequences, intended or not. Where web based communication of terms is efficient, then firms have every incentive to adopt it without regulation, for it will allow them to reduce cost and improve customer service. But in the abstract it is hard to tell whether the same strategy will work equally well for all companies. Nonetheless, it would be odd in the extreme for members of the DCC to oppose the increased reliance on web-based communication. But the concern here is not whether the web should be used, but the timing and sequence of its increased utilization. Professor Braucher may prove persuasive as a consultant, but not as legislator, administrator or judge. So long as there are no perceived defects in the current methods of "ship now, read later," the method should not be forced to overcome any judicial or legislative hurdles.

(2) THE STANDARD FORMS OF MARKETING COMPUTER SOFTWARE AND INFORMATION PRODUCTS RAISES NO ANTITRUST CONCERNS. It has sometimes been urged that the use of standard forms inhibits the competition between suppliers of computer information in the market for warranties and other terms, but once again the charge seems to be groundless. The products in question are marketed in a number of different ways, and the terms under which they are licensed are constant regardless of the mechanism that has been used to consummate the transaction. In addition, the range of terms that are found in shrinkwrap or clickwrap transactions is about the same as the range of terms that are found in any other setting. Thus an examination of a number of standard contract terms indicates that there is some range as to whether the appropriate remedy is repair, replacement or a money back guarantee. Sometimes customers are allowed to return a defective product within 60 days; in other cases it is 90 days. These provisions look very much like the kinds of terms that are found in standard form transactions for the sale of goods. They are representative of the same kinds of terms and conditions that are found in specifically dickered transactions between commercial parties. In order for this criticism to have any force, someone would have to show that the terms found in shrinkwrap or clickwrap contracts differs from those found in other arenas. I know of no evidence that suggests that this is the case, and the kinds of warranties and disclaimers involved in these transactions closely track those which are used in the sale or licensing of other product lines.

In light of these conditions, it is hardly necessary to regulate warranty provisions in order to cope with some imaginary antitrust peril. As noted earlier, the use of standard form provisions carries with it no implication about market structure: terms can easily converge in competitive markets. New entry is the soul of the software and computer information industries. Bankruptcy of individual firms is often a sign of the greater progress made by others. The ever-changing cast of relevant players, and the rapid development and deployment of products make it difficult to fathom how a combination in restraint of trade could form even if firms were prepared to run the risk

of antitrust treble damage actions. The antitrust laws have a strong role to play in certain commodity markets: it is relatively easy to collude over the price of standard goods such as metals, drugs, chemical compounds, potash, or sugar, and it is often easy to collude over standard services (e.g. asphaltting) that are offered within small geographical markets. The market for software and other computer information has none of these characteristics. It is world-wide in scope, and, while its license agreements may have standard provisions, each high-tech product has its own niche and its own personality. The point here is not that computer information industry should be immunized from the antitrust laws. It is only the more modest proposition that the risk of antitrust collusion is sufficiently small that it should not be used to cast suspicion on standard industry contracting practices. Antitrust violations should be proved, not presumed.

Finally, it is commonly observed that computer systems are often subject to what are termed network externalities, such that the value of given computer information to one user is positively correlated with the number of individuals and firms who make use of that information. One possible interpretation of this situation is that firms with dominant market positions will seek to reduce the level of warranty protection that they provide, knowing that it is costly for potential users to leave their preferred system. But that observation represents at most a highly partial and selective assessment of the interaction between warranty provisions and network arrangements. Established players face serious obstacles in trying to achieve profit maximization by degrading their warranty provisions. At the very least, they must deal with the customer dissatisfaction and product management issues alluded to above the moment that they introduce two (or more) classes of product warranty. Those additional costs could easily offset any saving that they might receive from the inferior warranty provision. Next, any argument of this sort overlooks the possibility that the firm could do better by increasing its price (in light of greater product use and reliability) while maintaining its warranty and service quality. In addition, in an interactive setting, product failures by one customer could easily reduce the value of the network to prior users. It may well be that customers may not easily flee from one dominant application, but once a network starts to disintegrate, then mass exodus becomes the low-probability, but nightmarish alternative that every computer information product licensor has to fear. The safer way to make money is to supply better computer information and to charge for that. It is not to depreciate the product licensed for some ephemeral short term gain.

VI. THE CONTRACTUAL TERMS FOUND IN STANDARD FORM CONTRACTS ARE SOCIALLY EFFICIENT.

The implicit subtext in the argument against these standard forms of marketing software and other computer information products is that they result in the adoption of inefficient contracting terms that work to the harm of consumers. There is no question that the restrictions on damage recovery and product use work against the interest of given consumers after the transaction (including "order now, terms later" transactions)

is ultimately consummated. But it can be shown, as indicated earlier, that these provisions work strongly in the interest of consumers as a class at the time that these contracts are finally formed. The chief theme of all these provisions is two fold. They reduce the administrative costs of doing business, and they prevent any destructive cross subsidization between user groups. These two points unify the four major threads of the argument: the use of licenses and not sales to market high-tech computer products; the restrictions on use commonly contained in these agreements; the limitations on the recovery of consequential damages; and the purported reliance on arbitration clauses. The overall use of these clauses is not confined to high-tech transactions, although it is of great importance to them. The analysis here is one that tracks in principle earlier work that I have done on this subject. See, Richard A. Epstein, Products Liability as An Insurance Market, 14 J. Legal Stud. 645 (1985); and Richard A. Epstein, Beyond Foreseeability: Consequential Damages in the Law of Contract, 18 J. Legal Stud. 105 (1989).

(1) Licenses not sales. The first point in question deals with the characterization of these computer information transactions as licenses and not sales. That view of the world is no new invention of UCITA but reflects standard industry practice that goes back for years if not decades. In principle, the distinction would not be important if the publisher of computer information could put whatever terms and restrictions he chose into the contract of sale. At that point, the contract could have limitations on use and resale that reflect the realities of market competition. But, as noted before, the sale is not always made by the publisher and even if it were, the sales arrangement as governed by the UCC does not give the needed flexibility in a setting where the physical thing (e.g. the floppy disk) is of tiny value relative to the information that it contains. Hence the use of the license form is done in order to make clear to customers that the license of a single disk does not give them ownership rights or rights of unfettered use over a software program or informational data base that it takes millions of dollars to develop. The basic theme in turn is best revealed by an examination of particular provisions.

(2) Restrictions for personal, educational, and commercial use. It is common in high-tech licenses to place restrictions on the use and resale of computer information. Judge Easterbrook in ProCD and Hill gave a full and accurate account of the deleterious forms of arbitrage that would take place if all users of computer software and data bases were allowed to freely use and market the information that they had acquired. Individuals who licensed a computer program for low intensity uses would be able to sell or use that information for high intensity uses. At that point it makes no sense for the firm to offer any customers lower prices for licenses in exchange for their promise to make only limited use of the product licensed. The firm will have to raise its prices across the board. The net effect is that honest consumers who know and respect the limitations will be deprived of access to the computer software and data bases. The withdrawal of these low volume users from the market will increase the unit cost of the product to the high volume users that remain. Some of them in turn may well withdraw from the market as well.

The consequences are clear. The systematic shrinkage in the overall market base reduces the revenue from product sales available to the firm, and that down turn in revenue will lead to a cut back in the number and kinds of software and data bases that are available for general sale. No one wins in the long run if the isolated rogue customer is entitled at will to disregard limitations that are imposed for the benefit of all groups. The question here is not whether computer information companies that seek to calibrate price levels of use levels have exploited their customers. They have not. The question is whether rogue users who are determined to defy market segmentation schemes have exploited both their computer information licensor and their fellow licensees. In light of the train of events that their actions, if unchecked, will induce, the answer is clearly yes.

The need for use limitations is not unique to computer information. We allow people to buy telephones but we charge them a separate amount for the phone calls that they make in order to prevent the kinds of cross-subsidies that lead to the erosion of market institutions. If the market segmentation clauses were rendered unenforceable or otherwise frustrated because of the misguided application of UCC § 2-207, firms might choose to shift to web-based operations in which customers could only pay a rental fee for each product use. That system has the advantage of offering more precise charges than any market segmentation system. If the technical difficulties of its application could be overcome, then it might prove preferable to the current system of licensing. It might be preferable in any case, but there is no reason to force a move to that technology by the backhanded application of consumer protection laws and UCC § 2-207. The current system allows the consumer the convenience and security of becoming the licensee of a disk. It reaches a broader market. It can be less costly to operate. There should be no legal impediment to the operation of either system of computer information distribution. No one has yet claimed that these market segmentation provisions should be illegal as a matter of public policy— a result that would be a market disaster. Yet by the same token, there is no reason why they should be regarded as disfavored clauses. The FTC should reaffirm their importance and do all within its power to make sure that their validity and effectiveness is not eroded by the misguided use of the UCC or so-called consumer protection laws.

(3) Consequential Damages. Clauses that limit the recovery for consequential damages in the event of product failure or other breach are also essential components of any sensible marketing program. The reasons here track those that are relevant for restrictions on use and resale, for one objective is to prevent the cycle of ever greater cross-subsidies that can lead ultimately to the erosion of market base. To see why, assume that a computer information product is licensed to a large number of different users, and that the licensor has no personal knowledge of the use characteristics of each. This assumption is quite realistic when high-tech products are sold impersonally.

In a normal population some users will be intensive and others not. A rule that allows all product users to recover their full consequential damages treats all these users as though they were identical for insurance purposes. The upshot is that the low

intensity users will be required to build into their licensing fee money to fund not only their own future loss, but also the greater anticipated losses of other individuals. Users in this class will therefore withdraw from the market if the cost of insurance for others exceeds the net value that they otherwise derive from the goods in question. At this point the market faces the same risk of imploding when product sellers or licensors cannot restrict the use or sale of their products. As the low intensity users exit the market, all fixed costs of development must be shifted to the high cost users. That pool itself is not homogenous, so that in the next cycle a fraction of that pool will also depart from the market, leaving everyone worse off than before. The process has no obvious ending point, and it is an empirical question of how much of the market, if any, will survive and at what price structure.

The contractual limitations on consequential damages do more than protect a product seller or licensor from large claims. They also protect low-intensity users from having to bear the costs of high intensity users. These clauses thus rationalize costs among product users in ways that increase the odds that all will be able to remain in the market place. This insurance subplot to product licenses here is not confined to software and other high-tech products. It extends to virtually every kind of contract. It is the reason why the manufacturers of photographic film limit consequential damages. It makes no sense to lump the professional photographer who takes pictures in the Himalayas with the weekend amateur who takes pictures of the family birthday party. And it makes no sense for carriers such as Federal Express to lump together individuals who are shipping duplicate copies of documents with those who are sending confidential information to a potential purchaser that must exercise an option within 48 hours.

Once the limitation is placed on these consequential damages, the individual customers can adjust their conduct accordingly to take extra precautions outside the contract to minimize loss. The professional photographer can take two cameras and use film from different manufacturers. The customer who needs confidential information can have it hand-delivered. For those losses that remain, that customer can acquire insurance from the vendor, carrier or licensor, or from independent sources whose greater information of the insured's business and conduct allows for a more precise estimation of the risk, and for the tailoring of insurance coverages with appropriate, case specific premiums, exclusions, deductibles, and limits. The reduction of the amount in controversy in litigation in turn reduces the administrative cost of resolving any dispute, which translates into lower prices to customers.

The picture is, however, not yet complete, because the arguments thus far suggest that the wise seller or licensor should disclaim all liability for damages. Yet it is commonplace to see high-tech licenses and other contracts contain clauses that call for refund of the purchase price, the repair or replacement of computer information, or even the payment of liquidated damages in the event of breach. These provisions are part of a consistent economic plan. The product seller or licensor that places himself at risk for these relatively small sums of money must fund them out of the revenues

generated from the sale or licensing of the product in question. With small profit margins, the cost of servicing even a single complaint (which might cost two or three times the product price) could easily eat up the net profits of 50 or 100 sales. The customer who receives the warranty can therefore deduce that the product seller or licensor has private information that the failure rate of the product is in fact low enough to sustain these losses and still turn a product. The consumer can use that estimate to compare one product risk with another. Those firms with inferior safety records will not be able to follow suit, as their cost of answering warranties will be somewhat higher. The market therefore creates an efficient sorting equilibrium that makes it difficult for products with high failure rates to remain in the market. The performance level of those products that survive should be roughly comparable. But that does not indicate the want of competition. It simply shows the ruthless effects that market behavior has on product laggards.

The full package therefore performs four tasks simultaneously. The first is to prevent cross-subsidy among consumers that could shrink the market. The second is to encourage consumers to take cost-effective steps in mitigation of damages (e.g. back-up hard drives) that do not require courts to decide which losses were caused by the consumer or that he could have prevented. The third is to give incentives for product sellers and licensors to reduce the defect rate of product failure. The fourth is to reduce administrative costs of the system.

Measured against this alternative the default provisions of the UCC and UCITA come in a distant second place. Their ostensible purpose is to invoke the measure of expectation damages that leaves the innocent party as well off after breach as he is with performance. That ideal makes good sense in those cases, for example, where the product seller or licensor refuses to deliver a product to the customer because he can sell or license that product at a higher price to another party. The expectation damage rule only requires the seller or licensor to disgorge a fund in his possession. But the rule makes far less sense in cases of consequential damages where the seller or licensor only has the revenue from customer transactions to fund future liabilities. The price therefore has to adjust upward in a way that is not necessary in the resale transaction.

Stated otherwise, the use of high damages in this context does not fare well against the fourfold objectives outlined above. First, it does nothing to prevent the risk of cross-subsidy; to the contrary it aggravates it. Second, it opens up a litigation nightmare. These products are all in the possession of the consumer or user at the time of product failure. That failure could take place weeks or months after the initial sale. It is an open question whether any such failure stems from an initial defect, from improper installation or use, from untoward interaction with other products, from a power failure or a power surge; from an unauthorized user. In all these cases no one quite knows what does count as contributory negligence or assumption of risk, and how either of both these factors should be balanced on some exquisite scales of justice. In addition, the prospect of large damage awards will induce product users to be lax on precautions both before and after a loss occurs. The doctrine of mitigation of damages

is exceedingly difficult to apply on a case by case basis, and often requires delicate judgments as to what courses of action are reasonable, and which are not. Ironically, the inability to monitor user conduct gives product licensors and sellers the wrong incentives to avoid loss, because it induces them to substitute expensive precautions at their end for cheaper precautions at the consumer end. And lastly, by inviting high-price litigation over extensive unliquidated losses, it increases the cost of litigation. To repeat, these disadvantages apply in all markets for goods and services; and they apply with special force with information, where the low cost of reproduction creates wide disparities in the intensity of use and the nature of viable precautions. These universal features thus explain the universal adoption of rules that limit consequential damages across wide differences in product classes. The standard accounts of product damages explain nothing at all.

(4) Arbitration. A feature in some high-tech licenses calls for the arbitration of disputes in lieu of an action at common law. Once again this provision makes perfectly good sense. Litigation is expensive; it takes time; it trusts matters to juries that may not have competence to deal with technical issues, and who may be subject to whim or caprice. Arbitration is quicker and cheaper. It often takes place before retired judges with a solid knowledge of the litigation process. The use of professionals reduces the risk of runaway verdicts, and thus helps to standardize outcomes across cases. Once again the overall impact cuts in the same direction as the earlier contractual provisions: the elimination of cross-subsides; the control of the conduct of the buyer and seller, and licensor and licensee; and the reduced cost of running the system.

VII. CONCLUSION.

I have written at great length about these various issues to stress one point. Those who speak in the name of consumer protection often advocate policies that work to the long-term detriment of consumers as a class. The marketing practices of the major firms that license software and other high-tech products to my mind are a text book example of how individual firms working in a competitive environment move incrementally but surely to the optimal social solution. That certainly seems the case here. The general proposition from which all else follows is that voluntary exchanges will produce mutual gains for both parties, for otherwise they would choose not to enter into them. That proposition holds true only to the extent that consumers have sufficient knowledge to participate intelligently in these markets. The standardization of these transactions; the ceaseless efforts to reduce their costs only increases the odds of consumer knowledge and thus clinches the case against the forms of regulation advanced in the name of consumer welfare. In this environment, the FTC does have an important role to play. It can exonerate the various high-tech firms of the charges that they have engaged in unfair, sharp or collusive practices. It can take steps to assure that the traps that lurk in the path of consumer welfare, such as the offer and acceptance rule in UCC 2-207 have no role to play in these licensing transactions. It can condemn the application of the doctrine of unconscionability in this damages context. It can resist the importation of Magnuson-Moss rules into the high-tech context. But

what it should not do is to support any proposal that damages consumer welfare in the name of consumer protection.

On the strength of this record it is appropriate to leave the FTC with one question. No one questions that government intervention is appropriate for fraud and sharp practice, but this hearing examines a collection of uniform industry practices. The consumer critique of these practices is that every firm in a competitive market adopts an inefficient set of marketing practices. The industry defense is that the standard practices are efficient, which is why every firm adopts them. How could the industry prosper if nobody knows how to conduct business transactions except the people who never engage in them?

Sincerely yours,

Richard A. Epstein