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COMMERCIAL LAW INFRASTRUCTURE FOR THE AGE OF INFORMATION†

by MICHAEL L. RUSTAD‡

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William Story's 1847 treatise begins with the observation that "[t]here is probably no portion of law, which is subject to more constant changes and additions, than that relating to Sales of Personal Property."[1] Professor Story noted that it was the "increase of commerce . . . that gave birth to new questions materially modifying established doctrines."[2] When Karl Llewellyn drafted the Uniform Commercial Code fifty years ago, durable good manufacturers were the dominant players in the United States economy. Today the leading edge firms organize and license information.

The U.S. economy shifted from a durable goods oriented economy to one based upon services and the transfer of information in the last quarter century.[3] Mobile satellite communications permit a service provider to supply voice, data, video, telex, fax, e-mail and Internet services economically.[4] Multi-media presentations involve converging information technologies. The Irish rock band U2, for example, employed the largest video screen ever assembled during its "Pop Mart" tour.[5] Visual effects such as a spectacular light show and a gigantic lemon were combined with a wall of amplifiers to broadcast U2's unique

1. WILLIAM W. STORY, A TREATISE ON THE LAW OF SALES OF PERSONAL PROPERTY WITH ILLUSTRATIONS FROM THE FOREIGN LAW (Preface at a) (1847).

2. *Id.*

3. RICHARD P. APPELBAUM & WILLIAM J. CHAMBLISS, SOCIOLOGY 433-34 (1997). Economists divide the economy into three sectors: (1) a primary sector based upon the extraction of raw materials and natural resources; (2) a secondary sector based upon finishing goods from raw materials, and (3) a tertiary sector based upon the production of services. *Id.*

4. Comsat Mobile Communications advertisement, THE ECONOMIST, Sept. 21, 1996 (advertising that, "We're up here so you can communicate by voice, data, video, telex, fax, e-mail, Internet down there").

5. The giant video-screens used during Princess Diana's funeral are an additional example of convergent technologies of the late twentieth century.

message. Text, audio, video and images are combined by today's music groups.

The software industry has evolved to become America's third-largest manufacturing industry since the 1980s.[6] The information industries led by the computer software industry have been American success stories.[7] Information commodities such as books, film, video, multimedia and software entertainment represent "either the largest sector of the modern economy or the second largest."[8] California's Silicon Valley and Massachusetts' high technology highway, Route 128, have replaced the deindustrialized cities of the Northeast as the crown jewels of our economy.

Services, including software, have recently become the chief economic sector of the U.S. economy, accounting for nearly 75 percent of the new jobs.[9] The U.S. software industry now consists of nearly 8,000 companies.[10] The information technology revolution has launched the networked personal computer that will dominate the consumer market in the late 1990s.[11] The highway upon which the information travels (e.g. cable, fiber optics or copper) is a mere conduit for the flow of information. The Uniform Commercial Code ("U.C.C.") was drafted during a period in which factory manufacturing predominated. Along with the benefits of new technologies come legal challenges—the intellectual property transmitted through these new information technologies is easy to copy, distribute, modify, or clone.

Proposed Article 2B of the U.C.C. will provide a commercial law tailored for the transfer of data, text, and other forms of information. Article 2B may emerge as the most significant law reform of this century providing a legal infrastructure for the age of information. The American economy now centers on information content and services, many of which will be affected by the new Code article. The practical

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6. Steve Lohr, *Study Ranks Software as No. 3 Industry*, N.Y. TIMES, June 3, 1997, at D2 (citing study by Nathan Associates funded by the Business Software Alliance).

7. Prepared Statement of Thomas Parenty, Director, Data/Communications Security, Sybase, Inc., Testimony Before the House Committee on Commerce, Subcommittee on Telecommunications, Trade and Consumer Protection, Sept. 4, 1997, Federal News Service (available on LEXIS) (testifying that the computer software industry "is one of the country's fastest growing and most internationally competitive industries").

8. Raymond T. Nimmer, *Information Age in Law: New Frontiers in Property and Contract*, 68 N.Y. ST. B.J. 28, 28 (May/June 1996).

9. APPELBAUM, *supra* note 3, at 434.

10. Letter from Mark E. Nebergall, Vice President, *Software Publishers Ass'n*, to Carlyle C. Ring, Jr., Chair of the Drafting committee on Uniform Commercial Code Article 2B-Licenses (Nov. 15, 1996).

11. Gateway 2000, Hewlett-Packard and Dell Computers are the manufacturers of 266 Mhz and 300 MHz Pentium II processors. A new commercial law is needed that takes into account the unique attributes of the new information technologies.

effect of Article 2B will be to bring the U.C.C. into the information age.[12] If enacted, Article 2B will provide uniform legal rules for the core of our information economy. Article 2B will cover films, entertainment and software which are "either the largest sector of the modern economy or the second largest."[13] The information revolution is built upon an entirely new communications infrastructure of working silicon. Information is now transferred, among other ways, using the muscle of fiber optic technology.

The licensing of intangible rights has emerged as the chief means of transferring value for information age contracts. Licenses are merely a right to access information. Many licenses do not transfer any tangible things.[14] This article argues that Article 2B is a significant reform of the law that will encourage further expansion of online licenses, access-contracts, and other innovative commercial practices in the age of information. The adoption of Article 2B will modernize and bring greater certainty to the information law that governs the transfer of rights in information.

I. THE PATH OF COMMERCIAL LAW TO CYBERSPACE

Legal scholars seek to explain why, how, and in what circumstances the law changes in response to social change. Commercial law does not descend from the legal heavens in the form of stone tablets.[15] The Uniform Commercial Code is a product of business practices and social change. During the past two decades, a global historical change has transformed our society. The United States transformed itself from an agrarian economy into an industrial power in the nineteenth century. The United States has transformed itself into a post-industrial society

12. Raymond T. Nimmer, Issues Paper: U.C.C. Article 2B-Licenses (Proposed Draft, July 25, 1997).

13. Nimmer, *supra* note 9.

14. Raymond T. Nimmer, *Information Age in Contracts*, at 14, *in* U.C.C. Article 2B Prefatory Note (Proposed Draft, Sept. 25, 1997). Raymond Nimmer, the Article 2B Reporter writes that:

> [T]he goal is to acquire the knowledge, technology, or other intangibles along with the right to use the intangibles. Unlike in goods, information cannot always be returned, nor need the same copy be transferred in order to establish the harm caused by breach . . . . Article 2B seeks transfer method irrelevance. How a transfer occurs should not alter the applicability of the article or, in general, what substantive rules apply.

Id.

15. Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809 (1935). Felix Cohen's phrase, "transcendental nonsense" captures the misplaced faith of legal formalists. *Id.* If we want to know why a commercial law for the information age is needed, we must study the path of commercial law. Oliver Wendell Holmes, Jr., *The Path of the Law* (1897), *reprinted in* 19 B.U. L. REV. 24, 34 (1965) (noting "[t]he rational study of law is still to a large extent the study of history").

predicated upon the copyright industries. The services industries dominates the economy with Microsoft, Netscape, Disney, Warner Brothers and American Online as major players.[16] Today, the rise of information technologies are defining new ways of organizing society. Since society is at every point changing, the commercial law must also change.

A. Conceptualizing Karl's Kode as a Modernity Project

Article Two of the U.C.C. was drafted more than fifty years ago, decades before the rise of the software industry and the interconnected world of computers known as the Internet.[17] The purpose of the U.C.C. was to modernize the law with a flexible body of principles that would permit the expansion of business practices. Yankee Stadium is often referred to as the House that Babe Ruth built. The Uniform Commercial Code was the statute that Karl Llewellyn drafted. Professor Llewellyn's[18] role as Chief Reporter was so influential that the Code has been dubbed Karl's Kode, Code Llewellyn, and Lex Llewellyn.[19] Karl Llewellyn's Associate Reporter was his wife, Soia Mentschikoff, a prominent business lawyer and later a law professor and dean.[20] Soia Mentschikoff's role as Associate Reporter was never fully credited but it was clear that she brought a practical "situation sense" to the codification project from her practice as a Wall Street lawyer.[21] Karl Llewellyn's conception of the Code as a "Dream Castle" was tempered by Soia Mentschikoff's role as the practical business lawyer.[22] A pantheon of prominent legal academics and jurists played roles in the formation of the Code.[23] The net result was that the Uniform Commercial Code was a

16. Netscape's Marc Andreeseen and Microsoft's Bill Gates are the information economy's equivalent of Henry Ford and Andrew Carnegie.

17. The U.C.C. was introduced into state legislatures in the 1950s. Pennsylvania was the first state to adopt the Code in 1953. In 1957, Massachusetts adopted the Code and by the mid-1960's, the majority of states had become Code states. The widespread adoption of the U.C.C. brought much greater uniformity to American commercial law. All of the states have adopted the Uniform Commercial Code. However, there are many non-uniform amendments adopted by states to reflect local practices.

18. Karl Llewellyn was a law professor at Columbia University Law School from 1924-51 before moving to the University of Chicago Law School where he taught from 1951 to his death in 1962.

19. William Twining, Karl Llewellyn and the Realist Movement 276 (1973)

20. Soia Mentschinkoff became one of this nation's leading commercial law professors at the University of Chicago and later as the dean of the University of Miami Law School.

21. Twining, *supra* note 19, at 283.

22. *Id.*

23. Karl Llewellyn and Soia Mentschikoff were Reporters for over half of the Articles of the Code. The Code drafters included a pantheon of American legal scholars. Arthur L. Corbin (Corbin on Contracts), William L. Prosser (Prosser on Torts), and Grant Gilmore (Death of Contract) were all on the drafting committee. Members of the American Law Institute Council approving the Code included the famous Hand cousins (Judges August

comprehensive commercial statute enacted in every jurisdiction making it the most successful codification project in Anglo-American history.

B. CODE JURISPRUDENCE

The purpose of the U.C.C. is to simplify, clarify and modernize the law and life of commercial transactions.[24] From its inception, work on the U.C.C. has been constantly in progress. The U.C.C. must be continuously modernized so that the path of the commercial law does not lag behind unfolding business practices. Grant Gilmore argued that the object of commercial legislation was to "to clarify the law about business transactions rather than to change the habits of the business community."[25] Professor Gilmore advised the drafters of new Code articles to "be accurate and not to be original."[26]

When Karl Llewellyn began drafting the Code, formalistic contract law dominated the American legal tradition.[27] Case-law religion domi-

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and Learned Hand of the Second Circuit, U.S. Court of Appeals). Charles Wyzanski, Jr., a brilliant Massachusetts based judge for the First Circuit, U.S. Court of Appeals, was an advisor and active participant in the codification project.

24. Karl Llewellyn's Uniform Commercial Code is no Napoleonic Code, good throughout the land. The Code is a matter of state law. States must individually determine whether they will adopt the revisions or not. It may take a decade or even longer before a majority of the states adopt proposed Article 2B. Since the U.C.C. is state law, state legislators have the final say about whether the revisions are adopted in any given state.

25. Grant Gilmore, *On the Difficulties of Codifying Commercial Law*, 57 YALE L.J. 1341, 1341 (1948).

26. The Article 2B codification project, like prior U.C.C. projects, is an attempt to facilitate commercial practices. The Article 2B Reporter has a daunting task in determining how to facilitate commercial practices governing software licensing. Professor Nimmer has had to be highly creative as well as original because there is no predecessor statute and little by way of case law to gauge the best rules to facilitate software contracting. There is, for example, no case law on the law of computer viruses, performance standards for access contracts, integration warranties or remedies for the interruption of computer services. Another difficulty of codifying information law is much of the codification project is contested terrain. The Article 2B project is arguably the most open and inclusive law reform project in Anglo-American history. Raymond Nimmer, the Article 2B Reporter, has consulted with literally hundreds of diverse stakeholders representing diverse interests for the proposed contract law. In Karl Llwellyn's day, the commercial law was the province of a few legal elites. The Article 2B drafting project is characterized by an ever-growing participation of diverse stakeholders. When compared to any of the other U.C.C. codification projects, Article 2B is "democracy in action." Professor Nimmer has met with hundreds of groups of stakeholders and concerned citizens over the past five years and each draft has been tempered by critique and debate.

27. Commercial law rules were formalistic to the point of being childlike. Many rules had the flavor of "step on the crack or break your client's back." The contract under seal was required for some types of contracts. Prior to the adoption of Article 9, the law of secured transactions was frequently marked by insecure transactions due to the lack of uniformity in provisions governing the profession of security interests. If the parties did not abide by all of the formalities, they would be relegated to the unenviable role of un-

nated the law schools from the late nineteenth century through the first three decades of this century. Professor Llewellyn castigated the legal formalism that dominated American legal education:

> The law of schools threatened at the close of the century to turn into words—placid, clear-seeming, lifeless, like some old canal. Practice rolled on, muddy, turbulent, vigorous. It is now spilling, flooding, into the canal of stagnant words. It brings ferment and trouble.[28]

Karl Llewellyn was a leader in the legal realism movement in American law. The legal realists of the 1920s and 1930s were a group of American legal scholars who called for a more empirically based law which exposed the difference between "law in the books" and "law in action."[29] The legal realists were convinced that law was an instrument of public policy. The purpose of the law was to accommodate to evolving social institutions.[30]

Karl Llewellyn wrote that, "If a statute is to make sense, it must be read in the light of some assumed purpose. A statute merely declaring a rule, with no purpose or objective, is nonsense."[31] Legal realists viewed the law as a means to societal ends not a repository of imminent norms.[32] The underlying jurisprudence of the Code is practical, "to simplify, clarify and modernize the law governing commercial transactions."[33] The state of commercial law of the first decades of this century was deplorable. A national distributor of goods would find fifty different laws governing sales, negotiable instruments and secured transactions. Commercial law had evolved into the Jurassic Park of American jurisprudence. A new infrastructure was needed for a national economy.

Professor Llewellyn began drafting the U.C.C. in earnest in 1942. The Code was a joint project of the American Law Institute ("ALI") and National Conference of Commissioners on Uniform State Laws ("NCCUSL") project.[34] After the U.C.C. was approved by its sponsoring orga-

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secured creditor. Article 9 began by jettisoning all of the formalistic pre-Code security devices and adopting a single, all-purpose security interest. The security interest has proven to be a versatile instrument with multiple uses and functions. Article 2 performed a similar role for sales law, eliminating formalities in favor of a law in touch with commercial practices.

28. Karl Llewellyn, *Some Realism About Realism—Responding to Dean Pound*, 44 HARV. L. REV. 1222-23 (1931).

29. *Id.*

30. Article 2B shares the legal realist legacy of Article 2 in conceptualizing the Code as a continual modernity project in which the commercial law evolves to adapts to new technologies and business practices.

31. KARL N. LLEWELLYN, THE COMMON LAW TRADITION 374 (1960).

32. Herman C. Ynetema, *American Legal Realism in Retrospect*, 14 VAND. L. REV. 312 (1960-61).

33. U.C.C. § 1-103 (1994).

34. Article 2B originated in the ALI/NCCUSL project to update U.C.C. Article 2. *See* Amelia H. Boss, *Developments on the Fringe: Article 2 Revisions, Computer Contracting,*

nizations, the ALI and the NCCUSL, the legislation was introduced in state legislatures throughout the country.[35] Pennsylvania was the first state to enact the Code.

C. The Code as a Broken Paradigm

The late philosopher Thomas Kuhn defined the paradigm as an explanatory framework containing explanations of the world. Each paradigm sets the stage for scientific inquiry. A new theoretical model emerges when anomalies subvert the established paradigm.[36] Astronomers once employed a paradigm premised upon the assumption that the earth was the center of the universe. When a growing number of anomalies could not be explained by the "earth-centered paradigm, a new model posited the sun at the center of the universe." The paradigm of Newtonian physics was replaced by the general theory of relativity. The U.C.C. is undergoing major reconstructive surgery to accommodate it to the new age of information. The U.C.C. should be posted with a sign reading, "Under Construction to Better Serve You: The Drafters Apologize for any Inconvenience!"

Paradigms in law also change when a sufficient number of anomalies subvert the established ways of explaining reality. In the field of information law, that time is now. The commercial law of information is changing in response to the U.S. economy's shift to a post-industrial information economy.[37] Article 2 is predicated upon a paradigm centered on the sale of durable goods and does not fit the commercial realities of the information age. Commercial transfers of information are typically

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and Suretyship, 46 Bus. Law. 1803 (1991); Jeffrey B. Ritter, *Software Transactions and Uniformity: Accommodating Codes Under the Code*, 46 Bus. Law. 1825 (1991) (describing the Article 2 revision project bringing software into the U.C.C.). NCCUSL appointed Raymond Nimmer, a professor of law at the University of Houston, as Reporter of Article 2B. *See generally* Thom Weidlich, *Commission Plans New U.C.C. Article*, Nat'l L. J., Aug. 28, 1995, at B-1. Professor Nimmer drafted the software spoke of the "hub and spoke" paradigm for Articles 2, 2A, and 2B. The "hub and spoke" assumed that all Article 2 transactions share general principles of law such as contract formation, unconscionability, and the statute of frauds. The "hub" for all Article 2's consisted of the common, general principles. The "spokes" were the discrete chapters of Article 2, 2A and 2B corresponding to sales, leases or licenses. NCCUSL abandoned the "hub and spoke" paradigm in the summer of 1995. NCCUSL appointed Professor Nimmer to draft a separate article 2B. The present draft of Article 2B is the September 25, 1997 draft.

35. The Uniform Commercial Code is a joint project of the American Law Institute ("ALI") and the National Conference of Commissioners on Uniform State Law ("NCCUSL").

36. Thomas Kuhn, The Structure of Scientific Revolution 89 (2d ed. 1970).

37. The new information technologies have "outrun the pace of legal change." Mark A. Lemley, *Convergence in the Law of Software Copyrights?*, 10 High Tech. L. J. 1, 3 (1995).

licensed, not sold.[38] Article 2 sales do not impose location or use restrictions that are typically specified in license agreements. The norm of confidentiality imposed in many information contracts is seldom relevant to the sale of goods. Remedies for the resale of goods have no utility for the licensors of information.[39] Commercial transactions of information share common ground with the law of sales, but there are important differences mandating specialized legal rules.

Article 2 was a new paradigm in its day, displacing nineteenth century "horse law and haystack law"[40] with a law appropriate to the "complex business of mass production and national observation."[41] Article 2B is an emergent paradigm that accommodates the U.C.C. to the Internet and the new information technologies. The licensing of the rights to intangibles is based entirely on different basic assumptions of the sales paradigm.[42] A "sale" of goods transfers ownership from the seller to the buyer.[43] A software license does not convey title, only the right to use software or other information. New copies of software or online information are made for negligible cost and labor time as compared to the resources producing the first copy.[44] The concepts of inventory and economies of scale are fundamentally different for durable goods.

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38. A license is merely a privilege to use information. *See e.g.*, General Talking Pictures v. Western Electric Co., 304 U.S. 175, 181 (1938) (defining a patent license as a mere waiver of the right to sue).

39. Buyers of goods have the right to reject goods if they "fail in any respect to conform to the contract." U.C.C. § 2-601 (1995). Software is rarely, if ever, "bug-free." The common law services standard of material breach is more appropriate for calibrating performance in customized software contracts. Article 2 has no remedy for breaches of warranties due to the failure of system integration, viruses, or unauthorized access to information. Article 2B provides the ground rules for allocating the loss due to viruses in § 2B-311 (Proposed Draft, Sept. 25, 1997).

40. Glimmer, *supra* note 25.

41. *Id.*

42. One of the conceptual difficulties is applying concepts suited for durable goods to intangibles. Software may be transferred on a diskette which may be classified as goods. However, the primary source of value is not the diskette but the information or software embedded on it.

43. U.C.C. § 2-106(1) (1995).

44. The seller has a finite quantity of goods. The inventory of information assets is potentially infinite. The organic composition of information assets is different than goods. A single copy of software program does not reflect the labor hours of programmers and developers. The ease of copying and transmitting information is the essence of the difference between information and goods. When software is copied, it is not used up in the same sense as yards of linen or tons of steel. The ease with which software is reproduced without additional cost makes it vulnerable to piracy and unauthorized use. It is hypothesized that software developers will begin to withdraw capital from new projects without sufficient software protection or too much litigation arising out of uncertainty in the law of information transfers.

Article 2B provides a comprehensive paradigm for software licenses, Internet contracting and data bases. These include licensing agreements, Web site or click-wrap agreements, electronic data interchange, and other online sales. Article 2B applies to cyberspace contracts as well as licenses entered into over the Internet. Specialized rules are necessary because information contracts have completely different attributes than those tailored for the sale of goods.[45] The courts have little recourse but to stretch the antiquated Article 2 paradigm to fit information age contracts.[46]

The proposed Article 2B consists of seven parts: (1) General Provisions; (2) Formation; (3) Construction; (4) Warranties; (5) Transfer of Interests and Rights; (6) Performance; and (7) Remedies. The new U.C.C. article essentially accommodates concepts born in Article 2 to commercial transactions in information.[47] Article 2B shares a common architecture with Articles 2 and 2A as Table One reveals.[48]

45. Computer systems consist of "hardware" and "software." Hardware is the computer machinery, its circuitry and peripherals such as mice, keyboards, scanners, and printers. Software is an "intangible." Software programs are codes prepared by a programmer that instruct the computer to perform certain functions. The medium that stores input and output data includes hard disks, floppy disks, and electronic retrieval systems. When proposed Article 2B is enacted, Article 2 will apply to hardware and Article 2B to the software and other intangibles.

46. *See* Mark Software v. EMC Corp., 642 N.E.2d 587, 590 n.1 (Mass. App. Ct. 1994) (applying Massachusetts' Article 2 to software licensing agreements). Courts stretch Article 2 to apply to software licensing. *Id. See generally* Andrew Rodau, *Computer Software: Does Article 2 of the Uniform Commercial Code Apply?*, 35 EMORY L.J. 853 (1986).

47. *See generally* Raymond Nimmer et. al., *License Contracts Under Article 2 of the Uniform Commercial Code: A Proposal*, 19 RUTGERS COMPUTER & TECH. L.J. 281 (1993) (arguing that the Uniform Commercial Code is well-suited to cover the licensing of intangibles).

48. Raymond T. Nimmer, Issues Paper: U.C.C. Article 2B-Licenses (1997) (unpublished manuscript, on file with the *Article 2B Reporter*).

Table 1. A Comparison Of The Code's Terrible 2's[49]

ARTICLE 2	ARTICLE 2A	ARTICLE 2B
Scope: Sale of Goods	Scope: Leases of Personal Property	Scope: Licensing of Information
Parties to a Sale: Seller, Buyer	Parties to a Lease: Lessor, Lessee; Finance Lease: Lessor, Lessee, and Supplier	Parties to a License: Licensor and Licensee
Source of Law: Codification of Common Law and Shaped by Uniform Sales Act	Source of Law: Codification of New Legislation Governing Leases	Source of Law: Codification of New Legislation Governing Licenses
Sale: Passing of the Title of Goods for a Price	Leases: Passing of Possession, but not Title to Goods; Right to Use and Possess for Lease Term	Licenses: No Passage of Title or Possession; Right to Use Information
Liberal Sales Contract Formation: § 2-204	Liberal Lease Contract Formation: § 2A-204	Liberal License Contract Formation: § 2B-202
Statute of Frauds: § 2-201 Applicable to Sales of $500 or Greater	Statute of Frauds: § 2A-201 Applicable to Leases of $1,000 or Greater	Statute of Frauds: § 2B-201 Applicable to Licenses of $20,000 or Greater
Article 2 Warranties: §§ 2-313 - 2-318.	Article 2A Warranties: §§ 2A-212 - 2A-216.	Article 2B Warranties: §§ 2B-401 - 2B-406
Methodology for Limiting Liability: § 2-316	Methodology for Limiting Liability: § 2A-214	Methodology for Limiting Liability: § 2B-406
Buyer's Remedies: §2-711 et. seq.; Seller's Remedies: § 2-703, et. seq.	Lessee's Remedies: §§ 2A-508 - 2A-522; Lessor's Remedies: §§ 2A-523 - 2A-532	Licensee's Remedies: §2B-709; Licensor's Remedies: § 2B-708.[50]

49. The term, "The Terrible Two's" was coined by my colleagues Mary Jo Howard Dively, Robyn Meadows, Juliet M. Moringiello and Jeff Wong. The Committee on Uniform Commercial Code and Young Lawyer's Division of the American Bar Association's Section of Business Law presented a program, "The Terrible Two's:" How Articles 2, 2A and the Emerging 2B Are Address Common Issues, Presentation at the 1997 Annual Meeting in San Francisco, California.

50. Part 7 of Article 2B on remedies is organized so that most sections apply to licensors and licensees. In the appropriate case, either party may, for example, have recourse to the remedy of specific performance. U.C.C. § 2B-711 (Proposed Draft, Sept. 25, 1997).

Proposed Article 2B evolves out of Article 2 but also develops concepts and methods unique to commercial transactions in information.[51] Article 2B brings common sense to commercial transactions involving commercial transfers produced by the copyright industries. Proposed Article 2B covers contracts in information—digital information, online transactions, Internet licenses and software contracts. The term "information" encompasses software development, computer-based imaging, signal processing, artificial intelligence, neural networks and other emergent information technologies.

Article 2B is a mercantile code based upon the paradigm of software contracting. The new article follows the style and arrangement of Article 2 but provides a number of new and innovative concepts tailored for information contracts.

II. THE CONCEPTS AND METHODS OF ARTICLE 2B

A. The Concept of a Software License

The Article 2B licensor retains title, "to restrict the customer's resale rights, prohibit disassembly of the software, and limit their warranty obligations and other liabilities."[52] Article 2B defines the license to mean:

> [A] contract that expressly authorizes, prohibits, or controls access to or use of information, and by its terms limits the scope of the rights granted, or affirmatively grants less than all rights in the information, whether or not the contract transfers title to a copy of the information and whether or not the rights granted are made exclusive to the licensee. The term includes an access contract and a consignment of copies of information. The term does not include a contract that assigns ownership of intellectual property rights, reserves or creates a financier's interest, or that makes a transfer by will or operation of law.[53]

A licensee generally does not return anything at the end of a license agreement in contrast to a lessee of goods who will be turning in the leased goods at the end of a lease. The essence of what is conveyed is merely the right to access or use information.[54] The granting clause is

51. U.C.C. Article 2B (Proposed Draft, Sept. 25, 1997). Proposed Article 2B consists of seven parts: (1) General Provisions; (2) Formation; (3) Construction; (4) Warranties; (5) Transfer of Interests and Rights (6) Performance and (7) Remedies. *Id.*

52. Andrew R. Basile, Jr., *Chapter 18: Licensing Rights in Information Owned by Others*, *in* On Line Law: The SPA's Legal Guide to Doing Business on the Internet, 285 (Thomas J. Smedinghoff ed., 1996).

53. U.C.C. § 2B-102(a)(25) (Proposed Draft, Sept. 25, 1997).

54. Many information technologies have a dual character with tangible and intangible attributes. The physical tapes, disks and diskettes are tangible, whereas the "magnetically-fixed electronic impulses" are intangible. The value of software and other information technologies is the intangible aspect, not the tangible medium. To appreciate the distinction, think of the difference between the price paid at Coconuts record store for a blank

the heart and soul of a license agreement.[55] Even with respect to a license granting a mere right to access online information (versus the physical transfer of a diskette), such rights expire or are terminated with no tangible thing to return.[56]

Online contracting rarely involves a transfer of a res corporales. The physical medium such as the diskette or CD contains the intangible message transferring information content. Software, like music, reside on a physical medium. However, the value of software is not the diskette but the intangible information embedded on it. Software has a tangible aspect to the extent that it resides in various media, but it also has chameleon-like attributes which allow it to change form and appearance. One distinction is between the intangible (i.e., the copyright, trademark or patent rights) and tangible copy.

B. Defining the Scope of Proposed Article 2B

Article 2B attempts to balance the interests of diverse stakeholders to include software licensors, financial service providers, commercial users and the consuming public.[57] Uniform rules for safeguarding commercial transactions in information assets increase certainty to what has become an increasingly important segment of our economy. Software developers need to know their legal liabilities and exposures. Aside from increasing certainty, uniform default terms would also facilitate international commerce in information products. The drafters have attempted to remain loyal to the ideals of Karl Llewellyn in developing default rules which reflect prevailing industry custom and practice.[58] Many of the provisions of Article 2B reflect the creative continuity of well established commercial practices in the software industry.

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compact disk and the latest Oasis or Jewel release. The physical medium is incidental to the transfer of information which is the value being transferred. The information embedded upon a CD-ROM constitutes value not CD-ROM as a physical medium.

55. U.C.C. § 2B-307 provides the relevant default term for interpreting granting clauses. U.C.C. § 2B-307 (Proposed Draft, Sept. 25, 1997).

56. *Supra* note 14.

57. *See, e.g.*, Ed Foster, *Key Issues in the Current Article 2B Draft Leave Software Buyers Hanging*, (visited on Sept. 25, 1997) <http://www.infoworld.com/cgi-bin/displayNew.pl?/foster/ef-81197.htm>. Article 2B, unlike prior codification projects, has had consumer representatives at the table. Critics comment on the "overwhelming presence of software publishers' representatives at the Article 2B drafting committee meetings." *Id.*

58. *See generally* Charles J. Goetz & Robert E. Scott, *The Limits of Expanded Choice: An Analysis of the Interaction Between Express and Implied Contract Terms*, 73 CAL. L. REV. 261, 266 (1985) (arguing that the Code seeks to bridge the gap between commercial law and practices).

C. Policy Alternatives for Article 2B

The present draft of Article 2B proposes to cover the licenses of information and software contracts. This includes, among other transactions, access contracts, licenses to provide data, and all related license agreements for the support, maintenance and modification of information.[59] Financial services will be impacted by the proposed article, since banks and other financial institutions increasingly license and process information products.[60] Furthermore, the new U.C.C. Article will supplement, not preempt, state and federal banking and financial regulations.[61] Whether or not Article 2B encompasses motion pictures, however, is unclear.[62] The motion picture industry has a well established distribution network that may be impacted by video-on-demand, on-line movies and multi-media developments. Article 2B is based upon a paradigm of software licenses governing information.[63] Article 2B shares a common architecture with Article 2 but is tailored to fit software licensing which is the exemplar for information transfers. Article 2B does not, however, apply to employment contracts for entertainment services or for individuals who are not independent contractors.[64] Also, Article 2B excludes licenses of "a trademark, trade name, trade dress, patent or know-how related to a patent, unless the license is or is associated with software."[65] Furthermore, information transfers representing money or deposit accounts are not within the scope of Article 2B.[66] Finally, a sale or lease of a computer program not developed for a particular transaction or software embedded in goods is excluded from the proposed article.[67]

Article 2B covers commercial transaction in information produced by the copyright industries. One may take four basic approaches to the scope of Article 2B: (1) do nothing (and let Article 2 govern information contracts); (2) narrow the scope of Article 2B; (3) expand the scope of

59. U.C.C. § 2B-103 (Proposed Draft, Sept. 25, 1997).

60. U.C.C. § 2B-103, Reporter's Note No. 6 (Proposed Draft, Sept. 25, 1997).

61. Article 4A of the U.C.C. covering wire transfers trumps Article 2B, as will federal regulations such as the Electronic Fund Transfer Act, 15 U.S.C. 1693 et. seq. and its implementing Regulation E. Article 2B will govern the narrow subject of information licensing and not affect the extant state and federal regulations.

62. U.C.C. § 2B-103, Reporter's Note No. 7 (Proposed Draft, Sept. 25, 1997) (noting the uncertainty whether motion pictures or film industry representatives will seek a "carve out" from Article 2B).

63. Raymond T. Nimmer, Preface: U.C.C. Revision: Information Age in Contracts, Uniform Commercial Code: Article 2B Licenses (Proposed Draft, Apr. 14, 1997).

64. U.C.C. § 2B-103(d)(1) (Proposed Draft, Sept. 25, 1997).

65. U.C.C. § 2B-103(d)(2) (Proposed Draft, Sept. 25, 1997).

66. U.C.C. § 2B-103(d)(3) (Proposed Draft, Sept. 25, 1997).

67. U.C.C. § 2B-103(d)(4) (Proposed Draft, Sept. 25, 1997).

Article 2B to cover all intellectual property rights; or (4) adopt the approach in the present draft of Proposed Article 2B.

1. *Do Nothing*

Why Article 2B? Article 2B is needed to promote certainty in information transactions and to support the continued growth of the information industries. Lon Fuller argued that legal fictions have a continuing vitality and take on a life of their own in judicial decisions.[68] The Courts apply Article 2 by analogy to the licensing of information because no suitable alternative paradigms exist. The concepts of Article 2 are adapted to information contracts through "legal fictions." Judges must "pretend" that a law constructed for the sale of tangibles also accommodates the licensing of information. The courts' stretching of Article 2 to accommodate the licensing of intangibles is reminiscent of the "Let's Pretend" games played by pre-school children. The courts' strained efforts of applying the law of sales to the licensing of intangibles is like the television commercial in which two mechanics are trying to fit an oversized automobile battery into a car too small to accommodate it. The car owner looks on with horror as the mechanics hit the battery with mallets, trying to drive it into place. The owner objects and the mechanics say, "we'll make it fit!" The owner says, "I'm not comfortable with make it fit."

Similarly, judges are applying a sales law that does not fit with the commercial realities of licensing software. Judges must treat software "as if" it fits a sale of goods because no specialized commercial law for licensing information commodities exists. Doing nothing only exacerbates the problem by proliferating "legal fictions" rather than applying a rationally constructed information law.[69]

In *Advent Systems Ltd. v. Unisys Corp.*,[70] for example, the court compared a compact disc recording to a live orchestra in its attempt to apply Article 2 to a software license. Although, the music on the recording is not a "good," it is transferred to a laser-readable disc which is considered a commodity. The *Advent Systems*[71] court, therefore, applied the U.C.C. to the hardware and software principally because it offered a uni-

68. Lon L. Fuller, *Legal Fictions*, 25 U. ILL. L. REV. 877, 877 (1931) (observing that "if judges and legal writers have used the fiction in the past, and are using it now, they will probably continue to use it in the future").

69. One of the conceptual difficulties includes applying a Code article, usually applicable to "transactions in goods" to software. Software is not tangible goods, but intangible intellectual property. Instead, software may be implanted or embedded on a diskette, which is a "good." Although a diskette is identifiable and moveable, one has difficulty conceptualizing software as goods.

70. Advent Systems Ltd. v. Unisys Corp., 925 F.2d 670 (3rd Cir. 1991).

71. *Id.*

form and familiar body of law.[72] Notwithstanding, when judges apply Article 2 to the licensing of intangibles, they are fitting the square peg of licensing software into the round hole of sales law.

2. *Narrow the Scope of Article 2B*

The scope of Article 2B has become progressively broader as the codification project has unfolded.[73] Article 2B provides a legal infrastructure for converging information technologies not yet conceived.[74] Scientists, for example, compress TV images and high fidelity music into complex information systems.[75] Article 2B's focus on "information" is broad enough to accommodate emergent technologies such as computer-based imaging, signal processing, artificial intelligence, neural networks and information technologies yet to be conceived. Yet, limiting the scope to an existing information technology such as digital information assures built-in obsolescence.

3. *Broaden the Scope*

Article 2B "applies to licenses of information and software contracts whether or not the information exists at the time of the contract."[76] The present draft excludes all intellectual property rights related to patents or trademarks, computer software or database agreements.[77] Trade secrets and proprietary information not related to computer software or data base agreements or chip designs are excluded from Article 2B. However, copyright is the primary means for protecting intellectual property rights in information, and Article 2B principally applies to the copyright industries. Thus, the Article 2B project has already seen a clash of rival paradigms.

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72. *Id.* at 676.

73. The history of the project to devise Article 2B began in 1991 when the Permanent Editorial Board ("PEB") of the U.C.C. decided to revise article 2. The ABA Study Committee recommended that the American Law Institute ("ALI") and National Commissioners on Uniform State Law ("NCCUSL") develop a uniform law for software contracting. The "hub and spoke" model defined the scope as the licensing of intangibles. In July of 1995, the decision was made to draft a separate article covering transactions of digital information. In December of 1995, the Software Contracting Subcommittee recommended the expansion of Article 2B's scope from "digital information" to "information."

74. Cheryl Ajluni, *Neural Nets Are Bridging the Knowledge Gap*, 43 ELECTRONIC DESIGN 65 (Aug. 7, 1995) (reporting on neural networks consisting of sensing and processing nodes that mimic the transfers of sensory stimuli within the human brain).

75. *Sidewire*, TELECOMWORLDWIRE, Nov. 1, 1995, *available in* 1995 WL 10472436.

76. U.C.C. § 2B-103(a) (Proposed Draft, Sept. 25, 1997).

77. U.C.C. § 2B-103(d)(1)-(3) (Proposed Draft, Sept. 25, 1997) (excluding the following types of transactions from Article 2B: contracts for employment, entertainment or professional services, licenses of individual employment contracts, entertainment service contracts, intellectual property licenses not related to software or databases, secured transactions or sales or leases of software embedded in goods).

The Massachusetts Bar Association proposed a uniform code that would govern all forms of intellectual property licensing.[78] The broadened intellectual property statute is an alternative to the paradigm based upon the new U.C.C. article. A one-size-fits all licensing law would need to be crafted from ground zero. A commercial law for all intellectual property would not be tempered by practice or precedent.[79] It is quite likely that the path of intellectual property law will ultimately be shaped by Article 2B. Courts will likely apply the concepts of Article 2B by analogy to trademark and patent licensing.[80] The codification of all intellectual property licensing may be mandated as multi-media and other convergent technologies reach a more advanced state of development

4. *Adopt the Present Scope*

Article 2B deals with commercial transactions involving the copyright industries.[81] The focus of Article 2B is licenses for information and digital products.[82] The essence of an Article 2B license is the conveyance of limited rights versus the outright sale of copyrighted products.[83] The building block of Article 2B is "information" which is defined broadly to include: data, text, images, sounds, computer programs, databases, literary works, audiovisual works, motion pictures, mask works, or the like, and any or other rights in information.[84]

Proposed Article 2B will advance the policies of bringing simplicity and uniformity to the licensing of intangibles, while permitting the expansion of commercial practices.[85] Proposed Article 2B must avoid the problem of built in obsolescence and anticipate the rise of new information technologies. Article 2B's broadened scope will provide a legal infra-

78. Preliminary Draft U.C.C. Article 2B, "Transfer of Intellectual Property," The Massachusetts Proposal, Massachusetts Bar Association Proposal to the ABA's Business Law Section, U.C.C. Project, July 9, 1992 (Stephen Y. Chow, Chair) (on file with author) (reprinted in PETER ALCES & HAROLD SEE, THE COMMERCIAL LAW OF INTELLECTUAL PROPERTY (1993)).

79. The essence of Article 2B is the accommodation of Article 2 to the commercial realities of transfers of information. Article 2B adapts Article 2 concepts to the specialized needs of online contracting and software licensing. Most lawyers will be generally familiar with Article 2's approach to parol evidence, the statute of frauds, implied warranties, disclaimers, consequential damages remedies and the like. Article 2B posits functional equivalents that apply to information age contracts. The virtue of basing Article 2B on a software licensing model is that the legal community understands its basic concepts and methods.

80. U.C.C. § 2B-103, Reporter's Note No. 5 (Proposed Draft, Sept. 25, 1997).

81. U.C.C. § 2B-103, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).

82. *Id.*

83. *Id.*

84. U.C.C. § 2B-102(a)(22) (Proposed Draft, Sept. 25, 1997).

85. U.C.C. § 1-102 (1995).

structure flexible enough to accommodate information technologies of the future. Section 2B-102 (a)(1) defines the "access contract" as: a contract for electronic access to a resource containing information, resource for processing information, data system, or other similar facility of a licensor, licensee, or third party.[86]

Continuous access contracts with data information services such as LEXIS or WESTLAW are included in the current draft.[87] Article 2B will also apply to web-site agreements to subscribe to online services. The draft applies to all forms of electronic, online, or Internet transfers of information and related agreements for the support, maintenance, development or modification of information.[88]

The use of the term "information" encompasses the rise of convergent information technologies such as multi-media. Information technologies covered by other well established law such as television or radio may later be excluded from Article 2B. The draft has exclusive "carve-outs" for employment, entertainment and professional service contracts. Article 2B also excludes licenses of intellectual property rights unrelated to computer software or databases, secured transactions or sales or leases of software embedded in goods.[89]

The policy underlying the broad scope provision of Article 2B is not limited to the scope of digital information. The convergence of digital information with other technologies in multi-media entertainment already makes an Article 2B based upon strictly digital information obsolete. Article 2B seeks to avoid obsolescence by using information as its building block.[90] Thus, the focus of Article 2B on information permits

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86. U.C.C. § 2B-102(a)(1) (Proposed Draft, Sept. 25, 1997).

87. U.C.C. § 2B-614(a) (Proposed Draft, Sept. 25, 1997). The section states:

> A licensee under an access contract has the rights of access to the information as modified from time to time and made generally available by the licensor during the period of the license. A change in the content of the information is not a breach of contract unless it conflicts with an express term of the agreement.

Id.

88. U.C.C. § 2B-103, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997) (noting that Article 2B deals with the licensing transactions of copyright industries "whose current or future direction deals with digital products").

89. U.C.C. § 2B-103(d)(1)-(3) (Proposed Draft, Sept. 25, 1997) (excluding software embedded in goods such as computer chips that regulate brakes, coffee makers, or televisions). In *General Motors Corp. v. Johnston,* 592 So.2d 1054 (Ala. 1992) a pickup truck stalled out in an intersection due to a defective computer chip. A young passenger was killed when the pickup truck was struck by a trailer-truck. The defect in the fuel delivery system was caused by a defective programmable read only memory chip ("PROM"). The *Johnston* case would not be covered by Article 2B and liability would be determined by state product liability law and the law of warranties. The sale of goods would apply to the defective PROM computer chip, not Article 2B, if enacted.

90. U.C.C. § 2B-103, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997).

the Code to respond to the modern convergence of information technologies and to technologies not yet conceived.

5. *Hybrid Transactions*

A computer system may include computer monitors, ports, keyboards, power supplies, printed circuit boards, chips, and electronic circuitry as well as other hardware. Leased hardware is covered by Article 2A and purchased hardware is covered by Article 2. However, computer hardware is frequently sold in a bundled transaction involving software. For example, a Gateway 2000 personal computer is frequently sold loaded with software such as Windows 95. Also, a bank may purchase an intranet system consisting of networked computers.[91] Each intranet computer has application software connected to the main operating system. Software is typically licensed, but it may also be leased or sold. How should Article 2B accommodate a mixed commercial transfer of information involving hardware and software?

The licensing of software as a separate commercial transaction has evolved over the past quarter century.[92] Software was bundled along with the sale of hardware prior to the 1970s.[93] The courts generally viewed software as incidental to the predominant purpose of selling main-frame computers. Article 2 traditionally applied a predominant purpose test to a mixed transaction. Since the computer software was merely incidental to the hardware, many courts applied Article 2 to the entire transaction even though it was a hybrid or mixed transaction.[94] The U.C.C. applies where the principal purpose of the contract is the sale of goods, even though the transaction also involves services or the licensing of software. The traditional test is whether their predominant purpose is the rendition of services or the sale of goods.

Furthermore, Article 2 applied to the entire transaction if the transaction is predominately a sale. The *predominant purpose* test requires the judge to determine whether a given transaction is a sale or service. Article 2B rejects the predominant purpose test, in favor of Dean Wil-

91. An intranet consists of private TCP/IP networks run by companies. Firewalls protect the intranet from the bad guys of the Internet. Curtis G. Rose, *Protecting the Internet User, in* LEWIS LEE & J. SCOTT DAVIDSON, INTELLECTUAL PROPERTY FOR THE INTERNET 106 (1997).

92. Marcus G. Larson, *Applying Uniform Sales Law to International Software Transactions: The Use of the CISG, Its Shortcomings, and a Comparative Look at How the Proposed U.C.C. Article 2B Would Remedy Them*, 5 TUL. J. INT'L & COMP. L. 445 (1997) (commenting that it was not until 1969 when IBM "made the unprecedented announcement that it was separating the sale of its software from the sale of its hardware").

93. *Id.*

94. *See generally* Bonna Lynn Horovitz, Note, *Computer Software as a Good Under the Uniform Commercial Code: Taking a Byte Out of the Intangibility Myth*, 65 B.U. L. REV. 129 (1985).

liam Hawkland's "*gravaman* of the action" test.[95] What is the source of the complaint? If the problem is with licensed software or information, Article 2B applies. If the performance problem is a question of defective hardware that is leased, Article 2A will apply. Defective computer hardware will be covered by Article 2.[96] Article 2B does not require the trial judge to artificially categorize the mixed transaction as a sale, lease or license. When Article 2B is enacted, it will no longer be necessary to apply a predominant purpose test to lump a mixed transaction as either a sale or service.

D. Online Contracts in Cyberspace

Part One of Article 2B also contains much of the essential legal infrastructure required for contracting in cyberspace. Article 2B definitions include electronic transactions,[97] information,[98] license,[99] mass-market license,[100] receive,[101] software contract,[102] and substantial performance.[103] The proposed Article defines a "computer program" as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result."[104] Part Two of Article 2B validates electronic contracting and computer-to-computer commercial transactions. "Electronic transactions" are contracts where humans may not review the messages.[105] An "electronic agent" is a "computer program or other electronic or automated means used, selected, or programmed by a party to initiate or respond to electronic messages or

95. U.C.C. § 2B-103, Reporter's Note No. 4 (Proposed Draft, Sept. 25, 1997) (noting that "the gravaman of the action" test is adopted to deal with "issues pertaining to the interface between Article 2B and other U.C.C. Articles").

96. *Id.* Article 2B adopts William Hawkland's "*gravaman* of the action" test to determine which Articles of the Code will apply to a transaction covered by Articles 2, 2A and 2B simultaneously. *Id.*

97. U.C.C. § 2B-102(a)(18) (Proposed Draft, Sept. 25, 1997) (defining the electronic transaction as "a transaction formed by electronic messages in which the messages of one or both parties will not be reviewed by an individual as an ordinary step in forming the contract").

98. U.C.C. § 2B-102(a)(22) (Proposed Draft, Sept. 25, 1997). "'Information' means data, text, images, sounds, computer programs, databases, literary works, audiovisual works, motion pictures, mask works or the like, and any intellectual property or other rights in information." *Id.*

99. U.C.C. § 2B-102(a)(25) (Proposed Draft, Sept. 25, 1997).

100. U.C.C. § 2B-102(a)(28) (Proposed Draft, Sept. 25, 1997).

101. U.C.C. § 2B-102(a)(34) (Proposed Draft, Sept. 25, 1997).

102. U.C.C. § 2B-102(a)(41) (Proposed Draft, Sept. 25, 1997).

103. U.C.C. § 2B-102(a)(43) (Proposed Draft, Sept. 25, 1997).

104. U.C.C. § 2B-102(a)(5) (Proposed Draft, Sept. 25, 1997) (defining a "computer program" as "a set of statements or instructions to be used directly or indirectly to operate an information processing system in order to bring about a certain result").

105. U.C.C. § 2B-102(a)(18) (Proposed Draft, Sept. 25, 1997).

performances in whole, or in part, without review by an individual."[106]

1. *Legal Formalities for E-Commerce*

The Convention for the International Sale of Goods ("CISG") requires no Statute of Frauds, unless a country adopting CISG has its own writing requirement.[107] The Statute of Frauds has been consigned to the ashbin of legal history outside of the United States. Although the Statute of Frauds originated in England in 1677, England has not recognized the Statute of Frauds since 1953. The CISG does not impose a statute of frauds.

The Article 2B Reporter notes that a Statute of Frauds for licenses may be appropriate because licensing, by its very nature, involves split property interests.[108] Early drafts of Article 2B permitted jurisdictions to choose whether to require certain transactions to comply with the Statute of Frauds.[109] The present draft legitimates and modernizes the Statute of Frauds extending it to electronic communications.

The current draft adopts a Statute of Frauds doctrine with the relatively large dollar cutoff of $20,000.[110] Article 2B requires a writing if the total value of license payments will be $20,000 or greater.[111] The determination of the royalty base and rate is one of the most important terms of a license agreement. Article 2B's Statute of Frauds is satisfied by a simple exchange of electronic writings. The new article legitimizes paperless online contracts and other evolving practices such as digital signatures.

2. *Parol Evidence In Cyberspace*

Section 2B-301 is a parol or extrinsic evidence rule which accommodates the paper-based rules to the reality of online transactions. This section uses the term "record" rather than "a writing" to accommodate electronic contracting.[112] Confirmatory records of the parties may be a final expression, evidence of any prior written agreement or oral agree-

106. U.C.C. § 2B-102(a)(16) (Proposed Draft, Sept. 25, 1997).

107. DOUGLAS WHALEY, PROBLEMS AND MATERIALS ON COMMERCIAL LAW 43 (5th ed. 1997).

108. U.C.C. § 2B-202, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).

109. Britain repealed its Statute of Frauds in 1953. The Convention for the International Sale of Goods does not require a writing or record. *See* U.C.C. § 2B-201, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997). There is strong industry as well as consumer support for the Statute of Frauds. The popular maxim, "get it in writing" reflects the social reality that the Statute of Frauds is well established as a cultural norm.

110. U.C.C. § 2B-201(c)(1) (Proposed Draft, Sept. 25, 1997).

111. *Id.*

112. U.C.C. § 2B-301 (Proposed Draft, Sept. 25, 1997).

ment is inadmissible.[113] Final confirmatory records may be explained or supplemented by the following: (1) course of performance, course of dealing, or usage of trade; and (2) evidence of consistent additional terms unless the court finds that the record was intended by both parties as a complete and exclusive expression of the terms of the agreement.[114]

Article 2B's use of supplemental contract terms harmonizes well with UNIDROIT's "Principles of International Commercial Contract Law."[115] Evidence of course of performance, course of dealing and usage of trade are also generally admissible under UNIDROIT.[116] Consistent additional terms are admissible unless the parties intended a complete and exclusive expression of the terms of the agreement.[117]

3. *Liberal Contract Formation in Cyberspace*

Article 2B provides liberal contract formation rules which accommodate the realities of electronic contracting in cyberspace. Businesses are increasingly communicating with their business partners through Electronic Data Interchange ("EDI"). In its essence, an EDI transaction is a computerized exchange of documents. The parties generally have a master trading agreement which sets out basic terms and assumptions in advance. Thus, all subsequent contracts typically do not involve human contact. Suppliers can instantly fill orders from one firm's computer to another. EDI saves money, time and paper.[118]

Article 2B permits computer-to-computer transaction by substituting the concept of an electronic "record" for the "writing" requirement of paper transactions. Article 2B online contracts permit the formation of license agreements through the exchange of electronic records.[119] Section 2B-202 provides that a contract may be made in any manner sufficient to show agreement, including by offer and acceptance, conduct of both parties or the operations of an electronic agent which reflect the existence of a contract.[120]

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113. *Id.*

114. U.C.C. § 2B-301(1)(2) (Proposed Draft, Sept. 25, 1997).

115. U.C.C. § 2B-301, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997) (citing UNIDROIT's Article 2.17). A "contract in writing which contains a clause indicating that the writing completely embodies the terms on which the parties have agreed cannot be contradicted or supplemented by evidence of prior statements or agreements. However, such statements or agreements may be used to interpret the writing." *Id.*

116. U.C.C. § 2B-301, Reporter's Note Nos. 1-2 (Proposed Draft, Sept. 25, 1997).

117. U.C.C. § 2B-301(2) (Proposed Draft, Sept. 25, 1997).

118. Article 2B provides new legal infrastructure for facilitating electronic commerce that is congruent with the ABA Model Agreement as well as UNCITRAL's Draft Model Law on EDI.

119. U.C.C. § 2B-404 (Proposed Draft, Sept. 25, 1997) (providing that contracts may be formed computer-to-computer).

120. U.C.C. § 2B-202(a) (Proposed Draft, Sept. 25, 1997).

The infrastructure for electronic contracting is developed in the new article. Article 2B permits execution of an offer and acceptance by purely electronic agents.[121] Computer-to-computer contracts require a means for determining whether a manifestation of assent exists. Article 2B defines affirmative action as a form of manifestation of consent.[122] Electronic agents manifest assent through authenticated records or terms.[123] Authentication of an electronic term is not valid unless the record has been conspicuously displayed and the licensee has had an opportunity to decline the term.[124] Article 2B's methodology is based upon the premise that the licensee or adhering party is entitled to basic protection against abuses caused by unequal bargaining power. Sections 2B-112 and 2B-113, thus, "create a procedural background for when manifestation of assent occurs that provides protection against inadvertent and unknowing assent."[125]

Article 2B recognizes the growing importance of electronic commerce. Section 2B-112 permits an electronic agent to manifest assent to a record, or term in a record, if an opportunity to review a record or term exists.[126] Manifestation of assent may occur through the click of a button in the case of a "clickwrap" license. Section 1-201(3) of the Code defines "agreement" as the "bargain of the parties in fact as found in their language or from other circumstances including course of dealing or usage of trade or course of performance."[127] Many of Article 2B's formation rules are in harmony with international sales law.[128] Article 12 of CISG provides that signatories may require contracts to be in writing.[129] Article 2B eschews the modern trend requiring a formal writing or record to memorialize the formation of a commercial transaction in information.[130]

Article 2B rejects the traditional "mail box rule" for the sending and receipt of electronic messages.[131] Section 2B-120 provides for a liberal formation rule validating electronic transactions, messages, or electronic responses to messages.[132] Sales contracts require a signed writing. Such a requirement for online contracts may be impractical since there is

121. U.C.C. § 2B-204(a) (Proposed Draft, Sept. 25, 1997).
122. U.C.C. § 2B-112(a)(1) (Proposed Draft, Sept. 25, 1997).
123. U.C.C. § 2B-112 (Proposed Draft, Sept. 25, 1997).
124. *Id.*
125. U.C.C. § 2B-112, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).
126. U.C.C. § 2B-112(a) (Proposed Draft, Sept. 25, 1997).
127. U.C.C. § 1-201(3) (1995).
128. Article 2B does, however, adopt the statute of frauds, which is out of step with the legal infrastructure of the rest of the world economy.
129. *Id.*
130. U.C.C. § 2B-202 (Proposed Draft, Sept. 25, 1997).
131. U.C.C. § 2B-120 (Proposed Draft, Sept. 25, 1997).
132. *Id.*

no handwritten signature in these transactions.[133] A growing percentage of companies distribute software outside the United States. Many firms offer foreign language versions of their products. There is relatively little licensing law that has evolved outside the United States. Article 2B's passage will ensure the U.S. licensing law will be the hegemonic paradigm for defining legal rules.[134] Article 2B's parol evidence rule[135] is derived in part from the sales article and UNIDROIT Principles of International Commercial Contract Law. Article 2.17 of the UNIDROIT principles parallel 2B-301's parol evidence rule:

> A contract in writing which contains a clause indicating that the writing completely embodies the terms of which the parties have agreed cannot be contradicted or supplemented by evidence of prior statements or agreements. However, such statements or agreements may be used to interpret the writing.[136]

Custom trade usage and course of dealing are treated by Article 2B as part of the license agreement.[137] Article 2B is in harmony with international sales law in supplementing the words of a license agreement with the "taken for granted" unwritten terms such as course of performance, course of dealing and usage of trade. Article Nine of CISG provides that "parties shall be bound by any usage which they have [agreed] . . . and by any practices which they have established between themselves."[138] The CISG recognizes usages of trade and practices "regularly observed by parties to contracts of the type involved in the particular trade concerned."[139] The U.C.C. defines the usage of trade: "as any practice or method of dealing having such regularity of observance in a place, vocation or trade as to justify an expectation that it will be observed with respect to the transaction in question."[140]

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133. Elizabeth S. Perdue, *Chapter 6: Creating Contracts Online*, *in* ONLINE LAW: THE SPA'S LEGAL GUIDE TO DOING BUSINESS ON THE INTERNET (Thomas Smedinghof ed., 1996).

134. The Vienna Convention ("CISG") does not explicitly address software licenses. Like Article 2, CISG is designed for the sale of tangible goods and applies to the licensing of information by analogy. Article 2B seeks to harmonize and develop a unified set of rules for the licensing of intangibles.

135. U.C.C. § 2B-301 (Proposed Draft, Sept. 25, 1997).

136. UNIDROIT Principles of International Commercial Contract Law, Art. 2.17 (attributed as a source for Article 2B's parol evidence rule in Reporter's Note No. 2B-301, Parol or Extrinsic Evidence (Proposed Draft, Sept. 25, 1997).

137. U.C.C. § 1-205(1) (1995). Article One applies to Article 2B and all other articles of the U.C.C. § 1-205(1) defines the course of dealing as a "sequence of previous conduct between the parties to particular transaction which is fairly to be regarded as establishing a common basis of understanding for interpreting their expressions and other conduct." *Id.*

138. Convention Relating to a Uniform Law on the International Sale of Goods, July 1, 1964, 834 U.N.T.S. 107, annex art. 9(1).

139. Convention Relating to a Uniform Law on the International Sale of Goods, July 1, 1964, 834 U.N.T.S. 107, annex art. 9(2).

140. U.C.C. § 1-205(2) (1995).

E. "PRIVATE DUE PROCESS" AS A SHRINKWRAP SAFE-HARBOR

Few topics engender more debate than the enforceability of shrink-wrap, clickwrap and Web-wrap license agreements. A Dilbert cartoon lampoons these adhesion contracts[141] by depicting a licensee who unwraps the shrinkwrap only to learn that he has become Bill Gate's towel boy.[142] By unwrapping the shrinkwrap, the licensee waives all of their rights to U.C.C. remedies. A pundit states that "[b]y unwrapping a software package or downloading a demo, you've agreed to a thickly worded contract may be enslaving your first born child to Bill Gates for all you know."[143] Shrinkwrap and Web-wrap contracts are standard form contracts for the electronic age. The standard form contracts dominate cyberspace just as it dominates every other domain of everyday life.[144]

The critics of shrinkwrap are concerned that the typical consumer does not perceive that they are entering into a license agreement let alone assent to unexpected terms. The concern is that the consumer will click the "I Agree" button without understanding the legal significance of such an act. There are obviously no shrinkwrap license agreements requiring the licensee to give up her American citizenship or first-born child! The critics of shrinkwrap are concerned that the typical consumer does not apprehend that they are entering into a license agreement let

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141. *See generally* Frederich Kessler, *Contracts of Adhesion—Some Thoughts About Freedom of Contract*, 43 COLUM. L. REV. 629 (1943). The concept of adhesion contracts refers to contracts in which the weaker party must adhere to the stronger party's terms. *Id.* The software industry drafts shrinkwrap license agreements in which the licensee must adhere to terms such as the disclaimers of warranties. *Id.*

142. Merely breaking open a shrink-wrap plastic sheet or clicking agreement does not connote any real agreement as in the traditional contracts paradigm. It is a legal fiction to assume that consumers "agree" to unexpected terms by examining a click stream.

143. Margie Wylie, *Shrink-Wrapping the Social Contract*, (visited Sept. 25, 1997) <http://www.news.com/Perspectives/mw/mw4_23_97_a.html>.

144. Shrinkwrap contracts are the newest form of standard form contracts that predominate our everyday life. Professor Slawson wrote in 1971 that:

> Standard form contracts probably account for more than ninety-nine percent of all the contracts now made. Most persons have difficulty remembering the last time they contracted other than by standard form; except for casual oral agreements, they probably never have. But if they are active, they contract by standard form several times a day. Parking lot and theater tickets, package receipts, department store charge slips, and gas station credit card purchase slips are all standard form contracts. . . . The contracting still imagined by courts and law teachers as typical, in which both parties participate in choosing the language of their entire agreement, is not longer of much more than historical importance.

W. David Slawson, *Standard Form Contracts and Democratic Control of Lawmaking Power*, 84 HARV. L. REV. 529, 529 (1971).

alone assent to unexpected terms.[145] The reasonable consumer expectation is that they are purchasing software, not entering into a license agreement. The concern is that shrinkwrap and other information license agreements provide consumers with a meaningful adequate remedy.[146] Standard form online or shrinkwrap agreements are integral to our information economy.[147]

The software industry has used shrinkwrap license agreements in the mass-market transaction since the 1970s.[148] Shrinkwrap licensing is a form of contracting that reduces transaction costs. The negotiating of each software contracting would eviscerate the mass-market. Software developers seek certainty and enforceability in "shrinkwrap," Webwrap and other evolving mass-market agreements. Consumers seek a minimum adequate remedy for useful but adhesionary licensing practices.[149] Article 2B reflects concessions to the consumers such as the right to a refund and private procedural protection for the enforceability of mass-market licenses.[150]

Article 2B has developed specialized rules for "mass-market" software. The concept of mass-market software is a newly devised concept that refers to software that is marketed to the general public in re-

145. Wylie, *supra* note 143. Margerie Wylie compares consumer's knowledge about shrinkwrap to the awareness that they have of "mattress tags that warn 'do not remove.'" *Id.*

146. U.C.C. § 2B-208, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997). The typical mass-market license is sold in a retail market to the general public. *Id.* The software or other information is the same information product offered at the same terms. *Id.* Mass-market licenses may involve the presentation of a license agreement before and after payment of the "fee." *Id.* There are also online contracts where agreement is expressed through a click-stream. *Id.*

147. David Slawson observes that: "[t]he predominance of standard forms is the best evidence of their necessity. They are characteristic of a mass production society and an integral part of it." Slawson, *supra* note144, at 530.

148. "Shrinkwrap" is the clear plastic which wraps around a software package. Microsoft, for example, uses a shrinkwrap license that appears on the outside of its Office and Bookshelf software. Before opening the package, the user can see that there is a license agreement. The legal fiction of contract formation allegedly occurs when the seal is broken. A Web-wrap agreement is a contract formed on the Internet by pointing and clicking the mouse. Most mass-marketed software employs some form of adhesionary contract method such as shrinkwrap, clickwrap or Web-Wrap agreements. The *sine qua non* of these agreements is that there are adhesion contracts. *See e.g.*, Pamela Samuelson, et. al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308, 2318 n. 26 (1994).

149. If shrinkwrap, Webwrap and clickwrap agreements are legitimated, consumers believe that powerful vendors will devise unfair terms. The industry counters that the market will respond if these contract forms prove to be too unfair and one-sided.

150. *See generally* Ed Foster, *Under Article 2B, Hold Steady When Negotiating Software Licensing Deals*, (visited Aug. 18, 1997) <http://www.infoworld.com/cgi-bin/displayNew.pl?/foster/ef-81897.htm>.

tail outlets such as Lechmere, Sears, Egghead or over the Internet. The end-user of mass-marketed software does not negotiate the license agreement. Each license agreement has the same terms, irrespective of the customer. Mass-market software is purchased like goods in a super market. The licensee in the mass-market license transaction acquires the information "under substantially the same terms for the same information."[151]

It is critical to establish a legal infrastructure for mass-market software products because the United States dominates the information economy controlling 70% of the market.[152] Article 2B fairly balances the rights of mass-market licensors and licensees.[153] Many early shrink-wrap licenses did not give the consumer an opportunity to read the terms of the agreement, let alone an opportunity to manifest assent. Several recent cases support the enforceability of "shrinkwrap" contracts.[154] The benefits of shrinkwrap are considerable. The cost of software would be prohibitive if each mass-market agreement were negotiated by the consumer.[155] Article 2B's concept of the "mass-market" license agreement is a new concept to provide licensees with some assurance of fair terms in contracts that are offered on a take-it-or-leave-it basis.

In contrast, Article 2 bifurcates the world of buyers into merchants and non-merchants, in contrast to Article 2B which divides licensees into mass-market and non-mass-market users. Mass-market licenses are a classic example of contracts of adhesion in which the information is offered at the same terms on the same basis to the general public. Shrink-

151. U.C.C. § 2B-102(a)(29) (Proposed Draft, Sept. 25, 1997).

152. Prepared Statement of Thomas Parenty, Director, Data/Communications Security, Sybase, Inc., Testimony Before the House Committee on Commerce, Subcommittee on Telecommunications, Trade and Consumer Protection, Sept. 4, 1997, Federal News Service (available on LEXIS).

153. The critics of shrinkwrap and Webwrap do not offer any alternatives to this contracting practice. If mass-market contracts were individually negotiated, the costs would be prohibitive.

154. Hill v. Gateway 2000, Inc., 105 F.3d 1147 (7th Cir. 1997) (enforcing "accept-or-return offer" in shrinkwrap license); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (enforcing shrink-wrap license term). Prior to these recent Seventh Circuit cases, courts were generally unreceptive to the enforceability of shrinkwrap licenses. *See, e.g.*, Step-Saver Data Systems, Inc. v. Wyse Technology, 939 F.2d 91 (3rd Cir. 1991); Arizona Retail Systems, Inc. v. Software Link, Inc., 831 F. Supp. 759 (D. Ariz. 1993); *See generally* Michael Rustad & Lori E. Eisenschmidt, *The Commercial Law of Internet Security*, 10 HIGH TECH. L. J. 213, 289-93 (1995).

155. Michael Rustad & Lori Eisenschmidt, *The Commercial Law of Internet Security*, 10 HIGH TECH. L.J. 213, 292 (1995) (citing 1994 empirical study of Computer Law Association lawyers). The computer industry favors the enforceability of shrinkwrap judging from an empirical study of my survey of lawyers belonging to the Computer Law Associations. *Id.* Sixty five percent of computer lawyers favored the enforceability of shrink-wrap licenses and most advocated procedural protection for mass-marketed software that roughly corresponds to present Article 2B. *Id.*

wrap, clickwrap or Web-wrap licenses, like car rental agreements, are rarely negotiated or modified.

Fortune 500 firms may be licensees in mass-market transactions and will be the beneficiaries of protection given ordinary consumers. The distinction drawn in Article 2B is between different commercial transactions not whether the user is a consumer. The software developer typically uses shrinkwrap license agreements that disclaim all warranties providing a limited remedy of refund or replacement.[156] The developer states that the licensee is bound by the one-sided contract by opening the shrinkwrap packaging.[157]

Mass-marketed software is increasingly sold online or in cyber-malls on the World Wide Web. One of the most difficult policy choices is whether to legitimate shrinkwrap or Web-wrap licensing practices. The path of Article 2B becomes a road to suspicion when it comes to the enforceability of shrinkwrap licenses. The debate over shrinkwrap is characterized by extreme positions like the abortion debate. If each mass-market contract were individually negotiated, mass-market software would be priced out of existence. Proposed Article 2B validates shrinkwrap agreements, but it provides the user with the functional equivalent of "private procedural due process" in the form of notice requirements. In addition, mass-market agreements are not enforceable unless the licensee has "manifested assent" to the terms.[158]

Section 2B-208 provides the equivalent of "private procedural protection" for licensees in a mass-market setting whether consumers or businesses.[159] A judge has the power to invalidate some terms of mass-market standard form contract even if they are not unconscionable.[160] The experience under Article 2 has been that the doctrine of unconscio-

156. "Shrinkwrap" is the clear plastic which wraps around a software package. Microsoft, for example, uses a shrinkwrap license that appears on the outside of its Office and Bookshelf software. Before opening the package, the user can see that there is a license agreement. The legal fiction of contract formation allegedly occurs when the seal is broken.

157. Samuelson, *supra* note 148, at 2318 n.26.

158. U.C.C. § 2B-112 (Proposed Draft, Sept. 25, 1997).

159. Article 2B ensures that the licensee is provided notice requirements which are analogous to procedural due process rights. Section 2B-207 permits a court to invalidate terms even if not unconscionable or procured through fraud, if not the product of "mutual assent." U.C.C. § 2B-207 (Proposed Draft, Sept. 25, 1997). Manifestation of assent under § 2B-207 is satisfied irrespective of whether the assenting licensee read the objectionable license agreement terms. *Id.* Section 2B-207 provides the barest form of "procedural protection." *Id.* The licensor need only provide an "opportunity to review" the license in order for there to be deemed a manifestation of assent. *Id.* This section applies to merchants and applies only to the non-mass-market. *Id.*

160. U.C.C. § 2B-208, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997). Section 2-302 permits judges to strike unfair contract terms that are unconscionable. *See* U.C.C. § 2-302 (1995). Section 2-302 is frequently invoked by plaintiffs, but is seldom successful. *Id.*

nability has been a toothless tiger.[161] Section 2B-208 provides augmented protection to the mass-market licensee. This section requires not only an opportunity to review boiler plate terms, but a court will invalidate unfair terms, if the party proposing the term knew or had reason to know, that an ordinary reasonable buyer would object to the entire deal with the objectionable term included.[162] Article 2B subjects unfair and unexpected terms to the reasonable licensee standard. Would a reasonable licensee object to a one-sided term or proposal?[163]

Section 2B-208(b)(1) will not enforce mass-market terms so unexpected that "an ordinary reasonable person" would refuse a license with the term.[164] Article 2B provides special protection against abuse and inequity for purely adhesionary license agreements. A mass-market licensee may assent to these unexpected and reasonable terms by manifesting assent and an opportunity to review the terms.[165] For example, clicking the "I agree" icon without reading the terms has legal consequences. Article 2B imposes "a duty to read" on licensees. Thus, an Internet user may unwittingly adopt unexpected terms by "clicking" agreement to the "click here to agree" screen.[166] The Consumer's Union argues that Article 2B should provide even greater procedural protection against surprising or unexpected terms.[167]

Article 2B's procedural protection for mass-market licenses protects the licensee's reasonable expectations and balances the competing interests of licensors and licensees. Article 2B, like the rest of the U.C.C., incorporates software industry and commercial practices in assessing what is an unexpected or unreasonable term.[168] The licensee must have

161. See U.C.C. § 2-302 (1995) (permitting judges to strike down unfair contract terms that are unconscionable). *See* DOUGLAS WHALEY, PROBLEMS AND MATERIALS ON COMMERCIAL LAW 176 (5th ed. 1997) (citing Arthur Leff, *Unconscionability and the Code—The Emperor's New Clause*, 115 U. PA. L. REV. 485 (1967)). Unconscionability has proven to be a doctrine that is seldom used in Article 2 transactions. *Id.* Article 2's doctrine of unconscionability requires the buyer to prove procedural and substantive unconscionability. *Id.*

162. Article 2B arms judges with far greater authority to police unfair license agreements than Article 2. Section 2B-208 (a)(1) states that terms will be invalidated if "the party proposing the form should know would cause an ordinary reasonable person acquiring this type of information in the general market to refuse the license if that party knew that the license contained the particular term; or (2) conflicts with the negotiated terms of the agreement between the parties to the license." U.C.C. § 2B-208(a)(1)(2) (Proposed Draft, Sept. 25, 1997).

163. *Id.*

164. U.C.C. § 2B-208 (Proposed Draft, Sept. 25, 1997).

165. U.C.C. § 2B-208(b) (Proposed Draft, Sept. 25, 1997).

166. U.C.C. § 2B-208(c) (Proposed Draft, Sept. 25, 1997).

167. Gail Hillebrand, *Issues for Consumers in U.C.C. Article 2B, Memorandum to American Law Institute Members*, (visited April 28, 1997) <http://www.ali.org/ali/ hillga.htm>.

168. U.C.C. § 1-205 (1995) (providing that industry customs are relevant to U.C.C. contracts).

an opportunity to review terms and to manifest assent to a shrinkwrap or other mass-market license or it is not enforceable.[169] A party adopts the terms of a record if they manifest intent or use that information.[170] A licensee in mass-market transaction must manifest assent *prior* to commencing performance. Mass-market license agreement terms are enforceable only if the party agrees to the license prior to performance or access to information.[171]

Article 2B validates shrinkwrap licenses, online contracts and Web-wrap agreements which have evolved as alternatives to negotiated contracts.[172] Article 2B attempts to avoid abuses in contracts where there is asymmetrical bargaining power.[173]

The presumption is that once the potential licensee is informed of the terms of the shrinkwrap, they can make a choice on whether to enter the transaction. The emphasis is on procedural fairness not substantive fairness of the terms of a license. Article 2B relies on disclosure rather than mandatory norms to protect the weaker party.[174] There is little empirical evidence on the impact of disclosure on consumer decisionmak-

169. U.C.C. § 2B-207, Reporter's Note Nos. 2-4 (Proposed Draft, Sept. 25, 1997) (stating that the Reporter should strengthen § 2B-208 by codifying rules similar to Restatement (Second) of Contracts § 211(3)).

170. U.C.C. § 2B-207 (Proposed Draft, Sept. 25, 1997).

171. U.C.C. § 2B-208 (Proposed Draft, Sept. 25, 1997).

172. *Id.*

173. Section 2B-208 gives a licensee the right to invalidate terms that are surprising even if they are not unconscionable. Contract terms do not become part of the "contract if the party does not manifest assent to the particular term." The standard is if: "the party proposing the form should know [the term] would cause an ordinary reasonable person acquiring this type of information in the general mass-market to refuse the license if that party knew that the license contained the particular term; or 2) conflicts with the negotiated terms of the agreement . . . ." U.C.C. § 2B-208 (Proposed Draft, Sept. 25, 1997). Article 2B provides the functional equivalent of procedural due process rights with its rules mandating an "opportunity to review" and manifestation of assent" as a precondition to the enforcement of licenses. The goal of these measures is to safeguard the licensees' reasonable expectations and to balance the competing interests of licensors and licensees. The "private due process" standards is a form of welfarism in Article 2B.

174. Article 2B codifies a rule similar to the UNIDROIT principle and that of the Restatement (Second) of Contracts §211(3). UNIDROIT International Principles of International Contract Law, art. 2.20. Unidroit international principles provide that: "No term contained in standard terms which is of a character that the other party could not reasonably have expected it, is effective unless it has been expressly accepted by that party." *Id.* Section 2B-208(b)(1) will not enforce terms if the licensor should know that the "ordinary reasonable person" would refuse the license with that term or the term conflicts with a negotiated agreement." U.C.C. § 2B-208(b)(1) (Proposed Draft, Sept. 25, 1997). This section deals with surprising terms and requires that these terms be brought to the attention of the other party. A party may specifically agree to terms that are not within his/her reasonable expectation. U.C.C. § 2B-208(c) (Proposed Draft, Sept. 25, 1997). *See generally* Raymond T. Nimmer, *U.C.C. Revision: Information Age in Contracts*, Presented to the Computer Law Association, 1 The 1996 Computer and Telecommunications Law Update,

ing. Sophisticated business entities are repeat players who will be represented by counsel familiar with the legal effect of software licensing terms and the impact of Article 2B.

F. Constructing the Cyberspace Contract

Article 2B's construction rules roughly parallel Article 2. Course of dealing, course of performance, and usage of trade are part and parcel of a license agreement.[175] A license agreement consists of the "express terms of an agreement, course of performance, course of dealing, and usage of trade."[176] The Code requires terms to be construed as reasonably consistent with each other.[177] As with an Article 2 sales contract, Article 2B imposes a hierarchy for the interpretation of a software or information license. Express terms trump the course of performance, course of dealing and usage of trade. Course of performance has a greater standing than course of dealing and usage of trade. The usage of trade is the lowest order contract interpretation term.[178]

G. Open Terms and Other Defaults

Classical contract theory required the parties to "spell out" the major terms of the agreement for contract formation. Article 2B adopts an overarching standard of liberal contract formation permitting statutorily defined defaults to fill in the missing or unnegotiated terms in a license agreement. The underlying jurisprudence behind open terms is the greater efficiency and reduced transaction costs of relying upon default or off-the-rack terms rather than negotiate every term. Section 2B-305 deals with open terms in information contracts.[179] Article 2B prefers a reasonable person approach if "the context permits objective standards for determining satisfaction" in filling open terms.[180] Section 2B-306, for example, validates "output, requirements, and exclusive dealing" contracts.[181] The sale of goods also validates these forms of contracts. Article 2B does not "involve issues about quantity" in the same way as with

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World Computer Law Congress (1996) at 21 (citing UNIDROIT, Principles of International Commercial Contracts, art. 2.20).

175. U.C.C. § 2B-302 (Proposed Draft, Sept. 25, 1997).

176. U.C.C. § 2B-302(a) (Proposed Draft, Sept. 25, 1997).

177. U.C.C. § 2B-302(b) (Proposed Draft, Sept. 25, 1997).

178. U.C.C. § 2B-302(b)(1) (Proposed Draft, Sept. 25, 1997). Course of performance trumps course of dealing and usage of trade. Course of dealing has a higher standing than the usage of trade. License agreements may be modified without consideration; a result contrary to common law but parallel to Articles 2 and 2A. License agreements which modify a contract are "binding without consideration." *Id.*

179. U.C.C. § 2B-305 (Proposed Draft, Sept. 25, 1997).

180. U.C.C. § 2B-305, Reporter's Note No. 4 (Proposed Draft, Sept. 25, 1997).

181. U.C.C. § 2B-306 (Proposed Draft, Sept. 25, 1997).

Article 2.[182]

1. *Default for Duration*

Article 2B provides default terms for the licensing of information. The license agreement has a duration for a reasonable time if the parties do not specify a tailored duration term.[183] If a license agreement provides for "the sale or delivery of [a] copy . . . the duration of the license as to the copy is perpetual."[184] The default or gap-filler term for duration of the license agreement is a "reasonable time" based upon commercial circumstances.

2. *Improvements and Modifications*

Neither party to a licensing agreement have any rights to modifications or improvements made by the other party in the absence of agreement.[185] Similarly, neither party has a right to source code, object code or master copies of information. A licensor may agree to provide improvements or enhancements. In the absence of an agreement, there is no entitlement to improvements or new releases of software.[186] Article 2B does not deal with trademark licenses. However, the new article does create a duty to retain the value of information, including trademarks.[187]

3. *Meaning of the Grant of Licenses*

Article 2B also provides default interpretations for the meaning of granting clauses in license agreements. A grant of "all possible rights and media in information" means what is "now known or later devised."[188] A "license grants" all rights expressly described and all rights within the licensor's control during the duration of the license."[189]

4. *Rights to Information in Originating Party*

Many information transactions involve the sharing of confidential information. The essence of many information transfers is the use of confidential data bases such as customer lists, credit histories, or business trend data in selected industries. Article 2B provides rules on the

182. U.C.C. § 2B-103, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).
183. U.C.C. § 2B-308 (Proposed Draft, Sept. 25, 1997).
184. U.C.C. § 2B-308(2) (Proposed Draft, Sept. 25, 1997).
185. U.C.C. § 2B-309 (Proposed Draft, Sept. 25, 1997).
186. U.C.C. § 2B-308(c) (Proposed Draft, Sept. 25, 1997).
187. U.C.C. § 2B-310(a) (Proposed Draft, Sept. 25, 1997) (stating that there is a duty to "not use or alter the licensed information in a manner that dilutes the value of the image, trademark or similar material").
188. U.C.C. § 2B-307 (Proposed Draft, Sept. 25, 1997).
189. U.C.C. § 2B-307(a) (Proposed Draft, Sept. 25, 1997).

use of confidential information where the parties do not have negotiated provisions on the duty to keep information transfers confidential. Confidential information may be used only for the purposes authorized by the agreement.[190] The parties jointly own technical or scientific information developed jointly. The use of information must be consistent with purposes authorized by the agreement.[191] Both parties have an obligation to protect the confidentiality of jointly developed information. Information developed by one party is owned by that party.[192] The parties are free to reallocate rights to information in specially tailored license agreements.

H. The Battle of the Forms in Cyberspace

Article 2B is the first commercial law to provide ground rules for standard form information contracts. The rules for efficiently resolving the battle of the forms have eluded several generations of legal academics. Recently, a new committee has been established to study the battle of the forms in cyberspace.[193] The typical licensor using standard forms is a repeat player who uses standard forms for a variety of customers.[194] Standard form contracts are covered in the Section 2B-207 to Section 2B-209 constellation.[195] These provisions assume that the parties have formed a valid agreement under the formation rules of Part 2 of Article 2B.

Article 2B follows the sales article in rejecting the discredited "last shot" doctrine of classical contract law. Article 2B resolves the conflicting term problem by "knocking out" any different or additional terms. The Code avoids the "last shot" problem" by making it irrelevant when a form was first received or sent.[196]

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190. U.C.C. § 2B-309(a)(1) (Proposed Draft, Sept. 25, 1997).

191. U.C.C. § 2B-309(b)(1) (Proposed Draft, Sept. 25, 1997).

192. U.C.C. § 2B-309(b)(2) (Proposed Draft, Sept. 25, 1997).

193. Thomas McCarthy chairs the special task force on Article 2B's battle of the forms. I am a participant in this special committee along with several other members of the information transfer committee of the ABA's Business Law Section. As this article goes to press, it is unclear how the battle of the forms in cyberspace will be resolved in Article 2B.

194. U.C.C. § 2B-102(a)(42) (Proposed Draft, Sept. 25, 1997).

195. Section 2B-207 covers the scenario where there is *only one standard form* in a non-mass-market context. This section legitimizes the use of standard forms in a commercial context and provides the equivalent of procedural protection to the licensee. Single standard form agreements are enforceable so long as the licensee has agreed to or otherwise manifested assent to the form. Section 2B-208 legitimizes and provides procedural protection for *single-form* mass-market license agreements. Many of these transactions are between repeat player licensors and consumers. Section 2B-209 provides the ground rules where there is an exchange of *two standard* forms. *See generally* U.C.C. § 2B-209 (Proposed Draft, Sept. 25, 1997).

196. U.C.C. § 2B-209 (Proposed Draft, Sept. 25, 1997).

Article 2B's "knockout rule" posits three exceptions. A licensor may still be the "master of her offer" if she "conditions assent on agreement to its terms . . . and the other party by language or conduct agrees to the form."[197] A second exception to Article 2B's "knock out" provision is where the parties have executed an authenticated record.[198]

The third and most critical exception is where the forms conflict about the scope of the license. Scope refers to the particular authorized uses of licensed information, the geographic or market are to which the license applies and the duration of the license.[199] If the parties are unable to agree upon the scope of an information contract, there is such fundamental disagreement that no contract exists.[200] If the parties agree on the scope of the license, neither standard form is enforceable.[201] Article 2B's default is for the licensor's provision on scope to serve as the default where the conflicting terms do not agree on interpretation of the scope.

I. WARRANTIES FOR INFORMATION IN CYBERSPACE

Article 2B divides warranties into two types: warranties of authority, and performance-based warranties of quality. Article 2B recognizes warranties of authority, quiet enjoyment and non-infringement.[202] Article 2B uses a "reason to know" negligence-based standard for the warranty of infringement for both licensors and licensees.[203] Section 2B-401 has its functional equivalent in Article 2's warranty of title.[204] There are also special warranties for exclusive licenses.[205] Article 2B expands the scope of the warranty for infringement to include the use of information.[206]

1. *Warranty of Authority*

Article 2B licensors warrant that they have the authority to transfer information that is the subject of a license agreement.[207] The warranty of authority is the functional equivalent to Article 2's warranty of title.

197. U.C.C. § 2B-209 (1) (Proposed Draft, Sept. 25, 1997).
198. U.C.C. § 2B-209(d) (Proposed Draft, Sept. 25, 1997).
199. U.C.C. § 2B-102(a)(38) (Proposed Draft, Sept. 25, 1997) (referring to terms in a license that limit the "number of users authorized, prohibited, or controlled; the geographic area, market, or location in which the license applies; and the duration of the license").
200. U.C.C. § 2B-209, Reporter's Note No. 7 (Proposed Draft, Sept. 25, 1997).
201. *Id.*
202. U.C.C. § 2B-401 (Proposed Draft, Sept. 25, 1997).
203. U.C.C. § 2B-401, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).
204. U.C.C. § 2-312 (1995).
205. U.C.C. § 2B-401(a)(2) (Proposed Draft, Sept. 25, 1997).
206. U.C.C. § 2B-401, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).
207. U.C.C. § 2B-401(a)(1) (Proposed Draft, Sept. 25, 1997).

Article 2B's warranty of authority provides a party that the licensee is not purchasing an intellectual property lawsuit. Consumer representatives argue that it is too easy for the licensor to eliminate any warranty or representation that the software does not infringe the intellectual property of third parties.[208] Article 2's warranty of title imposes a strict liability standard if goods infringe title or intellectual property rights of others.[209] Article 2B adopts a lesser standard of "reasonable care" and makes it easy to disclaim the warranty of authority.[210]

2. *Warranty of Quiet Enjoyment*

The doctrine of quiet enjoyment or possession is essentially a warranty that a licensee is not disturbed in their use of software or information. Article 2B adapts the warranty of quiet possession to the electronic age. A licensee is entitled to use of software or computer software without disturbance of quiet possession. Section 2B-401 creates a warranty of quiet enjoyment and the right of the licensee to continue in the possession of information for the duration of the license agreement. The essence of the quiet enjoyment warranty is the right of a licensee to use information, data or software for the duration of the license without interference by a licensor or a third party.

3. *Warranty Against Infringement*

Licensing agreements will frequently allocate the risk of infringement claims by third parties. Article 2B adopts a "no knowledge" default term covering infringement actions.[211] The negligence-based "reason to know" warranty for intangibles is in contrast to the absolute liability standard of Article 2.[212]

Article 2B's infringement default covering quiet enjoyment and the right to continue in possession of property, covers the entire term of the license agreement.[213] Article 2's protection against infringement claims by third parties applies only at the moment of tender and does not extend to the period in which the goods are used.[214] Article 2B recognizes licensing software is frequently done on a worldwide basis. Article 2B

208. Hillebrand, *supra* note 167.

209. U.C.C. § 2-312 (1995).

210. Hillebrand, *supra* note 167.

211. U.C.C. § 2B-401, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).

212. U.C.C. § 2-312(1)(a) (1995) (stating that "title conveyed shall be good, and its transfer rightful . . ."); U.C.C. § 2B-401, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997) (stating that "Article 2B uses a reason to know standard for the warranty of infringement" in contrast to the absolute liability standard of Article 2).

213. U.C.C. § 2B-401, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

214. U.C.C. § 2B-401, General Note No. 5 (Proposed Draft, Sept. 25, 1997). *See also* U.C.C. § 2-312 (1995).

limits the warranty of infringement to countries which have treaties or other binding agreements with the United States as to intellectual property protection.[215]

4. *Exclusive License Warranties*

Mass marketed licenses such as Quicken, Power Point, and Word Perfect are classic examples of non-exclusive licenses accessible by countless numbers of users. Many licensees will have the right to use software that is under a non-exclusive license agreement. In contrast, a customized license is frequently exclusive. The exclusive licensee gives the licensee the power to exclude all other users of information including the licensor. The warranties are defined differently for exclusive license agreements. A licensor offers two other warranties where the license is exclusive. First, there is a warranty that the intellectual property rights be conveyed are "valid." The information transferred in an exclusive license must not be accessible by third parties. The *sine qua non* of an exclusive license agreement is that the intellectual property rights be exclusive to the licensor and be "within the scope of the license for the information delivered as a whole . . . ."[216] This means that the information may not be accessible by others or be in the public domain. Secondly, the licensor's granting clause warrants that the information rights are exclusive to the licensor. The rights are non-exclusive, if for example, there is a joint invention or there is prior art developed by another party.

5. *Warranties of Quality*

a. Express Warranties

Article 2B validates express warranties that are virtually identical to Article 2 express warranties. Express warranties are defined as "[a]n affirmation of fact, promise or description of information made by the licensor to its licensee . . . ."[217] Express warranties may be created by a "sample, model or demonstration" of an information product.[218] As with Article 2, there is no requirement that a warrantor use words of "warranty" or "guarantee."[219] Any affirmation of fact, promise or description creates an express warranty, whether or not the licensor "use[d] formal words, such as 'warrant' or 'guarantee,' or state a specific intention to make a warranty."[220]

215. U.C.C. § 2B-401(b)(3) (Proposed Draft, Sept. 25, 1997).
216. U.C.C. § 2B-401(a)(2) (Proposed Draft, Sept. 25, 1997).
217. U.C.C. § 2B-402(a)(1) (Proposed Draft, Sept. 25, 1997).
218. U.C.C. § 2B-402(a)(2) (Proposed Draft, Sept. 25, 1997).
219. U.C.C. § 2B-402(b) (Proposed Draft, Sept. 25, 1997).
220. *Id.*

The default is that express warranties are not made for the accuracy of "published informational content."[221] Any "affirmation of fact, promise or description of information made by the licensor to its licensee in any manner," creates an express warranty.[222] Express warranties for information transfer "relate to the information and becomes part of the basis of the bargain . . . ."[223] If a vendor demonstrates a computer software package, the demonstration may "create an express warranty that the performance of the information will reasonably conform to the performance illustrated by the . . . demonstration . . . ."[224]

Section 2B-402 addresses the narrow question of express warranties. A developer of prepackaged software that gives written warranties to consumers may also be subject to the required disclosures of the Magnuson-Moss Act.[225]

b. Implied Warranties of Quality

The implied warranties of quality stem from three separate paths of the law. First, there is a software warranty as to quality. This warranty is results-oriented. The warranty of quality is a concept assimilated from Article 2. "Brakeless cars" violate the implied warranty of merchantability as do exploding televisions. Results count, not efforts. With a mass market software contract, it is expected that a diskette as well as the software on the diskette are "merchantable."

The second path of software warranty law is derived for the common law of services. The law of services is not result-oriented but is based upon a standard of reasonable workmanlike effort. Here, effort counts not necessarily results. The common law of services bases its standard of performance on a professional and workmanlike manner. A large number of software contracts are essentially the rendering of professional services. The third path of software warranty grows out of the tort law doctrine of negligence. Tort law provides a remedy to a licensee where the licensor is providing "business guidance." Article 2B adopts the well established legal principle that a person or entity rendering

221. U.C.C. § 2B-402(c) (Proposed Draft, Sept. 25, 1997).

222. U.C.C. § 2B-402(a)(1) (Proposed Draft, Sept. 25, 1997).

223. *Id.*

224. U.C.C. § 2B-402(a)(2) (Proposed Draft, Sept. 25, 1997).

225. The Magnuson-Moss Warranty—Federal Trade Commission Improvement Act provides remedies for consumer products. 15 U.S.C. § 2301, 88 Stat. 2183 (1975). Magnuson-Moss gives a written warranty or who is obligated under an implied warranty. 15 U.S.C. § 2301(5) (1975). A licensor of mass-marketed software may be subject to selling consumer products although there is no case law establishing that duty. There is little authority on whether the Magnuson-Moss Act on consumer sales applies to the licensing of consumer or mass market software.

business guidance does not guarantee results, but must exercise reasonable care.

Article 2B's merchantability applies to merchants "with respect to information of that kind . . . ."[226] Article 2B has parallel provisions to Article 2's implied warranty of "merchantability"[227] and implied warranty of "fitness for a particular purpose."[228] Article 2B warranties are a legal hybrid drawing concepts and methods from Article 2, tort law and the common law of services.

Warranties are treated differently depending on whether the software is mass-marketed or customized. Merchants warrant the physical media on which the program is transferred.[229] Merchantability is the standard for mass marketed computer programs. Merchantability is based upon comparative, standardized industry norms, whereas the reference for custom software is the documentation promised in individually negotiated agreements.

Merchantability under Article 2 sales law defines six minimum performance standards for all goods unless disclaimed.[230] Merchantability for Article 2B mass marketed licenses consists of five minimum performance standards.[231] The implied warranties of merchantability mirror Article 2 and like Article 2, are typically disclaimed or limited. The implied warranties of quality are typically disclaimed or limited.[232] Consumer stakeholders propose strengthening the implied warranties section of Article 2B. The Consumer's Union recommends that implied warranties be fortified by precluding the disclaimers of implied warranties of merchantability in consumer software and on-line information transfers.[233] Article 2's doctrine of "failure of essential purpose" makes it possible for a court to strike down a vendor's exclusive remedy where it

226. U.C.C. § 2B-403(a) (Proposed Draft, Sept. 25, 1997).

227. U.C.C. § 2-314 (1995).

228. U.C.C. § 2-315 (1995).

229. U.C.C. § 2B-403(b) (Proposed Draft, Sept. 25, 1997).

230. U.C.C. § 2-314 (1995).

231. All programs and the tangible media must:

> (1) pass without objection in the trade under the contract description; (2) be fit for the ordinary purposes for which it is distributed; (3) conform to the promise or affirmations of fact made on the container or label, if any; (4) in the case of multiple copies, consist of copies that are, within the variations permitted by the agreement, of even kind, quality, and quantity, within each unit and among all units involved; and (5) be adequately packaged and labeled as the agreement or circumstances may require.

U.C.C. § 2B-403(a)(1)-(5) (Proposed Draft, Sept. 25, 1997).

232. U.C.C. § 2B-403, General Note No. 5 (Proposed Draft, Sept. 25, 1997).

233. Hillebrand, *supra* note 167.

is, in effect, no remedy at all.[234] Another policy alternative would be to make it more difficult to disclaim the implied warranty of merchantability.[235]

c. Implied Warranties of Content

Article 2B adopts an "Implied Warranty [for] Informational Content."[236] Section 2B-404 creates a warranty that applies to any merchant providing information content "in a special relationship of reliance" or services.[237] The "content warranty" does not cover the "aesthetic value, commercial success, or market appeal of the content . . . ."[238] A merchant represents only that no inaccuracy in the information content is the result of her failure to exercise reasonable care or perform the license agreement with a workmanlike effort.

The merchant does not make warranties for information deficits caused by third persons to services, access, data or data processing.[239] The warranty of information content is based upon the common law of service contracts.[240] The warranty for information and services is similar to the professional standard of care demanded of lawyers, architects, and doctors. The standard is the professional standard of care rather than perfect results. A contracting party that provides inaccurate information is not automatically in breach unless the inaccuracy is the product of personal fault.[241]

d. Warranty of System Integration

The warranty of system integration arises chiefly in software development and design contracts. A software development or design contract typically involves software that is developed, designed or modified to fulfill a licensee's specialized needs. For example, a Health Maintenance Organization may contract for a program to transmit patient records to branch hospitals. Article 2B devises a default term for the warranty of fitness or system integration.[242] The implied warranty of system inte-

234. Article 2B has not adopted Article 2's "failure of essential purpose." Section 2-719(2) states that: "[w]here circumstances cause an exclusive or limited remedy to fail of its essential purpose, remedy may be had as provided in this Act." U.C.C. § 2-719(2) (1995).

235. The "[r]emedies for breach of warranty may be limited in accordance with the provision[ ] of this article [Article 2B] on liquidation or limitation of damages and contractual modification of remedy." U.C.C. § 2B-406(g) (Proposed Draft, Sept. 25, 1997).

236. U.C.C. § 2B-404 (Proposed Draft, Sept. 25, 1997).

237. U.C.C. § 2B-404, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

238. U.C.C. § 2B-404(b)(1) (Proposed Draft, Sept. 25, 1997).

239. U.C.C. § 2B-404(b)(4) (Proposed Draft, Sept. 25, 1997).

240. U.C.C. § 2B-404, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

241. U.C.C. § 2B-404, General Note No. 2 (Proposed Draft, Sept. 25, 1997).

242. U.C.C. § 2B-405 (Proposed Draft, Sept. 25, 1997).

gration adapts Article 2's warranty of fitness[243] for a particular purpose to the information age. The system integration warranty pays the licensor for its time or effort even if the computer program does not function consistent with the goals of the licensees.[244] The standard is that a licensor will make a "workmanlike effort to achieve the licensee's purpose . . . ."[245]

e. Disclaiming Warranties In Cyberspace

Article 2B prescribes a safe harbor for modifying, limiting or disclaiming warranties in Section 2B-406. Section 2B-406 requires that the "language of disclaimer or modification . . . be in a record."[246] Article 2B has a prescribed methodology for disclaiming or limiting warranties created under Section 2B-403 and Section 2B-404. The language of disclaimer must mention "quality" or "merchantability" in order to be effective.[247] Under Article 2, a disclaimer is effective if a seller of goods uses prescribed language or engages in conduct that makes it clear that she is negating or limiting warranties. The exclusion or modification of warranties for the transfer of information or intangibles parallel the well established disclaimer rules for the law of sales.

The only practical way to disclaim express warranties of quality are not to make "affirmations of fact" about information products. The U.C.C. finds it incongruous that a seller or licensor would make an affirmative statement about goods or information becoming the basis of the bargain and then attempt to disclaim it.

Section 2B-406(b)(3) provides a safe harbor for disclaiming a warranty for a particular purpose in an information contract. It suffices to say that, "[t]here is no warranty that . . . [the subject of this transaction] will fulfill any of your particular purposes or needs . . . ."[248] Implied warranties are disclaimable or modified by "course of performance or course of dealing."[249] Article 2 does not grant an implied warranty for defects in software or information contracts known by the licensee before entering the contract.[250]

Liability allocations are key to the licensing of intangibles. Licensors strive to limit liability, whereas the user seeks to enlarge it.[251]

243. U.C.C § 2-315 (1995).
244. U.C.C. § 2B-405(a)(2) (Proposed Draft, Sept 25, 1997).
245. *Id.*
246. U.C.C. § 2B-406(b)(1) (Proposed Draft, Sept. 25, 1997).
247. U.C.C. § 2B-406(b)(2) (Proposed Draft, Sept. 25, 1997).
248. U.C.C. § 2B-406 (b)(3) (Proposed Draft, Sept. 25, 1997).
249. U.C.C. § 2B-406(b)(5) (Proposed Draft, Sept. 25, 1997).
250. U.C.C. § 2B-406(c) (Proposed Draft, Sept. 25, 1997).
251. Herbert J. Hammond, *Limiting and Dealing With Liability in Software Contracts*, 9 THE COMP. LAW. 22 (June 1992).

Under Article 2, a disclaimer occurs when a seller of goods uses language or conduct to negate or limit implied warranties.[252] The implied warranty of merchantability is excluded in 2-316 by "merchantability" and is conspicuous in the case of writing.[253] Implied warranties are also excluded by phrases such as "as is" or other language making it clear that warranties are excluded.[254]

The exclusion or modification of warranties for intangibles parallels the methodology for disclaiming warranties found in Article 2. To exclude an implied warranty, there must be a mention of "warranty of satisfactory quality" or "merchantability," "warranty of accuracy" or similar language in a record.[255] To disclaim all implied warranties in a mass-market license, it is sufficient to state the following: "[e]xcept for express warranties stated in this contract, if any, this [information] [computer program] is being provided with all faults, and the entire risk as to satisfactory quality, performance, accuracy, and effort is with the user, or words of similar import."[256]

J. Special Rules for Mass-Market Licenses

Article 2B has constructed a new concept of the mass market license covering the retail market for information. Should off-the-shelf software like WordPerfect be treated like the sale of goods? Mass-marketed licenses require that language follow the methodology in Section 2B-406.[257] Conspicuous language is required to disclaim warranties in mass market licenses.[258] Expressions such as "as is," "with all faults," or similar words are sufficient to disclaim liability.[259] Disclaimers may be implied from a course of performance or dealing.[260]

K. Warranties Against Cyberspace Viruses

Electronic viruses are destructive computer instruction designed to damage or destroy intangibles. The discovery of viruses is a hazardous enterprise as viruses are deliberately designed to bypass virus detection programs. Article 2B imposes a negligence standard in allocating losses caused by computer viruses.[261] Mass market protections are extended beyond consumers to business transactions covering Fortune 500 compa-

252. *See* U.C.C. § 2-316 (1995).
253. U.C.C. § 2-316(2) (1995).
254. U.C.C. § 2-316(3)(a) (1995).
255. U.C.C. § 2B-406(b) (Proposed Draft, Sept. 25, 1997).
256. U.C.C. § 2B-406(d) (Proposed Draft, Sept. 25, 1997).
257. *Id.*
258. *Id.*
259. U.C.C. § 2B-406(b)(4) (Proposed Draft, Sept. 25, 1997).
260. U.C.C. § 2B-406(b)(5) (Proposed Draft, Sept. 25, 1997).
261. U.C.C. § 2B-311 (Proposed Draft, Sept. 25, 1997).

nies which purchase software or other information in a retail type market place. The mass market transaction follows on the nature of the business transaction, not the status of the parties. A party must exercise reasonable care in ensuring that there is no undisclosed destructive virus in an information transfer.[262]

A negligence based standard would make a party liable for introducing viruses or extraneous code preventable by the exercise of reasonable care. A strict liability standard would make a licensor liable irrespective of the standard of care. Article 2B does not deal with criminal liability for knowingly introducing a virus in an information transfer.[263] One of the problems of software viruses is that they are unknown and in many cases unknowable. The negligence based standard recognizes that it may be impossible for a licensor to guard against viruses that may be introduced after its leaves a licensor's control. The mutual obligation to exercise reasonable care against viruses is a reasonable solution to a unknown and unknowable problem of viruses. The October draft of Article 2B has eliminated the section on computer viruses leaving this hot button issue to the courts and legislatures.

L. ASSIGNABILITY IN CYBERSPACE

The free assignability of contracts is a well recognized principle under the Uniform Commercial Code.[264] Article 2B allows the free assignment of a party's rights under a license agreement "unless the transfer would materially change the duty of the other party . . . ."[265] Section 2B-502 gives voice to the industry norm that licenses are freely assignable so long as there is no material change in the burden facing the other party.[266]

Licenses frequently have anti-assignment clauses where a licensee cannot voluntarily or involuntarily assign its rights under a nonexclusive license absent the licensor's consent. This standard gives formal recognition to the widespread industry norm that most agreements have non-assignability provisions restricting sublicensing. Attempted assignability is often treated as an act of default permitting a licensor to immediately terminate the agreement.

Under Article 2A, a lessor's alienation of its interest in lease pay-

262. U.C.C. § 2B-311(b) (Proposed Draft, Sept. 25, 1997).

263. U.C.C. § 2B-311, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).

264. T.M. QUINN, QUINN'S UNIFORM COMMERCIAL CODE COMMENTARY AND LAW DIGEST § 9.318(A) at 9-404 (2d ed. 1991) ("[t]he Code assumes the existence and operation of the general law of assignments and adjusts that law as need requires to suits its special purposes").

265. U.C.C. § 2B-502 (Proposed Draft, Sept. 25, 1997).

266. U.C.C. § 2B-502, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997).

ments triggers a default.[267] The anti-assignment rule is a software industry norm but departs from the overarching U.C.C. principle of free assignability.[268] Section 2B-502 follows the general principal of free transferability subject to situations where the transfer will cause hardship to the other party.[269] Article 2B-504 provides for the creation of a "Financier's Interest in a License."[270] A financier's interest in an information contract may be transferred freely.[271] Section 2B-504 defines the financier's interest as contractual rights that may be transferred.[272]

M. Performance Standards for Licensing Intangibles

Part Six of Article 2B provides provisions that parallel the sales doctrines of tender, acceptance, rejection and revocation. The general obligation of the parties is to "perform in a manner that conforms to the contract."[273] The license agreement in customized transactions spells out acceptance criteria in detail.[274] The net effect of these provisions is to provide a framework of general construction and performance tailored for licensing intangibles. Article 2B performance is always assessed against standards of reasonable commercial standards.[275] The performance standard of material breach (or substantial performance) is the key measure for canceling or refusing a performance.[276] Performance standards are concurrent. Substantial performance of the parties in an information contract is conditional on the substantial performance of the other party. Article 2B's adoption of the substantial performance standard is consistent with the "fundamental breach" standard of The Convention on the International Sale of Goods ("CISG").[277]

Section 2B-602 provides special ground rules for "Submissions of In-

267. U.C.C. § 2A-501(2) (1995).

268. Article 9 has several provisions which invalidate anti-assignment clauses. *See e.g.*, U.C.C. §§ 9-318(4), 2-210(2), and 2A-303 invalidate anti-assignment clauses. *See also* Edwin E. Smith, *Article 9 in Revision: A Proposal for Permitting Security Interests in Nonassignable Contracts and Permits*, 28 Loy. L.A. L. Rev. 335, 338 (1994).

269. U.C.C. § 2B-502, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997).

270. U.C.C. § 2B-504 (Proposed Draft, Sept. 25, 1997).

271. *Id.*

272. U.C.C. § 2B-504, Reporter' Note No. 2 (Proposed Draft, Sept. 25, 1997).

273. U.C.C. § 2B-601(a) (Proposed Draft, Sept. 25, 1997).

274. Acceptance criteria may include "user-friendliness, specifications, performance criteria, platform (including operating system) supported, performance criteria, platform (including operating system) supported, compatibility requirements, installment requirements, quality criteria, testing procedures (including who is to perform the tests), and other relevant items should be described in sufficient detail." Marc Sandy Block, *Technology Licensing and Litigation 1996: Software Licensing*, 477 PLI/Pat 257, 281 (April-May 1997).

275. U.C.C. § 2B-601 (Proposed Draft, Sept. 25, 1997).

276. U.C.C. § 2B-601(b) (Proposed Draft, Sept. 25, 1997).

277. U.C.C. § 2B-601, General Note No. 3 (Proposed Draft, Sept. 25, 1997).

formational Content."[278] This section deals with the problem of information content which is analogous to publishing books.[279] The right to correct deficiencies is measured by reasonable trade or industry practices.[280] The rejection of information content contracts requires "an express, affirmative indication of refusal or acceptance of the submission to the licensor."[281] The legal effect of refusing information content terminates but does not breach the contract.[282]

"If information content is not satisfactory . . . the parties may engage in efforts to correct the deficiencies . . . ."[283] Section 2B-603 defines the licensor's obligations in activating access to information.[284] LEXIS or WESTLAW require accounts to be activated by a password. "If no act is required to make information available," activation begins with contract execution.[285] If copies are delivered electronically as with LEXIS or WESTLAW, the licensor activates rights by "authorization codes, addresses, acknowledgments" or other means."[286]

Article 2B's default performance standard is tempered by the general norm of "reasonable commercial standards."[287] The basic rule is that the right to cancel an Article 2B contract requires a higher threshold of performance deficit than Article 2's perfect tender rule. Article 2B adopts the material breach standard for performance. Article 2 will not permit contract cancellation where there are only minor bugs which can be cured. If minor bugs are found in a program, they are not considered to be such a serious concern to warrant cancellation.[288] A licensee is entitled to any damages caused by minor bugs, but has no right to cancel the remainder of the agreement.

N. Mass Market Performance Standard

Article 2 devises a less stringent performance standard of performance for mass market transactions. A mass-market licensee has a right to refuse a licensor's performance if it "does not conform to the contract."[289] Article 2B's perfect tender rule is narrowly confined to mass

278. U.C.C. § 2B-602 (Proposed Draft, Sept. 25, 1997).
279. U.C.C. § 2B-602, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).
280. U.C.C. § 2B-602(a)(2) (Proposed Draft, Sept. 25, 1997).
281. U.C.C. § 2B-602(a)(3) (Proposed Draft, Sept. 25, 1997).
282. U.C.C. § 2B-602(a)(4) (Proposed Draft, Sept. 25, 1997).
283. U.C.C. § 2B-602(a)(2) (Proposed Draft, Sept. 25, 1997).
284. U.C.C. § 2B-603 (Proposed Draft, Sept. 25, 1997).
285. U.C.C. § 2B-603(c) (Proposed Draft, Sept. 25, 1997).
286. U.C.C. § 2B-603(d)(1)(B) (Proposed Draft, Sept. 25, 1997).
287. U.C.C. § 2B-601, General Note No. 1 (Proposed Draft, Sept. 25, 1997).
288. U.C.C. § 2B-601, General Note No. 5 (Proposed Draft, Sept. 25, 1997).
289. U.C.C. § 2B-601(c) (Proposed Draft, Sept. 25, 1997).

market transactions.[290] Non-mass market licensors are held to the less rigorous standard of "material breach." Good faith is required in all U.C.C. transactions.[291]

1. *Access or Online Service Performance*

The "substantial performance" standard also would seem to apply to continuous access contracts entered into by consumers. Temporary interruptions of service from information providers such as American Online or WESTLAW do not constitute a grounds for cancellation of a license agreement. Article 2B requires the disappointed party to prove that a breach has significantly impaired the receipt of value expected from a license agreement. The perfect tender rule for mass-market transactions applies only when there is delivery of a copy on a physical medium.

2. *"Material Breach" and Customized Software*

Proposed Article 2B replaces Article 2's perfect tender rule with a "material breach" or "substantial performance" standard for non-mass market transactions.[292] A non-mass market licensee may not reject performance or cancel a contract unless a breach is material. The material breach standard is harmonized with common law services contracts. Proposed Article 2B takes into account the relational or ongoing nature of software licensing contracts. The typical developmental contract involves adjustments and readjustments unlike a mass-market license delivered on a "take it or leave it" basis. Custom-made software contracts frequently contemplate a period of "acceptance testing" in which minor bugs are fixed. In contrast, mass-market licenses resemble the sales transaction, where tender of payment is given in return for conforming goods.[293]

O. LICENSEE'S RIGHT OF INSPECTION

The duties of performance in an Article 2B licensee agreement are reciprocal. Each party's duty to perform is contingent upon the other party's performance.[294] Payment is due upon acceptance of the licensor's

290. The common law doctrine of *de minimis* likely applies to Article 2B. The *de minimus* doctrine is that the law will not take notice of trivial defects even under a regime of perfect tender. The perfect tender rule does not mean that the tendered information is in fact perfect. The perfect tender rule requires that the software meet the general contract description in light of ordinary expectations and trade use.

291. U.C.C. § 1-203 (1995).

292. U.C.C. § 2B-601 (Proposed Draft, Sept. 25, 1997).

293. U.C.C. § 2-301 (1995).

294. U.C.C. § 2B-601(b) (Proposed Draft, Sept. 25, 1997)

performance.[295] A licensee has a right to inspect the information at a reasonable time and manner.[296] A licensee has this same right in the transfer of information commodities.[297]

In a sale of goods, the buyer has an absolute right to inspection before payment.[298] A licensee also has a right of inspection before payment in the transfer of information commodities.[299] The default rule is that the licensee bears inspection expenses.[300] Article 2B attempts to balance the licensee's right of inspection with its duty to keep information confidential. Many information transfers are subject to the norm of confidentiality.

Commodities of information frequently contain trade secrets and other confidential information. Dunn and Bradstreet, for example, licenses credit reports of millions of individuals and businesses. A licensee's right to "inspect" Dunn and Bradstreet is restricted to a legitimate "need to know" basis.[301] It is common sense that the licensee's inspection rights to credit reports would be restricted by the duty to keep reports confidential. If confidentiality could not be assured, the firm would soon lose its informational crown jewels to competitors. The licensee's right of inspection to information is, however, subject to the norm of confidentiality.[302]

P. Acceptance and the Effect of Acceptance

1. *Rejection and the Legal Effect of Rejection*

Article 2B's "refusal of defective tender" is the functional equivalent to Article 2's doctrine of rejection.[303] A licensee's inaction in failing to reject may constitute acceptance in an information contract. Article 2B[304] follows Article 2's framework in making each party's performance

295. U.C.C. § 2B-605 (Proposed Draft, Sept. 25, 1997).

296. U.C.C. § 2B-609(a)(1) (Proposed Draft, Sept. 25, 1997).

297. U.C.C. § 2B-609 (Proposed Draft, Sept. 25, 1997).

298. Article 2 places the buyer's "feet to the fire" upon tender of delivery of goods. A buyer must either accept or reject. Article 2B employs a similar dichotomy. Once performance is tendered, the licensee must accept or reject. The legal significance of acceptance by the licensee is the triggering of payment according to the performance terms.

299. U.C.C. § 2B-609 (Proposed Draft, Sept. 25, 1997).

300. *Id.*

301. Jim Maxeiner, Vice President of Dunn and Bradstreet provided me with this example of the need for confidentiality which must be balanced against the licensee's right to inspect.

302. U.C.C. § 2B-609(a)(4) (Proposed Draft, Sept. 25, 1997).

303. U.C.C. § 2B-610, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).

304. Section 2B-601 makes a party's duty to perform: "contingent on the absence of an uncured material breach by the other party of obligations or duties that precede in time the party's performance." U.C.C. § 2B-601(b) (Proposed Draft, Sept. 25, 1997).

contingent upon the other's performance.[305] Assuming that the performance fails to meet the relevant performance standard,[306] the other party has a right of refusal.[307] Article 2 grants the buyer the right to terminate a contract if it fails to conform in any respect.[308]

2. *Tender and Acceptance*

Article 2B tailors the tender, acceptance, rejection and revocation constellation of concepts to meet the special needs of the Information Age. Mass-marketed goods such as VCRs, toasters, and televisions are tendered to consumer/buyers in stores such as WalMart, K-Mart, and Target. Consumer will select mass-produced goods from store shelves, pay for them at the checkout, and take them home. With access contracts, there is nothing tangible being conveyed. To paraphrase Gertrude Stein, with intangibles there is no there there!

Physical delivery of tangible goods triggers a buyer's right to visually inspect the goods. If the VCR is missing a knob, the store will repair or replace it. Many stores such as WalMart, TJ-Maxx and Marshall's Department Store have policies of consumer satisfaction or your money back. The tender, acceptance, rejection and revocation concepts need to be tailored to meet the special purposes of commercial transactions in information.

Article 2B's framework envisions that mass-market information transfers are similar to the business practices characteristic of the sale of goods. In contrast, customized or tailored contracts have their parallel in service contracts. The tender of goods triggers the buyer's duty "to accept and pay in accordance with the contract."[309]

The proposed Article 2B replaces the concept of the tender of "delivery" with the concept of tendering the "transfer of rights" in information.[310] A transfer of rights occurs when information is made available to the transferee. With a WESTLAW, LEXIS or America Online access contract, nothing physical may be transferred, only the right to access databases. Millions of users have access without the information being depleted.

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305. The seller's delivery obligation is contingent upon the buyer's obligation to pay and vice versa. *See* U.C.C. §§ 2-507 and 2-511 (1995).

306. Article 2B permits a licensee of a mass-market contract to refuse tender if the software fails to conform to the contract. However, for non-mass market transaction, Article 2B requires the non-breaching party to prove a "material breach" standard before transfer of information may be refused or the contract canceled. U.C.C. § 2B-601(b) (Proposed Draft, Sept. 25, 1997).

307. *Id.*

308. U.C.C. § 2-601 (1995).

309. U.C.C. § 2-301 (1995).

310. U.C.C. § 2B-502 (Proposed Draft, Sept. 25, 1997).

Q. Rejection and Revocation of Acceptance

Cyberspace contracting requires a legal infrastructure that is flexible. Under proposed Article 2B, a licensee will have a flexible array of options upon the licensor's nonconforming transfer of information. Article 2B grants the licensee the option to accept or refuse the entire performance or accept any commercial unit and refuse the rest.[311]

A licensor's duty to perform is conditional on substantial performance by the licensee of its obligations under the license. Performance is weighed against commercial reasonableness which is an overarching norm underlying Article 2B. Article 2B recognizes that bug-free software is virtually unknown. The licensee has the full array of remedies for nonmaterial breach short of cancellation or refusal.[312] Minor or nonmaterial breaches are breaches of the licensing contract but are not so serious as to warrant refusal or cancellation.[313]

Revocation is an Article 2 concept that has been accommodated to fit the needs of information contracts. The standard for revocation of acceptance of a sales contract is "substantial impairment" of the contract value.[314] The purpose of revocation of acceptance is to provide the disappointed buyer with some remedy for nonconforming goods once they have crossed the acceptance line. Under Article 2, the revocation of acceptance standard is more stringent than the standard for rejection prior to acceptance which is perfect tender.

If a disappointed buyer can meet the higher burden of proof required for substantial impairment, the buyer is placed in the same position prior to acceptance. Article 2B employs a functionally similar concept with its version of "revocation of acceptance." Revocation places the licensee in the same position as prior to acceptance.[315]

R. The Licensor's Right of Cure

Article 2's concept of cure permits a breaching party to rectify a contract preserving the contractual relationship.[316] Article 2B's concept of cure is more flexible than an Article 2 cure because it applies in both directions, to the licensor and licensee.[317] The Article 2 "cure" is purely a seller's remedy.

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311. U.C.C. § 2B-610(a)(1)-(4) (Proposed Draft, Sept. 25, 1997).

312. U.C.C. § 2B-601(d) (Proposed Draft, Sept. 25, 1997).

313. U.C.C. § 2B-602, Reporter's Note No. 3 (Proposed Draft, Sept. 25, 1997).

314. U.C.C. § 2-608 (1995).

315. U.C.C. § 2B-613, Reporter's Note No. 3 (Proposed Draft, Sept. 25, 1997) (stating that "revocation reverses the effect of acceptance and places the licensee in a position like that of a party who rejected the transfer initially").

316. U.C.C. § 2-508 (1995).

317. U.C.C. § 2B-619, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).

A licensee's performance is deficient if he fails to make timely payments, give adequate accounting, or violates restrictions placed on use. The right to cure is triggered normally where there has been a material breach of performance.[318] To exercise the right to cure, the breaching party must give timely notice and cure promptly.[319] The cure is consistent with the Code's adoption of the common law doctrine of avoidable consequences. A breaching party that cures promptly and effectively has a basic right to have the contractual relationship restored.[320]

A breaching party will typically have an opportunity to cure the breach at their expense. The breaching party must notify the other party and the cure must be accomplished in a prompt fashion.[321] Article 2B does not address the question of whether a breaching party has a right to cure after a licensee's revocation of acceptance.[322] The licensor's right to cure is a mechanism designed to maintain the license agreement.

S. Adequate Assurance of Performance

Article 2B also recognizes the doctrine of adequate assurance of performance.[323] This Article 2B doctrine has its functional equivalent in Section 2-609 of the sales article.[324] The concept of an adequate assurance of performance is essentially a "peace of mind" provision. Not only does a licensee have a right to assume that performance will conform to the contract, but also assurance or "peace of mind" about whether performance will occur. Article 2B's version imposes an obligation on both parties "not to impair another party's expectation of receiving due performance."[325]

Assume that a licensor calls up a licensee and tells the licensee that, "things aren't going well on that development contract, and I don't know whether we'll be able to meet the time table or not." Such a statement impairs the licensee's right to "peace of mind" that the contract obligations will be completed. A licensor might hear a rumor that his licensee was laying off half of its work force and considering bankruptcy. Article 2B provides a mechanism for seeking assurance of performance where there are reasonable grounds for insecurity.

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318. U.C.C. § 2B-619, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997).

319. U.C.C. § 2B-619 (Proposed Draft, Sept. 25, 1997).

320. U.C.C. § 2B-619, Reporter's Note No. 3 (Proposed Draft, Sept. 25, 1997).

321. U.C.C. § 2B-619 (Proposed Draft, Sept. 25, 1997).

322. Under Article 2, there is no explicit provision for a cure after a revocation of acceptance. The courts and commentators are split on the advisability of permitting a cure after a revocation of acceptance.

323. U.C.C. § 2B-621 (Proposed Draft, Sept. 25, 1997).

324. U.C.C. § 2-609 (1997).

325. U.C.C. § 2B-621(a) (Proposed Draft, Sept. 25, 1997).

Either party may seek assurance of performance if there are reasonable grounds for insecurity.[326] If a license agreement is between merchants, the grounds for insecurity are judged by reasonable commercial standards.[327] The methodology for exercising the right to assurance requires two preconditions: (1) reasonable grounds for insecurity and (2) the demand for assurance in a record which is Article 2B's version of a writing. A request for an assurance of performance must be answered within a reasonable time not exceeding 30 days.[328] The legal consequence of not providing assurance is "a repudiation of the contract."[329]

T. Anticipatory Repudiation of Licensing

Anticipatory repudiation occurs where a party to a license advises the other that performance will not be forthcoming. An anticipatory repudiation is the repudiation of a contract that is not yet due. At early common law, the disappointed party would have to wait until the time of performance before filing suit against the repudiator. Article 2's anticipatory repudiation doctrine gives disappointed buyers or sellers a variety of options. The non-breaching party may await performance or treat the repudiation as an immediate breach.[330] Article 2B has a functionally equivalent version of the anticipatory repudiation doctrine. Either party may take advantage of the anticipatory repudiation doctrine in the appropriate case.[331]

U. Article 2B Remedies

The remedies for licensors and licensees under the proposed Article 2B differ markedly from Article 2 remedies, but they share a common lineage. Both Article 2 and 2B have a statutory goal of liberal administration.[332] The U.C.C. follows norms of modern contract theory that seek to place "the aggrieved party in as good a position as if the other party had fully performed."[333] Before remedies are available, the other party must be placed in breach.[334]

The policy underlying Article 2B remedies follows Code jurisprudence in seeking to place the "aggrieved party in the position that would

326. *Id.*
327. U.C.C. § 2B-621(b) (Proposed Draft, Sept. 25, 1997).
328. U.C.C. § 2B-621(d) (Proposed Draft, Sept. 25, 1997).
329. *Id.*
330. U.C.C. § 2-610(a)-(c) (1995).
331. U.C.C. § 2B-622(a)(1) (Proposed Draft, Sept. 25, 1997).
332. U.C.C. § 1-106 (1995) (providing that "remedies . . . shall be liberally administered to the end that the aggrieved party may be put in as good a position as if the other party had fully performed . . .").
333. U.C.C. § 2B-701 (Proposed Draft, Sept. 25, 1997).
334. U.C.C. § 2B-701(c) (Proposed Draft, Sept, 25, 1997).

occur if performance had occurred as agreed."[335] Remedies in Article 2 are divided into buyer's remedies (Section 2-702 to Section 2-710) and seller's remedies (Section 2-711 to Section 2-717). Article 2B's remedies apply to either party.[336]

Article 2B draws a Maginot Line between remedies for material and non-material breaches of information contract. A party may not cancel an information contract unless the other party has committed a material breach of contract which has not been cured.[337] Cancellation is available for material breaches provided that the canceling party notifies the breaching party.[338] The non-breaching party has the option of canceling or continuing the information contract and seeking damages.[339]

1. *Cancellation for Material Breaches*

Cancellation is a remedy available to the non-breaching party only if the breach is material and uncured within a reasonable time.[340] Cancellation is the final act—curtains for the license agreement. Cancellation is a remedy that puts the license agreement out of its misery.[341] The legal effect is that cancellation obviates the other party's duty to perform executory obligations under the license agreement.[342]

Federal intellectual property rights have exclusive jurisdiction over questions of infringement, once the license has ended.[343] While the license agreement is alive and well, there is permission to use information which would otherwise be derogation of copyright, trademark and other intellectual property rights.

Cancellation of the entire contract is only proper if there is a material breach of the entire contract.[344] Once cancellation is triggered by notifying the breaching party, the injured party no longer has a duty to continue to perform executory obligations.[345] Federal intellectual property rights are affected by cancellation.[346]

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335. U.C.C. § 1-106(1) (1995), *reprinted in* U.C.C. § 2B-701, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

336. *See* U.C.C. § 2B-701 (Proposed Draft, Sept. 25, 1997).

337. U.C.C. § 2B-702(a) (Proposed Draft, Sept 25, 1997).

338. U.C.C. § 2B-702(b) (Proposed Draft, Sept. 25, 1997).

339. U.C.C. § 2B-702 (Proposed Draft, Sept. 25, 1997).

340. U.C.C. § 2B-702(a) (Proposed Draft, Sept. 25, 1997).

341. U.C.C. § 2B-702, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997) (describing cancellation as "putting an end to the contract for breach" and contrasting it from termination of contract).

342. U.C.C. § 2B-702, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997).

343. *Id.*

344. *Id.*

345. *Id.*

346. The third Reporter's Note to Section 2B-702 states that, "[i]n order to sue for infringement . . . the licensor must establish that the contract no longer grants permission to

2. *Contractual Modification*

Article 2B validates freedom of contract and specifically "the ability of parties to contractually limit and shape remedies."[347] Parties are free to shape their own remedies in license agreements under Article 2B.[348] Under Article 2B, parties may disclaim consequential and incidental damages.[349] A common industry practice is to limit the remedy to a repair and replacement remedy replacing Article 2B's default remedies.[350] Exclusive remedies are subject to the standards of good faith[351] and unconscionability.[352] Article 2B does not assimilate Article 2's failure of "essential purpose."[353] Article 2 provides that there may be circumstances that cause an "exclusive or limited remedy to fail of its essential purpose."[354] Article 2B will not enforce unconscionable exclusive remedies[355] but does not provide explicitly for the "Failure of Essential Purpose" doctrine.[356]

3. *Liquidated Damages in Cyberspace*

Section 2B-704 validates the use of liquidated damages for online contracts. Section 2B-704 parallels Article 2's § 2-718. Like § 2-718, § 2B-704 will enforce a liquidated damages clause so long as the amount is not unreasonably large.[357] Article 2B follows the standards of Article 2 when it comes to liquidated damages. The liquidated damages clause is reasonable where there are difficulties of proof. The party in breach "is entitled to restitution of the amount by which the payments it made for which performance was not received exceeds the amount to which the other party is entitled under terms liquidating damages . . . ."[358] The breaching party's restitution is subject to offset for damages suffered by the non-breaching party.[359]

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the licensee to do what it alleges that the licensee is doing. A contract claim arises under state law and comes under federal jurisdiction under diversity or pendent jurisdiction concepts." U.C.C. § 2B-702, Reporter's Note No. 3 (Proposed Draft, Sept. 25, 1997).

347. U.C.C. § 2B-703, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

348. U.C.C. § 2B-703 (Proposed Draft, Sept. 25, 1997).

349. U.C.C. § 2B-703(c) (Proposed Draft, Sept. 25, 1997).

350. U.C.C. § 2B-703(a) (Proposed Draft, Sept. 25, 1997).

351. U.C.C. § 1-203 (Proposed Draft, Sept. 25, 1997).

352. U.C.C. § 2B-111 (Proposed Draft, Sept. 25, 1997).

353. U.C.C. § 2-719(2) (1995).

354. *Id.*

355. U.C.C. § 2B-111 (Proposed Draft, Sept. 25, 1997).

356. U.C.C. § 2-719(3) will not enforce exclusive contract remedies that fail of their essential purpose.

357. U.C.C. § 2B-704(a) (Proposed Draft, Sept. 25, 1997).

358. U.C.C. § 2B-704(b) (Proposed Draft, Sept. 25, 1997).

359. U.C.C. § 2B-704(c) (Proposed Draft, Sept. 25, 1997).

4. *Statute of Limitations, § 2B-705*

Article 2B follows Article 2 in imposing a four year statute of limitations.[360] However, Article 2B also has a discovery rule that extends the statute of limitations for one additional year.[361] Article 2B limits actions to the following: "[those] commenced within the later of four years after the right of action accrues or one year after the breach was or should have been discovered, but no longer than five years after the right of action accrued."[362]

Article 2B extends freedom of contract to the definition of the statute of limitations. Parties are free to contract around the four year default statute of limitations period. However, the upper limit is eight years and the lower not less than a year.[363] The accrual of a statute of limitations begins at the point of breach. Breach of warranty actions accrue when the transfer of rights occurs but no later than the warranty expiration.[364]

5. *Damages for Breach, § 2B-707*

Section 2B-707 is a generic damages section, applicable to licensors or licensees. Article 2B bifurcates remedies into seller's and buyer's remedies. In contrast, Article 2B proposes a general measure of damages for breach applicable to either party. The underlying jurisprudence is to place the non-breaching party "in the position that would occur if performance had occurred as agreed."[365] Article 2B includes specific remedies applicable only to the licensor or licensee. The general measure of damages is the unpaid license fees for performance accepted plus direct damages.[366]

Article 2 does not permit the seller to recover consequential damages, only the buyer in the proper case. Section 2-715 provides for consequential and incidental damages for the aggrieved buyer.[367] In contrast, the non-breaching seller may not seek consequential damages. Early drafts of Article 2B had a "no consequential damages" rule for licensors *and* licensees. This doctrine was based upon a broad-based usage of trade in the software industry in which license agreements typically disclaimed all consequential damages.

360. The four-year sales statute of limitations is found in U.C.C. § 2-725 (1995). Article 2B's statute of limitation is articulated in U.C.C. § 2B-705. *See* U.C.C. § 2B-705(a) (Proposed Draft, Sept. 25, 1997).

361. U.C.C. § 2B-705, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

362. U.C.C. § 2B-705(a) (Proposed Draft, Sept. 25, 1997).

363. *Id.*

364. U.C.C. § 2B-705(b) (Proposed Draft, Sept. 25, 1997).

365. U.C.C. § 2B-701, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

366. U.C.C. § 2B-708(1) (Proposed Draft, Sept. 25, 1997).

367. U.C.C. § 2-715 (1995).

The current draft provides for "damages . . . resulting in the ordinary course . . . together with . . . incidental and consequential damages, less . . . expenses avoided as a result of the breach . . . ."[368] The approach is to avoid the formula-driven damages computation of Article 2 in favor of a general approach to recover losses caused by breach.[369]

Article 2B's damages standard is predicated upon the concept of direct or general damages.[370] Direct damages are defined as the difference between expected and received performance.[371] An aggrieved licensee would receive any fee paid for a "refused" copy plus incidental damages plus consequential damages minus expenses saved as the result of the breach.[372] This is a familiar formula borrowed from Article 2 which in turn borrowed it from the common law of contracts.

Direct damages as well as incidental damages less expenses saved as result of the breach is the measure of recovery for non-material breach. Damage to information for any loss or damage that is reasonably foreseeable is also recoverable. The goal is to restore the non-breaching party to the position in which she would have been if the other party performed. Consequential or incidental damages are also recoverable against the breaching party.[373]

6. *Remedy for Misuse of Information*

Article 2B proposes that the breaching party remit the value of any benefit received for disclosure or misuse of information.[374] Article 2B defers to the well established state law remedies[375] for the breach or misuse of trade secrets.[376] The proposed article side-steps the preemption problem by deferring to state trade secrets law.

7. *Avoidable Consequences in Cyberspace*

Article 2B follows the general principle of the avoidable consequences rule. Section 2B-707(c) requires mitigation of damages and places the burden of proof of failure to mitigate on the party asserting avoidable consequences.[377] The avoidable consequences doctrine is a

368. U.C.C. § 2B-707(a) (Proposed Draft, Sept. 25, 1997).

369. U.C.C. § 2B-707, General Note No. 1 (Proposed Draft, Sept. 25, 1997).

370. RESTATEMENT (SECOND) CONTRACTS § 347, *reprinted in* U.C.C. § 2B-707, General Note No. 4 (Proposed Draft, Sept., 25, 1997).

371. *Id.*

372. *Id.*

373. U.C.C. § 2B-707(a) (Proposed Draft, Sept. 25, 1997).

374. U.C.C. § 2B-707(b) (Proposed Draft, Sept. 25, 1997).

375. The Uniform Trade Secrets Act ("U.T.S.A."), has been adopted by the vast majority of states.

376. U.C.C. § 2B-707 (Proposed Draft, Sept. 25, 1997).

377. U.C.C. § 2B-707, General Note No. 5 (Proposed Draft, Sept. 25, 1997).

norm that permeates the jurisprudence of the Code. The policy rationale is that the non-breaching party should efficiently minimize losses due to a breach to preserve resources.

8. *Licensor's Damages, § 2B-708*

A licensor's basic remedy is predicated upon unpaid license agreement fees. The unpaid licensor may receive unpaid fees plus the present value of the total unaccrued contract fees for the remaining portion of the license. However, the present value of expenses saved is subtracted. Profits and general overhead that would have been received by the licensee's performance are recoverable.[378]

The aggrieved may elect to compute damages using Section 2B-707 or Section 2B-708. Either section permits the recovery of incidental and consequential damages. Article 2's preferred remedy of resale is not an option for a licensing of software.[379] However, Article 2B permits a licensor to make a substitute commercial transaction in information.[380]

Consequential damages based upon present value is measured as of the damage of the entry of the judgment.[381] A licensor making a substitute transaction with another licensee must account for the proceeds in computing damages.[382] Article 2B does not preclude a disaffected licensor to pursue remedies under other bodies of law. For example, a licensor may opt for intellectual property rather than Article 2B remedies.[383]

9. *Licensee's Damages, § 2B-709*

Article 2B permits a licensee to elect a remedy just as it does for the licensor.[384] Commercial transactions in information involve extremely diverse information technologies so flexibility is required. The standard licensee's remedy parallels Article 2's comparison of contract price to market price. Market value is determined "as of the place for performance."[385] A second alternative licensee remedy is the Section 2B-707

378. U.C.C. § 2B-708(a) (1)(A)-(C) (Proposed Draft, Sept. 25, 1997).

379. U.C.C. § 2-706 (1995).

380. U.C.C. § 2B-708(b) (Proposed Draft, Sept. 25, 1997).

381. U.C.C. § 2B-708, General Note No. 7 (Proposed Draft, Sept. 25, 1997).

382. U.C.C. § 2B-708(b) (Proposed Draft, Sept. 25, 1997).

> If the breach of contract makes possible a substitute transaction concerning the same subject matter that would not have been possible in the absence of breach, the damages [provided for] in subsection (a) must be reduced by due allowance for the proceeds of any actual substitute transaction or the market value of the substitute transaction that could have been made because of the breach.

Id.

383. U.C.C. § 2B-708, General Note No. 12 (Proposed Draft, Sept. 25, 1997).

384. U.C.C. § 2B-709, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997).

385. U.C.C. § 2B-709(c) (Proposed Draft, Sept. 25, 1997).

remedy for damages for breach.[386] A third remedy applies if the licensee has accepted performance and not revoked acceptance. The following is the remedy in this case:

> [T]he present value, at the time and place of performance of the difference between the value of the performance accepted and the value of the performance had there been no defect, not to exceed the agreed price plus the amounts reasonably expended by the licensee to make the information usable; and the present value of incidental and consequential damages resulting from the breach as of the date of the entry of judgment.[387]

The paradigm for a non-breaching buyer's remedy under Article 2 is cover. Article 2B has no provision that parallels cover.[388]

10. *Recoupment, § 2B-710*

Recoupment is a self help remedy that recognizes the right of an injured party to reduce the amount they pay under a contract by damages resulting from the breach.[389] A non-breaching party may not exercise any recoupment rights unless there is notification to the other party.[390]

11. *Specific Performance, § 2B-711*

Specific performance may be contracted by the parties.[391] As in the common law, it is not appropriate to decree specific performance for personal service contracts.[392] Unlike the sales article, either party may obtain specific performance.[393] The standard for a 2B specific performance decree is where the agreed performance is unique and monetary compensation inadequate.[394] Article 2B's specific performance standard parallels that of Article 2's "Buyer's Right to Specific Performance or

386. An aggrieved party may recover any unpaid contract fees for performance accepted, and any other [direct] [general] damages incurred in the ordinary course as measured in any reasonable manner, including, in the case of a proper refusal of a copy under Section 2B-610, any fee paid for the refused copy, together with incidental and consequential damages, less expenses avoided as a result of the breach. U.C.C. § 2B-707(a) (Proposed Draft, Sept. 25, 1997).

387. U.C.C. § 2B-709(1)(A) (Proposed Draft, Sept. 25, 1997).

388. The Reporter states that "cover" is often not a viable option under information contracts. U.C.C. § 2B-709, Reporter's Note No. 2 (Proposed Draft, Sept. 25, 1997).

389. U.C.C. § 2B-710, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).

390. U.C.C. § 2B-710(a) (Proposed Draft, Sept. 25, 1997).

391. U.C.C. § 2B-711(a)(2) (Proposed Draft, Sept. 25, 1997).

392. *Id.*

393. "A court may enter a decree of specific performance of any obligation, other than the obligation to pay [a fee] for information or services already received . . . ." U.C.C. § 2B-711(a) (Proposed Draft, Sept. 25, 1997).

394. U.C.C. § 2B-711(a)(2) (Proposed Draft, Sept. 25, 1997).

Replevin."[395]

12. *Licensor's Right to Complete*

Article 2 permits a non-breaching party to mitigate losses by completing manufacture of goods not yet completed.[396] Section 2-704 permits the aggrieved party to stop the manufacture and resell the goods for salvage as well.[397] Section 2B-712 grants a non-breaching licensor the right to complete an information contract if that is a reasonable method of avoiding loss to the breaching licensee.[398] For example, Section 2B-712 permits an election of remedy if a licensor custom designs a computer program for a tax preparation service and the licensee repudiates the contract prior to completion.

It may be reasonable to complete and identify the information or to stop work on the project and collect damages. The issue of self help remedies cuts across the domains of contract and property law.

13. *The Rise and Fall of Self-Help Repossession*

The "self-help" remedies have been redrafted to respond to consumer concerns about the self-help provisions in prior drafts.[399] Licensors are now entitled to an expedited hearing to enforce rights of possession or restriction of use.[400] Article 2B validates a licensor's use of non-judicial self-help remedies. Electronic monitoring of the number of users and type of use is validated by the new article.[401] An on-line service provider may disconnect services at any time without notice.[402]

III. CONCLUSION

Commercial law evolved out of an ancient body of law known as the law merchant or *lex mercatoria*. Article 2B is the latest development of the law merchant tradition in which the commercial law reflects evolving business practices. Article 2B is broad enough to establish a legal infrastructure to accommodate changing information technologies. Article 2B is the latest development of the law merchant tradition in which the Article 2B shares a common architecture as well as policies and principles with Articles 2 and 2A. Article 2B also departs from Article 2 and 2A in adopting a mass market concept applicable to business as well as con-

395. U.C.C. § 2-716 (1995).
396. U.C.C. § 2-704 (1995).
397. *Id.*
398. U.C.C. § 2B-712 (Proposed Draft, Sept. 25, 1997).
399. U.C.C. § 2B-716, Reporter's Note No. 1 (Proposed Draft, Sept. 25, 1997).
400. U.C.C. § 2B-716, Reporter's Note No. 3 (Proposed Draft, Sept. 25, 1997).
401. U.C.C. § 2B-312 (Proposed Draft, Sept. 25, 1997).
402. U.C.C. § 2B-627(a)(b) (Proposed Draft, Sept. 25, 1997).

sumer transactions. Article 2B is a creative continuity of the Uniform Commercial Code in cyberspace. Article 2 does not address the swirl of uncertainty surrounding on-line, software, and electronic commerce. Article 2B represents the rise of new paradigm better able to accommodate the economic and social interests of an emerging information economy.

A July 1997 White House Report, *A Framework for Global Electronic Commerce*, endorses the Article 2B project. The report states that we "are on the verge of a revolution that is just as profound as the change in the economy that came with the industrial revolution."[403] The Global Information Infrastructure ("GII") requires a new "Uniform Commercial Code" for the new information technologies that include wired and wireless networks, information appliances, and a global matrix of interconnected computer networks.[404]

The World Wide Web is projected to have 175 to 200 million users by the end of the century. Internet sales "could total tens of billions of dollars by the turn of the century."[405] Commercial law has its roots in the law merchant tradition.[406] The purpose of commercial law is to form a body of reasonably written, accessible principles to resolve disputes that arise in the sale of goods and other commercial transactions.

Justice Brandeis stated that, "[s]unlight is the best of disinfectants."[407] Article 2B has been the most open codification project in Anglo-American history. Electronic democracy makes it possible for Internet users to participate in the codification process.[408] The Reporter has met with hundreds of interested industry groups, bar associations and consumer groups. The evolving path of Article 2B reflects an attempt to balance competing concerns. It is not possible to draft an Article 2B that will satisfy everyone. The "engineered consensus" reflects attempts to respond to accommodate to consumer concerns.[409]

Few will disagree with the goal of bringing the information economy into the Uniform Commercial Code. Greater certainty in licensing information will reduce transaction costs and provide legal infrastructure for

403. White House, *A Framework for Global Electronic Commerce*, July 1, 1997 at 1 (quoting Vice President Albert Gore, Jr.).

404. *Id.* at 1 n.1.

405. *Id.* at 1.

406. Section 1-103 states that "[u]nless displaced . . . . the principles of law and equity, including the law merchant . . . shall supplement the Code"). U.C.C. § 1-103 (1995).

407. LOUIS D. BRANDEIS, OTHER PEOPLE'S MONEY AND HOW THE BANKERS USE IT 92 (1914).

408. Internet users may access the most recent drafts, submit comments and read meeting reports at <http://www.software industry.org/issues/guide>.

409. Article 2B's greater openness in codification does not satisfy some observers. *See e.g.*, Dan Goodin, *Upgrading Business Rules for E-Commerce, The Net*, (visited Sept. 23, 1997) <http://www.news.,com/News/Item/0,4,14543,00.html>) (quoting Cam Kaner as maintaining that "Article 2B [is] stacked in favor of software firms").

the information economy. The Article 2B paradigm comports well with emergent information technologies and melds well with radically different social, economic and legal systems.[410] Information is a sufficiently broad building block to permit the further expansion of the new services economy,[411] Article 2B is flexible enough to accommodate transfers of intangibles which occur across borders by remote access or through methods not yet conceived.

410. Raymond T. Nimmer, *Licensing on the Global Information Infrastructure Disharmony in Cyberspace*, 16 Nw. J. INT'L L. & BUS. 224 (1995) (arguing that the global information infrastructure requires uniform law for the licensing of information).

411. U.C.C. § 1-102 (1990).