Why Article 2 Cannot Apply To Software Transactions

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> *Unless* the *stock* intellectual equipment is apt, it takes extra art or intuition to get proper results with it. Whereas *if* the stock intellectual equipment is apt, it takes extra ineptitude to get sad results with it.
>
> Karl Llewellyn[1]

INTRODUCTION

In the tumultuous period between the Wars, Karl Llewellyn was on a mission: to unhorse sales law. American sales law at the time was mesmerized by images from an earlier agrarian age, of sales of haystacks and horses, and of land conveyances that required punctilious attention to the written word.[2] These images, Llewellyn argued, were inappropriate for sales of mass produced *wares* in an emerging industrial economy. Instead, sales law should be treated as a distinct field of law, part of the general law of contracts to be sure, but with its own unique characteristics.[3] The result of Llewellyn's long struggle was, of course, the Uniform Commercial Code ("UCC"), especially its crown jewel, Article 2.[4]

We are undergoing another change today, at least as profound as the one Llewellyn faced. It is the transition from an industrial to an information economy. Information is qualitatively different from goods. It is an intangible, separate and apart from the physical objects that contain it. This separate intangible interest can be property in its own right, one whose legal contours are typically determined, often preemptively, by federal law.[5] In sales transactions, getting the goods is essence of the deal. In information transactions, using the intangible is the *raison d'etre*; the physical container is an incidental.[6]

Nowhere is this difference more apparent than in software. The software industries are now among the fastest growing segments of the economy. Indeed the copyright industries, of which the major component is software, now rival in size the manufacturing sector.[7] Yet many courts and commentators still plod along, treating software transactions as no more than a "sale

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[1] Karl N. Llewellyn, *The First Struggle to Unhorse Sales*, 52 HARV. L. REV. 873, 876 (1939).

[2] Grant Gilmore, *On the Difficulties of Codifying Commercial Law*, 57 YALE L.J. 1341 (1948) ("There is apparently wide agreement that the law of sales, in particular, is hopelessly behind the times. Horse law and haystack law are uneasily tolerated in the complex business of mass production and national distribution.")

[3] Karl N. Llewellyn, *Across Sales on Horseback*, 52 HARV. L. REV. 723, 738 (1939).

[4] References to Article 2 will be to the 1972 Official Text. For state adoptions and variations, s*ee* Uniform Commercial Code Reporting Service, State UCC Variations, State Adoptions of Amendments.

[5] *See* Frank H. Easterbrook, *Intellectual Property Is Still Property*, 13 HARV. J.L. & PUB. POL'Y 108 (1990).

[6] *See* Michael L. Rustad, *Commercial Law Infrastructure for the Age of Information*, 16 J. MARSHALL J. COMPUTER & INFO. L. 255 (1997); Raymond T. Nimmer, *Article 2B: An Introduction*, 16 J. MARSHALL J. COMPUTER & INFO. L. 211 (1997).

[7] STEPHEN E. SIWEK & GALE MOSTELLER, COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: THE 1998 REPORT (1998). This Report was prepared by Economists Incorporated for the International Intellectual Property Alliance, an alliance of copyright trade associations.

of goods." As in Llewellyn's day, the intellectual equipment has been inapt, and the results sad.[8]

The National Conference of Commissioners on Uniform State Laws ("NCCUSL") has responded to this crisis. At its 1999 Annual Meeting, the Commissioners promulgated the Uniform Computer Information Transactions Act ("UCITA"),[9] a visionary statute that will modernize commercial law to deal with the new realities of computer information licensing. Historically, intellectual property law, especially copyright, has been its own unique little field, an isolated pond in the larger sea of commercial law. When goods transactions dominated the economy, this separation was understandable. It is no longer. With information moving to economic center stage, it is critical for commercial law and copyright to reach accommodation. UCITA does that.

As Llewellyn learned, any effort to reconcile established law to changed circumstances outrages elements of the old guard.[10] UCITA gets it from both sides. Commercial law doyens maintain that old Article 2 is good enough to deal with software transactions, so UCITA is unnecessary.[11] Copyright mandarins claim that federal law prohibits the mass market licensing

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[8] *See* Raymond T. Nimmer, *Images and Contract Law - What Law Applies to Transactions in Information*, 36 HOUSTON L. REV. 1 (1999). Professor Nimmer was the Reporter for UCITA.

[9] *See New Uniform Act Meets Immediate Needs of the Information Age* (visited Jan. 3, 2000) <http://www.nccusl.org/pressrel/UCITA.htm>. This August 2, 1999 Press Release stated:

> Information technology accounts for more than one-third of the nation's economic growth and is the most rapidly expanding component of the U.S. economy. Until now there has been no law that provides clear, consistent uniform rules for the intangibles of computer information transactions. To meet this need, the National Conference of Commissioners on Uniform State Laws (NCCUSL) approved at its 108th Annual Meeting in Denver, July 23-30, a uniform law that provides fundamental rules for licensing contracts between users and software vendors or vendors of information in electronic form.

Id. An excellent review of the purposes and operation of UCITA is contained in a series of Questions & Answers prepared by Professor Nimmer, the Reporter, and Carlyle Ring, the Chairman of the UCITA Drafting Committee. *See* Carlyle C. Ring, Jr., and Raymond T. Nimmer, *Series of Papers on UCITA Issues* (visited Jan. 3, 2000) <http://www.nccusl.org/pressrel/UCITAQA.htm>. Copies of UCITA are available at <http://www.law.upenn.edu/library/ulc/ucita.htm> (visited Jan. 3, 2000). Much valuable information about UCITA is available on Carol Kunze's Web Site, *A Guide to the Proposed Uniform Computer Information Transactions Act* (visited Jan. 3, 2000) <http://www.2bguide.com/>.

[10] Although the Code was first promulgated in the 1940s as a long-overdue reform, it took almost twenty years for the entrenched interests in the legal establishment to accept it. *See* GRANT GILMORE, THE AGES OF AMERICAN LAW 86 (1977); *see also* Karl Llewellyn, *Why a Commercial Code?* 22 TENN. L. REV. 779 (1953). One is reminded how common it is for the old guard to oppose new ideas. Max Planck, the founder of quantum mechanics, put it thus: "A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it." MORRIS KLINE, MATHEMATICS - THE LOSS OF CERTAINTY 88 (1980).

[11] *See, e,g,* Peter A. Alces, *W(h)ither Warranty: The B(l)oom of Products Liability Theory In Cases of Deficient Software Design*, 87 CAL. L. REV. 271 (1999); Zachary M. Harrison, Note, *Just Click Here: Article 2B's Failure to Guarantee Adequate Manifestation of Assent in Click-Wrap Contracts*, 8

of software in any case, so UCITA is unwarranted.[12] Each of these positions, of course, is made to advance what are ultimately political, not legal, goals.[13] This is apparent from the fact that

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FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 907 (1998); Marion W. Benfield, Jr. & Peter A. Alces, *Reinventing The Wheel*, 35 WM. & MARY L. REV. 1405 (1994); David A. Owen, *The Application of Article 2 of the Uniform Commercial Code to Computer Contracts*, 14 N. KY. L. REV. 277 (1987); Andrew Rodau, *Computer Software: Does Article 2 of the Uniform Commercial Code Apply*, 35 EMORY L.J. 853 (1888); Note, *Computer Programs as Goods Under the U.C.C.*, 77 MICH. L. REV. 1149 (1979); Bonna Lynn Horovitz, Note, *Computer Software as A Good Under the Uniform Commercial Code: Taking A Byte Our of the Intangibility Myth* 65 B.U. L. REV. 129 (1985). Robert A. Holmes, *Application of Article Two of the Uniform Commercial Code to Computer Systems Acquisitions*, 9 RUTGERS COMPUTER & TECH. L.J. 1 (1982).

Others disagree, believing that a new commercial code is needed for software transactions. *See, e.g.* Holly K. Towle, *No Good Deed Goes Unpunished: Comment on W(h)ither Warranty* (available on-line at <http://www.2Bguide.com/>, responding to Professor Alces) (visited Jan. 3, 2000); Micahel L. Rustad, *Commercial Law Infrastructure For the Information Age*, 16 J. MARSHALL J. OF COMPUTER & INFO. L. 255 (1997) (discussing comparative advantages of Article 2B for information transactions); Comment, *The Perpetuation of Litigation Within the Commercial Industry: Soon Brought to a Screeching Halt*, 16 J. MARSHALL J. OF COMPUTER & INFO. LAW 421 (1997) (arguing that the application of Article 2 to licenses is inappropriate and endorsing Article 2B); Raymond T. Nimmer, *Intangibles Contracts: Thoughts of Hubs, Spokes & Reinvigorating Article 2*, 35 WM. & MARY L. REV. 1337 (1994) (responding to Professors Benfield & Alces).

The American Law Institute ("ALI"), co-sponsor with NCCUSL of the Uniform Commercial Code, has been particularly enamored of the Article 2 only approach. An example is a Memorandum from Jean Braucher & Peter Linzer dated May 5, 1998 to Members of the American Law Institute for the 1998 Annual Meeting, criticizing Article 2B for, among other things, not adhering close enough to Article 2. *See Memorandum from Jean Braucher & Peter Linzer to Members of the American Law Institute* (memo dated May 5, 1998) (visited Jan. 3, 2000) <http://www.ali/Braucher.htm>. For criticism of the Braucher-Linzer Memo and ALI position, *see* Jeff C. Dodd, *Time and Assent In the Formation of Contracts: The Mischief of Applying Article 2 to Information Contracts*, 36 HOUS. L. REV. 195, 238-40 (1999). The differences between NCCUSL and ALI over UCITA became insurmountable, and NCCUSL decided to promulgate UCITA as a uniform act without the ALI. *See New Uniform Act Meets Immediate Needs of the Information Age, supra* note 9. ALI's refusal to abandon the proposition that Article 2 must apply to all software transactions makes reconciliation doubtful.

[12] *See, e,g,* Michael J. Madison, *Legal-ware: Contract and Copyright in the Digital Age*, 67 FORDHAM L. REV. 1025, 1123-1125 (1999) (criticizing UCITA, then known as Article 2B, but not Article 2); David Nimmer, Elliot Brown & Gary N. Frischling, *The Metamorphis of Contract Into Expand*, 87 CAL. L. REV. 17 (1999) (criticizing Article 2B, but ignoring Article 2); Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CAL. L. REV. 111 (1999) (same; Article 2 ignored); Charles R. McManis, *The Privatization (or "Shrink-Wrapping") of American Copyright Law*, 87 CAL. L. REV. 173 (1999) (discussing the "Article 2B threat" but ignoring Article 2); Apik Minassian, *The Death of Copyright: Enforceability of Shrinkwrap Licensing Agreements*, 45 UCLA L. Rev. 569 (1998) (ignoring Article 2); Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 U. DAYTON L. REV. 511 (1997) (not analyzing Article 2); David A. Rice, *Digital Information as Property and Product: U.C.C. Article 2B*, 22 U. DAYTON L. REV. 621 (1977) (ignoring Article 2); Mark A. Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239 (1995) (ignoring Article 2); David Rice, *Public Goods, Private Contract and Public Policy: Federal Preemption of Software License Provisions Against Reverse Engineering*, 53 U. PITT. L. REV. 543 (1992).

those who object to UCITA have paid little attention to whether the Copyright Act is compatible with current Article 2.[14]

I propose to rectify that oversight here.

This article will show that major components of the Article 2 transactional model are incompatible with federal copyright law when applied to software transactions. The inevitable conclusion is that we must have a new commercial law to reconcile contract to copyright in computer information transactions. There is no other choice.

Images of typical transactions affect how we think about appropriate legal rules. Part I therefore starts with contrasting images for sales of goods and information transactions. Using this imagery, Part II continues with a detailed review, section by section, of those provisions of Article 2 that are inconsistent with the requirements of the Copyright Act when applied to software transactions. Not all sections of Article 2 are incompatible with the Copyright Act, of course. But Article 2 purports to be a "true code," a preemptive, systematic and comprehensive enactment of an entire field of law. The section argues that so many of its central concepts are negated by the Copyright Act that the whole structure no longer hangs together as a whole. Part III then analyzes the decisions that claim software transactions are within Article 2, showing where many have gone astray. Part IV concludes with the obvious question: what law if not Article 2? It concludes that UCITA is the best answer.

Not everyone agrees. For other views, *see* Joel Rothstein Wolfson, *Contract and Copyright are Not at War: A Reply to "The Metamorphis of Contract Into Expand"*, 87 CAL. L. REV. 79 (1999); Raymond T. Nimmer, *Breaking the Barriers: The Relation Between Contract and Intellectual Property Law*, 13 BERKELEY TECH. L.J. 827 (1998); Robert W. Gomulkiewicz, *The License Is the Product*: *Comments on the Promise of Article 2B For Software and Information Licensing*, 13 BERKELEY TECH. L.J. 891 (1998); Case Note, *ProCD Inv. v. Zeidenberg and Article 2B: Finally The Validation of Shrinkwrap Licenses*, 16 J. MARSHALL J. OF COMPUTER & INFO. L. 439 (1997); Maureen A. O'Rourke, *Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software License Terms*, 45 DUKE L.J. 479 (1995) (arguing the benefits of licensing but suggesting greater judicial scrutiny of shrinkwraps); Robert W. Gomulkiewicz & Mary L. Williamson, *A Brief Defense of Mass Market Software License Agreements*, 22 RUTGERS COMPUTER & TECH. L.J. 335 (1996); Richard S. Stern, *Shrink-wrap Licenses of Mass Marketed Software: Enforceable Contracts or Whistling In The Dark?,* 11 RUTGERS COMPUTER & TECH. L.J. 51 (1985) (suggesting a federal commercial code for software).

[13] For a discussion of the politics surrounding UCITA, *see* Holly K. Towle, *The Politics of Licensing Law*, 36 HOUS. L. REV. 121 (1999). The objections to UCITA by copyright mandarins are often surrogates for positions taken in the international debate on the role of copyright in a wired world. S*ee* Lorin Brennan, *The Copyright Wars: The WIPO Treaties and The New Information Economy*, 2 PLI FOURTH ANNUAL INSTITUTE FOR INTELLECTUAL PROPERTY LAW 623 (1998) available on-line at Carol A. Kunze, *A Guide to the Proposed Uniform Computer Information Transactions Act* (visited Jan. 3, 2000) <http://www.2bguide.com/>; *see also* André Lucas, *Intellectual Property and Global Information Infrastructure*, 32 UNESCO COPYRIGHT BULLETIN 3 (1998).

[14] A rare exception is PETER A. ALCES & HAROLD F. SEE, THE COMMERCIAL LAW OF INTELLECTUAL PROPERTY (1994).

I. CONTRASTING CONTRACT IMAGES

The way we view a situation - our stock intellectual equipment, in Llewellyn's terms - can effect the conclusions we reach. At one time, people looked at the sky, saw the sun move across the heavens, and assumed that Earth was the fixed center of a Universe around which all heavenly bodies revolved. Galileo championed another image of planets revolving in elliptical orbits around the Sun.[15] Our mental images effect our understanding. What is our stock view of a typical software transaction?

A. Imagining a Sale of Goods

The usual image of a software transaction is a customer who enters a retail store and acquires pre-packaged software with a shrink-wrap license.[16] The customer obtains a box, some instruction manuals, and, oh yes, a diskette or CD that embodies the computer program. Superficially, this has the look and feel of a "sale of goods," and thus would seem to fall within Article 2 of the Uniform Commercial Code. In a more recent variant, the customer accesses a Web page, clicks an "I Agree" icon in a dialog box containing a license, and downloads (copies) the software. The click-on transaction looks a little different because we are dealing with electrons moving over a wire, but there is authority for the proposition that electricity is a "good,"[17] so this seems to fit within the outer edges of the mold.

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[15] The discovery by Galileo Galilei (1564-1642) of moons circling Jupiter shattered the illusion that all Heavenly bodies circled a stationary Earth. For proclaiming the truth of the Copernican solar vision, the cognoscenti condemned him as a heretic. For a history, *see* MORRIS KLINE, MATHEMATICS - THE LOSS OF CERTAINTY chapters 1 & 2 (1980); for Galileo's part, *see* GEORGIO DE SANTILLANA, THE CRIME OF GALILEO (1955).

[16] *See*, *e.g.*, Lemley, *supra* note 12, at 111 n.15, arguing thus:

> In the context of traditional mass-market transactions for software, the totality of the circumstances surrounding the transactions strongly suggests that the transaction is in face a sale rather than a license. There is no bargaining over license terms. The purchaser (licensee?) commonly obtains a single copy of the software, along with the documentation, in a box at a retail software store. The box contains a single price, which the purchaser pays up front, which constitutes the entire payment for the "license." The purchaser also pays sales tax on the "license." The license does not run for a definite term and need not be renewed, but is perpetual unless terminated by the vendor (something that almost never occurs). . . . In light of these indicia, and because most purchasers *think* they are "buying" a physical copy of a program, almost all courts and commentators that have considered the issue have concluded that a shrinkwrap license transaction is a *sale* of goods rather than a license, and is therefore covered by Article 2 of the U.C.C.

Id. (citations omitted). In 1630, most people *thought* that the Earth was the fixed center of the Cosmos and *almost* all learned commentators who had considered the issue dutifully agreed. Future generations can be grateful that "almost" did not include Galileo.

[17] *See*, *e.g.*, Mancuso v. So. Cal. Edison Co., 232 Cal. App. 3d 88 (Cal. Ct. App. 1991); Helvey v. Wabash County REMC, 278 N.E.2d 608 (Ind. App. 1972). *But c.f.* Kaplan v. Cablevision of Pennsylvania, Inc. 671 A.2d. 716 (Pa. Super. Ct. 1996) (holding that the transmission of cable television

As the court in *Advent Systems v. Unisys Corp*[18]. blithely put it:

> That a computer program may be copyrightable as intellectual property does not alter the fact that once in the form of a floppy disc or other medium, the program is tangible, moveable, and available in the marketplace.[19]

In other words, a computer program may start off as intangible intellectual property, but once it is copied onto a floppy disc it merges into the disc and becomes a tangible, physical "good." Under this view all software transactions fit neatly into the, if you will, Ptolemic world-view of Article 2, where everything circles around the fixed notion of a sale in goods.

It is a tidy and comforting notion - and spectacularly wrong.

It is as wrong as saying that the Sun revolves around a fixed and immovable Earth because it looks that way. Indeed, the preceding quotation is legal nonsense. The remainder of this article will discuss in detail the reasons why. For now, let us take a moment to set firmly in our minds the correct image for software.

B. Looking at a Software License

The most dramatic illustration of the error in the simplistic "sale of goods" imagery is LINUX, a fast-growing operating system that many see as a competitor to Microsoft Windows. Linus Torvalds created LINUX with the help of other developers worldwide.[20]. Like many other programs, LINUX is distributed under the "open source" GNU General Public License.[21] Because this license is critical to understanding how LINUX is distributed, it is set out in full in the Appendix to this article. Basically, it allows users to copy, modify, and redistribute copies of LINUX without charge, provided that the supplier makes the source code available and disclaims all warranties. The warranty disclaimer is crucial because the creators of LINUX do not support the software - they let the users do that - and because they do not want to be responsible for modifications by others. One of the reasons for LINUX's popularity is precisely because it is allows vendors to create add-on application programs without being locked into a proprietary operating system.[22]

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programming is not a "transaction in goods" under Article 2); Buckeye Union Fire Ins. Co. v. Detroit Edison Co., 196 N.W.2d 316 (Mich. App. 1972). *See generally* Gary D. Spivey, Annotation, *Electricity, Gas or Water Furnished by Public Utility as "Goods" Within Provisions of Uniform Commercial Code, Article 2 on Sales*, 48 A.L.R.3d 1060; RONALD A. ANDERSON, UNIFORM COMMERCIAL CODE § 2-105:158 (3d ed. 1991) (collecting cases).

[18] 925 F.2d 670 (3d Cir. 1991).

[19] *Advent Systems,* 925 F.2d at 675, discussed *infra* notes ____ and accompanying text.

[20] For further details on LINUX, visit the Linux Organization Web site at *Linus Online!* (visited Jan. 3, 2000) <http://www.linux.org/>.

[21] *See* GNU General Public Licenses (visited Jan. 3, 2000) <http://www.linux.org/info/gnu.html>. More details on the GNU General Public License are available on the Free Software Foundation home page at *Free Software Foundation* (visited Jan. 3, 2000) <http://www.gnu.org/fsf/fsf.html>.

[22] For a discussion of open source licensing, *see* R. Gomulkiewicz, *How Copyleft Uses Licenses Rights to Succeed in the Open Source Software Revolution and the Implications for Article 2B*, 36

The Linux Organization makes LINUX available for downloading from its site. It does not provide packaged copies to retail stores. Third party vendors do that, such as Red Hat or Walnut Creek Software. These vendors all use shrinkwrap licenses, as required by their license from the Linux Organization. Some copies of LINUX, like mine, come with a full waiver of all warranties, but then my price was under $20. Other vendors provide their copies at a higher price, but they also offer limited support.[23] What this means is that when a customer acquires a packaged copy of LINUX, two quite separate legal events occur. The customer buys a *copy* of LINUX from a vendor; and the customer also obtains a *license* to use the embodied computer program deriving from the Linux Organization. This separation is essential because the purveyor of the copy (*e.g.* Walnut Creek Software) is not the owner of the embodied computer program (the Linux Organization).

Notice how this fact directly contradicts the image that a computer program, when embodied in a floppy disc or other medium, loses its separate identity and becomes a tangible "good." The mere fact that Walnut Creek makes and distributes copies does not make LINUX the computer program "tangible, moveable and available in the marketplace." LINUX, the computer program, still remains an intangible, copyrighted work. LINUX, the computer program, has not moved from the Linux Web page even though it was copied. If the copy made by Walnut Creek does not conform to the requirements of the GNU Public License, then that copy is unauthorized, its distribution infringing, and the copy is definitely not available in the marketplace.

This difference is profound. The goods-centric image sees a software transaction as a delivery of a *this particular CD*. It makes the medium the message; the container the content; the CD the computer program. The information-centric view sees just the opposite. The essence of the transaction is the legal authorization *to use the program*; the CD is just the means to enable that use. One needs a jar to carry caviar, but that does not make the jar the essence of the meal.

Look at LINUX. The particular CD I happened to get is nothing special. In fact, the first thing I did was to use it to make a new copy on my hard disc. Now I have two copies of LINUX. If this particular CD was the end all and be all of the deal, then why make two copies at all? The answer is simple: because the CD was just a carrier vector for the real value in the deal, the computer program. Now that it has done its job -- enabled the use of the computer program on my hard drive -- what do I need it for? I suppose I can keep it for back-up, along with scores of other old floppies moldering in the garage. Or I could throw it away. So what? I can always download another copy from the LINUX Web site. I may do that anyway as new upgrades of LINUX appear. For computer information, the copies are only enablers, packaging for the program, a means to an end not an end in themselves, no more important to using the information than a ticket stub is after you enter the theater. Is watching a movie a sale of goods because you buy a ticket?

This brings us to the basic idea of what we mean by a "software transaction." It is one in

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Houston L.R. 179 (1999) available on-line at http://www.2bguide.com/. (visited Oct. 5, 1999); *see also* <http://copyleft.net>.

[23] The GNU Public License authorizes licensees to charge for support if they wish. A copy from Symantec, with limited support, costs about $179.

which a licensor authorizes or restricts the use of a computer program. The transaction can include providing a copy, but this is not necessary. When a licensee downloads a copy of LINUX directly from the Web site, the Linux Organization is not itself making a delivery so much as it is authorizing the customer to effect self-delivery. On the other hand, a copyright owner may elect merely to sell copies and rely solely on the provisions of copyright law to control uses. Nintendo and Sega do this by selling game cartridges. As no license is involved, these are not software transactions for purposes of this article (although they may be for other purposes).

All of the discussions about Article 2 and UCITA come down to the image one has about a retail transaction for LINUX. Is it a sale of goods with an incidental authorization to use the embodied computer program? Or is it a license of information with incidental delivery of a physical copy to enable its use? If you see only the former, then you naturally think a computer program is no different than a toaster, and that information transactions revolve around a fixed and immovable Article 2. If you see the latter, then you understand that information transactions travel in very different orbits.

Let us see why the law demands the latter view.

II. WHEN WORLDS COLLIDE

Article 2 contains a statutory model for a sale of goods. The Copyright Act creates exclusive property rights in copyrightable works. This Part examines what happens when they collide in software transactions. The first section sets forth the different statutory philosophies. The second section compares the major default rules in Article 2 with the requirements of the Copyright Act to show how these philosophies lead to widely varying results. Based on this analysis, the third section returns to basics, asking whether a computer program is a "good" and a software license is a "sale." It concludes that, even under Article 2's own definitions, they are not.

To avoid confusion in the statutory references, in what follows "Article" will refer to provisions in Article 2, and "Section" to those in the Copyright Act.

A. Statutory Philosophies

1. Article 2 - A True Code

It has been argued that the Uniform Commercial Code is more than a mere statute - it is a code.[24]

> Although the terms "code" and "statute" are often used interchangeably, there is a vast difference between them. A "code" is a preemptive, systematic and comprehensive enactment of an entire field of law. It is preemptive in that it displaces all other

[24] *See* WILLIAM D. HAWKLAND, UNIFORM COMMERCIAL CODE SERIES § 1-102.1 (West 1999) for an extensive argument of this position; *see also* William D. Hawkland, *Uniform Commercial "Code" Methodology*, 1992 U. ILL. L. REV. 291; Grant Gilmore, *Legal Realism: Its Cause and Cure*, 70 YALE L.J. 1037, 1043 (1961) (discussing the distinction between "statute" and "code"); *but see* John E. Murray, Jr., *The Article Two Prism: The Underlying Philosophy of Article 2 of the Uniform Commercial Code*, 21 WASHBURN L.J. (1981) (arguing that Article 2 is a group of statutes, not a true code).

> laws in its subject area, save only that which the code itself excepts. It is systematic in that all of its parts, arranged in an orderly fashion and stated with a consistent terminology, form an interlocking, integrated body, revealing its own plan and containing its own methodology. It is comprehensive in that it is sufficiently inclusive and independent to enable it to be administered in accordance with its own basic policies. . . . A mere statute, on the other hand, is neither preemptive, systematic nor comprehensive so that its methodology is different from that of a code.[25]

For purposes of this article let us accept the proposition that the UCC is a "true code."

The UCC is a commercial code, not a regulatory one. Its goal is to be accurate, not original; to attempt to state as a matter of law the conclusions that commercial practice apart from the statute gives to transactions as a matter of fact.[26] It does this by setting up what are variously called "gap-fillers" or "default rules" that supply necessary contract terms where parties have not done so adequately.[27] Use of the UCC defaults is not required. Except in certain limited cases, such as bedrock obligations of good faith, diligence, reasonableness and care, the parties may vary UCC rules by agreement.[28] In other words, the general principal of the UCC is freedom of contract.[29] Another way to think of the UCC is as a statutory form contract that parties get by default unless they change it.

The UCC must be liberally construed and applied to promote its underlying purposes and policies.[30] As a comprehensive enactment, individual sections should be interpreted together as part of an entire statutory scheme, not as isolated statutes each standing on its own.[31]

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[25] HAWKLAND, *supra* note 24, at § 1-102:2.

[26] *See* Gilmore, *supra* note 2, at 1354.

[27] *See, e.g.* Thomas J. McCarthy, *An Introduction: The Commercial Irrelevancy of the "Battle of the Forms"*, 49 BUS. LAW. 1019, 1022 (1994) (noting that "gap fillers are statutory provisions that apply in the absence of contract disclaimers or provisions covering a particular subject"); Randy E. Barnett, *The Sound of Silence: Default Rules and Contractual Consent*, 78 VA. L. REV. 821 (1992) (discussing evolution of concept from "gap-fillers" to "default rules" and noting technical distinctions); Jules L. Coleman, Douglas D. Heckathorn & Steven M. Maser, *A Bargaining Theory Approach to Default Provisions and Disclosure Rules in Contract Law*, 12 HARV. J.L. & PUB. POL'Y 639 (1989) (using cooperative game theory as a basis for analyzing default rules); Ian Ayres and Robert Gertner, *Filing Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87 (1989) (discussing difference between "default" and "immutable" rules); THOMAS M. QUINN, QUINN'S UNIFORM COMMERCIAL CODE COMMENTARY AND DIGEST ¶ 1-205[A][2] (2d ed. 1991) (discussing the "gap filling" role of the UCC).

[28] U.C.C. § 1-102(3) (1999); QUINN, *supra* note 27, at ¶ 1-102[A].

[29] HAWKLAND, *supra* note 24, at § 1-102:12.

[30] U.C.C. § 1-102(1) (1999).

[31] *See* In re Lou Levy & Sons Fashions, Inc., 988 F.2d 311, 314-315 (2d Cir. 1993); Hunick v. Orona, 657 P.2d. 633, 634 (N.M. 1983). As the Official Commentary to Article 1-102 provides:

Article 2 of the UCC applies to "transactions" in "goods."[32] "Goods" means all things (including specially manufactured goods) which are moveable at the time of identification to the contract for sale other than money in which the price is to be paid, investment securities, and things in action.[33] While the definition is intentionally broad, in application Article 2 deals with, and the definition of goods is cast in terms of, a contract of sale.[34] A "sale" means "the passing of title from the seller to the buyer for a price."[35] Article 2 does not apply to services.[36]

The hard questions come in deciding whether Article 2 applies to "mixed" or "hybrid" transactions involving both goods and services. The majority approach applies a "predominant purpose" test.[37] If the predominant purpose of the transaction involves a sale of goods, the entire transaction is in;[38] if service aspects are predominant, it is entirely out.[39] For example, a contract

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> The Act should be construed in accordance with its underlying purposes and policies. The text of each section should be read in light of the purpose and policy of the rule or principle in question, as also of the Act as a whole, and the application of the language should be construed narrowly or broadly, as the case my be, in accordance with the purposes involved.

U.C.C. § 1-102 cmt. (1999).

[32] UCC § 2-102. It begins: "Unless the context otherwise requires, this Article applies to transactions in goods." There are other exceptions not relevant here. *See* HAWKLAND, *supra* note 24, at § 2-102 (transactional exceptions), § 2-105:2 (exclusions from definition of "goods").

[33] U.C.C. § 2-105(1) (1999).

[34] Bonebrake v. Cox, 499 F.2d 951, 960 (8th Cir. 1974*);* Computer Servicecenters, Inc. v. Beacon Mfg. Co., 328 F. Supp. 653 (D.S.C. 1970), *aff'd*, 443 F.2d 906 (4th Cir. 1971).

[35] U.C.C. § 2-106(1) (1999); *see generally* HAWKLAND, *supra* note 24, at § 2-106:2.

[36] HAWKLAND, *supra* note 24, at § 2-102:4 (and cases cited); QUINN, *supra* note 27, at ¶ 2-102[A][2].

[37] This test was articulated in the seminal case of Bonebrake v. Cox, 499 F.2d 951 (8th Cir. 1974):

> [T]he cases presenting mixed [goods and services] contracts of this type are legion. The test for inclusion or exclusion is not whether they are mixed, but, granting that they are mixed, whether their predominant factor, their thrust, their purpose, reasonably stated, is the rendition of service, with goods incidentally involved (*e.g.,* contract with artist for painting) or is a transaction of sale, with labor incidentally involved (*e.g,* installation of a water heater in a bathroom).

Bonebrake, 499 F.2d at 960. *See generally* HAWKLAND, *supra* note 24, at § 2-105:1; ALCES & SEE, *supra* note 14, at § 8.3.

[38] *See, e.g.*, DeFilippo v. Ford Motor Company, 516 F.2d 1313 (3d Cir. 1975) (holding that an agreement to sell an automobile distributorship was within Article 2 because assets consisted of inventory, not real estate or goodwill); Knoxville Rod & Bearing v. Bettis Corp. 672 S.W.2d 203 (Tenn. App. 1983) (holding that the sale of inventory, equipment, franchise rights, and accounts receivable were within Article 2 under the *DeFilippo* test); Yorke v. B.F. Goodrich Co., 474 N.E.2d 20 (Ill. App. Ct. 1985) (holding that an agreement to provide technical assistance in connection with the sale of vinyl

with an artist to paint a portrait, while it could be called a specially manufactured picture, is not within Article 2 because the service aspect predominates over the goods aspect.[40] Another variant uses a "gravemen test" to ask whether under the totality of the circumstances is it reasonable to characterize the transaction as a whole as within the ambit of Article 2,[41] a test which may be more appropriate in hard cases.[42]

Whatever test applies, the end result is, in practice, "all or nothing." If a contract is within Article 2, then the entire contract is subject to the UCC.[43] The contract is not split into separate goods and services components.[44] By the same token, it follows that *all* of Article 2

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pellets was within Article 2); Maryville S & L Corp. v. McDonald, 760 F.2d. 119 (6th Cir. 1985) (holding that a contract for the sale of promissory notes secured by deeds of trust on realty were within Article 2); Fink v. DeClassis, 745 F. Supp. 509, 516 (N.D. Ill. 1990) (sale of business, including inventory and trademarks, not within Article 2 because value of non-goods accounted for $1,000,000 of the sales price, while the goods accounted for only $200,000); *see generally* HAWKLAND, *supra* note 24, at § 2-102:4.

[39] *See* Dravo Corp. v. White Consolidated Industries, 602 F. Supp. 1136, 1140 (W.D. Pa. 1985) (holding that the sale of "drawings and tracings" of engineering firm was not a sale of "goods" within Article 2 because the significance of the items was not their physical properties but the ideas they contained); Care Display, Inc. v. Didde-Glaser, Inc. 589 P.2d 599 (Kan. 1979) (holding that a contract for trade show exhibits was not within Article 2 because the predominant purpose involved artistic and design concepts for a booth, and the physical construction was incidental); Field v. Golden Triangle Broadcasting, Inc., 305 A.2d. 689 (Pa. 1973) (holding that a contract for the sale of radio stations was not within Article 2 because the physical assets represented less than 5% of the total purchase price); Computer Servicenters, Inc. v. Beacon Mfg. Co., 328 F. Supp. 653 (D.S.C. 1970), *aff'd*, 443 F.2d 906 (4th Cir. 1971) (holding that a contract "for performance of data processing services" was not a "sale of goods" within Article 2); *see generally*. HAWKLAND, *supra* note 24, at § 2-102:4 (and cases cited).

[40] *See* National Historic Shrines Foundation, Inc. v. Dali, 4 U.C.C. Rep. Serv. 71 (N.Y. Sup. Ct. 1967); *cited with approval by* Bonebrake v. Cox, 499 F.2d 951, 960 (8th Cir. 1974). The *Dali* case is discussed extensively in ALCES & SEE, *supra* note 14, at § 8.3, and in HAWKLAND, *supra* note 24, at § 2-105:1.

[41] *See DeFilippo*, 516 F.2d at 1313; *Care Display, Inc.*, 589 P.2d at 599; *System Design & Management Info., Inc. v. Kansas City Post Office Employees Credit Union*, 788 P.2d 878 (Kan. Ct. App. 1990); *see generally* RAYMOND T. NIMMER, THE LAW OF COMPUTER TECHNOLOGY § 6.01 (Rev. ed. 1999) (discussing the differences between the tests).

[42] *See* HAWKLAND, *supra* note 24, at § 2-102:4. Skelton v. Druid City Hosp. Bd., 459 So.2d 818 (Ala. 1984), held that mere *use* of a good was sufficient to bring the matter within Article 2. A hospital patient had been injured during a surgical procedure when part of suturing needle used by the surgeon broke off and remained in the patient's body. The court decided that the agreement to undergo and pay for the surgery was within Article 2, despite the overwhelming service component, for the transparent purpose of accessing Article 2's implied warranty of merchantability. *See Skelton*, 459 So.2d at 821-22. By this reasoning, a lawyer who prepares a written contract for a client is also engaged in a sale of goods.

[43] *See Fink*, 745 F. Supp. at 515, stating: "A contract which predominantly involves the sale of goods is subject to the UCC in its entirety." Does this mean the contract "in its entirety" or the UCC "in its entirety" or both? In any case, the *Fink* court held that for the particular transaction in question, Article 2 was inapplicable. *Id.* at 516. The cases discussed in Part III of this article employ this all or nothing approach in applying Article 2 to software transactions.

[44] *But see* Robert A. Holmes, *Application of Article Two of the Uniform Commercial Code to*

applies, not just parts of it. The case law is not always explicit on this point. Courts that find a transaction within Article 2 usually move immediately to the particular section of the Code they want and leave it at that. Because Article 2 is a true code, a preemptive, systematic, and comprehensive enactment of an entire field of law, whose individual sections must be interpreted together as part of an entire statutory scheme, it follows that once within Article 2, all of its provisions apply. That has been the functional approach in the case law: in for an inch, in for a mile.[45]

That Article 2 is a true code is critical for its efficient application. As a code, one need only determine whether a transaction is within the statutory scope to bring the entire panoply of Article 2 into action in a particular transaction.

2. The Copyright Act - A Federal Scheme

Computer programs are entitled to protection under the federal Copyright Act.[46] Computer programs may also contains elements protectable under patent, trademark or trade secret laws, but this article will restrict itself to copyright.[47]

Section 301 of the Copyright Act preempts any state law that creates legal or equitable rights equivalent the exclusive rights under copyright in protectable works of authorship. The full range of copyright preemption is beyond the scope of this Article.[48] For our purposes, it is sufficient to note that state contract laws affecting copyrightable works must by tested against the Copyright Act for compatibility.

Section 201 affirms that copyright interests may be transferred under state contract law.[49]

Computer Systems Acquisitions, 9 RUTGERS COMPUTER & TECH. L.J. 1 (1982) (arguing that severing the contract into goods and services components would be the better approach for software transactions).

[45] *But see* the curious statement in Monetti v. Anchor Hocking Corp., 931 F.2d 1178, 1184 (7th Cir. 1991): "We may assume that the UCC applies to this contract; but must *all* of the UCC apply? We have difficulty seeing why." *Id*. at 1184. *Monetti* involved an exclusive distribution agreement for plastic products, and the issue was whether the court could apply the gap-fillers in Article 2, but use the longer common law statute of frauds. Despite raising the question, the court concluded that the action was not barred under the Article 2 statute of frauds in any case. *Id*. at 1193.

[46] 17 U.S.C. §§ 101-175 (1994). Section 101 of the Copyright Act 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." *Id.* at § 101.

[47] For further discussion *see generally* RAYMOND T. NIMMER, THE LAW OF COMPUTER TECHNOLOGY (Rev. ed. 1999).

[48] For further discussion regarding copyright preemption generally, *see* Orson v. Miramax Film Corp., 189 F.3d 377, 381 (3d Cir. 1999) (discussing the difference between express preemption, implied or field preemption, and conflict preemption under Copyright Act); PAUL GOLDSTEIN, COPYRIGHT ch. 15 (2d ed. 1998) (engaging in a detailed analysis of state law claims that involve copyright issues to determine whether state law is preempted); 1 NIMMER & NIMMER, *supra* note 56, at § 1.01 (discussing federalism in the law of copyright); 2 WILLIAM F. PATRY, COPYRIGHT LAW AND PRACTICE 1093-1135 (1994) (including an account of the legislative history of 17 U.S.C. § 301).

[49] 17 U.S.C. § 201(d)(1) (1994) ("The ownership of a copyright may be transferred in whole or in part by any means of conveyance . . . ."); H.R. REP. NO. 94-1476, at 132 (1976) ("Nothing in the bill derogates from the rights of the parties to contract with each other and to sue for breaches of contract.");

It is through licensing - contracts - that copyrighted works are exploited. What the Copyright Act does as far as contracts are concerned is two things. First, it prevents state law from providing property rights comparable to those in the Copyright Act under the guise of a breach of contract action.[50] Second, federal law also places certain restrictions on specific contract terms, such as a writing requirement for exclusive licenses.[51] The bulk of this article will be concerned with these additional restrictions.

A fundamental provision of the Copyright Act, one which effects both the nature of a copyright itself and transfers of copyright interests, is Section 202; it provides as follows:

> Ownership of a copyright, or any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object.[52]

Copyright has sometimes been described as the metaphysics of the law, and if that is true then this is its basic tenet: a *copy* is not a copy*right*. A book is a physical copy of a separate, intangible, copyrightable literary work; a videocassette is physical copy of a separate, intangible, copyrightable motion picture; a compact disc is a physical copy of a separate, intangible, copyrightable computer program. It is almost Platonic. A *copy* is but a single instance of an abstract, intangible idea called a copyrightable *work*. The instance is not the essence. The object is not the idea. The copy is not the copy*right*. The House Report puts it succinctly: "The principle restated in section 202 is a fundamental and important one: that copyright ownership and ownership of a material object in which the copyrighted work is embodied are entirely separate things."[53]

This is the essence of copyright. If you never get this, you never get it right.

Walthal v. Rusk, 172 F.3d 481, 485 (7th Cir. 1999) ("In general, state contract laws pertain to the transfer of interests under the Copyright Act."); Bartsch v. Metro-Goldwyn-Mayer, 391 F.2d 150, 153 (2nd Cir. 1968) (state law governs interpretation of license under 1909 Act); In re CFLC, Inc. (Everex v Co. v. Cadtrak Corp.), 89 F.3d 673, 678 (9th Cir. 1996) (assignment of a patent license); *see generally* GOLDSTEIN, *supra* note 48, at § 4.4 (discussing transfers of copyright interests).

[50] National Car Rental Sys., Inc. v. Computer Assocs. Int'l, Inc. 991 F.2d 426, 431 (8th Cir. 1993) ("Section 301 preempts only those state law rights that 'may be abridged by an act which, in and of itself, would infringe one of the exclusive rights' provided by federal copyright law,'") (quoting Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 716 (2d Cir. 1992)). For a discussion of preemption regarding state contract rights, *see* 1 NIMMER & NIMMER, *supra* note 48, at § 1.01[B][1][a] (explaining preemption as applied to breach of contract actions).

[51] 17 U.S.C. § 204(a) (1994). For further discussion of the writing requirement under the copyright act for exclusive licenses, *see infra* note 69 *et. seq.*and accompanying text.

[52] 17 U.S.C. § 202 (1994).

[53] H.R. REP. NO. 94-1476, at 124 (1976).

Section 202 also has something important to say about copyright transfers. Under prior common law copyright, transfer of a physical object was often presumed to transfer the common law copyright absent a specific reservation.[54] Section 202, coupled with the preemptive provisions of Section 301, eliminates this presumption. The House Report says this is exactly what Congress intended to do:

> [T]he bill would change a common law doctrine . . . that authors or artists are generally presumed to transfer common law literary property rights when they sell their manuscript or work of art, unless those rights are specifically reserved. This presumption would be reversed under the bill . . . .[55]

Under Section 202, therefore, as a matter of preemptive federal law, there can be no presumption that the sale of a material object in itself transfers any right to use the copyrighted work.[56] This applies regardless of whether the transfer is an exclusive license[57] or a non-exclusive license.[58]

There is a qualification. Under the Copyright Act, the owner of a copy has certain limited privileges to use the copy without infringing the copyright, such as the "first sale" doctrine. Section 202 does not effect these privileges. What Section 202 says is that buying a copy of a computer program gives no right to use[59] the embodied computer program beyond the limited privileges under the Copyright Act that go with ownership of a copy.[60]

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[54] A chief exponent of this view was Pushman v. New York Graphic Society, Inc., 39 N.E.2d 249 (N.Y. 1942), which held that an artist who sold a print master was presumed to convey the common law copyright as well. For further discussion, *see* 3 NIMMER & NIMMER, *supra* note 48, at § 10.09[B].

[55] H.R. REP. NO. 94-1476, at 124. (1976)

[56] *E.g.* Harris v. Emus Records Corp., 734 F.2d 1329, 1334 (9th Cir. 1984) (purchase of master tapes from bankruptcy trustee did not transfer non-exclusive license to manufacture and distributor recordings); *In re CFLC, Inc. (Everex v Co. v. Cadtrak Corp.)*, 89 F.3d 673, 678 (9th Cir. 1996) (patent license).

[57] *See* Saxon v. Blann, 968 F.2d. 676, 680 (8th Cir. 1992) (noting that "[u]nder Section 202 . . . the conveyance of 'ownership rights' to a book will not convey the copyright of the book").

[58] *See* Applied Information Management, Inc. v. Icart, 976 F. Supp. 149, 153 (E.D.N.Y. 1977) (noting that "[a]s a result of Section 202, a court interpreting a [nonexclusive software] licensing agreement must determine ownership of the copy separately from ownership of the copyright"); Marobie-FL, Inc. v. National Ass'n of Fire Equip. Distrib., 983 F. Supp. 1167 (N.D. Ill. 1997) (holding that the purchase of a diskette containing copyrighted clip art did not allow downloading of the clip art onto a Web page); *see generally* GOLDSTEIN, *supra* note 48, at § 4.5.1(c).

[59] This article often employs the term "use" for the more technically correct "exercises any of the exclusive rights in Section 106 of the Copyright Act." This does not mean any "use," such as in the patent sense. For example, using old CDs for high-tech drink coasters, as my brother does, does not impact the Copyright Act. *See, e.g.,* Kennedy v. National Juvenile Detention Association, 187 F.3d. 690, 695 (7th Cir. 1999), *reh'g en banc denied*, 1999 U.S. App. LEXIS 23736 (7th Cir., Sept. 24, 1999), *petition for cert. filed* (Dec. 20, 1999) (reading of "use" to mean all rights under copyright).

[60] For example, many computer books include a CD with sample code and programs. Copyright law would prohibit copying the code to create new programs. That is why the books include a shrink-wrap license to enable such use, along with, of course, warranty disclaimers. For discussion of a sample

Compare the underlying metaphysic in the Copyright Act to that in Article 2. In Article 2 the physical object -- the goods -- is paramount.[61] The intangible component, the abstract legal title to the goods, is an incidental.[62] Transfer and delivery of the goods alone is sufficient to create a contract.[63] Far from Platonic essences, Article 2 opts for a distinct materialism.

3. What Happens When They Meet?

Given this difference, what exactly does it mean to say that Article 2 applies to software transactions? Consider the customer who enters a store to acquire a copy of LINUX. What happens at the cash register? There are three possibilities.

The first possibility is that there are two separate contracts: one for the sale of a copy, and another for the grant of a license. This hardly seems appropriate. Although Section 202 requires different obligations for the copy and the copyright, it does not require different contracts. It would be curious if it did. The customer does pay a single price. In the goods world, a buyer does not pay one price for a toaster and another for the box. In a software transaction, the CD is the container for the embodied computer program. Indeed, the cost of a blank CD is insignificant compared to the value of the computer program. Allocating the price between the copyright interest in the computer program and the pennies it cost for a CD would be silly.

The second possibility asserts that only one contract exists, and it is governed by Article 2. That is, the transaction is predominately a sale of goods. But that means the copyright aspects of the transaction are completely suppressed so that only what happens to the copies counts. This is precisely what Section 202 tells us we cannot do. In the case of LINUX, it would mean ignoring the GNU Public License; but without the license, any sale of the copy is unauthorized and users of LINUX would become infringers. The other response is to acknowledge that the sale and the license are separate, but to assume that Article 2 applies to the license as well. In other words, the default rules in Article 2 are also appropriate for a license of intangibles. Many courts and commentators have in effect opted for this approach, saying that the license is really a sale of goods and then trying to shoehorn software transactions into the Article 2 model. The bulk of this Article will show why this subterfuge is inappropriate.

The third possibility, the only one left, is that there is only one contract and it is governed by the common law of contracts, unless, of course, a state adopts UCITA. Common law has more formalities and far fewer gap fillers than Article 2, so it is less tolerant of mistakes. On the other hand, the common law's comparative brevity also allows a wider range of dealings, and easily accommodates contracts with severable obligations. We will return to the question of the proper law to apply to software transactions after dispensing with Article 2.

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license in the popular text by Bruce J. Eckels, *Thinking in Java,* and how it authorizes uses beyond those that come from purchase of a copy, *see* Lorin Brennan, *The Public Policy of Information Licensing*, 36 HOUS. L. REV. 61, 124-127 (Table 13) (1999).

[61] *See* U.C.C. § 2-106(1) (1999), which states: "In this Article unless the context otherwise requires 'contract' and 'agreement' are limited to those relating to the present or future sale of goods."

[62] *See* U.C.C. § 2-401 (1999); for further discussion, *see infra* note 262 and accompanying text.

[63] *See* U.C.C. §§ 2-203, 2-206 (1999); for further discussion, *see infra* notes _______ and accompanying text.

B. Article 2 vs. the Copyright Act

This Article now examines, section by section, the default rules in Article 2 to see if they are compatible with the Copyright Act. We begin with the substantive provisions, and then return to the definitions of "good" and "contract of sale." In so doing, however, it is important to understand exactly what this exercise is attempting to show, and what it is not.

I am not arguing that the Copyright Act preempts all contracting with regard to computer programs. Nor am I arguing, as some do, that the Copyright Act prevents software vendors from licensing computers programs in the mass market and restricts them solely to selling copies. And I am definitely not arguing that the Copyright Act creates a mandatory collage of "user's rights" that cannot be varied by agreement. What I am addressing is whether the default rules in Article 2 are compatible with the requirements of the Copyright Act in the absence of party agreement. In a few cases, the Copyright Act imposes mandatory rules that cannot be varied by agreement, such as a writing requirement for exclusive licenses. In most cases, however, the Copyright Act contains what are in effect default rules that parties can vary in appropriate circumstances, such as the right of a software vendor to control the rental of copies.[64] The issue is whether the gap-fillers imposed by Article 2 in the absence of agreement fit within the requirements of the Copyright Act.

Article 2 is considered a true code: a preemptive, systematic and comprehensive enactment of an entire field of law. It is a complex, interwoven structure that must be interpreted as a whole. The point of this Article is to show that key default rules creating this structure are not compatible with the Copyright Act when applied to software transactions. These include such major conceptual underpinnings as creating a contract by shipping the goods, mandatory passage of title, implied security interests, and inspection rights. This does not say that all defaults in Article 2 are inapplicable to software transactions. Gap-fillers for payment by cash or check, risk of loss to copies, and damages for breach of contract are appropriate. However, without the key foundational props, the structure no longer stands as an integrated whole. Like a bridge with the struts kicked out, it collapses into a jumble of disconnected statutes that undercuts the entire purpose of Article 2 as a true code and leaves unsupported provisions critical to licensing of the intangible interests.

1. Statute of Frauds

a. Article 2

Article 2-201 contains the UCC's statute of frauds for sales.[65] It provides that a contract for the sale of goods for $500 or more is not enforceable without a writing that indicates a contract has been made, signed by the party against whom enforcement is sought. Article 2-

[64] For proponents of this view, *see, e.g.,* Raymond T. Nimmer, *Images and Contract Law - What Law Applies to Transactions in Information*, 36 HOUS. L. REV. 1 (1999); Maureen A. O'Rourke, *Copyright Preemption After the* ProCD *Case*: *A Market Based Approach*, 12 BERKELEY TECH. L.J. 53, 80 (1997). *But see, e.g.,* Michael J. Madison, *Legal-ware: Contract and Copyright in the Digital Age*, 67 FORDHAM L. REV. 1025 (1999); Note, *Intellectual Property, Contracts and Reverse Engineering After* ProCD: *A Proposed Compromise For Computer Software*, 67 FORDHAM L. REV. 3297 (1999) (discussing different approaches).

[65] *See generally* QUINN, *supra* note 27, at ¶ 2-201.

201(3) contains three traditional exceptions to the writing requirement: specially manufactured goods,[66] admissions in legal proceedings,[67] and part performance by payment or delivery.[68]

b. Copyright Act

Section 204(a) of the Copyright Act contains its own writing requirement where copyright transfers are concerned:

> A transfer of copyright ownership, other than by operation of law, is not valid unless an instrument of conveyance, or a note or memorandum of such transfer, is in writing and signed by the owner of the rights conveyed or such owner's duly authorized agent.[69]

Under the Copyright Act, a "transfer of copyright ownership" includes an assignment, an exclusive license or a mortgage, but not a non-exclusive license.[70] These must be examined separately.

For *exclusive licenses*, the writing requirement in Section 204(a) preempts state law.[71] Section 204(a) differs materially from state statutes of fraud in that it makes unwritten copyright ownership transfers "not valid" rather than merely "unenforceable."[72] Moreover, the three traditional exceptions to the writing requirement in Article 2 are not available where transfers of copyright ownership are concerned. Specially manufactured goods are akin to specially commissioned works-made-for-hire, which require a writing for the copyright to vest in the commissioning party.[73] Admissions in litigation are not sufficient if the writing was not executed "substantially contemporaneous" with the agreement of transfer.[74] Finally, part

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[66] U.C.C. § 2-201(3)(a) (1999).

[67] U.C.C. § 2-201(3)(b) (1999).

[68] U.C.C. § 2-201(3)(c) (1999).

[69] 17 U.S.C. § 204(a) (1994).

[70] 17 U.S.C. § 101 (1994).

[71] *See* Konigsberg International v. Rice, 16 F.3d 355, 357 (9th Cir. 1994); 1 NIMMER & NIMMER, *supra* note 48, at § 1.01[B][3][a].

[72] *Koningsberg*, 16 F.3d at 357**.**

[73] 17 U.S.C. § 101 (defining "work-made-for-hire"); *see* Community for Creative Non-Violence v. Reid, 490 U.S. 730 (1989); Library Publications, Inc. v. Medical Economics, Co., 548 F. Supp 1231 (E.D. Pa. 1982), *aff'd*, 714 F.2d 123 (3d Cir. 1983). Section 101 recognizes two types of works for hire: those made by an employee in the course of employment; and for certain types of works, specially commissioned works. 17 U.S.C. § 101 (1994). Computer programs are not among the enumerated works for which specially commissioned work-for-hire status is available. Graham v. James, 144 F.2d 229 (2nd Cir. 1998).

[74] *Koningsberg*, 16 F.3d at 357. *Konigsberg* held that a letter sent by an author during litigation claiming full performance of an unsigned exclusive license was insufficient because it was not executed "substantially contemporaneous" with the transfer. What the Ninth Circuit undoubtedly meant was that an alternative defense made in the context of litigation by arguing that even if a license was validly granted, the licensee is in material breach, is not a "note or memorandum of . . . *transfer*" for purposes of

performance, even full payment by the licensee, is not sufficient to satisfy Section 204(a); a written instrument of transfer is still required.[75] However, a later executed writing may validate a prior oral exclusive license,[76] especially if there is no dispute a transfer occurred and the writing is necessary to confer standing on a licensee to pursue an infringer.[77]

Regarding *non-exclusive licenses*, there is some question as to whether Section 204(a) permits states to impose a writing requirement. One view is that, because non-exclusive licenses are not mentioned in Section 204(a), Congress left the matter open for the states to decide. The Second and Third Circuits have taken this approach, holding that a state statute of frauds applies to non-exclusive licenses.[78] The other view is that Congress, by saying nothing, intended that there be no writing requirement for non-exclusive licenses. There has been some argument for this view,[79] and several cases in other circuits have enforced oral, non-exclusive licenses without reference to statute statutes of fraud.[80] The issue is not academic. The Second and Third Circuits have held the applicable state statute of frauds to be the one in Article 2-201. Indeed, one of the reasons the Third Circuit justified applying Article 2 to a non-exclusive software

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the Copyright Act. *See* 17 U.S.C. § 204(a) (1994) (emphasis added).

[75] *Konigsberg*, 16 F.3d at 357.

[76] *See* Imperial Residential Design, Inc. v. Palms Dev. Group, 70 F.3d. 96, 99 (11th Cir.1995) (holding that a later writing validated an oral transfer *ad initio*); Arthur Rutenberg Homes v. Drew Homes, Inc., 29 F.3d 1529, 1532 (11th Cir.1994); Valente-Kritzer Video v. Pinckney, 881 F.2d. 772, 775 (9th Cir. 1989); *see generally* NEIL BOORSTYN, BOORSTYN ON COPYRIGHT § 8.14 (1999).

[77] *See* Magnuson v. Video Yesteryear, 85 F.3d 1424, 1429 n.1 (9th Cir. 1996) (distinguishing *Konigsberg* on this point); Eden Toys, Inc. v. Florelee Undergarment Co., 697 F.2d 27, 36 (2d Cir. 1982); *see generally* BOORSTYN, *supra* note 76, at § 8.14.

[78] *See* Grappo v. Alitalia Linee Aeree Italiane, 56 F.3d 427 (2d Cir. 1995); Triangle Underwriters, Inc. v. Honeywell, Inc., 604 F.2d 737 (2d Cir. 1979); Advent Sys., Ltd. v. Unisys Corp., 925 F.2d 670 (3d Cir. 1991). *See also* Systems Design & Management Info., Inc. v. Kansas City Post Office Employees Credit Union, 788 P.2d 878 (Kan. Ct. App. 1990) (applying the Article 2 statute of frauds to a non-exclusive license under Kansas law); Myers v. Waverly Fabrics, 475 N.Y.S.2d 860 (1st Dept. 1984), *modified*, 479 N.E.2d 236 (N.Y. 1985) (same under New York law).

[79] *E.g.*, 3 NIMMER & NIMMER, *supra* note 48, at § 10.03[A][7] (arguing by "negative implication" that a non-exclusive license does not require a writing), and at § 10.03[A][8] (cautioning that state law cannot disrupt the federal scheme). *See also* Lulirama, Ltd. v. Axcess Broadcast Services, 128 F.3d 872, 879 (5th Cir. 1997) (citing NIMMER & NIMMER, *supra* note 48, at § 10.03[A]). Whether Section 204(a) preempts a state writing requirement as a matter of federal policy is one thing. But claiming that this must follow by "negative implication" is a logical fallacy, as Judge Ruggero J. Aldisert explains. "The proposition that 'A implies B' is not the equivalent of 'non-A implies non-B,' and neither proposition follows logically from the other. The process of inferring one from the other is known as 'the fallacy of denying the antecedent.'" RUGGERO J. ALDISERT, LOGIC FOR LAWYERS: A GUIDE TO CLEAR LEGAL THINKING 158 (3d ed. 1997) (citing J. COOLEY, A PRIMER OF FORMAL Logic 7 (1942)). From the requirement that an exclusive copyright license must be in writing, it does not logically follow that a non-exclusive license may not be in writing in any circumstance.

[80] *See Lulirama*, 128 F.3d at 879; I.A.E., Inc. v. Shaver, 74 F.3d 768, 775 (7th Cir. 1996); Jacob Maxwell, Inc. v. Veek, 110 F.3d 749, 752 (11th Cir. 1997); Effects Associates, Inc. v. Cohen, 908 F.2d 555 (9th Cir. 1990).

license was precisely because it thought a single statute of the frauds should apply to the entire transaction, a point we will return to below.[81]

I suggest the correct result is that a state statute of frauds can apply to a non-exclusive copyright license, just not the statute of frauds found in Article 2-201.[82]

Although several cases have held a non-exclusive license can be oral under federal law, none have held a state statute of frauds cannot apply to a non-exclusive license. A trenchant example is *Effects Associates, Inc. v. Cohen*.[83] When Larry Cohen, a movie producer, declined to pay the full freight for special effects of an alien ooze disguised as frozen yogurt, the effects house sued to enjoin distribution of the movie for copyright infringement.[84] Not wishing to deprive an eager public of *The Stuff*, the court decided that, although there was no exclusive license because no writing was signed, this was really a dispute about payment, and thus found a non-exclusive license to avoid the infringement claim.[85] The court, which was only thinking copyright, called it a day by noting that under Section 204(a) there is no writing requirement for non-exclusive licenses.[86] Had it gone the next step, it would undoubtedly have concluded that although there might be a writing requirement under state law, part performance satisfied the usual exception.[87] Indeed, *Holtzbrinck Publishing Holdings, L.P. v. Vyne Communications, Inc.*,[88] reached just this result when considering a nonexclusive license to develop a Web page. It held that the N.Y. general law statute of frauds applied, not the one in Article 2, but found that the traditional part performance exception to the statute of frauds was satisfied.

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[81] *See infra* notes 423 - 446 and accompanying text.

[82] *But see* ALCES & SEE, *supra* note 14, at § 11.2.1 (arguing that a state statute of frauds can apply to a nonexclusive copyright license, and claiming it should be the statute of frauds found in Article 2-201).

[83] 908 F.2d 555 (9th Cir. 1990).

[84] *Effects Assocs.*, 908 F.2d at 561.

[85] *Id*.

[86] *Id*. at 563.

[87] I suggest that what these decisions really meant to say was something like this: "Well, Mr. Defendant, you tried to make an exclusive license but failed. Too bad. On the other hand, Mr. Plaintiff, you have not been a paragon of virtue. We must of course deny the defendant an *exclusive* license, but if we leave it there the defendant becomes a copyright infringer. That is too much in this case. To prevent that, we are going to hold that the defendant has a *non-exclusive* license. The Copyright Act does not require a writing for a non-exclusive license, so we can always say this is what you 'really' meant to do, if you pardon our wink. What? You say state law requires a writing for a non-exclusive license too? Perhaps you misunderstood. A non-exclusive license is really no more than a waiver of a right to sue. This is not the type of 'contract' usually covered by a state statute of frauds, and even if it is, the statute of frauds can be waived, and your conduct has indeed waived it. Next case."

[88] Holtzbrinck Publishing Holdings, L.P. v. Vyne Communications, Inc., ___ F.Supp.2d ___ (S.D.N.Y. 2000)

2. Contract by Shipment of Goods

a. Article 2

Under Article 2, a contract can be formed by conduct.[89] In particular, under Article 2-206(1)(b), a shipment of conforming goods, or promise to ship them, in response to a "rush order" is a valid acceptance.[90] This rule eliminates an old problem with the so-called "unilateral contract." Assume a buyer makes an order for immediate delivery. What response is appropriate, shipment (a performance) or a confirmation of shipment (a promise)? At common law, if a contract called for a performance (a "unilateral contract"), only a performance would do. This could lead to obvious injustice if the offer was withdrawn after performance started but before it was complete.[91] When faced with this issue, Article 2-206(1)(a) now answers "either one." Promise or perform, either one will do, unless, of course, "otherwise indicated . . . by language or circumstances."[92]

b. Copyright Act

That shipment can create a contract of sale works fine in Article 2. Not so for copyrights. The idea that mere delivery of a copy makes a contract to transfer a copyright interest was a presumption for common law copyrights. Section 202 of the Copyright Act obliterates the common law presumption: "[t]ransfer of ownership of any material object . . . does not of itself convey any rights in the copyrighted work embodied in the object."[93] Thus, the conveyance of ownership rights to a book along with delivery of the original manuscript does not transfer the copyright of the book.[94] The purchase of a master recording does not allow use of the master to make copies for further sale.[95] Buying a copy of a CD containing clip art gives no license to download the clip art onto the buyer's Web page.[96] Buying sweaters does not grant any right to reproduce their copyrighted designs.[97] Paying to have a videotape made of a concert grants no copyright in the resulting videotape.[98] Shipment of copies - goods - conforming or non-

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[89] U.C.C. § 2-204(1) (1999).

[90] U.C.C. § 2-206(1)(b) (1999).

[91] *See generally* QUINN, *supra* note 27, at ¶ 2-206[A][3]. One way around this problem was to presume the contract was bilateral in case of doubt. *E.g.*, Davis v. Jacoby, 34 P.2d 1026, 1030 (Cal. 1934) (noting that "the cases clearly indicate a tendency to treat offers as offers of bilateral rather than unilateral contracts"); RESTATEMENT (SECOND) OF CONTRACTS § 32 (1981) (stating that in case of doubt, an offer should be interpreted as inviting either a performance or a promise as the offeree chooses).

[92] U.C.C. § 2-206(1) (1999).

[93] 17 U.S.C. § 202 (1994).

[94] *See* Saxon v. Blann, 968 F.2d. 676, 680 (8th Cir. 1992).

[95] *See* Harris v. Emus Records Corp., 734 F.2d 1329, 1334 (9th Cir. 1984).

[96] *See* Marobie-FL, Inc. v. Nat'l Ass'n of Fire Equip. Distrib., 983 F. Supp. 1167, 1168 (N.D. Ill. 1997).

[97] *See* Design Options, Inc. v. Bellepointe, Inc. 940 F. Supp. 86, 91 (S.D.N.Y. 1996).

[98] *See* Quintanilla v. Texas Television, Inc., 139 F.3d 494 (5th Cir. 1998); *see also* Forward v. Thorogood, 758 F. Supp. 782, 784 n.3 (D. Mass 1991), *aff'd*, 985 F.2d 604 (1st Cir. 1993) (authorizing a fan to make a copy of a musical performance did not transfer copyright in the tapes under the 1909

conforming, for immediate delivery or not, does not of itself transfer *any* interest, exclusive or non-exclusive, in a copyright.[99]

At this point, we need to discuss the curious doctrine of the "implied license." In some cases, the defendant's conduct, while perhaps over the line, does not warrant bringing down the full wrath of the Copyright Act. So courts use the implied license rubric to excuse or mitigate the effects of the defendant's conduct. Fair enough. That is what courts do. The issue is whether state statutory law can mandate an implied license in all cases of shipment of a copy. I suggest that the answer is "no" for reasons both legal and practical.

First, there is the not insignificant problem of legal authority. An implied license is a defense to a claim of copyright infringement, and federal courts have exclusive jurisdiction over such actions.[100] It is doubtful whether state law can mandate a federal court to recognize an implied license defense whenever there is delivery of a copy, come what may. An implied license is fact-specific. Transfer of a material object may be some evidence that the parties intended one,[101] but due to Section 202, it is not dispositive. Indeed, the cases have denied an implied license as often as they have found one, even with delivery of a copy.[102]

The second problem is practical: often the provider of the copy is not the owner of the copyright. A record store may sell records, but that does not mean it owns the copyright in the

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Copyright Act); *but see Lulirama*, 128 F.3d at 883 (allowing a nonexclusive license to use radio jingles created under an oral contract).

[99] Of course, as mentioned above, the owner of a *copy* may have certain privileges to use the *copy* in a manner that does not infringe the copyright, such as the "first sale" doctrine, *see* 17 U.S.C. § 109 (1999), and there may be certain privileges to use the work, such as "fair use," *see* 17 U.S.C. § 107 (1999). The point is that the mere acquisition of the copy does not in itself grant any interest in the copyright beyond the designated privileges in the Copyright Act.

[100] 28 U.S.C. § 1338(a) (1994); *see* 3 NIMMER & NIMMER, *supra* note 48, at § 12.01[A][1].

[101] *See Effects Assocs.*, 908 F.2d at 555. *But see* ALCES & SEE, *supra* note 14, at § 11.2.2 (arguing that *Effects Associates* duly applied industry custom and practice to find a license). The issue, however, is not whether a court may find an implied license from conduct in some cases, but whether state law can mandate one in all cases.

[102.] Cases finding an implied license include: *Lulirama*, 128 F.3d at 882-83 (radio jingles); *I.A.E.*, 74 F.3d at 775-77 (architectural plans); *Effects Assocs.*, 908 F.2d at 559 (special effects); Oddo v. Ries, 743 F.2d 630, 634 (9th Cir. 1984) (magazine articles); Keane Dealer Serv., Inc. v. Harts, 968 F. Supp. 944 (S.D.N.Y. 1997) (software); Ladas v. Potpourri Press, Inc., 846 F. Supp. 221, 225-26 (E.D.N.Y. 1994) (artwork); Pamfiloff v. Giant Records, Inc., 794 F. Supp 933, 938-39 (N.D. Cal. 1992) (music); Silva v. MacLaine, 697 F. Supp. 1423, 1430 (E.D. Mich. 1988), *aff'd*, 888 F.2d 1392 (6th Cir. 1989) (book).

Cases denying an implied license include: Micro Star v. Formgen, Inc., 154 F.3d 1107, 1113 (9th Cir. 1998) (holding that a license authorizing the creation and distribution "for free" of new game levels did not give an implied license to distribute them for a fee); Johnson v. Jones, 149 F.3d 494 (6th Cir. 1998) (architectural plans); Storm Impact, Inc. v. Software of the Month Club, 13 F. Supp.2d 782 (N.D. Ill 1998) (holding that placing shareware on the Internet did not give an implied license to redistribute for a fee); MacLean Assocs., Inc. v. Wm. M. Mercer-Meidinger-Hansen, Inc., 952 F.2d 769, 779 (3d Cir. 1991) (software); Design Options, Inc. v. Bellepointe, Inc., 940 F. Supp. 86, 92-93 (S.D.N.Y. 1996) (fabric designs); Allen-Myland, Inc. v. International Bus. Mach. Corp., 746 F. Supp. 520, 549-50 (E.D. Pa. 1990) (software).

embodied music or sound recordings. Walnut Creek may sell copies of LINUX, but it does not own the LINUX copyright. That the copyright owner has consented to so some mass distribution of copies under some circumstances does not imply that the copyright owner has consented to every distribution. State law cannot imply that delivery of a copy always occurs with the consent of the copyright owner, as this could abrogate the copyright owner's exclusive distribution right in Section 106(3).

Article 2 may imply that the shipment of goods creates a contract of sale, but the Copyright Act prevents state law from presuming that mere delivery of a copy creates a license for a copyrightable computer program.[103]

3. Contract Where Writings Conflict

a. Article 2

In the best of all possible legal worlds, contracting parties sit down around the proverbial bargaining table, their lawyers fluttering about, and painstakingly reduce their agreement to a fully integrated -- and duly executed -- written contract. In the real world it does not always happen that way. The press of business intervenes. Standard forms pass in the night, and busy people get on with making shipments and cutting checks. When a problem erupts, they suddenly discover that those pretty standard forms were not enough to satisfy the legal niceties for making a "contract" after all. But everyone sure acted like they did.

To this not uncommon situation, the UCC proposes a solution. Article 2-207(3) provides that where the conduct of both parties recognizes a contract even if the writings do not, then a contract does in fact exist. But what are its terms? Article 2-207(3) determines them using what is often called a "knock-out" rule.[104] The terms of the contract are those where the writings agree; conflicting provisions are ignored and the remaining terms are supplied by the UCC gap-fillers. As *Diamond Fruit Growers, Inc. v. Krack Corp.*[105] explained:

> At common law, the offeree/counterofferor gets all of its terms simply because it fired the last shot in the exchange of forms. Section 207(3) does away with this result by giving neither party the terms it attempted to impose unilaterally on the other. . . . Instead, all the terms on which the parties' forms do not agree drop out, and the U.C.C. supplied the missing terms.[106]

b. Copyright Act

The Copyright Act rejects a "knock-out" rule where assignments and exclusive licenses are concerned. Even if the parties have fulfilled all of the prerequisites for a valid oral agreement, with full or partial performance, there can be no valid transfer of copyright ownership

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[103] *Compare* UCITA § 203(2) providing that an offer to acquire a *copy* invites acceptance of that order by prompt shipment, but not forming a *license* by so doing. UCITA applies to contracts where a software publisher elects to sell a copy and rely solely on copyright privileges, *e.g.* sale of a videogame cartridge. UCITA § 103(b)(1)(B).

[104] *See* HAWKLAND, *supra* note 24, at § 2-207:4.

[105] 794 F.2d 1440 (9th Cir. 1986).

[106] *Diamond Fruit Growers*, 794 F.2d at 1444 (citation omitted).

unless the *writings* indicate a proper transfer.[107] If the parties intend to make an exclusive license and the writings are insufficient, the usual result is simply no contract at all, regardless of conduct. For example, in *Konigsberg International v. Rice,*[108] a movie producer negotiated for an exclusive license to produce a motion picture based on Ann Rice's best selling book, *The Mummy*. Ms. Rice negotiated over the terms of the license and even cashed the check, but without her signature there was no valid contract.[109] This result follows directly from Section 204(a). Its writing requirement ensures that "the creator of a work will not give away his copyright inadvertently and forces a party who wants to use the copyrighted work to negotiate with the creator to determine precisely what rights are being transferred at what price" which "enhances predictability and certainty of copyright ownership - 'Congress' paramount goal.'"[110] The result is the same for specially commissioned works made for hire.[111]

Of course, where parties try to make an exclusive license and fail, a federal court may imply a non-exclusive license to exploit the work.[112] However, the terms of such an implied license are emphatically not those that would arise from a "knock-out" rule. Consider *Oddo v. Ries*,[113] which involved an agreement between a writer and marketer to write a how-to manual incorporating magazine articles previously published by the writer. When the marketer decided to hire another writer, there was an implied license to use the magazine articles, because the original author had certainly intended them to be used, but not to revise the original writer's work.[114] Similarly, in *MacLean Associates, Inc. v. Wm. M. Mercer-Meidinger-Hansen, Inc.*,[115] a programmer's delivery of a copy of software to a former employer without restriction evidenced

[107] *See Konigsberg*, 16 F.3d at 355; *see also* Quintanilla v. Texas Television, Inc., 139 F.3d 494 (5th Cir. 1998) (holding that a purported oral transfer of copyright ownership in a videotape was invalid); Valente-Kritzer Video v. Pinckney, 881 F.2d. 772, 775 (9th Cir. 1989) (holding that despite performance, oral agreement for an exclusive license was invalid where writings did not establish license terms); Time, Inc. v. Kastner, 972 F. Supp. 236, 239 (S.D. N.Y. 1997) (holding that an oral agreement to transfer "motion picture and allied rights" in a magazine article was invalid despite the payment of $5,000); Mellencamp v. Riva Music, Ltd. 698 F. Supp. 1154, 1167 (S.D. N.Y. 1988) (holding that an oral agreement to transfer copyrights in songs was invalid where writings did not indicate agreement).

[108] 16 F.3d 355 (9th Cir. 1994).

[109] *Konigsberg*, 16 F.3d at 358-60. Similarly, in *Pickney*, a video producer negotiated with an author for an exclusive license to create and distribute videos based on her best selling book. *Pickney*, 881 F.2d. at 775. Despite an exchange of contract drafts, and part performance by the producer, the correspondence and accompanying draft agreements were held to fail to memorialize the oral agreement. *Id*. An exchange of draft agreements and part performance also failed to make an exclusive license in *Mellencamp,* 698 F. Supp. at 1167.

[110] *Effects Assocs.*, 908 F.2d at 557.

[111] *See Committee for Creative Non-Violence,* 490 U.S. at 730.

[112] *See supra* notes 84 - 88 and accompanying text; *see also* 3 NIMMER & NIMMER, *supra* note 48, at § 10.03[A][7].

[113] 743 F.2d 630 (9th Cir. 1984).

[114] *Oddo*, 743 F.2d at 634.

[115] 952 F.2d 769 (3d Cir. 1991).

an implied license to use the software for internal use, but not to license it to third parties.[116] None of these cases created a contract on the terms where the writings agreed and elsewhere on the terms of the Article 2 default rules.[117] Parties may expressly agree or demonstrate by conduct that they have agreed to a license on some terms. State law, however, cannot use Article 2' knock-out rule to dictate the default terms in all cases of botched writings.[118]

4. Interpretation Rules

a. Article 2

The UCC rejects the conveyancer's obsession with punctilious parsing of the written word as the sole source of contractual obligations. Instead Article 2-208 provides that contracts are to be interpreted by merchant standards reflected by what the parties said as well as what they did.[119] The agreement of the parties means more than just the written words. It means their bargain in fact, as found in their language, or by implication from other circumstances, including course of performance, course of dealing, and usage of trade.[120] The contract is then the total legal obligation that results from the agreement.[121]

b. Copyright Act

State rules of construction apply only to the extent that they are consistent with Copyright Act policies.[122] If federal policies would lead to a different interpretation of a license, then the state rules must give way. The federal policy of protecting authors means that a copyright license prohibits any uses not authorized, preempting contrary state law rules of interpretation against the drafter.[123]

One area where federal copyright law takes precedence is determining the "scope" of a license, as opposed to a "contractual use restriction."[124] Exceeding the scope of a license is a copyright infringement, whereas violating a use restriction is breach of contract.[125] Scope deals

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[116] *MacLean Assocs*., 952 F.2d at 779.

[117] *See* McCoy v. Mitsuboshi Cutlery, Inc., 67 F.3d 917, 920 (Fed. Cir. 1995) ("An implied [patent] license, however, must not exceed the limits necessary to make the contract effective.").

[118] *Compare* U.C.I.T.A. § 210 (1999) (rejecting a "knock-out" rule for contracts formed by conduct and adopting instead an "all the facts and circumstances" test).

[119] *See* QUINN, *supra* note 27, at ¶ 2-208.

[120] *See* U.C.C. § 1-201(3) (1999).

[121] *See* U.C.C. § 1-201(11) (1999).

[122] *See* Cohen v. Paramount Pictures Corp., 845 F.2d 851, 854 (9th Cir. 1988); Fantastic Fakes, Inc. v. Pickwick International, Inc., 661 F.2d 479 (5th Cir. 1981).

[123] *See* S.O.S., Inc. v. Payday, Inc., 886 F.2d 1081, 1088 (9th Cir. 1989) ("We can rely on state law to provide the canons of contractual construction, but only to the extent such rules do not interfere with federal copyright law or policy.").

[124] *See S.O.S.*, 886 F.2d at 1089.

[125] *See* Sun Microsystems v. Microsoft Corp, 188 F.3d 1115 (9th Cir. 1999). If the licensor cancels the license for material breach, further use becomes an infringement. Schoenberg v. Shapolsky Publishers, Inc., 971 F.2d 926, 932-33 (2d Cir. 1992).

with the specific boundaries of the rights granted in the protected work as "limited in time, place or effect,"[126] while a use restriction deals with the exercise of the rights within these boundaries.

Several cases illustrate the difference. For example, *Sun Microsystems, Inc. v. Microsoft Corp.*[127] involved a license of the Java® programming language that contained a broad grant of rights to create adaptations, and a separate provision requiring the adaptations to be compatible with Sun's Java standards. The right to create adaptations (derivative works) is one of the rights reserved to the copyright owner,[128] so the first step was met. The remaining question was whether the compatibility requirement limited the scope of the adaptation right granted, which would have justified a preliminary injunction to prevent infringement, or was merely contractual use restriction, which would not. The case was remanded to evaluate the contractual intent.[129]

Similarly, in *S.O.S., Inc. v. Payday, Inc.*,[130] a licensee who created and marketed a modified version of a software accounting system exceeded the scope of the license where the license did not authorize such conduct.[131] Other the other hand, in *National Car Rental System, Inc. v. Computer Associates International, Inc.*,[132] the software provider only licensed use of its database program for processing the licensee's own internal data. Processing the data of other companies violated the use restriction but was not an infringement because it did not involve one of the exclusive rights under Section 106.[133] In any case, the scope of a copyright license is a question of federal law, not state law.[134]

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[126] This comes from the definition of "transfer of copyright ownership" in Section 101 of the Copyright Act, which provides that such a transfer may be "limited in time, place or effect." *See, e.g.* U.S. Naval Inst. v. Charter Communications, 936 F.2d 692 (2d Cir. 1991) (addressing the *time* when exclusive license began); Video Views Inc. v. Studio 21, Ltd., 925 F2d 1010 (7th Cir. 1990) (addressing *place* as defined in the phrase "adult motion picture arcade facilities"); Nat'l Ass'n of Broadcasters v. Copyright Royalty Tribunal, 809 F.2d 172 (2d Cir. 1986) (holding that a broadcast station's acquisition of syndicated exclusivity rights in local television markets was a transfer of ownership); Richard Feiner & Co. v. Turner Entertainment Co., 926 F. Supp. 40, 42 n.6 (S.D. N.Y. 1996) (providing the plaintiff with an exclusive license that "though limited in time and place of effect, constitutes a transfer of copyright [to plaintiff] as defined in the Copyright Act").

[127] 188 F.3d 1115 (9th Cir. 1999).

[128] 17 U.S.C. § 106(2) (1994).

[129] *Sun Microsystems*, 188 F.3d at 1123.

[130] 886 F.2d 1081 (9th Cir. 1989).

[131] *S.O.S.*, 886 F.2d at 1089.

[132] 991 F.2d 426 (8th Cir. 1993).

[133] *Nat'l Car Rental Sys.*, 991 F.2d at 427-32. *See also* U.S. Naval Inst. v. Charter Communications, Inc., 936 F.2d 692, 695-96 (2nd Cir. 1991) (holding that the early release of a book violated a contractual restriction but was not an infringement where the license term started on the agreement's execution date).

[134] *See S.O.S.*, 886 F.2d at 1088. *Compare* U.C.I.T.A. § 105(a) (1999) (express deferral to preemptive federal law) and U.C.I.TA. § 307 (1999) (generally adopting federal rules for interpretation of grants).

5. Assignment of Rights and Obligations

a. Article 2

Article 2-210(2) contains the default rule that "all rights of either seller or buyer can be assigned except where the assignment would materially change the duty of the other party, or increase materially the burden or risk imposed on him by the contract, or impair materially his chance of obtaining a return performance."[135] Of course, the parties can change this rule by agreement. But this provision recognizes that, in general, the assignability of rights is a "normal and permissible incident" of the sale of goods.[136]

b. Copyright Act

It is otherwise for copyrights. Copyright law places specific limits on the transferability of a license, and provides certain rules for transfer of a copy. To understand these rules, we again follow the admonition in Section 202 to distinguish the copy from the copyright; transfer of the copyright interest must be examined separately from transfer of a copy.

Regarding *transfer of copyright interest*, an exclusive license is a "transfer of ownership" and as such is assignable absent contractual restrictions.[137] A non-exclusive license, however, being personal to the licensee, is not assignable without consent of the licensor.[138] This rule is a matter of federal intellectual property law, which preempts state law transferability rules.[139] It has been the rule for close to a century under both the current and the prior copyright acts.[140] A licensor may of course agree that a non-exclusive license is transferable. State law, however, cannot imply such agreement as a "gap-filler" merely from the licensor's silence.

Regarding *transfer of a copy*, Section 106(3) gives the copyright owner the exclusive right to authorize the public distribution of copies of a copyrighted work by sale, lease rental or other disposition. However, there are three noteworthy exceptions to this exclusive right: the "first sale" doctrine in Section 109; the computer use privilege in Section 117; and the nonprofit

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[135] U.C.C. § 2-210(2) (1999).

[136] U.C.C. § 2-210 cmt. 1 (1999). S*ee also* Baxter Healthcare Corp. v. O.R. Concepts, Inc., 869 F. Supp. 606 (N.D. Ill. 1994) (assignment of distributorship to sell health care products); HAWKLAND, *supra* note 24, at § 2-210:1.

[137] *See* In re Patient Educ. Media, 210 B.R. 237, 240 (Bankr. S.D. N.Y. 1997) (citing I.A.E., Inc. v. Shaver, 74 F.3d 768, 774-75 (7th Cir. 1996)); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.02[B][4].

[138] *See* Harris v. Emus Records Corp., 734 F.2d 1329, 1334 (9th Cir. 1984) (holding that a non-exclusive master use license was not assignable in bankruptcy); *In re Patient Educ. Media*, 210 B.R. at 242-43 (holding that a non-exclusive license for a patent was not transferable in bankruptcy); *In re CFLC, Inc. (Everex v. Cadrak)* 89 F.3d 673, 679 (9th Cir. 1996) (holding that a nonexclusive patent license was not transferable in bankruptcy); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at §§ 10.01[C][4], 10.02[B][4].

[139] *See Harris*, 734 F.2d at 1334.

[140] *See* Neva, Inc. v. Christian Duplications Int'l, Inc.,743 F. Supp. 1533, 1546 (M.D. Fla. 1990) (holding that a nonexclusive license to use recordings was not assignable under the 1909 Copyright Act); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.01[C][4].

library privilege in Section 108.

The first sale doctrine in Section 109 provides that a lawful sale of a copy "exhausts" the exclusive distribution right for that copy, so its further sale or transfer is not a copyright infringement.[141] But there arelimits on the doctrine. First, the original sale must be authorized by the copyright owner.[142] Second, it only extends to the owner of the copy, not to someone who merely acquires possession of it.[143] Third, it only effects the distribution right,not the other exclusive rights.[144] Thus, a lawful owner of a DVD may resell the DVD (distribution right) without infringement, but may not broadcast of the motion picture embodied on the DVD (public performance right). In the case of LINUX, the license authorizes the recipient of a copy to make further copies (reproduction right) to prepare enhancements to the program (adaptation rights) and to distribute those *new* copies (distribution right). The first sale doctrine does not authorize this additional conduct merely from acquiring ownership of the first copy. Doing so without an enforceable license would be an infringement.

There is an exception to the first sale doctrine where computer programs are concerned: the software rental right. In 1990, Congress amended Section 109 to allow the owner of a computer program to restrict rental of a copy even after a first sale.[145] This was enacted because of fear that the ease of copying of computer programs would lead to wide scale piracy without restrictions on rental. This rental right has been held to preempt state law contracting rules to the contrary.[146]

The second exception is the computer use privilege accorded in Section 117. It allows the owner of a copy of the computer program to make a new copy or adaptation "as an essential step in the utilization of the computer program in conjunction with a machine."[147]. Exact copies

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[141] 17 U.S.C. § 109(a) (1994). *See generally* 2 NIMMER & NIMMER, *supra* note 48, at § 8.12; BOORSTYN, *supra* note 77, at § 6.03.

[142] 17 U.S.C. § 109(a) (1994) ("a copy lawfully made").

[143] 17 U.S.C. § 109(a) & (d) (1994).

[144] *See* Design Options, Inc. v. BellePointe, Inc., 940 F. Supp. 86, 91 (S.D. N.Y. 1996) (first sale doctrine does not authorize reproduction); Midway Mfg. Co. v. Strohon, 564 F. Supp. 741, 744 (N.D. Ill. 1983) (or adaptation); Red-Baron-Franklin Park, Inc. v. Taito Corp., 883 F.2d 59, 64 (or public performance); *see generally* 2 NIMMER & NIMMER, *supra* note 48, at § 8.12[D].

[145] Computer Software Rental Amendment of 1990, Pub. Law No. 101-650, Sec. 801, 104 Stat. 5089 codified 17 U.S.C. § 109(b).

[146] *See* Adobe Systems, Inc. v. Brenengen, 928 F. Supp. 616 (E.D. N.C. 1996) (post-1990 rental of software prohibited); Central Point Software v. Global Software & Access, 880 F. Supp. 957, 965 (E.D. N.Y. 1995). A like restriction applies to the rental of phonorecords. *See* 17 U.S.C. § 109(b)(1)(A) (1994); A&M Records v. A.L.W., Ltd., 855 F.2d. 368 (7th Cir. 1988) (record rentals disguised as buy-back plan prohibited); *see generally* BOORSTYN, *supra* note 77, at § 6.21. The rental right does not abrogate applicable antitrust laws. 17 U.S.C. § 109(b)(4) (1994).

[147] 17 U.S.C. § 117(a)(1) (1994); *see* DSC Communications Corp. v. Pulse Communications, 170 F.3d 1354 (Fed. Cir. 1999), *cert. denied*, 120 S. Ct. 286 (1999), (holding that section 117 applies only to the owner of a copy of a computer program, not to one with mere possession); Allen-Myland v. Int'l Bus. Mach. Corp., 746 F. Supp. 520, 536-37 (E.D. Pa. 1990) (holding that section 117 did not authorize the use of microcode where the copy was not lawfully acquired); *but see* Syngeristic Technologies v. IDB Mobil

made under this section may be leased, sold or otherwise transferred but only with the original copy and as part of the transfer of all of the original owner's rights in the computer program.[148] Note that this in effect operates as a limitation on the "first sale" privilege that would otherwise exist, since an "exact copy" made under Section 117 may only be transferred under these conditions.[149]

A third exception exists for nonprofit libraries. They are exempted from the computer software rental right[150] because a separate provision, Section 108, allows nonprofit libraries to make and distribute copies of copyrighted works under certain conditions without infringing a copyright, including digital copies of computer programs.[151]

These exceptions can be modified by contract in appropriate cases. For example, the first sale doctrine and the computer use privilege only run in favor of the lawful owner of a copy. Nothing in the Copyright Act mandates that a software licensor must sell copies, even in the mass market. By the same token, nothing in state law mandates sale-only either; indeed Article 2A of the UCC deals with leases of personal property where no sale occurs. As the Federal Circuit observed in *DSC Communications Corp. v. Pulse Communications*,[152] contractual restrictions on the ownership and use of a copy which vitiate the Section 117 privilege are enforceable.[153] The same applies to the nonprofit library privilege. In Section 108(f)(4), Congress explicitly said so: "Nothing in this section . . . in any way affects . . . any contractual obligation assumed at any time by the library or archives when it obtained a copy of a work . . . in its permanent collections."[154] Nonprofit libraries often acquire manuscripts and other works under conditions that restrict their access and use, such as private papers made available for limited research only. Congress provided that contractual undertakings of libraries are not

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Communications, 871 F. Supp. 24, 29 (D. D.C. 1994) (adaptation allowed because party was owner of a copy of the program). *See generally* 2 NIMMER & NIMMER, *supra* note 48, at § 8.08; BOORSTYN, *supra* note 77, at § 6.11. Section 117(a)(2) also authorizes making copies for archival purposes. Title III of the Digital Millenium Copyright Act, Pub. L. 105-304, 112 Stat. 2860 (Oct. 28., 1998) added new subsections (c) and (d), allowing the making of a copy for maintenance and repair. The purpose was to reverse the effect of the decision in Mai Systems Corp. v. Peak Computer, 991 F.2d 511 (9th Cir. 1993).

[148] 17 U.S.C. § 117(b) (1994); *see generally* BOORSTYN, *supra* note 77, at § 6.11[3].

[149] *See* 2 NIMMER & NIMMER, *supra* note 48, at § 8.08[B][3] so arguing.

[150] 17 U.S.C. § 109(b)(2)(a) (1994).

[151] As originally enacted, Section 108 allowed nonprofit libraries to make reproductions in "facsimile" (not digital) format solely for purposes of preservation, security or research. In Section 404 of the Digital Millennium Copyright Act of 1998, Pub. L. 105-304, 112 Stat. 2860 (Oct. 28, 1998), Congress amended 17 U.S.C. § 108 to allow reproductions in digital format. For further discussion *see* 2 NIMMER & NIMMER, *supra* note 48, at § 8.03; BOORSTYN, *supra* not 92, at § 6.06. Section 108 does not affect any fair use privilege a nonprofit library may have under Section 107. 17 U.S.C § 108(f)(4) (1994); s*ee generally* WILLIAM F. PATRY, THE FAIR USE PRIVILEGE IN COPYRIGHT LAW ch. 13 (2d ed. 1995).

[152] 170 F.3d 1354 (Fed. Cir. 1999), *cert. denied*, 120 S. Ct. 286 (1999).

[153] *DSC Communications Corp*, 170 F.3d at 1360.

[154] 17 U.S.C. § 108(f)(4) (1994).

effected by Section 108 to prevent the drying up of this valuable resource.[155]

How do these rules apply to software transactions? Assume a licensee acquires a copy of a copyrighted database program under a non-exclusive license. As a matter of federal law, the license to use the computer program is not transferable absent agreement by the licensor.[156] As to the copy, whether that is transferable depends on the terms of the contract. If the contract provided there was no sale of a copy, or otherwise restricted transfer, under state contract law those terms would be enforceable.[157] If the contract is silent, and the copy is acquired under lease or other use restriction so that there was no transfer of ownership, then the transferee would not have a first sale or computer use privilege and use of the copy could be an infringement. If there is a sale of a copy, then the usual state law rule would allow transfer of a copy. The first sale doctrine would then provide that transfer of the copy was not an infringement, and the computer use privilege would allow the transferee to make a copy of the program onto its computer if its conditions were satisfied. Neither of these privileges, however, would allow any additional uses enabled in the license. Some commentators confuse this point. They assume that a software transaction, especially in the mass market, is no more than a sale of goods, and then complain that provisions restricting assignment of the copyright license also restrict resale of the copy.[158] This comes from the wrong image of the transaction.[159]

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[155] *See* H.R. REP. NO. 94-1476, at 77 (1976), stating as follows:

> Clause (4) [of Section 108(f)] provides that the right of reproduction granted by this section does not override any contractual arrangements assumed by a library or archives when it obtained a work for its collections. For example, if there is an express contractual prohibition against reproduction for any purpose, this legislation shall not be construed as justifying a violation of the contract. This clause is intended to encompass the situation where an individual makes papers, manuscripts or other works available to a library with the understanding that they will not be reproduced.

Id. Courts have been quite willing to enforce library access agreements according to their terms. *See, e.g.,* Wright v. Warner Books, Inc., 953 F.2d 731, 741 (2d Cir. 1991) (holding that an agreement restricting library access and uses was valid but was not breached by paraphrasing limited excerpts); American Geophysical Union v. Texaco, Inc., 37 F.3d. 881, 899 (2d Cir. 1994) (stating that "the very fact that Congress restricted the rights of libraries to make copies implicitly suggests that Congress views journal publishers as possessing the right to restrict photocopying, or at least the right to demand a licensing royalty from nonpublic institutions that engage in photocopying"). The amendments to 17 U.S.C. § 108 in the Digital Millenium Copyright Act did not affect § 108(f)(4). The extent to which a nonprofit library's "fair use" privilege under Section 107 may be reordered by contract is of course a separate issue.

[156] Compare this with the attached GNU Public License, which does authorize transfer of the license, but only under specific conditions.

[157] As this paper argues, the applicable contract rule should be determined by state common law. However, for a useful comparison, note that both Article 2-403 and Article 2A-303 provide that express contractual restrictions on transfer of rights or delegation of duties are enforceable. Of course, this is the contract rule. Whether and in what circumstances other rules of positive law, such as anti-trust law, may require another result, is a different question.

[158] S*ee, e.g.* David A. Rice, *Digital Information As Property And Product: U.C.C. Article 2B*, 22

6. Basic Obligations of Parties

a. Article 2

Article 2-301 sets forth the basic obligations of buyer and seller in a contract of sale: "The obligation of the seller is to transfer and deliver and that of the buyer is to accept and pay in accordance with the contract."[160]

If the agreement is silent, who goes first? Article 2 2-507(1) states: "Tender of delivery is a condition to the buyer's duty to accept the goods and, unless otherwise agreed, to his duty to pay for them."[161] Good enough. The default rule is seller goes first. Or is it? Article 2-511(1) says: "Unless otherwise agreed, tender of payment is a condition to the seller's duty to tender and complete any delivery."[162] This looks like a buyer first rule. The Official Comments resolve the apparent dilemma by stating that "[u]nless there is agreement otherwise, the concurrence of the conditions as to the tender of payment and the tender of delivery requires their performance at a single place or time."[163] In other words, absent agreement, the seller's obligation to deliver and the buyer's obligation to pay are dependent and concurrent. This means that each party must tender performance when due in order to put the other in breach.[164] The default rule is that all goods must be tendered in a single delivery,[165] and full payment is due on their receipt.[166]

In the Article 2 conceptual model, the parties' basic obligations are unitary, dependent and concurrent., They are *unitary* in the sense that the seller has one main obligation -- transfer/deliver -- and the buyer has another -- accept/pay. They are *dependent* in that the obligation to perform one is conditioned on performance of the other. Third, they are *concurrent* in that they happen at the same time. All, of course, are subject to change by agreement of the parties.

U. DAYTON L. REV. 621 (1977).

159 *Compare* U.C.I.T.A. § 503(1)(A) (1999) (deferring to applicable rules of federal law) and § 503(1)(B) (1999) (otherwise adopting the current rule from Article 2).

160 U.C.C. § 2-301 (1999).

161 U.C.C. § 2-507(1) (1999).

162 U.C.C. § 2-51191) (1999).

163 U.C.C. § 2-511(2) cmt. 2 (1999); *see generally* HAWKLAND, *supra* note 24, at §§ 2-507:1, 2-511:1; QUINN, *supra* note 27, at ¶ 2-705[A][1].

164 *See* Oakland Gin Co., Inc. v. Marlow (*In re* The Julien Co.), 44 F.3d 426, 430 (6th Cir. 1995) (holding that, because delivery and payment did not occur concurrently, sections 2-507 and 2-522 of the Tennessee Commercial Code were inapplicable); *see generally* HAWKLAND, *supra* note 24, at § 2:511:1.

165 *See* U.C.C. § 2-307 (1999); Martel Constr., Inc. v. Gleason Equip., Inc., 534 P.2d 883 (Sup. Ct. Mon. 1975) (all goods must be delivered in single lot unless agreed otherwise); *see generally* QUINN, *supra* note 27, at ¶ 2-307[A].

166 *See* U.C.C. § 2-310(a) (1999); Lewis v. Hughes, 346 A.2d 231 (Ct. App. Md. 1975) (absent agreement, full payment due on receipt of goods); *see generally* QUINN, *supra* note 27, at ¶ 2-309[A].

b. Copyright Act

A software transaction could not differ more. There, the basic obligations of licensor and licensee, absent agreement, are compound, independent and asynchronous.

Regarding the *compound* nature of a software transaction, the licensor often has two "transfer and deliver" obligations: to transfer the copyright and to deliver a copy. Under Section 202 of the Copyright Act, these must be treated as independent obligations.[167] One does not affect the other. In *Applied Information Management, Inc. v. Icart,*[168] a perceptive district court, called on to interpret a non-exclusive software license, got it exactly right:

> [A]n agreement of this nature may convey rights and interests in two, rather than only one form of property; the developer may transfer copyright rights in the software program (intellectual property rights) and at the same time transfer rights in the copy of the program through the material object that embodies the copyrighted work (personal property rights). Because technological developments that are the subject of such licensing agreements are relatively recent, the absence of clear legislative direction further complicates resolution of the issue. Furthermore, courts that have considered the question have not directly addressed the distinction between the two different forms of property rights involved.[169]

Under Section 202, a licensor's delivery of a copy - the goods - does not in itself fulfill any obligation to transfer the copyright. Indeed, as with LINUX, the party delivering the copy may not even be the one granting the license.[170] Conversely, as Section 202 explicitly provides, a transfer of rights does not in itself constitute a sale of a copy.[171]

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[167] Applied Info. Management, Inc. v. Icart, 976 F. Supp. 149, 153 (E.D. N.Y. 1997) ("As a result of Section 202, a court interpreting a licensing agreement must determine ownership of the copy separately from ownership of the copyright.").

[168] 976 F. Supp. 149 (E.D. N.Y. 1997).

[169] *Applied Info. Management, Inc.*, 976 F. Supp. at 150-51.

[170] In other cases, the licensor may not need to deliver any copies at all. For example, if a new license merely extends the term of an existing one, the licensee may already have all required copies. And if the information is made available over the Internet, then there may be no delivery of a copy at all as a matter of federal law. *See* 17 U.S.C. § 101 (1994) (defining "perform"); *see generally* 2 NIMMER & NIMMER, *supra* note 48, at § 8.24[A] (discussing vanishing distinctions among copyright categories). Whether transmission over the Internet does constitute a "delivery of a copy," a "public performance," or the more generic right of "making available," is a complex question beyond the scope of this article. For details *see* Lorin Brennan, *The Copyright Wars: The WIPO Treaties and The New Information Economy*, in 2 PLI FOURTH ANNUAL INST. FOR INTELLECTUAL PROPERTY LAW 623 (1998) (available at <http://www.2Bguide.com>).

[171] 17 U.S.C. § 202 (1994); *see* Chamberlain v. Cocola Assoc., 985 F.2d 282 (9th Cir. 1992). *Chamberlain* involved the interpretation of California Civil Code § 988 (1982), which requires a writing to transfer title to a work of art where there is also an exclusive or nonexclusive transfer of any of the copyright rights in the work. The question was whether delivery of sculpture for display in a restaurant

What about the licensee? When granting a generic information license, it cannot be assumed that the licensee is obligated to pay everything or anything on receipt of a copy. First, there may be separate payments for the copy and for the rights. This is the usual case, for example, in the motion picture industry, where prints and other exploitation copies are expensive to make, so licenses provide one payment for the rights, usually due on execution, and a separate payment for materials when later delivered. Second, payments can be, and often are, spread over time in the form of royalties that arise from exploitation of the work.[172] Finally, a licensee may not be obligated to pay anything at all. A licensor may provide the information free of charge in the hope that the licensee will watch embedded advertising. This has been the case for free television broadcasts for decades; more recently, some companies give away free Internet access in exchange for the right to show advertising on the user's Web page.[173] Shareware is provided free of charge with the hope, but not the requirement, of payment.[174] Indeed, since under federal law copyright ownership can pass "by any means of conveyance or operation of law," there is no requirement for any consideration at all.[175] It also follows that a licensee's payment for a copy does not necessarily fulfill an obligation to pay for the license to use the copyright.[176]

Finally, in some information transactions it could be the licensee's job to deliver the copies and the licensor's job to pay. Because the transfer and copy delivery obligations are independent, there is no reason why they cannot be performed by different parties. A licensor may authorize a licensee to use information to manufacture copies for the licensor, in which case the licensee delivers the goods and the licensor pays the price.[177] There is simply no reason to assume in a software transaction that a licensor always transfers copies to the licensee for a price.

Regarding the *independent* nature of a software transaction, in the generic information license, a party's performance does not necessarily require an immediate counter-performance. That is, the obligations of licensor and licensee are independent. This is consistent with the

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transferred title to the sculpture absent a writing. Noting that Section 202 of the Copyright Act differentiates between copyrights and their material embodiments, *Chamberlain* held that California Civil Code § 988 mimics federal law by only requiring a written agreement for a transfer of property rights that accompany a transfer of copyright rights. *Chamberlain*, 985 F.2d at 293. The *Chamberlain* court failed to appreciate that under federal law, a "transfer of copyright" means an *exclusive* license, whereas California Civil Code § 988 requires a writing where there is either an exclusive *or nonexclusive* license, which was certainly the case.

[172] *See* 17 U.S.C. § 205(d) (stating that the validity of a later transfer prevails if it was taken "for valuable consideration or on the basis of a binding obligation to pay royalties").

[173] *See* <http://www.netzero.com>.

[174] *See* Storm Impact, Inc. v. Software of the Month Club, 13 F. Supp.2d 782 (N.D. Ill. 1998).

[175] 17 U.S.C. § 201(d)(1) (1994). For example, copyright ownership could pass by gift. *See* 3 NIMMER & NIMMER, *supra* note 48, at § 10.03[B].

[176] *See Chamberlain*, 985 F.2d at 282; *Marobie-FL*, 983 F. Supp. at 1167.

[177] *See, e.g.*, Platt & Munk Co., Inc. v. Republic Graphics, Inc., 315 F.2d 847 (2d Cir. 1963) (copyright licensee manufactured toys using copyrighted characters of buyer/licensor; 1909 Act); *also* McCoy v. Mitsuboshi Cutlery, Inc., 67 F.3d 917 (Fed.Cir. 1995) (patent licensee manufactured knives for patent owner); Monte Carlo Shirt Co. v. Daewoo International (America) Corp., 707 F.2d 1054 (9th Cir. 1983) (trademark licensee manufactured shirts for resale by licensor).

common law rule that contractual obligations are presumed independent absent a contrary intent.[178] In particular, since the obligations are independent, breach of a covenant will not will not disturb the licensee's rights under the license unless the breach allows termination of the license.[179] For example, assume the licensor is in material breach. The licensee has two options: cease use and sue for breach, in which case it may no longer use the rights; or affirm the contract and sue for partial breach, in which case it must abide by the use restrictions.[180] Alternatively, assume the licensee is in material breach. Then licensor has two options: if breach is material and allows cancellation, licensor may do so and reclaim the rights;[181] however, if the licensor does not cancel but sues on the contract, it may not use the rights inconsistent with the license or it can become an infringer.[182]

Regarding the *asynchronous* nature of a software transaction, in the generic information transaction one cannot assume that both parties must perform concurrently. To the contrary, the usual assumption is that performances are asynchronous. The licensor may grants rights today, while the licensee undertakes to make royalty payments tomorrow as the work is exploited. Or the licensee may make payments today while the licensor undertakes to create the work for delivery tomorrow. Rights and copies can be delivered at different times and in different segments, and paid for in different ways at separate time.

Contrary to the rigid default roles assigned to buyer and seller in the Article 2 world, in the information universe the default roles of licensor and licensee are versatile and diverse. Both parties can be licensors and licensees in the same copyrighted work at the same time; indeed, if the license is non-exclusive, both parties can exercise the same rights in the same copyright at the same time. The obligations to transfer a license and deliver a copy are distinct. Unlike Article 2, these obligations can be allocated all to one party or separated between them. The licensor does not necessarily have any obligation to deliver a copy; and the licensee does not necessarily have an obligation to pay for it if the licensor does. Performance by one party is

[178] *See* 17 AM. JUR. 2D *Contracts* § 617 (1964). The *Restatement* states the rule as follows:

> [W]hether performance by one party is a condition to his recovery from the other involves the consideration, in the main, as to whether the promise of the one who seeks recover is dependent or independent. . . . [T]he performance of a dependent promise or covenant is a condition to the recovery of the counter-promise or counter-covenant, whereas the performance of an independent promise or covenant is not a condition of recovery.

RESTATEMENT (SECOND) OF CONTRACTS § 277(1) (1981).

[179] *See* Fantastic Fakes, Inc. v. Pickwick Int'l, Inc., 661 F.2d 479, 483-84 (5th Cir. 1981); *see generally* 3 NIMMER & NIMMER, *supra* note 48, § 10.12.

[180] *See* ARP Films, Inc. v. Marvel Entertainment Group, Inc., 952 F.2d 643, 649 (2d Cir. 1991) ("On the heel's of [the licensor's] repudiation, [the licensee] had two options: (i) it could have stopped performance and sued for total breach; (ii) it could have affirmed the contract by continuing performance while suing for partial breach."); *see also* 17 AM. JUR. 2D *Contracts* § 729 (1964).

[181] *See* Nolan v. Sam Fox Publ'g Co., Inc., 499 F.2d 1394, 1397 (2d Cir. 1974).

[182] *See Charter Communications*, 936 F.2d at 692 (exclusive license); *Dodd, Mead & Co., Inc. v. Lilienthal,* 514 F. Supp 105 (S.D. N.Y. 1981) (exclusive license).

independent of performance by the other, and there is no obligation that performances occur concurrently. It would be hard to find more disparate contract models.[183]

7. Duration of a Contract

a. Article 2

If contract of sale is silent about the duration, what default rule applies? Under Article 2-309(2), a contract for successive performances of indefinite duration is valid for a reasonable time but may be terminated at will at any time by either party. A party must give reasonable notice of termination unless it happens automatically on an agreed event.[184] Contracts calling for successive performances, such as distribution agreements, can sometimes fail to specify a fixed end date, and these default rules allow them to avoid nullification on the grounds of indefiniteness.[185]

b. Copyright Act

Characteristically, the Copyright Act takes a different approach, with separate rules depending on whether the license is exclusive or non-exclusive. In *Manners v. Morosco*,[186] the Supreme Court held that an exclusive copyright license of unspecified duration is presumed perpetual.[187] "Perpetual" in this context is a term of art meaning "for the full duration allowed by law," not "forever."[188] Thus, for exclusive licenses, the copyright rule rejects any presumption in Article 2-309(2) that the license is terminable at will after a reasonable time.

[183] *Compare* U.C.I.T.A. § 602 (1999) (enumerating multiple requirements to "enable use" under license).

[184] *See* U.C.C. § 2-309(3) (1999).

[185] *See generally* HAWKLAND, *supra* note 24, at § 2-309:1, 3.

[186] 252 U.S. 317 (1919).

[187] *Manners*, 252 U.S. at 325. *Manners* involved an exclusive license of unspecified duration to perform the play *Peg O' My Heart*. *Id.* at 317-18, 232. The Supreme Court affirmed the following holding of the Second Circuit:

> Since the contract is not revocable by will by either party or otherwise limited as to its duration by its express terms or the inherent nature of the contract itself with reference to its subject matter, it is presumably intended to be permanent or perpetual in the obligation it imposes.

Manners v. Morosco, 258 F. 557, 559 (2d Cir. 1919). *See also* Viacom International, Inc. v. Tandem Productions, Inc., 368 F. Supp 1264, 1275 (S.D. N.Y. 1974), *aff'd. on appeal*, 526 F.2d 593 (2d Cir. 1975) (following *Manners*).

[188] *See* Shoptalk, Ltd. v. Concorde-New Horizons Corp., 168 F.3d 586 (2d Cir. 1999) (holding that an agreement to pay royalties for the play *Little Shop of Horrors*, as adapted from the movie, expired when the copyright in the movie and screenplay expired); April Productions, Inc. v. G. Schirmer, Inc., 126 N.E.2d 283, 289 (N.Y. 1955) (holding that a contract of unstated duration to pay royalties from the sale of musical compositions could not be interpreted, in the absence of express language, as requiring the payment of royalties after the expiration of underlying copyrights).

As to non-exclusive licenses, the Circuits are split. *Rano v. Sipa Press, Inc.*[189] held that Section 203 of the Copyright Act, which allows a licensor to terminate a license after 30 years, evidences a federal presumption that non-exclusive licenses must endure for at least 30 years absent a contrary specification.[190] *Rano* has been widely criticized, and *Walthal v. Rusk*[191] declined to follow it, holding that Section 203 creates a statutory maximum, not a minimum, so that a non-exclusive license is terminable at will under applicable state law.[192] The Eleventh Circuit, in *Korman v. HBC Florida, Inc.,*[193] came to the same conclusion as *Wathal.*

8. Implied Warranty of Merchantability

a. Article 2

Article 2-314 implies a warranty of merchantability in every contract of sale unless it is effectively excluded or modified.[194] The implied warranty of merchantability requires, among other things, that goods "pass without objection in the trade under the contract description" and that they are "fit for the ordinary purpose for which such goods are used."[195] As discussed in the next Part, numerous decisions have held that software licenses are subject to this implied warranty. Indeed, one suspects that the primary purpose for treating computer programs as "goods" under Article 2 is precisely to subject them to a warranty when the program does not perform as someone hoped or expected.

b. Copyright Act / Federal Law

There is no section in the Copyright Act that prevents or requires application of an implied warranty of merchantability to a computer program. There is, however, a First Amendment problem. A computer program is a literary work, for copyright purposes the same as a novel. Applying an implied warranty of merchantability on computer programs raises serious questions about imposing liability on content, implicating the First Amendment.[196] The usual response is that a computer program performs a useful function, unlike a novel, and so liability is appropriate.[197] However, the cases have rejected this simplistic approach.[198] The

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[189] 987 F.2d 580 (9th Cir. 1993).

[190] *Rano*, 987 F.2d at 585; *see also Lulirama,* 128 F.2d at 882 (holding that a non-exclusive license supported by consideration was not terminable at will).

[191] 172 F.3d 481 (7th Cir. 1999).

[192] *Walthal*, 172 F.3d at 485. *Compare* U.C.I.T.A. § 308 (1999) (after deferring to other law, establishing specific default rules for duration of types of software licenses).

[193] Korman v. HBC Florida, Inc., __ F.3d ___, 51 USPQ2d 1672 (11th Cir. 1999).

[194] U.C.C. § 2-314(1) (1999).

[195] U.C.C. § 2-314(2)(a), (c) (1999).

[196] For a perceptive and thorough discussion of the issues involved, *see* Joel Wolfson, *Express Warranties and Published Information Content Under Article 2B: Does The Shoe Fit?*, 16 J. MARSHALL J. COMPUTER & INFO. L. 337 (1997); Joel Wolfson, *Electronic Mass Information Providers and Section 552 of the RESTATEMENT (SECOND) OF TORTS: The First Amendment Casts A Long Shadow*, 29 RUTGERS L. REV. 67 (1997).

[197] *See, e.g.* Jean Braucher, *Why UCITA, Like Article 2B, Is Premature and Unsound*, available online at Carol Kunze's Web Site, *A Guide to the Proposed Uniform Computer Information Transactions*

issues in this area are complex and I will not repeat them here, as they are thoroughly discussed in the law reviews cited in the notes. I am interested in a different approach, one that takes us to the heart of warranties for computer programs. I am talking about the Halting Problem.

A full examination of all the legal issues raised by the Halting Problem is beyond the scope of this article. I hope to deal with them in detail in a later piece. For now, allow me to give a brief overview of the issue, omitting details in the interest of brevity.[199]

What is a computer program? Legal definitions are really more suggestive than descriptive. In fact, a computer program is a precise mathematical object first formulated by Alan Turing in the 1930s. In essence, we can think of a computer program as a "logic processor." Given a set of statements (input) it uses an algorithm (logic processor) to produce a result (output). By analogy, think of plane geometry as described in Euclid's *Elements*. Euclid begins with a series of postulates (inputs) and using deduction (logic processor) derives theorems (output). Theorems once derived can be fed back into the system as new input to deduce newer theorems. Turing developed a mathematical model of this procedure called a Universal Turing Machine (UTM). In so doing, he also discovered the amazing result that some things are impossible for computer programs to do. Impossible in this context does not have the legal gloss

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Act (visited Jan. 3, 2000) <http://www.2bguide.com/>. Curiously, Professor Braucher criticizes UCITA for allegedly short changing the First Amendment rights of licensees, yet dismisses any First Amendment rights of licensors as trivial. For other inconsistencies in Professor Braucher's position, *see* Jeff C. Dodd, *Time and Assent In the Formation of Contracts: The Mischief of Applying Article 2 to Information Contracts*, 36 HOUS. L. REV. 195 (1999). Indeed, Prof. Bruacher has claims that "[t]his attempt to distinguish the disk from the software might not withstand challenge. This rather technical distinction might be viewed as an unfair or deceptive practice under section 5 of the Federal Trade Commission Act." Jean Braucher *Some Basics of Software Contracting, Without Draft UCC Article 2B*, SD30 ALI-ABA 475,480 (1998). Congress, on the other hand, has said that this distinction is "fundamental." *See infra* note 55 and accompanying text.

[198] *See, e.g.,* Winter v. G.P. Putnam's Sons, 938 F.2d 1033 (9th Cir. 1991) (finding no liability for incorrectly identifying a poisonous mushroom as edible in a cookbook); Cardzo v. True, 342 So.2d 1053 (Fla. Dist. Ct. App. 1977) (finding no liability for failing to warn about ingredients in cookbook); Roman v. City of New York, 442 N.Y.S.2d 945 (1981) (finding no liability for an inaccuracy in a Planned Parenthood brochure); Walter v. Bauer, 439 N.Y.S.2d 821 (N.Y. Sup. Ct. 1981) (finding no liability for an injury arising from performing an experiment in a science book).

[199] The Halting Problem is about the limits of program functionality, a subject with an extensive literature. Popular texts include DOUGLAS R. HOFSTADTER, GÖDEL, ESCHER, BACH: AN ETERNAL GOLDEN BRAID (1998), a Pulitzer Prize winner. A highly readable text is JOHN CASTI, COMPLEXIFICATION (1994), especially Chapter Four: *The Lawless*. An historical perspective is MORRIS KLINE, MATHEMATICS - THE LOSS OF CERTAINTY (1980). For a more mathematical presentation, *see* RICHARD JOHNSONBAUGH, DISCRETE MATHEMATICS (1997), especially Chapter 10: *Automata, Grammars, and Languages*, and RAYMOND GREENLAW & H. JAMES HOOVER, FUNDAMENTALS OF THE THEORY OF COMPUTING (1998). Those undaunted by a technical approach are invited to explore ANIL NERODE & RICHARD A. SHORE, LOGIC FOR APPLICATIONS (1993), especially Chapter III, Section 8: *Computability and Undecidability*. This text discusses the Church-Turning Thesis that a Universal Turning Machine computes every effective function, *i.e.* a UTM is a universal model of computation. They also give a proof of the Halting Problem. The discussion in this article is drawn from these sources, although any errors are my own.

of "commercially impracticable." It means literally impossible; a computer the size of the known universe, running from the beginning until the end of time, could never do it.

The Halting Problem is the classic example. For any computer program, we would like to know whether it will halt on a given input or get stuck in an infinite loop and run forever. Turning proved that no algorithm (computer program) existed that could answer this question for every program. Let us take a practical example. Assume we are told about Bug Finder, an all purpose software utility that can take any computer program, process it overnight, and the next morning print out a list of all "bugs." Does Bug Finder work? Turning's proof tells us this is impossible. The next morning, Big Finder could still be churning away, and we would have no way of knowing whether it was still at work finding bugs, or was caught in an infinite loop.[200] This does not mean that we cannot find some bugs in some programs. What it means is that there is no mechanical procedure - no algorithm - that is guaranteed to find all bugs in all programs. We need to search for them "by hand" on a case by case basis.

This brings us to the study of computational complexity. Some problems are known to be so complex that they simply overwhelm the ability of computational resources to solve them in any reasonable time. Take an oversimplified example. In the late 1990s, a popular operating system for personal computers reportedly contained over ten million code interactions; it also reportedly had over 14,000 possible "bugs" when it was released, although these were not

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[200] There are many proofs of The Halting Problem. This one is drawn from GREENLAW & HOOVER, *supra* note 226, at 10-13. Bug Finder is represented as being able to take *any* program and to print out *all* bugs, *i.e.* to halt. What we need to do is construct a valid program for which Bug Finder will not halt, thus disproving that it works in all cases. To do this we will run Bug Finder on itself. This is certainly legitimate, since we want to make sure that Bug Finder itself is bug free. So let us construct a new program, Bug Finder Pro, that works like this (in simplistic pseudo code):

```
Sub BugFinderPro
Input (Bug Finder)                                  'Read the program code for Bug Finder
Run Bug Finder (Bug Finder)                         'Run Bug Finder on the code for Bug Finder
    If Result (Run Bug Finder(Bug Finder)) =        'If Bug Finder finds all bugs and halts
            Print Out, Then Repeat                  'Then repeat forever in an infinite loop
    ElseIf Result (Run Bug Finder(Bug Finder)) =    'Otherwise, if Bug Finder does not halt
            No Print Out, Then Goto End             'Then stop.
End If
End Sub
```

Bug Finder Pro may look strange, but it is a valid program. So now run Bug Finder on Bug Finder Pro to see if it finds all bugs, *i.e.* halts. If Bug Finder is indeed bug free, then Bug Finder Pro will enter an infinite loop and never halt - but that means that Bug Finder is unable to print out *all* bugs in *all* programs, a contradiction. On the other hand, if Bug Finder is not bug free, then it will not halt when running Bug Finder Pro either, another contradiction. We must therefore conclude that Bug Finder does not exit - at least not in any computable language. For a more whimsical discussion, *see* HOFSTADTER, *supra* note 226, at 75-83, in which his characters Achilles and the Tortoise try to construct a "perfect" record player (complete formal system) that can play any record (statement in system) to disastrous results.

considered serious impediments to user satisfaction. In a worst case scenario, testing all 14,000 "bugs" against all ten million interactions at the rate of one per second would take $14\ x\ 10^3\ x\ 10^8$ seconds, or more than 400 years; this assumes correcting one "bug" does not require re-testing all combinations. Obviously, this is a worst case scenario. A great deal of theoretical and practical research focuses on techniques to reduce the resources needed to determine program correctness. But there are limits. Some problems are known to be computationally feasible, meaning that techniques exist to solve them in a "reasonable" time. Many others, like the Halting Problem, are known to be impossible; no solutions exist. A large number of problems are intractable; computationally feasible solutions are unknown and may never exist. Of course, for some programs with discrete functionality, it is possible to test for all "bugs." Printer drivers are an example. As programs increase in size, complexity, and functionality, however, the possibility of thorough testing in a reasonable time declines.[201]

Now let us apply this to the question of computer program warranties. In discussing computer programs, one often hears the assertion that if the program does not perform as expected, it is necessarily defective.[202] These claims are often based on an anthropromorphic image of computer programs as little genies that can do anything a living being can do at the push of a button. For example, in the discussions about UCITA, the Society For Information Managers argued that under Article 2, a software publisher has a legal obligation to deliver a perfect program.[203] But the Halting Problem tells us that some program behavior is impossible to expect. As the saying goes, the law does not demand impossibilities. A car is not defective

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[201] Here is an example of a feasible problem: given three binary numbers *x*, *y*, and *i*, determine if the *i*th bit (beginning from the least significant bit) of *x %·y* is a 1. GREENLAW & HOOVER, *supra* note 226, at 263. This problem can be solved in *polynomial time* and is of complexity class *P*. On the other hand, the Traveling Salesperson Problem is considered intractable. A salesperson needs to make a sales trip to several cities. What is the shortest possible route for so doing that only visits each city once? Finding such a route for an arbitrary number of cities is classified as *NP-Complete*. GREENLAW & HOOVER, *supra* note 226, at 300. It is a hard problem. Throwing more machines at it (parallel computing) does not help, since problems that are *NP-Complete* in polynomial time are also *NP-Complete* under logarithmic space reducibility. GREENLAW & HOOVER, *supra* note 226, at 292. An open question in computer science is whether the complexity class *NP* reduces to *P*; do algorithms exist to solve *NP* class problems in a "reasonable" time, or are these problems inherently intractable? Although there is no proof yet, it is considered highly unlikely that such algorithms exist (*i.e.* P γ NP). The Traveling Salesperson Problem, one of the most studied in computer science, is not just an issue for business junkets. Building integrated circuits often involves the same issues.

[202] *See, e.g.* Jean Braucher, *Why UCITA, Like Article 2B, Is Premature and Unsound*, available online at Carol Kunze's Web Site, *A Guide to the Proposed Uniform Computer Information Transactions Act* (visited Jan. 3, 2000) <http://www.2bguide.com/>.

[203] This is another example of politics in the discussions about UCITA. SIM is primarily composed of traditional manufacturing companies who are software licensees, and this position had the transparent goal of creating a mandatory legal risk shifting device. When the Drafting Committee declined this invitation, SIM complained that UCITA was "unbalanced." Curiously, when the SIM companies were asked whether they would accept a requirement in Article 2 that their manufacturing arms be required to deliver "perfect" products, they declined for themselves what they would have imposed on others. *See generally*, Holly K. Towle, *The Politics of Licensing Law*, 36 HOUS. L. REV. 121, 145 (1999).

because it does not run forever; a perpetual motion machine would violate the Second Law of Thermodynamics. Yet some would have us believe that this is what Article 2 requires of computer programs. This does not mean that programmers should not test software. It does mean that there are reasonable limits to testing. A product is not unfit where detection and correction of the defect is not reasonably possible.[204]

I am not arguing that there should be no warranties for computer programs. What I am arguing is that the problem is far more complex than current discussions credit. Even in the commercial speech area, the Supreme Court has held that the First Amendment limits restrictions to verifiable advertising that can be proven true or false.[205] The Halting Problem tells us that there are some computer program functions that can never be proven "true or false."[206] There are other problems for which we may not know the answer in any computationally tractable time. To argue that any computer program that is not "perfect" is *per se* defective is to indulge in little more than junk science. To argue that a software publisher is obligated to disclose all "defects" in a program begs the enormously difficult issue of defining just what a software "defect" is, let alone the computational difficulties of determining what every "defect" might be. The legal profession owes more than that to the software industry and to society. A more sophisticated and honest analysis of warranty liability for computer programs is called for. [207] We cannot undertake such analysis unless and until we abandon old habits of mind that cloud our thinking and confound our reason. Rote application of warranty principles in Article 2 that were fashioned for fundamentally different objects is exactly the type of muddled thinking that we need to abandon if we are to make any progress.[208] To me, this is the most pressing reason why Article 2 cannot apply to software transactions.[209]

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[204] *See, e.g.*, McMichael v. American Red Cross, 527 S.W.2d 7 (Ky. 1975). This opens the door to a discussion of the idea of the "unavoidably unsafe product," an issue beyond the scope of this article. *See generally* QUINN, *supra* note 27, at ¶ 2-314[A][12][c]. My point is not that all computer programs should be classified "unavoidably buggy" in all cases. My point is that the issue deserves far greater study that it has received so far.

[205] *See* Central Hudson Gas & Elec. v. Public Serv. Commission, 447 U.S. 557, 564 (1980) (noting that "there can be no constitutional objection to the suppression of commercial messages that do not accurately inform the public about lawful activity"); *see also* Lane v. Random House, Inc., 985 F. Supp. 141, 150 (D. D.C. 1995) (noting that there is no First Amendment liability for "rhetorical hyperbole that cannot be proven true or false").

[206] Technically, the Halting Problem addresses the question of decidability. But to see that this is accurate, convert Bug Finder to a program than answers the question: "You found all bugs in Program X, True or False."

[207] One of the reasons computer programs exhibit the Halting Problem is because they are fundamentally recursive; in other words, they have to feed back. An essential part of the UTM model is the Go To loop which allows the program to refer back to itself. Douglas Hofstadter calls this self-reference a "Strange Loop," and discusses extensively how Strange Loops appear in art, music, and computer programs. *See* HOFSTADTER, *supra* note 226, at 110. Hard goods lack this property. A toaster does not refer back to itself to change its state. Computer programs do, and that's the rub.

[208] Perhaps the Federal Trade Commission's project on "Warranty Protection For High-Tech Products and Services," <http://www.ftc.gov/os/2000/hightechforum.htm.>, will be a start.

[209] *Compare* U.C.I.T.A., Part IV (establishing a more appropriate set of software warranties, in

9. Sales on Approval

a. Article 2

In some cases, a seller may deliver goods to a buyer "on approval." Take it home. Try it out. If it does not work, bring it back for a refund. These types of deals need guidance on such matters as risk of loss and the rights of intervening creditors. For these purposes, the UCC supplies Article 2-326. It singles out three situations for special treatment: (1) a "sale on approval;" (2) a "sale or return;" and (3) a "consignment" and arrangements akin to an assignment.[210] A "sale on approval" occurs when the buyer has the right to return goods delivered primarily for use.[211] In a sale on approval, returnable goods in the hands of a buyer are not subject to claims of the buyer's creditors until they are accepted.[212] A "sale on return" arises when returnable goods are delivered primarily for resale, and includes a "consignment."[213]

b. Copyright Act

Central Point Software v. Global Software & Access[214] considered the relationship between Article 2-326 and the Computer Software Rental Amendments Act of 1990.[215] The "first sale" doctrine in Section 109 allows the owner of a lawfully made copy to sell or otherwise dispose of that copy without permission of the copyright owner.[216] However, concerned about the possibility of piracy due to the rental of copies of computer programs, Congress added an exception to the first sale doctrine, which allows computer program copyright owners to control the rental of copies. In *Central Point Software*, a computer store provided copies of software to its patrons on a deferred billing plan that allowed return of the software within five days for small return fee. Despite the characterization of the transaction as a "sale on approval" under Article 2-326, it was a rental for federal proposes and is thus a copyright infringement absent consent of the software copyright owner.[217] The consignment rules in Article 2-326 thus cannot create a disguised "rental" under federal copyright law.[218]

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particular U.C.I.T.A. § 403(c) (1999), which contains no implied warranty for informational content).

[210] U.C.C. § 2-326 (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-326[A].

[211] U.C.C. § 2-326(1)(a) (1999).

[212] U.C.C. § 2-326(2) (1999).

[213] U.C.C. § 2-326(1)(b) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-326[A][5].

[214] 880 F. Supp. 957, 965 (E.D. N.Y. 1995).

[215] *Central Point Software*, 880 F. Supp. at 965; *see* Pub. Law 101-650; 104 St. 5089 (Dec. 1, 1990).

[216] 17 U.S.C. § 109(a) 91994).

[217] *Central Point Software*, 880 F. Supp. at 963, 965. *See also* Adobe Systems, Inc. v. Brenengen, 928 F. Supp. 616 (E.D. N.C. 1996) (post-1990 rental of software prohibited). A like restriction applies to the rental of records. 17 U.S.C. § 109(b)(1)(A) (1994); A&M Records v. A.L.W., Ltd., 855 F.2d. 368 (7th Cir. 1988) (record rentals disguised as buy-back plan prohibited); *see generally* 2 NIMMER & NIMMER, *supra* note 48, at § 8.12; BOORSTYN, *supra* note 77, at § 6.21.

[218] *Compare* U.C.I.T.A. § 102(a)(40) (1999) (stating that the term "license" includes a consignment of a copy and containing no provision comparable to UCC Section 2-326).

10. Sales or Return (Consignments)

a. Article 2

In a sale or return, goods are subject to claims of the buyer's creditors while in the buyer's possession unless the seller takes specific steps to notify third parties of the true nature of the transaction.[219] Those steps, per Article 2-326(2), are either: (1) posting an appropriate sign indicating the goods are on consignment; (2) establishing that the business is generally known to be selling goods of others; or (3) complying with the financing provisions of Article 9.[220] Even if the parties use terms like "on consignment," the transaction is still deemed a "sale or return" unless the seller takes these steps.[221]

b. Copyright Act

For copyrighted software, the rules are different. With regard to the *rights*, a copyright license may be limited in time, so that the rights are "returnable" when the license period ends.[222] However, this fact alone does not make them subject to licensee's creditors. If the license is exclusive, then the licensee is an owner of the rights licensed within the scope of the license,[223] and a mortgageof the licensee's interest would be another transfer of ownership requiring a writing signed by the licensee.[224] If the license is non-exclusive, then it is not assignable to the licensee's creditors in any case without the consent of the licensor.[225]

What about *copies*? *Little Brown & Co. v. American Paper Recycling Corp.*[226] addressed that problem. Used books were consigned to a recycler for destruction. When the recycler sold the books, the publisher sued for copyright infringement, and the recycler asserted a "first sale" defense. However, since the consignment of the books was only a bailment, no title passed to the recycler, and the first sale defense did not apply.[227]

11. Importance of Title

a. Article 2

Before Article 2, the question of "title," who held it when and where, was the critical

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219 U.C.C. § 2-326(2) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-326[3][4].

220 U.C.C. § 2-326(3) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-326[5].

221 U.C.C. § 2-326(3) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-326[5].

222 17 U.S.C. § 101 (1994) (a transfer of ownership may be limited in "time, place or effect"); *see* Richard Feiner & Co. v. Turner Entertainment Co., 926 F. Supp. 40 (S.D. N.Y. 1996) (when license ends, rights revert to licensor).

223 17 U.S.C. §§ 101 (defining "owner" and "transfer of ownership") and 204(d) (1994).

224 17 U.S.C. § 204(a) (1994).

225 Harris v. Emus Records Corp., 734 F.2d 1329, 1334 (9th Cir. 1984).

226 824 F. Supp. 11 (D. Mass. 1993).

227 *Little Brown & Co.*, 824 F. Supp. at 13-15. *Compare* U.C.I.T.A. § 103(c) (1999) (stating that UCITA defers to Article 9, which itself defers to federal law for licenses, *see* U.C.C. § 9-103); *and* U.C.I.T.A. § 503(a)(3) (1999) (stating that the licensor's reservation of title reserves title to all copies made under the license).

determinant of rights and obligations in a sales contract both at common law and under the Uniform Sales Act.[228] Professor Llewellyn was not enamored with this approach. He preferred to discard this "lump concept" in favor of "narrow issue" solutions.[229] In a major departure from pre-UCC law, Article 2-401 does just that. It dispenses with questions of title as the determinant for critical issues in a sale of goods:

> Each provision of this Article with regard to the rights, obligations and remedies of the seller, the buyer, purchasers or other third parties applies irrespective of title to goods except where the provision refers to such title.[230]

This was a major innovation in Article 2. Instead of looking to the status of title as the problem-solving device, Article 2 instead addresses specific issues with solutions tailored for that problem.[231] Title is dethroned. We must remember that contracts for the sale of goods raise primarily state law matters. Article 2, a state statute, can therefore freely dispense with questions of title to property interests in goods as necessary to meet is state law objectives.

b. Copyright Act

Copyrighted computer programs, however, are property interests created by federal law. Under the Copyright Act, title to a copy is often critical for determining rights, obligations, and remedies. For example, Section 107 of the Copyright Act provides a fair use defense to an infringement claim.[232] However, knowingly using a copy obtained by wrongful means can vitiate a fair use defense.[233] This would include, for example, knowing use of a purloined manuscript,[234] obtaining a copy of a computer program from the Copyright Office by false representations,[235] or acquiring ownership of a film print by misrepresenting its intended use.[236] Section 109 of the Copyright Act contains a "first sale" doctrine restricting the copyright owner's ability to control subsequent disposition of certain copies. However, the first sale doctrine only applies to "the owner of a particular copy or phonorecord lawfully made under this title."[237] "Mere authorized possession of a copy, if title in the tangible copy does not pass to the

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[228] *See* HAWKLAND, *supra* note 24, at § 2-401.

[229] *Id.*

[230] U.C.C. § 2-401 (1999).

[231] *Id.*; *see also* QUINN, *supra* note 27, at ¶ 2-401[A].

[232] 17 U.S.C. § 107 (1994).

[233] 4 NIMMER & NIMMER, *supra* note 48, at § 13.05[A][1][d].

[234] *See* Harper & Row Publishers v. Nation Enterprises, 471 U.S. 539, 562-63 (1985).

[235] *See* Atari Games v. Nintendo of America, Inc., 975 F.2d 832 (Fed. Cir. 1992).

[236] *See* Roy Export Co. v. Columbia Broadcasting System, Inc., 503 F. Supp. 1137 (S.D. N.Y. 1980), *aff'd*, 672 F.2d 1095 (2d Cir. 1982).

[237] 17 U.S.C. § 309(a) and (d) (1994). "The privileges prescribed by subsection (a) and (c) do not, unless authorized by the copyright owner, extend to any person who has acquired possession of the copy of phonorecord from the copyright owner by rental, lease, loan or otherwise, without acquiring ownership of it." *Id*.

possessor, will not trigger the [first sale] limitation of Section 109(a), and hence, will not affect the copyright owner's rights under Section 106(3)."[238] Section 117 allows a copy of a computer program to be loaded into RAM without triggering an infringement, but, again, the exemption only applies to "the owner of a copy of the computer program."[239] Title to copies remains an important concept for copyright law.[240]

12. Mandatory Transfer of Title

a. Article 2

Article 2-401(1) provides flatly that "[a]ny retention or reservation of by the seller of title (property) in the goods shipped or delivered to the buyer is limited in effect to reservation of a security interest."[241] This is one of the few sections of the UCC that cannot be changed by agreement.[242] It has two effects. First, even if the parties intend to reserve title in the seller, and the agreement so provides, the seller cannot prevent the passage of title to the buyer upon delivery of the goods.[243] Second, any title interest retained by the seller is converted, at best, a security interest.[244] A "sale" consists of the passing of title from the seller to the buyer for a price.[245] Although title does not determine crucial issues of rights and obligations, passage title still remains a major concept in determining the scope of Article 2.[246] Thus, the requirement that in a sale there is a mandatory passage of title is a critical structural support for all of Article 2.

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[238] 2 NIMMER & NIMMER, *supra* note 48, at § 8.12[B][1]. *See, e.g.*, Microsoft Corp. v. Harmony Computers & Electronics, Inc., 846 F. Supp. 208, 213 (E.D. N.Y. 1994) (holding that the first sale defense was inapplicable because "Microsoft only licenses and does not sell its Products"); *Little Brown & Co.*, 824 F. Supp. at 11 (holding that a consignment of books to a bailee for destruction did not constitute a first sale).

[239] 17 U.S.C. § 117 (1994); *see Allen-Myland*, 746 F. Supp. at 536-37 (holding that section 117 did not authorize the use of microcode where the copy was not lawfully acquired).

[240] *Compare* U.C.I.T.A. § 501(b) (1999) (adopting the rule that transfer of a copy does not transfer informational rights); U.C.I.T.A. § 502 (1999) (adopting specific default rules for transfer of title to copies); and U.C.I.T.A. Part 6 (1999) (adopting rules that distinguish performance of license from delivery of a copy).

[241] U.C.C. § 2-401(1) (1999).

[242] *See, e.g.*, O'Donnell v. American Employers Ins. Co., 622 N.E.2d 570 (Ind. App. 1993) (reservation of title until final payment ineffective); Meinhard-Commercial Corp. v. Hargo Woolen Mills, 300 A.2d 321 (S.Ct. N.H. 1972) (parties' intent does not govern question of passage of title under 2-401).

[243] *See O'Donnell*, 622 N.E.2d at 575 ("[Article] 2-401(1) . . . restricts the parties' contractual freedom to delay passage of title by agreement [and] negates any attempt . . . to forestall passage of title beyond the moment of final delivery"); *see generally* HAWKLAND, *supra* note 24, at § 2-401:3; ANDERSON, *supra* note 17, at § 2-401:182.

[244] *See O'Donnell*, 622 N.E.2d at 575; *see generally* HAWKLAND, *supra* note 24, at § 2-401:3; ANDERSON, *supra* note 17, at § 2-401:182.

[245] 17 U.S.C. § 106(1) (1994).

[246] *See* QUINN, *supra* note 27, at ¶ 2-106[A][2].

b. Copyright Act

This result is repudiated preemptively for copyrights. First let us consider mass market transactions in software, such as our old friend LINUX. Copies of mass marker software are made available through *non-exclusive* licenses, and as a matter of preemptive federal law, there is no transfer of ownership ("title") at all to the embodied computer program.[247] Acquiring a retail copy of LINUX may pass title to the copy, but does not and cannot pass "title" to or ownership in the embodied computer program regardless of what Article 2-401 says.

Now let us look at assignments and exclusive licenses, which are transfers of copyright ownership. The prior Copyright Act of 1909 included a judicial gloss called the "indivisibility doctrine."[248] It essentially meant that only the totality of rights under the copyright could be "assigned;" anything less was a "license." The current Copyright Act has eliminated the "indivisibility doctrine."[249] Section 201(d)(2) now provides that "[a]ny of the exclusive rights comprised in a copyright, including any subdivision of the rights specified in section 106, may be transferred . . . and owned separately."[250] This means that when a licensor transfers a divisible copyright interest, the licensor retains the following ownership interests: a beneficial ownership interest in the rights transferred, i.e., a right to sue for infringement as this may effect royalties due;[251] a residual divisible interest in all rights not granted;[252] a statutory termination right under certain conditions;[253] and a reversionary interest allowing the transferor to reclaim the rights and sue for copyright infringement if the license is cancelled for breach.[254] Put another way, an exclusive license does *not* pass ownership of the entire copyright, but only the exclusive rights designated within the scope of the license.

A licensor's retained interest is a true ownership interest and not a mere security interest. This means that the licensor can exercise all of its rights directly upon the happening of the triggering event without the necessity of first conducting a foreclosure sale under Article 9. A beneficial owner who has transferred a copyright ownership interest in exchange for royalties has immediate standing to sue for infringement if the assignee does not act.[255] A licensor may sue for any use by a licensee outside the scope of the license, i.e., for infringement of its divisible reserved interest.[256] A licensor's termination rights, unlike a mere security interest that would be

[247] 17 U.S.C. § 101 (1994) (defining "transfer of copyright ownership").

[248] *See* 3 NIMMER & NIMMER, *supra* note 48, at § 10.01[A].

[249] *See* 3 NIMMER & NIMMER, *supra* note 48, at § 10.02[A].

[250] 17 U.S.C. § 201(d)(2) (1994).

[251] 17 U.S.C. § 501(b) (1994); *see* 3 NIMMER & NIMMER, *supra* note 48, at § 12.02[C].

[252] 17 U.S.C. 201(d)(2).

[253] 17 U.S.C. § 203; *see* 3 NIMMER & NIMMER, § *supra* note 48, at § 11.02. Note that this is an interest that may not be contracted away.

[254] *See* Schoenberg v. Shapolosky Publishers, Inc., 971 F.2d. 926, 932 (2d Cir. 1992); *see* 3 NIMMER & NIMMER, *supra* note 47, at § 10.15[A].

[255] H.R. REP. NO. 94-1476, at 159 (1976); *see* Wildlife International, Inc. v. Clements, 591 F. Supp. 69 (S.D. Ohio 1984); 3 NIMMER & NIMMER, *supra* note 48, at § 12.02[C].

[256] *See Sun Microsystems*, 188 F.3d at 1115; *Schoenberg*, 971 F.2d at 926; *S.O.S.*, 886 F.2d at

lost to a foreclosing senior creditor, cannot be contracted away prior to its vesting.[257] If a license is cancelled for material breach, a licensor may immediately pursue all available remedies, including seizing any infringing copies.[258] In none of these cases must the licensor first conduct a foreclosure sale or accord the licensee a right of redemption under Article 9.[259]

In sum, a non-exclusive license of a computer program, as a matter of federal law, cannot be a sale - a transfer of title for a price - in the embodied computer program. An exclusive license, while a transfer of ownership, lacks the incidents of a "sale" under Article 2. Thus, this central conceptual support for Article 2, one that determines its entire scope of application, is incompatible with basic requirements of copyright law. The Copyright Act explodes yet another critical structural support in Article 2 where software is concerned..[260]

13. When Title Passes

a. Article 2

Although title has diminished importance in Article 2, it is still necessary to have a default rule for when title passes to serve needs outside Article 2. Tax law is an example.[261] Article 2-401 does the job, providing default rules that set a precondition to the passage of title and providing four variations for different situations. The precondition is that the goods must be "identified to the contract."[262] Identification does not shift title to the buyer, but rather marks the point at which the buyer can first acquire an insurable "special property interest" in the goods.[263]

Once the identification hurdle is surmounted, Article 2-401 provides four working rules for transferring title in different situations. The first and overarching rule is that title passes in accordance with the explicit agreement of the parties.[264]

1081.

[257] 17 U.S.C. § 203(a)(2)(5) (1994) ("Termination of the grant may be effected notwithstanding any agreement to the contrary, including an agreement to make a will to make any future grant."). This limitation reflects a Congressional intent to protect authors against unremunerative transfers. *See* Mills Music v. Snyder, 469 U.S. 153, 173 (1985); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 11.01[B].

[258] 17 U.S.C. § 503 (1994); *see* Columbia Pictures Television v. Krypton Broadcasting, 106 F.3d 284 (9th Cir. 1997).

[259] *See* In re SSE International Corp., 198 B.R. 667, 670 n.3 (Bankr. W.D. Pa. 1996) (arguing that finding a security in intellectual property from mere delivery of a copy would be "nonsensical").

[260] *Compare* U.C.I.T.A. § 307(a), (b) (1999) (transfer of rights limited to those specified and necessarily implied) and U.C.I.T.A. § 307(f)(2) (meaning of exclusive license).

[261] *See, e.g.,* New England Yacht Sales, Inc. v. Commissioner of Revenue Service, 504 A.2d 506, (Conn. 1986); *see generally* HAWKLAND, *supra* note 24, at § 2:401:3; QUINN, *supra* note 27, at ¶ 2-401[A][4].

[262] U.C.C. § 2-401(1) (1999).

[263] U.C.C. § 2-501(2) (1999) (special property interest in buyer even though seller retains title); *see* Hughes v. Al Green, Inc., 418 N.E. 2d 1355 (Ohio 1981); *see generally* HAWKLAND, *supra* note 24, at § 2:501; QUINN, *supra* note 27, at ¶ 2-501[A].

[264] U.C.C. § 2-401(2) (1999) ("Unless otherwise explicitly agreed . . . .").

Absent agreement, the usual rule is that title passes to the buyer "at the time and place at which the seller completes his performance with reference to the physical delivery of the goods."[265] This is in keeping with the Article 2 model that delivery and payment are concurrent obligations.[266] There are two exceptions. If the seller must ship the goods, title passes when the goods are shipped unless there is a specified destination, in which case title passes when the goods arrive.[267] If the contract requires delivery without moving the goods, then title passes on delivery of documents of title; if no documents are required, at the time of contracting.[268] The default rules for determining when title to goods passes under Article 2 in the absence of express agreement are, not to put too fine a point on it, complex.[269] They are not the rules under the Copyright Act.

b. Copyright Act

The Copyright Act speaks in terms of "ownership" rather than "title." A "copyright owner" is the owner of any of the exclusive rights under a copyright,[270] and a "transfer of ownership" is essentially an assignment, exclusive license or mortgage of some discrete bundle of these rights. When does this ownership interest pass ("vest") under a license? The Copyright Act does not give an explicit answer. Section 205, however, establishes a system for recording transfers in the Copyright Office and provides rules for determining priority among competing transfers. [271] The federal scheme preempts state law.[272] It leaves us two cases to consider: exclusive license vs. exclusive license, and exclusive license vs. nonexclusive license.[273]

When determining the priority of one exclusive license over another exclusive license, Section 205(a) provides that, as between the two exclusive licenses, the "one executed first prevails" if it is recorded in the time and manner required under Section 205 before the later transfer. Otherwise, the later transfer if first recorded prevails.

Although there is sparse case law on the subject, this would seem to establish the rule that, absent contrary agreement, a copyright ownership interest "vests" on execution of an

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[265] U.C.C. § 2-401(2) (1999).

[266] *See infra* notes _______ and accompanying text.

[267] U.C.C. § 2-401(2)(a) and (b) (1999).

[268] U.C.C. § 2-401(3) (a) and (b) (1999).

[269] *See* Applied Information Management, Inc. v. Icart, 976 F. Supp. 149, 153 n.2 (E.D. N.Y. 1977) ("However, no section of the UCC assists in determining whether a transaction involves a transfer of ownership [in a copy]. [Although UCC 2-401 contains several default rules] it provides no guidance as to whether title ever passes under a given agreement. [P]roposed section 2B-501 . . . would resolve this question . . . .").

[270] 17 U.S.C. § 101 (1994) (defining "copyright owner").

[271] 17 U.S.C. § 205(d) (1994).

[272] *See* National Peregrine, Inc. v. Capitol Federal Savings & Loan of Denver, 116 B.R. 194 (Bankr. C.D. Cal. 1990).

[273] *Compare* U.C.I.T.A. § 501(a) (1999) (establishes that rights pass as provided in contract, and default rule that they pass when the information exists and is identified in contract, which, for existing works, would occur on execution); U.C.I.T.A. § 109(a) (express deferral to preemptive federal law).

exclusive license. Of course, if either exclusive license is recorded, the priority rules in Section 205 roll into play, and the one first recorded as required by that section prevails.[274] The Copyright Act therefore indicates a default notion that a copyright ownership interest passes on execution of license, not performance. It certainly does not pass on delivery of a copy.[275] *U.S. Naval Institute v. Charter Communications*,[276] illustrates the difference. Tom Clancy granted exclusive U.S. hpublication rights in *The Hunt For Red October* with the proviso that the book not be released until October to coordinate with the U.K. publication date. The U.S. publisher jumped the gun and released the book in September, and Clancy sued. He claimed that the transfer of rights did not become effective until October, the performance date, making the early release an infringement. Not so. Under the contract, the transfer of ownership became effective on execution, not the release date, so there was a breach of contract, but no infringement.[277]

As for determining the priority of an exclusive license and a nonexclusive license, Section 205(d) deals with conflicting "transfers," not just "transfers of copyright ownership." Thus, it applies equally to exclusive and non-exclusive licenses, with one exception. Under Section 205(e), a written non-exclusive license, whether or not recorded, trumps an exclusive license if either: (1) it was executed first; or (2) it was taken in good faith and without notice before the exclusive license is recorded.[278] Again, the Copyright Act prefers measuring rights from execution, not performance or delivery.

Finally, regarding copies, the Copyright Act does not contain a rule for when title to a copy passes, leaving that to state law.[279] However, as mentioned above, it does provide that unauthorized use of a copy before title passes is an infringement. Contractual restrictions may

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[274] 17 U.S.C. § 205(d) (1994). For a recorded license to prevail, it must be recorded "in the manner required to give constructive notice under subsection (c)." *Id*. Section 205(c) in turn requires that, in order for a recorded document to give constructive notice, the document must specifically identify the work to which it pertains so that it can be located by a search of the records, and that the work be registered. *Id*. at § 205(c). What if the work is registered after the license is recorded? In re AEG Acquisitions Corp., 127 B.R. 34 (Bankr. C.D. Ca 1991), acknowledged that a recorded copyright mortgage in an unregistered film became perfected when the work was subsequently registered, i.e., the registration "related back" to validate the prior recording.

[275] Contrary statements in In re Amica, Inc., 135 B.R. 534 (Bkrptcy. N.D. Ill. 1992), are discussed in the text accompanying fns. ______ , *infra*.

[276] 936 F.2d 692 (2d Cir. 1991).

[277] *Charter Communications*, 936 F.2d at 695, 696. *See also* Applied Information Management, Inc. v. Icart, 976 F. Supp. 149, 153 n.2 (E.D. N.Y. 1977) ("However, no section of the UCC assists in determining whether a transaction involves a transfer of ownership [in a copy]. [Although UCC 2-401 contains several default rules] it provides no guidance as to whether title ever passes under a given agreement. [P]roposed section 2B-501 . . . would resolve this question . . . .").

[278] 17 U.S.C. § 205(e) (1994).

[279] *But see* ALCES & SEE, *supra* note 14, at § 15.1 (arguing, based on case law, that title to *copies* of sheet music passed on delivery of copies, and that the same rule should apply to copyright interest, but acknowledging that the agreement of the parties controls).

indicate that an ownership interest has not passed even though the license is perpetual and a single fee is paid.[280]

14. Revesting of Title Upon Rejection

a. Article 2

What happens when the buyer wrongfully refuses to accept the goods, or fails to make a payment when due, or repudiates its obligations under a contract of sale? Under Article 2-401(4), upon a rejection or refusal to accept the goods, whether or not justified, title to the goods reverts to the seller. Similarly, on a justified revocation of acceptance, title also revests in the seller. Revesting occurs automatically by operation of law.[281]

b. Copyright Act

Not so for copyrights. The gap-filler rule is that upon a licensee's default, the copyright interest only revests in the licensor if the default allows cancellation of the license and the licensor elects to do so.[282] Elaborating this point requires a quick glance at how civil actions for infringement of copyright are heard.

Federal courts have exclusive jurisdiction over any civil action "arising under" the Copyright Act.[283] A federal question arises if the complaint seeks a remedy expressly allowed in the Copyright Act or requires an interpretation of the Act; otherwise, the case belongs in state court.[284] In contract actions, the litmus test is whether the complaint alleges breach of a condition to, or a covenant of, the license. If a failure of a condition, then the license is ineffective, making unauthorized use an infringement.[285] If a breach of a covenant, then the question is whether the breach is so material as to justify cancellation.[286] If not, then the claim is for breach of contract, not infringement, and belongs in state court.[287] If so, then the plaintiff has an election of remedies: affirm the license and sue for damages, or cancel and sue for

[280] DSC Communications Corp. v. Pulse Communications, 170 F.3d 1354, 1360 (Fed. Cir. 1999), *cert. denied*, 120 S. Ct. 286 (1999).

[281] U.C.C. § 2-401(4) (1999); *see* National Fleet Supply, Inc. v. Fairchild, 450 N.E.2d 1015 (Ind. App. 1983); Joseph T. Ryerson & Sons, Inc. v. Commodity Engineering Co., 689 F.2d 478 (4th Cir. 1982); *see generally* HAWKLAND, *supra* note 24, at § 2-401:5; QUINN, *supra* note 27, at ¶ 2-401[A][3].

[282] *Compare* U.C.I.T.A. § 502(c) (1999) (rejection of copy revests title to *copy*) and § 706(2) (rejection of copy does not cause automatic cancellation and revesting unless a material breach of whole contract).

[283] 17 U.S.C. § 1338(a) (1994).

[284] *See generally* 3 NIMMER & NIMMER, *supra* note 49, at § 12.01 (discussing application of rules).

[285] *See* Costello Publishing Co. v. Rostelle, 670 F.2d. 1035, 1044 (D.C. Cir. 1981).

[286] *See Schoenberg*, 971 F.2d. at 932. Although the *Schoenberg* court uses the word "rescission," it uses that word to mean "cancellation." *Id*. *See* U.C.C. § 2-106 (1999).

[287] *See Charter Communications*, 936 F.2d at 692; *Fantastic Fakes*, 661 F.2d at 483-84 ("A mere breach of covenant may support a claim of damages for breach of contract but will not disturb the remaining rights and obligations under the license including authority to use the copyrighted material."); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.12[A].

infringement.[288] Suing only for damages can be regarded as affirming the contract, leaving the license in place.[289] Indeed, if the license is exclusive and the licensor does not elect to cancel, then the licensor's attempted exercise of the licensed rights make the licensor an infringer.[290]

What this means is that there is *no* automatic revesting of "title" in the licensor by operation of law upon a licensee's breach or repudiation. Revesting only happens if the licensor makes an affirmative election to cancel the license, or if the license by its own terms causes an automatic reversion on default.[291] By the same token, a license that waives the licensor's right to cancel, even for material breach, precludes revesting and a consequent infringement suit.[292] Unfortunately, one case, *In re Amica, Inc.*,[293] got this pathetically wrong. It held that upon a licensee's rejection of a copy, the copyright interest automatically revested in the licensor by operation of law due to Article 2-401(4). This spurious result is dissected below.[294]

15. Rights of Seller's Creditors Against Goods Sold

a. Article 2

Article 2-402 deals with the problem where the buyer pays for the goods, but delays taking delivery. What happens to a third party creditor who loans money to the seller on the strength of what looks to be unsold inventory? Article 2-402(1) provides as a general rule that the rights of the seller's unsecured creditors are subject to the buyer's right to recover identified goods.[295] However, this priority does not apply if the identification of the goods was fraudulent under the law of any state where the goods are situated, excluding good faith retention by a

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[288] *See* Fosson v. Palace (Waterland) Ltd., 78 F.3d 1448, 1454-55 (9th Cir. 1996); *Costello Publ'g Co.*, 670 F.2d. at 1045; Nolan v. Sam Fox Publ'g Co., Inc., 499 F.2d 1394, 1400 (2d Cir. 1974) (deciding under the 1909 Copyright Act); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.15[A].

[289] *See Charter Communications*, 936 F.2d at 692; *Dodd, Mead v. Lilienthal, Inc.*, 514 F.Supp 105 (S.D.N.Y. 1981); 3 NIMMER & NIMMER § 10.15[A].

[290] *See U.S. Naval Institute v. Charter Communications*, 936 F.2d 692, 965 (2nd Cir. 1991) ("Indeed, the licnesor may be liable to the exclusive licensee for copyright infringement if the licensor exercises rights which have theretofore been exclusively licnesed."); *Dodd, Mead & Co.*, 514 F. Supp at 105 (writer who sued publisher for unpaid royalties and also attempted to distribute book infringed exclusive publication rights of publisher); *see generally* 3 NIMMER & NIMMER, *supra* note 49, at § 10.15[A].

[291] *See* Frankel v. Stein and Day, Inc., 470 F. Supp. 209 (S.D. N.Y. 1979) (provision that rights "shall automatically" revert on publisher's failure to perform enforced); Kama Krippa Music, Inc. v. Schekeryk, 510 F.2d. 837, 844 (2d Cir. 1975) (provision for automatic revesting for failure to pay songwriter's royalties under 1909 Act).

[292] *See Fosson*, 78 F.3d at 1448.

[293] *See In re Amica*, 135 B.R. at 534.

[294] *See infra* notes _______ and accompanying text.

[295] U.C.C. § 2-402(1) (1999).

merchant-seller for a commercially reasonable time.[296] Article 2 does not determine what that state law might be, but simply leaves it undisturbed.[297]

b. Copyright Act

What are the rights of an unsecured creditor in a copyrighted work as against a subsequent licensee? As discussed elsewhere, those priorities will be allocated under the priority scheme in Section 205 of the Copyright Act.[298] Generally, priority will be determined by who records first in good faith in the Copyright Office. The exception will be if the subsequent licensee takes under a written non-exclusive license in good faith and without notice of the creditor's rights. In any case, federal law, not Article 2, sets priorities.[299]

16. Good Faith Purchaser For Value

a. Article 2

It may happen that a seller owns less than full legal title to the goods offered for sale. At the extreme end, the seller may be a thief and the goods stolen. Or the seller may be a bailee to whom the goods were entrusted who nonetheless purports to sell them as the seller's own. These situations require some accommodation between the rights of the lawful owner of the goods and the innocent buyer who purchases in reliance on the seller's apparent authority. Article 2-403 provides a series of rules to deal with these situations.

The basic or "shelter" rule is that a buyer only gets what the seller had to give.[300] As Article 2-403(1) puts it, "a purchaser of goods acquires all the title which his transferor had or had power to transfer except that a purchaser of a limited interest acquires rights only to the extent of the interest purchased." Thus, a buyer of stolen goods acquires nothing and the seller may still recover them. The situation becomes more complicated when the seller has something more. In that case, Article 2-403 provides two exceptions: the voidable title rule and the entrustment rule.

Under Article 2-403(1), a seller with voidable title can transfer good title to a good faith purchaser for value. The UCC does not define voidable title in a comprehensive fashion, leaving that to state law development, although it does however, provide that the doctrine applies in at least four special cases enumerated in Article 2-403[301]

Article 2-403(2) also allows a buyer in the ordinary course to acquire title that can even be superior to that of the seller in the "entrusting" situation. "Entrusting" is broadly defined to include any delivery and acquiescence in retention of possession regardless of any condition by the entrusting party.[302] However, the entrusted party must be a "merchant who deals in goods of

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[296] U.C.C. § 2-402(2) (1999).

[297] U.C.C. § 2-402(2) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-402[A][1].

[298] *See supra* notes _____ and accompanying text.

[299] *Compare* U.C.I.T.A. § 109(a) (1999) (deferring to federal priority scheme); *see also* ALCES & SEE, *supra* note 14, at § 15.2 (agreeing with this result).

[300] *See generally* QUINN, *supra* note 27, at ¶ 2-403[A][2].

[301] U.C.C. § 2-403(1) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-403[A][4].

[302] U.C.C. § 2-403(3) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-403[A][9].

that kind"[303] and the purchaser must be a "buyer in the ordinary course."[304]

b. *Copyright Act*

Copyright law takes a different approach. It adopts the basic "shelter" rule that a transferor may not convey any greater interest than the transferor owned.[305] However, it rejects the "voidable title" and "entrustment" exceptions in the UCC.[306] The innocent intent of a transferee will not prevent a finding of infringement liability, although it may reduce the available remedies.[307] Where a transferee utilizes a work supplied by another, the transferee's ignorance that the supplier wrongfully copied or appropriated the work will not immunize the transferee from liability to the legitimate copyright owner.[308] Apparent authority is not a defense to a claim of copyright infringement.[309] Similar rules apply to disposition of copies. Thus, a sale of copies by a bailee without authorization is an infringement, even though the bailee may have ostensible title.[310]

Stenograph v. Sims[311] reached exactly this result. Stenograph licensed software to Varlack, which Sims claims Varlack gave her as a gift. Stenograph sued for copyright infringement and conversion of the copies of the software.[312] Sims' claim that the copy had been sold to Varlack was found to be incorrect since the license agreement specifically prohibited

[303] U.C.C. § 2-403(2) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-403[A][9][b].

[304] U.C.C. § 1-201(9) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-403[A][9][c].

[305] For further discussion of the scope of a license, *see* cases discussed *supra* at note _______; *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.10[B].

[306] *Compare* U.C.I.T.A. § 506 (1999) (transferee takes subject to terms of license - no voidable title or entrustment rules).

[307] *See* ARP Films, Inc. v. Marvel Entertainment Group, 952 F.2d 643 (2d Cir. 1991) (holding that a licensee who uses the licensor's information in an unauthorized manner, even if acting in good faith, may nonetheless be liable for an infringement); *see generally* 4 NIMMER & NIMMER, *supra* note 48, at § 13.08.

[308] *See* Buck v. Jewell La Salle Realty Co., 283 U.S. 191, 198 (1930) (deciding under the 1909 Copyright Act); *Costello Publishing*, 670 F.2d. at 1035; *see generally* 4 NIMMER & NIMMER, *supra* note 48, at § 13.08.

[309] *See* Pinkham v. Sara Lee Corp., 983 F.2d 824, 829 (8th Cir. 1992); MacLean Associates Inc. v. Wm. M. Mercer-Meidinger-Hansen, Inc., 952 F.2d 769, 777-78 (3d Cir. 1991) (actual authority required for work-made-for-hire).

[310] *See* Little Brown & Co. v. American Paper Recycling Corp., 824 F. Supp. 11 (D. Mass. 1993) (despite UCC 2-403, books consigned to bailee for destruction could not be resold as this would infringe copyright holder's exclusive distribution right); The Walt Disney Co. v. Video 47, Inc., 972 F. Supp. 595 (S.D. Fla. 1996) (rental of counterfeit videocassettes an infringement despite purchase of copies); *see generally* 2 NIMMER & NIMMER, *supra* note 48, at § 8.12[B][2].)

[311] Stenograph v. Simms, __ F.Supp. __, 2000 WL 964748, 55 USPQ2d 1436 (E.D. Pa. 2000).

[312] A claim for conversion of a copy is not preempted. *See* 1 NIMMER & NIMMER, *supra* NOTE 48, at § 1.01[B][1][i].

transfer, making the "first sale" doctrine inapplicable.[313]

17. Buyer's Right to Goods on Seller's Insolvency

a. Article 2

Article 2-501 gives a buyer a "special property interest" in goods that are identified to the contract.[314] This allows a buyer to recover the goods upon the seller's breach or repudiation, and gives a right of replevin.[315] Article 2-502 allows a buyer who has paid all or part of the purchase price for goods in which there is a special property interest to recover the goods if the seller becomes insolvent within ten days of the first payment.[316] There is some argument that a buyer's right to reclaim under Article 2-502 is superior to the rights of lien creditors, including the trustee in bankruptcy.[317]

b. Copyright Act

Now, what about copyrights? Let us assume that a licensee has paid all or a portion of the license fee under a copyright license for an identified work, but that the copies have not yet been delivered. Does the licensee then have a "special property interest" in the rights or the copies allowing reclamation in the case of the licensor's insolvency?[318]

Answering this question requires looking at the Bankruptcy Code.[319] *In re Select-A-Seat Corp.,*[320] a case decided under the old Bankruptcy Act, held than an executory exclusive software license could be terminated by the trustee for a bankrupt licensor, thus denying the licensee its exclusive rights despite payment of a $140,000 license fee. *Lubrizol Enterprises, Inc. v. Richmond Metal Finishers, Inc.*,[321] applying the new Bankruptcy Code, reached the same conclusion and allowed a bankrupt licensor to terminate an executory non-exclusive technology license despite partial payment of royalties. These cases thus held that a licensee, whether

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[313] *See also* Adobe Systems Inc. v. One Stop Micro, Inc. 84 F.Supp.2d 1086 (N.D. Cal. 2000) (end user license agreement a license, not a sale.)

[314] U.C.C. § 2-501 (1999); *see generally* ANDERSON, *supra* note 17, at § 2:501:3 (what constitutes identification); HAWKLAND, *supra* note 17, at § 2-501:1 (importance of determining "identification").

[315] U.C.C. §§ 2-711(2)(a) (remedies for breach) and 2-716(3) (replevin) (1999); First Tennessee Bank v. Graphic Arts Centre, 859 S.W.2d 858, 865 (Mo. App. 1993) (*citing* ANDERSON, *supra* note 17, at § 2-501:16).

[316] U.C.C. § 2-502(1) (1999); *see generally* ANDERSON, *supra* note 17, at § 2:502:3; HAWKLAND, *supra* note 17, at § 2-502:1.

[317] *See generally* HAWKLAND, *supra* note 17, at § 2-502:6; QUINN, *supra* note 27, at ¶ 2-502[A][3].

[318] *Compare* U.C.I.T.A. § 811 (1999) (no concept of special property interest but specific performance available as a remedy); § 813 (licensee may elect to continue use after licensor's breach).

[319] 11 U.S.C. §§ 101-500 (1994).

[320] 625 F.2d. 290 (9th Cir. 1980).

[321] 756 F.2d. 1043 (4th Cir. 1984).

exclusive or non-exclusive, has no "special property interest" in intellectual property rights allowing the licensee to recover them in case of a licensor's insolvency. As *Lubizol* put it: "[the licensee] would be entitled to treat rejection as a breach and seek a monetary damages remedy; however, it could not seek to retain its contract rights in the technology by specific performance even if that remedy would ordinarily be available in this type of contract."[322] In response, Congress added Section 365(n) to the Bankruptcy Code, allowing a licensee under certain conditions to retain its rights in intellectual property, including their embodiments.[323] Thus, the right, if any, of a licensee to recover either rights or copies in case of a licensor's insolvency is determined by federal bankruptcy law, not Article 2-502.

This is consistent with the Copyright Act. An hypothecation of a copyright interest is a transfer of copyright ownership, which requires a writing.[324] Because the buyer's special property interest is conceptualized as a type of security interest,[325] it would also need a writing signed by the licensor to be effective. It cannot be implied by state law. Moreover, a special property interest under Article 2-501 does not effectuate a transfer of title to the copies. Thus, if the ownership of the copies resides with the bankrupt licensor, a licensee has no first sale privilege to dispose of them.[326]

18. Buyer's Right To Inspect

a. Article 2

Venerable tradition has it that a buyer can inspect the merchandise.[327] The question is not whether but when. Where the contract is silent, Article 2-512 provides two rules on the timing of inspection: the normal rule, and the variant rule.[328] The normal rule is that a buyer has a right to inspect identified goods before payment or acceptance.[329] Inspection can occur "at any reasonable time and place and in any reasonable manner." The variant rule[330] says that a buyer is not entitled to inspect before payment in three cases: (i) where the parties so agree;[331] (ii) where the contract is C.O.D.;[332] or (iii) where the contract provides for "payment against documents of

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[322] *Lubrizol Enterprises*, 765 F.2d at 1048.

[323] 11 U.S.C. § 365(n); *see generally* 3 COLLIER ON BANKRUPTCY ¶ 365.14 (15th ed. rev. 1999).

[324] 17 U.S.C. §§ 101 (defining "transfer of copyright ownership"); 204(a) (1994).

[325] *See generally* HAWKLAND, *supra* note 24, at § 2-502:6.

[326] 17 U.S.C. §§ 109(a), 117 (1994); *see* CMAX/Cleveland, Inc. v. UCR, Inc., 804 F. Supp. 337, 356 (M.D. Ga. 1992) (holding that when a copy of software was transferred to creditors, the privilege to continue using the copy under Section 117 ceased).

[327] *See, e.g.*, Turlock Merchants & Growers, Inc. v. Smith, 251 P. 683 (Cal. Ct. App. 3d Dist. 1926) (discussing the buyer's right to inspect under pre-UCC law); M.A. Newark & Co. v. Smith, 146 P. 1064 (Cal. Ct. App. 2d Dist. 1915).

[328] U.C.C. §§ 2-512, 513 (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-513[A].

[329] U.C.C. § 2-513(1) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-513[A][2].

[330] U.C.C. § 2-513(3) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-513[A][3].

[331] U.C.C. § 2-513(1) (1999).

[332] U.C.C. § 2-513(3)(a) (1999).

title, except where such payment is due only after the goods become available for inspection."[333] These rules apply irrespective of title to the goods.[334]

b. Copyright Act

Copyrights are not the same. Certainly, a licensee can inspect a copy. Examine the book to make sure the ink doesn't run. Check a software package to verify it includes a CD instead of 3.5" floppies. Look in the videocassette box to check that the movie on the cassette label is the same as the one on the box. All perfectly acceptable. But if inspection goes beyond checking the characteristics of the copy and requires examining the embodied copyrighted work, then the Copyright Act has something to say about when - and if - inspection is allowed without consent of the copyright owner.[335]

If inspection of a computer program requires loading the program onto the user's computer to examine how it works, then, unlike under Article 2, the status of title to the copy is of critical importance. Loading a program means making a copy, one of the exclusive rights reserved to the copyright owner.[336] Doing so without authorized is an infringement.[337] Section

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[333] U.C.C. § 2-513(3)(b) (1999). The third situation bears closer study.

> Where the contract calls for "payment against documents," e.g., order bill against sight draft, it is the documents that control payment and since they will normally arrive before the goods themselves, inspection is not only legally deferred but deferred as a practical matter as well. Since the use of documentary payment terms is common, this type of situation is perhaps the principal illustration of the rule requiring payment before inspection.

QUINN, *supra* note 27, at ¶ 2-513[A][3]. Think about this rule for copyright licenses. In a sale of goods, the goods are primary and the documents of title secondary. In information licensing, however, what counts is the legal permission to use the information -- the license -- because it distinguishes the infringer from the authorized user. Is not the license akin to a "document of title"? If so, one could argue that, for information licenses, the variant "document" rule in Article 2-513(3)(b) reflects the correct default rule; and a licensee has no right to inspect before payment unless the license says otherwise.

[334] U.C.C. § 2-401 (1999).

[335] *Compare* U.C.I.T.A. § 603 (1999) (no inspection right for submission to satisfaction of a party); § 604 (no inspection right where inspection would provide substantially all the value of information that cannot be returned); § 608(b) (no inspection before payment if inconsistent with contract).

[336] 17 U.S.C. § 106(1) (1994); *see* Novell, Inc. v. Network Trade Center, Inc., 25 F. Supp.2d 1218, 1229 (D. Utah 1997); Sega Enterprises, Inc. v Accolade, Inc., 977 F.2d 1510 (9th Cir. 1992) (intermediate copying of computer object code constituted copying but allowed as fair use); Atari Games v. Nintendo of America, Inc., 975 F.2d 832 (Fed. Cir. 1992) (single unauthorized copy of computer program supports claim of infringement); *see generally* 2 NIMMER & NIMMER, *supra* note 27, at § 8.08 ("[It is] clear that the input of a work into a computer results in the making of a copy, an hence, that such unauthorized input infringes the copyright owner's reproduction rights.") The *Novell* case, while doubtless correct on this point, is mistaken on its application of Article 2, as discussed infra at notes _______ and accompanying text.

[337] 17 U.S.C. § 501(a) (1994); *see* Stenograph LLC v. Bossard Associates, Inc., 144 F.3d 96, 101 (D.C. Cir. 1998) (loading software from a floppy disc into RAM causes a copy to be made); Fonar Corp.

117 does allow loading a copy of a program onto a hard disk, but only by the owner of a copy.[338] If the licensee does not own the copy, then this privilege does not exist, and loading the program for inspection is an infringement.[339] If title to the copy revests in the licensor, because of, say, rejection of the copy, then the Section 117 privilege ends.[340] Some types of inspection, even without copying, can also be an infringement. For example, a video store may not allow patrons to watch ("inspect") videos in a private room prior to purchase because this infringes the copyright owner's public performance right.[341] A computer store may not allow customers to take home programs for "home inspection" under a deferred billing plan since this would violate the program owner's exclusive rental right.[342] In sum, where copyrighted works are concerned, any "gap-filler" inspection rights implied by state law must yield to limitations under federal law unless the copyright owner agrees otherwise.[343]

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v. Domenick, 105 F.3d 99 (2d Cir. 1997); MAI Systems Corp. v. Peak Computer, Inc., 991 F.2d 511, 518 (9th Cir. 1993); Bateman v. Mnemonics, Inc,. 79 F.3d 1532 (11th Cir. 1996) (issue whether literal copying of source code for purposes of determining interoperability an infringement).

[338] 17 U.S.C. § 117 (1994).

[339] *See MAI Systems,* 991 F.2d at 518-519. Note that Congress amended Section 117 in the Digital Millenium Copyright Act to allow limited copying for servicing, thus abrogating the specific holding in *MAI Systems. See* Syngeristic Technologies v. IDB Mobil Communications, 871 F. Supp. 24, 29 9 (D. D.C. 1994) (holding that the right to inspect software under Section 117 existed only because title to the copy had passed under UCC 2-401).

[340] *See* CMAX/Cleveland, Inc. v. UCR, Inc., 804 F. Supp. 337, 356 (M.D. Ga. 1992.) (on transfer of copy of software to creditors privilege to continue using copy under Section 117 ceases).

[341] *See* Video Views, Inc. v. Studio 21, Ltd., 925 F.2d 1010 (7th Cir. 1991); Columbia Pictures Industries v. Aveco, Inc., 612 F. Supp 315 (M.D. Pa. 1985), *aff'd*, 800 F.2d 59 (3d Cir. 1986); Columbia Pictures Industries v. Redd Horne, Inc., 568 F. Supp. 494 (W.D. Penn. 1983), *aff'd*, 749 F.2d 154 (3d Cir. 1984); Columbia Pictures Industries v. Professional Real Estate Investors, Inc., 866 F.2d 278 (9th Cir. 1989) (rental of videocassettes for use in hotel rooms equipped with cassette players not a public performance).

[342] *See* Central Point Software v. Global Software & Access, 880 F. Supp. 957, 965 (E.D. N.Y. 1995).

[343] Another emerging issue involves computer programs provided over the Internet via cable modems. Cable services, including video-on-demand, are the subject of the Cable Television Consumer Protection and Competition Act of 1992. (Pub.L. No. 102-385, 106 Stat. 1460 codified variously in 47 U.S.C. §§ 521- 595.) The Act provides a comprehensive scheme for the Federal Communications Commission to set cable service rates. *See* Time Warner Entertainment Co. v. F.C.C., 56 F.3d 151 (D.C. Cir. 1995). It preempts all state regulations of cable service rates inconsistent with the Act. 47 U.S.C. § 543(a)(1). Can state law allow a cable subscriber to view ("inspect") a program provided by the cable service before payment, or would such a rule be a regulation of "rates" preempted by the Act? Storer Cable Communications v. City of Montgomery, 806 F. Supp. 1518, 1544 (M.D. Ala. 1992) held that a city ordinance which prohibited price discrimination based on geographic location, although neutral on its face, was nonetheless a preempted rate regulation. *But see* Cable Television of New York v. Finneran, 954 F.2d 91 (2d Cir. 1992) (local regulation of "downgrade" charges for changing from premium to basic cable service not preempted).

19. Perfect Tender

a. Article 2

The "perfect tender" rule in Article 2-601 allows the buyer to reject the whole "if the goods or the tender of delivery fail in any respect to conform to the contract."[344] Under Article 2-711(1), the buyer may then cancel the entire contract. Thus, for a non-conformity in the physical items alone, a buyer may cancel the entire contract. In Article 2's perfect tender model, acceptance of a performance marks a sharp boundary between two very different worlds. Before acceptance, the buyer can reject "if the goods or the tender of delivery fail in any respect to conform to the contract."[345] If the buyer does reject, the buyer must seasonably notify the seller and specify the defects or risk being barred from any remedy for the nonconformity.[346] After acceptance, the landscape changes. A buyer's revocation requires that "the nonconformity substantially impairs the value to him," a far more difficult measure than the perfect tender one.[347]

b. Copyright Act

Section 202 of the Copyright Act provides that in a copyright license the terms transferring rights are independent of those transferring copies. Although no court has yet been faced with the issue, its is fair to ask whether the perfect tender rule is consistent with Section 202.[348] Consider a custom software license where the licensee agrees to pay one million dollars for a copyrighted database program to be delivered on a CD. The licensor delivers the program on a DVD. If the perfect tender rule were strictly applied, then the licensee would be entitled to cancel the entire license for a nonconformity merely in the copy. But Section 202 says that terms relating to transfer of the copy do not effect the conveyance of the copyright interest, so that delivery - or non-delivery - of the physical object does not effect the copyright transfer. The licensee should remain liable for as least that portion of the one million dollars attributable to the copyright interest. Presuming otherwise, as the perfect tender rule does, would mean that terms effecting the transfer of the material object also effected the transfer of the copyright interest, contrary to Section 202.[349]

20. Buyer's Obligations for Rejected Goods

a. Article 2

When the buyer rightfully rejects the goods, three interrelated sections of Article 2

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[344] U.C.C. § 2-601 (1999).

[345] U.C.C. § 2-601 (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-601[A][4].

[346] U.C.C. §§ 2-605, 2-607(3) (1999).

[347] U.C.C. § 2-608(1) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-608[A][1].

[348] *Compare* U.C.I.T.A. § 704(a) and (b) (1999) (no "perfect tender" rules except in mass market contract only calling for a single delivery of a copy).

[349] *See Oddo v. Ries*, 743 F.2d 630 (9th Cir. 1984) (rejection of manuscript did not terminate copyright interest). Regarding the Perfect Tender rule for software, *see D.P. Technologies*, 751 F. Supp. at 1038; *but see In re Amica, Inc.*, 135 B.R. at 534, which is further discussed *infra* at notes ____ and accompanying text.

determine the buyer's further rights and obligations. Article 2-602 sets the context. Basically, the buyer may not exercise any ownership interest in the goods, and must hold unpaid goods in the buyer's possession with reasonable care until the seller can reclaim them.[350] Under Article 2-603(1), if the seller is not present in the marketplace, a merchant buyer has a duty, absent contrary instructions from the to seller, to make reasonable efforts to resell the goods for the seller's account if they are perishable or threaten to decline in value speedily. If the goods are not perishable, then the buyer nonetheless has the option of reselling them for the seller's account under Article 2-604. In so doing, the buyer is held only to the obligations of good faith conduct, and such conduct does not amount to an acceptance of the goods or a conversion.[351]

b. Copyright Act

Again, copyright licenses raise a different calculus. For these purposes, we can assume that "rejection" means that the licensee has declared the licensor in default for a material breach.

First let us start with the copyright interest. As discussed above, there is no automatic revesting of "title" (copyright interest) in the licensor unless the licensee makes an affirmative election to cancel the license or the license causes an automatic reversion on default.[352] If cancellation ("rejection") does occur, then the licensee has neither right nor duty to relicense the copyright interest. To the contrary, if the licensee tries to do so after cancellation, the licensee becomes an infringer.[353]

As to copies, as discussed above, a rejection of a copy does not, under Section 202, affect the copyright interest unless the license so provides. Assume that the license does provide that failure to deliver a particular copy is material breach and for this reason the licensee elects to cancel. In that case, if rejection means that title to the copy has not passed, then the licensee has neither the right nor the duty to resell the rejected copy, as this would infringe the licensor's exclusive distribution rights.[354]

21. Seller's Right to Resell

a. Article 2

What happens when the buyer wrongfully refuses to accept the goods, or fails to make a payment when due, or repudiates its obligations under a contract of sale? The first thing that happens is that "title" to goods revests in the seller by operation of law.[355] Then the UCC

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[350] U.C.C. § 2-602(2) (1999); QUINN ¶ 20602[A].

[351] U.C.C. §§ 2-603(3) and 2-604 (1999).

[352] *See Fantastic Fakes*, 661 F.2d at 483-84 ("A mere breach of covenant may support a claim of damages for breach of contract but will not disturb the remaining rights and obligations under the license including authority to use the copyrighted material."); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.12[A].

[352] *See supra* notes _____ and accompanying text.

[353] *See ARP Films*, 952 F.2d at 649 (where licensor repudiated license, licensee's continued exploitation indicated election to affirm contract making failure to pay royalties a material breach); *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.15[A].

[354] 17 U.S.C. § 106(3) (1994); *Dodd, Mead & Co.*, 514 F. Supp at 105 (exclusive license).

[355] U.C.C. § 2-401(4) (1999); *see supra* notes _____ and accompanying text.

remedy provisions roll into play.[356] One particular option an aggrieved seller may want is the right to resell the goods to mitigate damages. The UCC has several specific provisions that allow the seller to do so.[357] The procedures for reselling the goods are set forth in Article 2-706.

b. Copyright Act

As discussed above, for the copyright interest there is no automatic revesting of "title" in the licensor by operation of law upon a licensee's breach or repudiation.[358] If the breach is not material, then the licensor may have claim damages, but may not disturb the licensee's rights.[359] Even if the breach is material, revesting only happens if the licensor makes an affirmative election to cancel the license or the license causes an automatic reversion on default.[360] If the license is exclusive and the licensor does not elect to cancel, then the licensor's attempted exercise of the licensed rights makes the licensor an infringer.[361]

As to copies, the Copyright Act may impose limits on the right to resell, depending on whether the party providing the copies is the licensor or the licensee. Assume the licensor delivers copies to a licensee for exclusive distribution, and the licensee breaches. (In Article 2 terms, the "buyer-licensee" is in breach.) The licensor nonetheless has no right to take and sell unsold copies absent a cancellation as this would infringe the licensee's exclusive distribution rights.[362] Assume it is the licensee who manufactures copies for delivery to the licensor. (In Article 2 terms, the "buyer-licensor" is in breach.). Then on material breach by the licensor, there is authority that the licensee may resell the copies to mitigate damages.[363]

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[356] U.C.C. § 2-703 (1999) (cataloging seller's remedies); *see generally* QUINN, *supra* note 48, at ¶ 2-703[A].

[357] *See generally* QUINN, *supra* note 48, at ¶ 2-703[A][4] (cataloging seller's remedies that looks to the goods).

[358] *See supra* notes ______ and accompanying text.

[359] *See Fantastic Fakes*, 661 F.2d at 483-84; *see generally* NIMMER & NIMMER, *supra* note 48, at § 10.12[A].

[360] *See supra* notes ______ and accompanying text.

[361] *See Charter Communications*, 936 F.2d at 965; *Dodd, Mead & Co.*,514 F. Supp. at 105; *see generally* 3 NIMMER & NIMMER, *supra* note 48, at § 10.15[A].

[362] *See Dodd, Mead & Co.*, 514 F. Supp. at 105.

[363] *See* Bourne v. Walt Disney Co., 68 F.3d 621 (2d Cir. 1995). In Platt & Munk Co., Inc. v. Republic Graphics, Inc., 315 F.2d 847 (2d Cir. 1963), a case decided under the 1909 Act, a manufacturer licensed to produce educational toys tied to sell them in mitigation when the copyright owner refused to pay. As Justice Friendly put it:

> The question is whether an unpaid manufacturer of copyrighted goods, which are alleged to be defective by the copyright proprietor who has ordered them, may sell them in satisfaction of his claim for the contract price without infringing the "exclusive right" of the proprietor to "publish . . . and vend the copyrighted work." . . . It seems exceedingly strange that [this] question should arise for the first time . . . one hundred and seventy-three years after the initial grant of copyright protection by Congress . . . .

22. Buyer's Security Interest

a. Article 2

Under Article 2-711(3), upon rightful rejection or revocation, a buyer has a security interest in any goods in the buyer's possession for any payments made. The buyer may hold and resell such goods in like manner as any aggrieved seller.

b. Copyright Act

Under the Copyright Act, an aggrieved licensee who rejects the license or the copies has no security interest at all in the copyright, and a limited one at best in the copies. With regard to the copyright, a security interest constitutes a "transfer of copyright ownership."[364] As such, it must be signed by the copyright owner to be effective.[365] Even if the licensee pays for the software and the vendor cashes the check, there is no security interest in the copyright without a signed writing so providing.[366] In other words, upon rightful or wrongful rejection or revocation by a licensee, the licensee has no security interest in the copyright for the amounts paid unless the licensor so agrees in writing. As to copies, the licensee may have a security interest in them, but on foreclosure could only sell the copies subject to the limited use privileges in the Copyright Act. Any licensed use, such as a right to copy code into a new program, would not be granted.[367]

23. Chart of Statutory Differences

The following Chart summarizes the previous discussion, showing the irreconcilable differences between Article 2 and the Copyright Act.

CHART OF STATUTORY DIFFERENCES

ARTICLE 2	**COPYRIGHT ACT**
2-105: "Goods" are tangible, movable, and in single location at time of identification	§ 202: Copyrightable works are intangible, immovable and simultaneously everywhere
2-106: "Sale" means passing of title in goods	§ 101: No transfer of copyright ownership in non-exclusive licenses § 203(d): Only transfer divisible copyright ownership in exclusive license within scope of license
2-201: Statute of frauds with traditional exceptions	§ 204(a): Writing requirement for exclusive licenses; traditional exceptions inapplicable
2-206(1)(b): Contract formed by shipment of goods	§ 202: No copyright license from transfer of copies

Platt & Munk Co., 315 F.2d at 849. The Court allowed the sale. *But see* 2 NIMMER & NIMMER, *supra* note 48, at § 8.12[B][3][b] (arguing that *Platt's* reasoning has been rendeded unnecessary under the current Copyright Act by the codification of the "first sale" doctrine in Section 109(a)).

[364] 17 U.S.C. § 101 (defining "transfer of copyright ownership").

[365] 17 U.S.C. § 204(a); *see In re Avalon Software,* 209 B.R. at 520-521 (no security interest in copyrighted software absent compliance with signature requirements of federal law).

[366] *See Konigsberg Int'l,* 16 F.3d at 357 (no exclusive license absent signature even with payment).

[367] *See* LeFlore v. Grass Harp Productions, Inc., 67 Cal. Rptr. 2d 340, 342 n.1 (Cal. Ct. App. 2d Dist. 1997) (holding that a foreclosure by a lien creditor on a film negative granted no rights in the embodied motion picture).

2-207(3) In contract by conduct, terms determined by "knock-out" rule and Code defaults	§ 204(a): No exclusive license by conduct; *if* implied non-exclusive license, no knock-out rule for terms
2-208: Terms interpreted by commercial practice	§ 301: Where applicable, interpretations based on federal policies preempt state rules
2-210(2): Rights and obligations assignable absent material impairment	§ 101: Exclusive licenses presumed assignable Non-exclusive licenses not assignable; copies transferable under specific conditions for first sale, computer use privilege, and nonprofit libraries
2-301: Basic obligations of buyer and seller: unitary, dependent, concurrent	§ 202: Basic obligations of licensor and licensee: compound, independent, asynchronous
2-309(2): Contract for successive performances of indefinite duration terminable at will	§ 203; Exclusive licenses of indefinite duration perpetual; non-exclusive licenses may be terminable at will (split in authority)
2-314: Implied warranty of merchantability	First Amendment: Limits on implied warranties for some program functionality?
2-326(1): Sale on Approval	§ 109(a): Preempts U.C.C. for software rentals
2-326(2): Sale or return (consignments): Buyer's creditors superior unless seller takes specific steps	§ 202(d); 204(a): :Licensor's retained interestsuperior to licensee's creditors unless creditors take certain steps; § 109(a): First sale doctrine inapplicable to consignee
2-401: Title to goods not determinative of rights and remedies	§§ 109; 117: Title to copies determines existence of fair use, first sale and computer program privileges
2-401(2): General rule, title to goods passes on delivery	§ 205(d): General rule, rights vests on first execution or first recording
2-401(2): By operation of law, title to goods passes to buyer and any reservation of title by seller is a mere security interest	§ 101: No title passes at all in non-exclusive license §§ 201, 203 & 501: Licensor retains divisible legal and equitable ownership interests in unlicensed rights that are not security interests
2-401(3): Mandatory revesting of title to goods in seller upon rejection or repudiation, whether or not correct	17 USCA § 1338(a): No automatic revesting on licensee default unless licensor elects to cancel license
2-402(1): Buyer's right to recover goods in seller's possession superior to seller's creditors in some cases	§ 205: Priority of interests under license determined by federal law, not state law
2-403: Person with voidable title can still pass good title to buyer in ordinary course	§ 109: Bailee cannot pass ownership interest sufficient to trigger first sale defense.
2-502: Buyer has special property interest in identified goods superior to seller's lien creditors in case of seller's bankruptcy	11 USCA § 365(n): Licensee's right to retain rights or copies determined under Bankruptcy Code, not state law
2-512: Generally, buyer has a right to inspect goods before payment	§ 106: Licensee has no right to inspect before payment if inspection impacts exclusive rights
2-601: "Perfect tender" rule says any non-conformity in goods a material breach of whole contract	§ 202: May disallow "perfect tender" assumption that defect in copies is material breach of whole license
2-602 & 2-603: On rightful rejection, buyer has right and in some case obligation to resell goods for seller.	§ 106: On licensee's cancellation, no right or duty to relicense copyright interest or dispose of copies
2-703, 2-706: Seller may take and resell goods to cover if buyer defaults	§ 106: On licensee's breach, licensor may not relicense exclusive copyright interest without cancellation; licensee-seller may dispose of goods in mitigation
2-711: Buyer has security interest in rejected goods to extent of price paid	§ 2-204(a): Licensee has no security interest in license absent licensor consent; security interest in copies depends on who supplied them

C. Article 2 on Its Own Terms

We have worked through the mechanics of Article 2 and the Copyright Act, looking at where the underlying models are incompatible. Now it is time to come back to basics. On its own terms, does Article 2 apply to software transactions? Article 2-102 sets forth the scope of the sales article thus: "Unless the context otherwise requires, this Article applies to transactions in goods . . . ." So, "goods" and "transactions" are the key words. Let us examine whether a software license falls within these parameters.

1. A Computer Program is Not a "Good"

What is a "good" under the UCC? Article 2-105(1) says:

> "Goods" means all things (including specially manufactured goods) which are moveable at the time of identification to the contract for sale other than money in which the price is to be paid, investment securities and things in action.[368]

Thus, under Article 2, there are two tests for "goods:" a substance test - *moveability*; and a timing test - *identification*. Computer programs do not fit under either one.

a. Moveablility

Is a computer program moveable? Several courts and commentators have thought so. But remember, we are not talking about the copy of the computer program; we are talking about the computer program itself. That is what these authorities say is a "good." So try this experiment. Log on to the Linux Web site and download a copy of LINUX onto your hard disc. If the learned authorities are right - if a computer program becomes a tangible, moveable good when it is embodied in a copy - then LINUX the computer program has migrated to your hard disc and is no longer available on the Linux Web site. It should have *moved*. But wait. Go back to the Linux Web site and check it out. LINUX is still there, waiting to be copied. It has not moved. In fact, it is now in two places at the same time. How can this be? A computer program is supposed to be moveable. This means travelling from one place to another. How can a moveable computer program be in two places at the some time?

Try another test. Run to Anchorage and start distributing copies of LINUX without complying with the GNU Public License; *i.e.* infringe the copyright.[369] Now run to Miami and do the same thing. If LINUX the computer program is indeed moveable in the marketplace then it stands to reason that it cannot be in two different marketplaces at the same time. You cannot sue for the same injury to the same car in two different places. Moving from point A to point B necessarily means leaving point A. If you believe this about LINUX, be prepared for a rude awakening. Like things in action, which by definition are not goods, a copyright in a computer program is an intangible interest, which may be enforced simultaneously everywhere.

These thought experiments are tongue-in-cheek, but the point is not. A copy of a computer program may be tangible and moveable, but not the computer program - the copyrightable work. The computer program is intangible, immovable, and simultaneously everywhere. Those that argue otherwise make the junior's mistake of confusing the copy with the copyright.

b. Identification

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[368] U.C.C. § 2-105(1) (1999).

[369] Obviously, this is a thought experiment. Those who actually try this do so at their own risk.

Now let's look at the identification test. Is the software identified *to* the contract or *by* the contract? Again, consider LINUX. If the computer program LINUX is a good, then what exactly is it that is identified to the contract when you acquire a CD at CompUSA?

If LINUX is a "good," then under Article 2-401, title to the LINUX the computer program must necessarily pass by operation of law. But "title" to LINUX would mean the entire, worldwide, perpetual copyright, while the GNU Public License only grants a limited, non-exclusive license. LINUX the computer program is not identified to the contract; rather the object of the contract - the scope of the grant - is identified *by* the license. Goods, being tangible, can be identified by the senses apart from the contract and must be identified to it. Copyright interests, being intangible, are only delimited by words in the contract.

"But," you say "I left CompUSA with a CD. This is a tangible copy. Surely this is the good identified to the contract." Maybe, but beside the point. The issue is not whether the blank CD is identified, but whether the computer program embodied on the CD is identified.[370] Article 2-501(1) is explicit that identification must occur no later than: (i) for existing goods, when the contract is made; or (ii) for future goods, when they are designated as the goods to which the contract refers.[371] Now, when you took the CD home, you probably copied the computer program onto your hard drive. That hard drive copy did not exist when you stood at the cash register. What existed, what was necessarily the only object that could be identified to the contract under Article 2-501, was the copy of the computer program in the CD case.[372] Y That means that under Article 2-501, the copy that was made on your hard drive could not have possibly been identified to the contract. So if the copy on your hard drive is the computer program that does not "work," that means -- but you get the point.

And what happens when a copy is downloaded over the Internet? *Kaplan v. Cablevision of Pennsylvania, Inc.*[373] held that the delivery of cable television programming signals was not a "transaction in goods" under the UCC because programming signals are not "fairly identifiable as movables before the contract is performed."[374] Digital signals passed over the Internet to download copies of computer programs should also not qualify as identified goods.

Article 2 is about the sale of wares - tangible, moveable hard goods identifiable by the senses. Computer programs are intangible products of the mind that are immovable and simultaneously everywhere. They are not delimited by the senses but described in words. They are not identified *to* a contract but *by* a contract. Yet the Article 2 eschatology would have it that these intangibles nonetheless descend into physical form where they lose forever their incorporeal essence to become only dense matter. Tales of angels that take on human form and

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[370] *See* ALCES & SEE, *supra* note 14, at § 8.15.2 ("[T]he acquisition of intellectual property itself requires 'identification' by means other then mere transfer of physical possession of the object in which the intellectual property is embodied.")

[371] U.C.C. § 2-501(1)(a) and (b) (1999).

[372] You can argue that the copy on your hard drive was a "future good," but did the store clerk really designate that payment was not for the CD in your hand but for the hard disk copy you might make later on? I think not.

[373] Kaplan v. Cablevision of Pennsylvania, Inc., 671 A.2d. 716 (Pa. Super. Ct. 1996).

[374] *Kaplan*, 671 A.2d at 723.

forfeit their immortality make engaging movies and wonderful stories. But such fairy tales belong to myth, not law.

2. A Software License is Not a "Sale"

Article 2-105(1) says that Article 2 applies to "transactions" in goods, not just "sales." Does this mean that Article 2 can apply to software licenses because they are transactions? An interesting distinction, but pointless. Article 2 deals with, and the definition of goods is cast in terms of, a contract of sale.[375] Article 2-106(1) says:

> In this Article unless the context otherwise requires, "contract" and "agreement" are limited to those relating to the present or future sale of goods. "Contract for sale" includes both a present sale of goods and a contract to sell goods at a future time. A "sale" consists of the passing of title from the seller to the buyer for a price (Section 2-401). A "present sale" means a sale which is accomplished by the making of the contract.[376]

The inclusion of transactions within Article 2-105(1) is meant to cover a limited number of familiar situations which are not technically sales but are nonetheless are covered in the statute, most particularly consignments.[377] It does not sweep every commercial transaction involving goods into Article 2.

Novemedix, Ltd. v. NDM Acquisition Corp.[378] made that point. The case involved a settlement agreement to a patent infringement suit, which called for the delivery of the allegedly infringing inventory to the patent owner. When the inventory proved to be defective as well as infringing, the irate patent owner brought suit for breach of the implied warranty of merchantability under Article 2. To the patent owner, this was surely a "transaction in goods" within the scope of Article 2. The Federal Circuit saw it otherwise:

> Many commercial transactions are not governed by Article 2 of the UCC: sale of land or securities, assignment of a contract right, or *granting a license under a patent or copyright*, to name just a few. The mere fact that title to Article 2 goods changes hands during one of these transactions does not by that fact alone make the transaction a sale of goods…. Here, the mere fact that the parties' settlement agreement includes the transfer of personal property in its provisions does not make it a simple sale of goods (slippers) for a price (release of a legal claim). . . . The settlement agreement is no more a contract for the sale of slippers than it is a licensing agreement for NDM's patents. In fact, it is neither exclusively; it

[375] *See* Bonebrake v. Cox, 499 F.2d 951, 960 (8th Cir. 1974); Computer Servicecenters, Inc. v. Beacon Mfg. Co., 328 F. Supp. 653 (D. S.C. 1970), *aff'd*, 443 F.2d 906 (4th Cir 1971).

[376] U.C.C. § 2-106(1) (1999).

[377] Article 2-326; QUINN ¶ 2-102[a][1].

[378] *See* Novemedix, Ltd. v. NDM Acquisition Corp., 166 F.3d 1177 (Fed. Cir. 1999).

is a mixed contract . . . .[379]

Novemedix indicates the real reason for trying to apply Article 2 to software transactions: to impose an implied warranty of merchantability or fitness. But these implied warranties only apply to a "contract" of a sale,[380] not any "transaction" in goods.

A sale means "the passing of title from the seller to the buyer for a price."[381] In a non-exclusive software license, there is as a matter of federal law no transfer of copyright ownership[382] to begin with, hence no sale of the computer program ever occurs. There may be a sale of the CD embodying the computer program, but not the licensed computer program. In an exclusive license, there is a transfer of copyright ownership, but this is not a passing of title in the Article 2 sense due to the numerous ownership interests retained by the licensor.[383]

Think again of LINUX. This license is non-exclusive. A customer who acquires a copy of LINUX does not acquire any ownership interest in the computer program, so the legally separate license from the Linux organization cannot be a sale of goods even under Article 2's own definitions.[384] It seems so counter-intuitive. The customer is after all walking off with a physical object - the CD and the packaging. It also seems counter-intuitive that the Sun does not orbit the Earth. But looking beyond façade to fact yields the conclusion that neither intuition is correct.[385] A software transaction is a license of a computer program, not a sale of goods.

Some commentators say that software vendors call a software transaction a license to avoid the first sale doctrine,[386] but this is incorrect. These commentators think that a software transaction can only be a sale or a license, one or the other, take it or leave it. They fail to understand that software transactions have two independent components, one of which might involve the sale of a copy, but the other part, the real substance, involves a license of computer information. Software vendors call their transactions licenses to avoid inappropriate application of Article 2 in ways that ignore the license, or worse, subject the license to the default rules in Article 2. Many programs, like LINUX, give a licensee greater rights than are allowed by the first sale doctrine, and the licensee needs the license to enable that expanded use. Licensors correctly

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[379] *Novemedix*, 166 F.3d at 1182 (emphasis added).

[380] U.C.C. § 2-314(1) (1999) ("a warranty that goods shall be merchantable is implied in a contract for their sale"); 2-315 (warranty of fitness at time of "contracting").

[381] U.C.C. § 2-106(1) (1999); *see generally* HAWKLAND, *supra* note 24, at § 2-106:2.

[382] 17 U.S.C. § 101 (1994) (definition of "transfer of copyright ownership").

[383] *See infra* notes ______ and accompanying text.

[384] *See* Adobe Systems Inc. v. One Stop Micro, Inc. 84 F.Supp.2d 1086 (N.D. Cal. 2000) (end user license agreement a license, not a sale.); Berthold Types Ltd v. Adobe Systems, Inc. 101 F.Supp2d 697(E.D. Ill. 2000) (software license not a "sale" because no transfer of title).

[385] Professor Casti's book, *Complexification*, discusses the ways that true science tries to explain what is really happening when the world behaves at variance with our common sense, *i.e.* "that Grand Canyon-sized chasm between what we think and what is actually the case." CASTI, *supra* note 226, at 2-3.

[386] *E.g.* Apik Minassian, *The Death of Copyright: Enforceability of Shrinkwrap Licensing Agreements*, 45 UCLA L. REV. 569, 572 (1998) (arguing as much).

identify software transactions as licenses because that is exactly what they are.

3. "Predominant Purpose" is the Wrong Test

Despite these conceptual discontinuities, some authorities try to justify applying Article 2 to software transactions under the predominant purpose test.[387] The argument is that, despite the licensee's paramount goal of obtaining the legal rights in the computer program, since somewhere along the way a use-enabler like a CD floated by, the predominant purpose of the deal is really a sale of goods. The upshot of this reasoning is that terms in the license unpalatable to the licensee, typically a disclaimer of warranties, are ignored. As the next section will discuss, this has led to frantic contortions as courts and commentators engage in a desperate struggle to fit the facts into this image. One can imagine Medieval astrologers feeling the same desperation as they tried to plot their patrons' horoscopes using the imagery from Ptolemic astronomy.

In fact, however, predominant purpose is simply the wrong test. It attempts to draw a dividing line along a single conceptual continuum from services to sales, with services at one end being out of Article 2 and sales at the end being in. This linear continuum, however, exists solely along a state law axis. State law can presume that commercial transactions only fit somewhere along this line, so the question is either-or, one or the other, entirely within Article 2 for all purposes, or entirely without.

But federal law permeates copyrightable computer programs. This federal interest is orthogonal to the single extension between services and goods and requires analysis in an entirely new dimension. Predominant purpose is inadequate for this multi-dimensional approach. The necessary and proper test is *statutory conformity*: do the underlying policies and purposes of Article 2 when taken as a whole conform to the requirements of the Copyright Act when applied to software transactions? The Official Comments to Article 1-102 agree this is the correct approach:

> [T]he proper construction of the Act requires that its interpretation and application be limited to its reason. … The Act should be construed in accordance with its underlying purposes and policies. The text of each section should be read in light of the purpose and policy of the rule or principle in question, as also of the Act as a whole, and the application of the language should be construed narrowly or broadly, as the case my be, in accordance with the purposes involved.[388]

This test demands a more rigorous analysis that simply reading the definition of goods in splendid isolation. It requires reading the whole of Article 2 section by section to determine whether the way it implements its transactional model conforms with the policies and purposes of the Copyright Act. The UCC itself mandates that it be interpreted as a whole in a manner that promotes its underlying purposes and policies,[389] not in piecemeal fashion.

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[387] *See supra* notes ______ and accompanying text.

[388] U.C.C. § 1-102(1) cmt. 1 (1999).

[389] U.C.C. § 1-102(1) (1999).

Courts applying the predominant purpose test to software transactions simply ignore this requirement. Instead, once they decide to that the transaction is within Article 2, they pick and choose the specific provision they want, such as the statute of frauds or an implied warranty. They do not apply Article 2 as a true code - an integrated, systematic, preemptive whole - but as a grab bag of disconnected statutes ripe for the plucking.

The predominant purpose test often uses rote comparison of the cost of the copy to the amount of the license fee in order to fix the transaction along the services/goods continuum solely on the basis of price.[390] But this allows too easy manipulation to subvert the federal scheme. If a purveyor of copies of LINUX allocates 1¢ to the license and $19.99 to the copy, does this mean one can now ignore Section 202 and treat the sale of the copy as granting a copyright license? What if the allocation is 49% to the license and 51% to the copy? Still a sale of goods? What about 51% license and 49% copy? Since the value of a blank CD is typically pennies, would it not be appropriate to allocate 1% to the value of the tangible CD and 99% to the value of the intangible right to use the computer program in any case? Determining whether a transaction is inside or outside Article 2 merely by moving the price toggle along the sales-service slide bar both abuses copyright law and disgraces the interconnected structure of Article 2.

D. What Law if Not Article 2?

So what contract law does apply to software transactions? Since some contract law must apply to software transactions, and that law cannot be Article 2, then the only candidate left, absent UCITA, is the common law of contracts. Common law is not tailored to software transactions specifically; it does not provide a comprehensive set of gap-filler rules; it is not uniform among the states; even within a state it is often scattered among a daunting array of statutes and court decisions; and its rigid, formal rules are not adaptable to rapid change. Moreover, both common law and current Article 2 have no provisions to deal with the explosive growth of e-commerce, including click-on contracts, digital authentication, Web-based delivery, or bargaining through electronic agents to name a few. Nonetheless, unless and until a state adopts UCITA, it is all there is.[391]

This result has particular importance in mass market software transactions, involving "shrinkwrap" licenses. Two cases, *Step-Saver Data Systems, Inc. v. Wyse Technology* [392] and *ProCD, Inc. v. Zeidenberg,*[393] are usually at the heart of the debate.

In *Step-Saver*, a customer ordered software over the phone, then sent a followed-up purchase order detailing the items, price, shipment and payment terms. In response, the vendor sent a confirming invoice and shipped the software with a shrinkwrap license disclaiming all warranties. The action was, surprise, for breach of warranty. The parties agreed to let Article 2 govern the transaction,[394] and on this basis the court applied the "battle of the forms" rule in

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[390] *See supra* notes _______ and accompanying text.

[391] As of this writing, UCITA has now been adopted in Virginia and Maryland. *See* www.UCITAonline.

[392] 939 F.2d 91 (3rd Cir. 1991).

[393] 86 F.3d 1447 (7th Cir. 1996).

[394] For further discussion of this point, *see infra* notes ______ and accompanying text.

Article 2-207. Under this rule, held the court, the contract arose with the exchange of purchase order and invoice, so the warranty disclaimer in the shrink-wrap did not become part of the contract because the customer did not accept it.[395]

ProCD involved a database of telephone numbers on CD-ROM, available in both a consumer version and, for a higher price, a commercial version. A shrinkwrap license limited the consumer version to non-commercial use only. Zeidenberg purchased a consumer version and made it available to commercial users over the Internet. He claimed, in reliance on *Step-Saver*, that the shrink-wrap license was unenforceable. The *ProCD* Court disagreed. Unlike *Step-Saver*, there was only one form, not an exchange of forms, so Article 2-207 did not apply. The operative section was Article 2-204(1): "A contract may be made in any manner sufficient to show agreement, including conduct by both parties which recognizes existence of a contract." ProCD had structured its offer to be accepted by the buyer acknowledging the license terms when it loaded the software and began using it. This created an enforceable contract on the terms of the license.

The cases came to different conclusions in applying Article 2. Both decisions, however, agree on the result under common law: a shrink-wrap license is fully enforceable under the "last shot" rule. At common law, an acceptance must be absolute and unqualified; any variation from the offer is a rejection and new counter-offer.[396] As *Step-Saver* explained:

> Under the common law, . . . an acceptance that varied any term of the offer operated as a rejection of the offer, and simultaneously made a counter offer. This common law formality was known as the mirror image rule, because the terms of the acceptance had to mirror the terms of the offer to be effective. If the offeror proceeded with the contract despite the differing terms of the supposed acceptance, he would, by his performance, constructively accept the terms of the "counteroffer," and be bound by its terms. As a result of these rules, the terms of the party who sent the last form . . . would become the terms of the parties' contract. This result was known as the "last shot rule."[397]

This means that when the copies of the software arrive with the shrinkwrap license, at common law the shrink-wrap can be seen as a counter-offer, which the licensee then accepts by using the software.[398] The shrink-wrap license is then enforceable in all of its terms.[399]

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[395] *Step-Saver*, 939 F.2d at 92-103. But what about the license to use the computer program? *Step-Saver*, upon finding the shrinkwrap license invalid, recognized that further distribution of the software without a license could be a copyright infringement, but found no infringement *in that case* because the copyright owneracknowledged an implied license. *Id.* at 96 n.7.

[396] *E.g.* CAL. CIVIL CODE § 1585 [1872]; Slavin v. Borinstein, 25 Cal.App.4th 720, 30 Cal.Rptr.2d 745 (1994).

[397] *Step-Saver*, 939 F.2d at 99.

[398] *Id.*; *see generally* 12 AM. JUR. 2D *Contracts* § 92 (1964) (stating that where the offeror agrees to the new terms, then a contract arises on the terms of the counter-offer); RESTATEMENT (SECOND) OF CONTRACTS § 19(1) (1981) ("The manifestation of assent may be made wholly or partly by written or spoken words or by other acts of by failure to act.") Even the pro-Article 2 commentators agree that this is the result without Article 2. *See, e.g.,* Andrew Rodau, *Computer Software: Does Article 2 of the*

This result is critical to protect consumers. In *Step Saver*, the court acknowledged that without the shrinkwrap license, the licensee could face a claim of copyright infringement. It found no infringement in that case, however, because the copyright owner, seizing defeat from the jaws of victory, acknowledged an implied license authorizing the licensee's use.[400] But this result does not apply across the board. Consider LINUX. The GNU License specifically conditions any exploitation of the copyright on enforceability of the license and the waiver of warranties. If this shrinkwrap were invalid, one would never get to the question of breach of warranty, because the sale of the copy to the licensee in the first instance was unauthorized, the "first sale" and "computer use" privileges would be inapplicable, and the licensee's act of loading the copy onto a hard drive would be an infringement.

Many critics object to UCITA because they maintain it validates mass market shrinkwrap licenses that would otherwise be unenforceable under Article 2. This reasoning is unsound. The correct analysis is that shrinkwrap licenses are fully enforceable in all particulars under long-standing common law contract rules. Far from validating otherwise unenforceable shrink-wrap licenses, UCITA imposes procedural limits on their use to ensure meaningful disclosure and assent in a ways suited to modern commerce. Many critics of UCITA are in reality seeking disguised substantive rules to regulate license terms, often in ways that directly conflict with preemptive requirements of federal law. The Drafters of UCITA wisely realized the error in this approach and instead adopted procedural rules to ensure assent by both parties.

Courts have finally begun to face whether Article 2 is compatible with the Copyright Act when applied to software transactions. Given the force with which the copyright critics have raised the preemption issue of late, there is little doubt this rivulet will become a torrent. When the issue is confronted head-on, it is hard to imagine a modern court continuing to apply "sales of goods" imagery to software transactions when the Copyright Act tears the heart out of so much of Article 2.

Uniform Commercial Code Apply, 35 EMORY L.J. 853, 857-858 (1988) ("[I]f a computer software buyer [sic] sent a standard purchase order form to a software producer who responded with a standard purchase order confirmation promising delivery . . . and the confirmation forms contain different terms, the common law would treat the purchase order as an initial offer and the confirmation as a counteroffer. Therefore, absent action by the software buyer [sic] that amounted to acceptance of the counteroffer, no contract was created.") *ProCD* said this was the result under Article 2-204(1), which has not pleased some commercial law professors. But this is certainly the rule at common law, so the end result in *ProCD*, that the shrinkwrap license is enforceable, is correct.

[399] *See* Princess Cruises, Inc. v. General Electric, Co., 143 F.3d 828, 834 (4th Cir. 1998); Diamond Fruit Growers, Inc. v. Krack Corp., 794 F.2d 1440 (9th Cir. 1986); *see generally* HAWKLAND, *supra* note 24, at § 2-207:4. The Seventh Circuit has adopted a different characterization, limiting the "mirror image" and "last shot" rules to executory contracts. Instead, the better approach is to see the contract as formed by "layering," with use of the software constituting assent to the terms of the shrinkwrap. *See* Hills' Pet Nutrition, Inc. v. Fru-Con Construction. Corp., 101 F.3d 63, 64 (7th Cir. 1996). UCITA adopts the Seventh Circuit's more modern "layering" approach. *E.g.* UCITA § 207.

[400] Step Saver Data Systems Inc. v. Wyse Technology, supra 939 F.2d 91 at fn. 7.

III. AUTHORITIES ASTRAY

The mathematician Georg Cantor once described what he called the law of conservation of ignorance. A false conclusion once arrived at and widely accepted is not easily dislodged and the less it is understood the more tenaciously it is held.[401] Thus it was a for a millennium with the belief that the Earth was the fixed center of the Universe. Thus it is now with the conceit that Article 2 must be the fixed hub of the commercial universe around which software transactions necessarily revolve.

The conventional wisdom has it that the question whether Article 2 applies to software transactions is now settled. There is hardly even any debate over it, most parties being content merely to string cite a list of cases supposedly so "holding."[402] The cases themselves tell a different story. To understand what they really say, we need to understand how they evolved.

Before the advent of the personal computer, software was provided with a large computer system, often without additional charge. A few early cases held that the total transaction was within Article 2, a result that made little difference because the complaints were invariably about the hardware, not the software. With the rise of the PC and separately licensed software, later courts seized on these early cases as "holding" that Article 2 applied to a separate software license, when in fact they held not such thing. These courts analogized a software license to a "sale of goods" without ever considering the Copyright Act, leading to embarrassing wrong results. By the late 1980s, one finds a series of decisions that merely assume a software license is within Article 2 because either (i) the parties, not knowing any better, stipulate to apply Article 2, or (ii) the court applies the earlier "holdings" without analysis. As the 1990s progressed, software vendors began to raise repeatedly the incompatibilities between Article 2 and the Copyright Act. In every modern case that considers the Copyright Act, the court holds Article 2 is inapplicable to a software license. When one puts aside the confused reasoning of the earlier cases, the case law in fact affirms that Article 2 cannot apply to software transactions.

So that there is no doubt about it, this section lays out, in gruesome detail, what the case law really says. It generally follows the historical development. With pedantic license, we might divide the cases into four stages: (1) early inapplicable cases; (2) interim wrong reasoning cases ; (3) later circular reasoning cases; and (4) modern correct results.

A. Early Inapplicable Cases

Several early cases cited for the proposition that Article 2 applies to software transactions in fact never addressed the issue at all. They were decided when software was tightly bundled in what are called "turnkey" systems: an integrated hardware and software package that was supposed to work together as a whole.[403] The problems in these early cases really involved the hardware, not the software.

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[401] *See* MORRIS KLINE, MATHEMATICS: THE LOSS OF CERTAINTY 88 (1980).

[402] An example is the motions continually made to the ALI. *See, e.g.* Motion submitted by Steve Chow to 2000 Annual Meeting, <www.ali.org/ali/UCC2ChowMotion.htm>. Motion submitted by Jean Braucher & Michele Kane to 1999 Annual Meeting <http://www.ali.org/ali/1999_Braucher_Kane.htm.>. Neither were adopted.

[403] *See* RAYMOND T. NIMMER, THE LAW OF COMPUTER TECHNOLOGY § 6.01 (Rev. ed. 1999).

a. Triangle Underwriters, Inc. v. Honeywell, Inc.[404]

A famous early example is *Triangle Underwriters*. Triangle bought a Honeywell H-110 computer system consisting of "'hardware', or the core computer, printer, collator, and related equipment, and 'software,' the designation for programming created for use in connection with the hardware." In 1979, when *Triangle Underwriters* was decided, the software industry was much different than it is today. Mainframe computers - "big iron" - were the industry staples, and most software was propriety code written solely for each vendor's platform.[405] Thus, Honeywell's compensation was limited to the purchase price for the hardware; it did not even bill for the software, before, during or after installation.[406] The contract was really for the sale of "big iron" with some free software thrown in.

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[404] 604 F.2d. 737 (2d Cir. 1979).

[405] The situation was colorfully described by Frederick P. Brooks, Jr. a system engineer whose experience in developing software for IBM mainframes earned him the sobriquet "farther of the IBM System/360." In 1975, he wrote a classic text on software engineering, *The Mythical Man-Month.* In 1995, Professor Brooks, then the Kenan Professor of Computer Science at the University of North Carolina at Chapel, revisited the text. What was the biggest new surprise in the twenty years since it was written? Shrinkwrapped software. He wrote:

> Every software guru I have talked to with admits to being caught by surprise by the microcomputer revolution and its outgrowth, the shrinkwrapped software industry. This is beyond a doubt the crucial change of the two decades since *The MM-M*. … Schumacher stated the challenge more than 20 years ago:
>
> What is it that we really require from scientists and technologists? We need methods and equipment which are
>
> - Cheap enough so that they are accessible to virtually everyone;
> - Suitable for small scale application; and
> - Compatible with man's need for creativity.
>
> These are exactly the wonderful properties that the microcomputer revolution has brought to the computer industry and its users, now the general public. The average American can now afford not only a computer of his own, but a suite of software that twenty years ago would have cost a king's salary. . . . In 1975, operating systems abounded: each hardware vendor has at least one proprietary operating system per product line, many had two. How different things are today! Open systems are the watchword . . . .

FREDERICK P. BROOKS, JR., THE MYTHICAL MAN-MONTH (1995).

[406] *Triangle Underwriters,* 604 F.2d. at 743.

b. Chaltos System v. National Cash Register Corp.[407]

Another case to the same effect is *Chaltos*. It involved a breach of warranty claim for the sale of "399/656 disc system" which was identified as "computer hardware." The problems had to do with the sector seek and storage subsystem of the computer, not the software.[408] In any case, "[b]oth parties … concede[d] the applicability of the U.C.C." [409]

c. Graphic Sales, Inc. v. Sperry Univac[410]

This 1987 case involved the lease of a Sperry 90/25 computer system to handle graphic typesetting. The issue was whether the contract included a separate license of an applications program, and the action was one for fraud when the shocked licensee discovered there was an additional license fee involved. The district court concluded, and the court of appeals affirmed without discussion, that Article 2 and common law applied to the lease of the computer.[411] But the software license was a separate issue entirely. The court found that Sperry did not misrepresent that it was included in the contract for the sale of the computer.

d. USM Corp. v. Arthur D. Little Systems[412]

This 1989 case involved the sale of a "'turnkey' minicomputer based material control system."[413] The contract was "mixed" in the sense that it involved the sale of a computer and incidental services in properly configuring the hardware.[414] However, the problem was caused by a defect in the disk controller system.[415] There is no mention of software.[416]

e. Xerox Corp. v. Hawkes[417]

This 1992 case, decided by the New Hampshire Supreme Court, involved a breach of warranty claim arising from the lease of a copy machine. Following the advice of Professor Anderson that "Article 2 may be extended by analogy to non-sale transactions, such as equipment leasing,"[418] the court applied Article 2's implied warranties by analogy to the lease of

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[407] The full history of this confusing case is: Chaltos Sys. v. Nat'l Cash Register Corp., 479 F. Supp. 738 (D. N.J. 1979) (finding of liability and damages), *aff'd in part and remanded in part*, 635 F.2d 1081 (1980), *appeal after remand*, 670 F.2d. 1304 (1982) (affirming damages award).

[408] *Triangle Underwriters*, 479 F. Supp. at 742; *Triangle Underwriters*, 635 F.2d at 1084. Note that the contract also warranted the operability of the computer as "goods."

[409] *Triangle* Underwriters, 635 F.2d at 1084.

[410] 824 F.2d 576 (7th Cir. 1987).

[411] *Graphic Sales*, 824 F.2d at 579.

[412] 546 N.E.2d 888 (Mass. App. Ct. 1989).

[413] *USM Corp.*, 546 N.E.2d at 890.

[414] *Id.* at 894.

[415] *Id.* at 891.

[416] As such, the court quite correctly relied on *Triangle Underwriters*. *Id.* at 894.

[417] 475 A.2d 7 (N.H. 1992).

[418] *Xerox Corp.*, 475 A.2d at 9 (citing ANDERSON, *supra* note 17, at § 2-102:4).

the machine. It said nothing about software, directly or by analogy.[419]

f. Camara v. Hill[420]

This case involved the sale of a CCDA 640K computer, a Starwriter printer, a copy of WordPerfect, and a dBaseIII accounting package to be customized for the recipient's use. The court found that the contract price was allocated to the equipment, that the accounting software was not delivered, and that the recipient had accepted the computer by using it, thus making the claim for a failure of delivery time barred.[421]

B. Interim Wrong Reasoning Cases

When the PC industry began to make software separately available from the hardware, several cases struggled to find the proper contract law to describe the transaction. Llyewllyn described their struggles aptly: "*Unless* the *stock* intellectual equipment is apt, it takes extra art or intuition to get proper results with it."[422] The following cases demonstrate all too well what happens when that extra art or intuition is missing. To be fair, judges are appointed to decided cases. To get the job done, busy judges often seize instinctively the tools they know. If that means a short glance at well-known code that might be twisted to fit, as opposed to an expedition through scattered case law, which one will a harried judge choose? . Unfortunately, although today's emergency may justify using a hammer to drive in a screw, that does not make this a fitting technique tomorrow. To assume it does is gives full reign to Cantor's law of the conservation of ignorance. These cases, more than anything else, demonstrate why we need a new uniform law like UCITA to gives judges and parties proper guidance about how to deal with software transactions.

a. Advent Systems, Ltd. v. Unisys Corp.[423]

The undisputed winner of the prize for most inapt reasoning must go to *Advent Systems*. Sadly, it is one of the few cases that truly struggled to justify applying Article 2 to software transactions. But the stock intellectual equipment was inapt, and the results horrific.

The dispute involved a non-exclusive software distribution agreement. Advent Systems, a British company, produced document management software. Unisys, a computer manufacturer, wanted to become Advent's U.S. distributor. Advent agreed to modify its software and hardware interfaces to run on Unisys hardware and to purchase the necessary hardware for this purpose. The Distribution Agreement said that "Unisys desires to purchase, and Advent desires to sell, on a non-exclusive basis, certain of Advent hardware products and software licenses for resale worldwide." When a dispute arose, Unisys claimed the contract was for a sale

[419] Completely missing the point that the New Hampshire Supreme Court was reasoning *by analogy* to equipment leasing, *Colonial Life Ins.* cites *Hawkes* for the proposition that the use of "transaction" in Article 2-102 means that Article 2 applies to a *sofware license*. This reasoning also snookered the Seventh Circuit in *Micro Data Base, infra* note 520

[420] 596 A.2d 349 (Vermont 1991).

[421] *Camara*, 596 A.2d at 350.

[422] Karl N. Llewellyn, *The First Struggle to Unhorse Sales*, 52 HARV. L. REV. 873, 876 (1939).

[423] 925 F.2d 670 (3d Cir. 1991).

of goods and barred under the statute of frauds in Article 2-201 because no quantity was stated. The trial court found that services aspects predominated and so the UCC did not apply. The appellate court said the case raised one central issue: Does Article 2 apply to computer programs? It gave three justifications for concluding it does: (1) reasoning by analogy; (2) policy motivations; and (3) avoidance of inconsistent obligations. None of them make the slightest sense.

Reasoning by analogy: The court began by looking at the definition of "goods" as "all things (including specially manufactured goods) which are moveable at the time of identification for sale."[424] In deciding that computer programs meet this requirement, the court reasoned thus:

> Computer programs are the product of an intellectual process, but once implanted in a medium are widely distributed to computer owners. An analogy can be drawn to a compact disc recording of an orchestral rendition. The music is produced by the artistry of musicians and in itself is not a "good," but when transferred to a laser disc becomes a readily merchantable commodity. Similarly, when a professor delivers a lecture, it is not a good, but, when transcribed as a book, it becomes a good. That a computer program may be copyrightable as intellectual property does not alter the fact that once in the form of a floppy disc or other medium, the program is tangible, moveable, and available in the marketplace. The fact that some programs may be tailored for specific purposes need not alter their status as "goods" because the [Uniform Commercial] Code definition includes "specially manufactured goods."[425]

This remarkable statement has the unique quality of being wrong on every point it makes. Let us look at it sentence by sentence.

> *Computer programs are the product of an intellectual process, but once implanted in a medium are widely distributed to computer owners.*

No. Computer programs do result from an intellectual process, and once "fixed in a tangible medium of expression" they become copyrightable works protected under the Copyright Act.[426] This does not mean that the computer program is then "widely distributed." Under Section 106, the copyright owner has the exclusive right to widely distribute copies of the computer program, but the computer program itself, the copyrightable work, is often jealously guarded.[427] What is widely distributed are the copies. This sentence makes the amateur's

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[424] *Advent Systems*, 925 F.2d at 675.

[425] *Id*. at 675.

[426] 17 U.S.C. § 102(a)(1) (1994) ("literary works").

[427] Take a look at the GNU Open Source License. "When we speak of free software, we are referring to freedom, not price." *See also* Storm Impact, Inc. v. Software of the Month Club, 13 F. Supp.2d 782 (N.D. Ill 1998) (holding that placing shareware on the Internet did not give implied license to redistribute for a fee).

mistake of confusing the *copy* with the copy*right*.

> *An analogy can be drawn to a compact disc recording of an orchestral rendition. The music is produced by the artistry of musicians and is not itself a "good," but when transferred to a laser disc becomes a readily merchantable commodity.*

Wrong. Without clearing the intellectual property rights in the music, the laser disc is not merchantable at all. There are four different sets of rights involved. First, there is the sound recording copyright in the sequence of sounds created by the musicians and captured in the laser disc.[428] Under Section 202, this copyright is different from the laser disc in which it happens to be embodied. Second, there could be an existing copyright in the musical composition the musicians are playing. This is a separate copyright from that in the sound recording.[429] Third, the Uruguay Rounds Agreement Act[430] added Section 1101 to the Copyright Act, giving performers rights in their live musical performances equivalent to copyright. Finally, the musicians may have a state law right of publicity in their performances.[431] A person desiring to make a laser disc copy must first obtain authorization from all rights holders or the copy will be pirated.[432] Even if making a copy is authorized, that does not in itself grant any additional authorization to make further reproductions or to distribute ("merchandize") them.[433] There are

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[428] 17 U.S.C. § 102(a)(7) (1994) ("sound recordings"). "Sound recordings" are works that result from the fixation of a series of musical, spoken or other sounds, but not including the sounds accompanying a motion picture or other audiovisual work, regardless of the nature of the material objects, such as disks, tapes or other phonorecords, in which they are embodied." 17 U.S.C. § 101 (1994) (definition of "sound recording"); *see generally* BOORSTYN , *supra* note 77 § 2.12.

[429] *See Jarvis v. A&M Records*, 827 F. Supp. 282, 292 (D. N.J. 1993) (copyright in sound recording does not extent to sound recording, and vice versa); *see* BOORSTYN, *supra* note 77, at § 2.12 ("[W]hen an original song is recorded by any means in any form . . . there are two separate copyrighted works: a musical composition and a sound recording.")

[430] Pub. Law. No. 103-465, 108 Stat. 4809 (Dec. 8, 1994); *see* BOORSTYN, *supra* note 77, at § 6.43. Although this statute was enacted after *Advent Systems* was decided, it is still relevant because courts continue to cite this quotation in *Advent Systems*.

[431] *See e.g.*, Midler v. Ford Motor Co., 849 F.2d 460, 463 (9th Cir. 1988) (right of publicity in famous singer's vocal style); Zacchini v. Scripps-Howard Broadcasting Co., 433 U.S. 562 (1977) (holding that the First Amendment does not bar right to publicity claims); *see generally* HAROLD ORENSTEIN & DAVID E. GUINN, ENTERTAINMENT LAW & BUSINESS § 1.2 (1990) (explaining right of publicity). Under 17 U.S.C. § 1101(d) (1994), the rights of performers in live musical performances do not annul or limit any state law rights.

[432] *See* 17 U.S.C. § 1101(a) (1994): Anyone who, *without consent of the performer or performers involved* . . . fixes the sounds or sounds and images or a live musical performance in a copy or phonorecord . . . shall be subject to the remedies provided in Section 502 through 505, to the same extent as an infringer of copyright." *Id*. (emphasis added).

[433] *See* Quintanilla v. Texas Television, Inc., 139 F.3d 494 (5th Cir. 1998) (merely arranging and paying for videotaping of music concert did not transfer any copyright ownership in resulting tape); Forward v. Thorogood, 758 F. Supp. 782 (D. Mass 1991) (fan authorized to record musical performance for personal use did not thereby obtain any common law copyright in recording under Massachusetts law; applying 1909 Act).

also criminal penalties if the unauthorized reproduction is made willfully for commercial advantage or private financial gain.[434] Article 2 itself recognizes that to be merchantable, goods must pass without objection in the trade[435] and that the title conveyed must be good, i.e., there is no infringement of intellectual property rights.[436] Contrary to *Advent Systems*, a copy of an orchestral rendition does not become a "merchantable commodity" merely because it is embodied in a laser disc. It may not be "merchandized" unless and until the intellectual property rights are cleared in an enforceable license. Indeed, if an unauthorized copy is made willfully and for private financial gain, is not a merchantable commodity at all; it is a one-way ticket to a federal penitentiary.

> *Similarly, when a professor delivers a lecture, it is not a good, but, when transcribed as a book, it becomes a good.*

Not even close. By definition, when the lecture is transcribed, it becomes a "literary work" not a "book."[437] The book is just a particular copy in which the literary work happens to be fixed. This House Report makes this explicit:

> The definition of these terms in section 101, together with their usage in section 102 and throughout the bill, reflect a fundamental distinction between the "original work" which is the product of "authorship" and the multitude of material objects in which it can be embodied. Thus, in the sense of the bill, a "book" is not a work of authorship, but it is a particular kind of "copy." Instead, the author may write a "literary work," which in turn can be embodied in a wide range of "copies" and "phonorecords," including books, periodicals, computer punch cards, microfilm, tape recordings, and so forth. It is possible to have an "original work of authorship" without having a "copy" of "phonorecord" embodying it, and it is also possible to have a "copy" or "phonorecord" embodying something that does not qualify as an "original work of authorship." The two essential elements -- original work and

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[434] *See* 17 U.S.C. § 506 (1994) (copyright); *see generally* BOORSTYN, *supra* note 77, at § 14.01. The URAA also added new section 2319A to Title 18 of the United States Code, making it a criminal offense for anyone, without consent of the performer, to knowingly and for private financial gain record or tape a live musical performance, or reproduce any copies from an unauthorized fixation. The No Electronic Theft Act, Pub. L. 105-47, 111 Stat. 2678 (Dec. 16, 1977), amended the Act to allow victims to submit statement of loss. *See* BOORSTYN, *supra* note 77, at § 14.09[2].

[435] U.C.C. § 2-314(2)(a) (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-314[A].

[436] U.C.C. § 2-312(1)(a) cmt. 3 (1999); *see generally* QUINN, *supra* note 27, at ¶ 2-312[A].

[437] *See* 17 U.S.C. § 101 (defining "literary work"); *see generally* BOORSTYN, *supra* note 77, at § 2.04 ("By definition, an author writes a "literary work" (not a book) which is fixed in a material object (a book). In other words, the book is the copy (material object) in which the copyrightable literary work is embodied."). The sequence of sounds in the lecture may also produce a copyrightable sound recording, but let us leave this aside.

> tangible object -- must merge through fixation in order to produce subject matter copyrightable under the statute.[438]

In other words, the oral lecture may be an original work of authorship, but until it is fixed (transcribed), it is not copyrightable. It may, however, be protected by other law; for example, California protects original works of authorship not fixed in a tangible medium of expression.[439] Once it is transcribed, then the lecture becomes a copyrightable literary work, and the book becomes a copy. But the literary work does not merge into the book and transmogrify into a mere mortal. It retains a distinct, intangible -- copyrightable -- essence.[440]

> *That a computer program may be copyrightable as intellectual property does not alter the fact that once in the form of a floppy disc or other medium, the program is tangible, moveable, and available in the marketplace. The fact that some programs may be tailored for specific purposes need not alter their status as "goods" because the [Uniform Commercial] Code definition includes "specially manufactured goods."*

We have already discussed why this analogy is nonsense. But let us really put the court to the test and ask: under this reasoning, is the decision in *Advents Systems* itself a "good?" No, I do not mean the copies in the Federal Reporter. I mean the actual decision itself; a statement of law independent of the particular copies in which it happens to appear. This is what *Advent Systems* is asserting. When intellectual property is incorporated in a physical medium, it loses its separate existence and becomes a good. So, let us apply this test to *Advent Systems* itself and see what happens.

A computer program is a literary work, the product of an intellectual process. So is the decision in *Advent Systems*. A computer program is written is a technical language with specific requirements for its form and content. So is the decision in *Advent Systems*. A computer program often performs a useful function and is not merely decorative. So, too, the decision in *Advent Systems*. A computer program is compiled in a specific form and embodied in a digital copy such as a floppy disc. The decision in *Advent Systems* is edited into a written form and made available in written books or on-line. Once embodied in an electronic copy, a computer program, according to *Advent Systems*, becomes "tangible, moveable, and available in the marketplace." Once embodied in the written or electronic form the decision in *Advent Systems* has also become "tangible, moveable, and available in the marketplace." Do you not have a copy of the decision in a handy Federal Reporter?

Although computer programs may be tailored for specific purposes, they still qualify as specially manufactured goods. Although the decision in *Advent Systems* may have been rendered for a specific case, that should not alter its status as a specially manufactured good. By its own

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[438] H.R. REP. NO. 94-1476, at 53 (1976).

[439] CAL. CIVIL CODE § 980 (1972).

[440] We might ask of *Advent Systems* a related question: What if the professor solemnly avers in the lecture that $E = mc^3$, and, in reliance on this, I try to built a nuclear power plant with disastrous consequences. Is the dear, befuddled professor liable for "breach of implied warranty" because the content of his lecture became a "good"?

reasoning, *Advent Systems* would have to conclude that the decision in *Advent Systems* itself is also a good. Not the copy of the decision; the decision *itself*, the abstract judicial action that altered the legal rights and obligations of the parties in that case and set a precedent for the legal rights and obligations of future parties. That intangible legal rule is, if *Advent Systems* is to be believed, by the very act of being written down, now a tangible, moveable good. Does that not then mean that Advent Systems, the loser in the case, can tear up its copy of the decision *Advent Systems* -- i.e., reject the "goods" -- and thereby nullify its effect? And would not destroying the copy extinguish -- overrule -- it? But if by destroying the copy I destroy the decision, then there is no longer any mechanism to merge the decision into the copy, meaning the decision in *Advent Systems* still exists! So if it does exist, then it does not exist; but if it does not exist, it exists. The conclusion is absurd. What does that say about the premise from whence it came?[441]

Policy Considerations: After deciding that software is a "good," the *Advent Systems* court then argues that good public policy requires applying Article 2 to software:

> Applying the U.C.C. to computer software transactions offers substantial benefits to litigants and the courts. The Code offers a uniform body of law on a wide range of questions likely to arise in computer software disputes: implied warranties, consequential damages, disclaimers of liability, the statute of limitations, to name a few. . . . The importance of software to the commercial world and the advantages to be gained by uniformity inherent in the U.C.C. are strong policy arguments favoring inclusion. The contrary arguments are not persuasive . . . .[442]

The court is quite right that there are strong policy arguments in favor of a uniform body of law to deal with computer information transactions. It is dead wrong that the necessary body of law can or should be Article 2. Actually looking at how Article 2 deals with "the wide range of questions likely to arise in computer software disputes" shows how hopelessly unsuited it is to the task. It was written for a different time and another problem. In Llewellyn's day, courts needed a new code to deal with the newly emerging industrial economy based on mass produced *wares*. That was then and this is now. Commercial law in our time needs another modernization

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[441] Self-referential paradoxes have been around for a long time. One of the oldest is that of the Cretan Liar: "All Cretans are liars. I am a Cretan." Both of these sentences cannot simultaneously be true. Supposedly, Aristotle invented logic in an attempt to deal with the Cretan Liar Paradox. We saw this technique previously in the proof of the Halting Problem - applying a program to itself. Perceptive readers will note that this is the technique used by Kurt Gödel, to prove the most celebrated result of Twentieth Century logic, the Incompleteness Theorem. Basically, he proved that any finite axiom system sufficient to "do math" was "incomplete." That is, the system could produce true statements that could not be proven true or false using the logical methods of the system. He did this by, in effect, embedding the paradoxical sentence "This sentence is not provable" within the natural numbers. For further discussion, *see* HOFSTADTER *supra* note 226, and CASTI, *supra* note 226. Computer programs "do math," and thus are subject to the Incompleteness Theorem. In fact, the Halting Problem follows from the Incompleteness Theorem. For a further discussion of their relationship, *see* JOHN CASTI, FIVE GOLDEN RULES: GREAT THEORIES OF TWENTIETH CENTURY MATHEMATICS - AND WHY THEY MATTER, ch. 4 (1996).

[442] *Advent Systems*, 925 F.2d at 676.

to deal with computer information, and it is not and can not be Article 2.

Inconsistent obligations: The third reason was the statute of frauds. The *Advent Systems* court held that Article 2-201 applied to the software license because "segregating goods from non-goods and insisting that 'the Statute of Frauds apply only to a portion of the contract,' would make the contract divisible and impossible of performance within the intention of the parties."[443] This separation argument ignores that the fact that segregating the goods from the non-goods is precisely what Section 202 of the Copyright Act requires. If splitting the goods from non-goods would make the contract "impossible of performance" then the court should have treated the non-good copyright aspects as primary and applied the contract law applicable to non-goods.

Had the court looked at the Copyright Act, it would have realized that its "single statute of frauds" approach required abandoning Article 2. The license in question was *non*-exclusive. Assume for a moment it was exclusive. Then Section 204(a) of the Copyright Act would imposed its own preemptive writing requirement. If the contract was indeed indivisible so that only one writing requirement could apply to the whole, then due to Section 204(a) the "one statute of frauds" could not be Article 2-201. But the very reason the court said Article 2 applied was to use Article 2-201 for the entire contract. If Article 2-201 could not apply to the indivisible *exclusive* software licensee, then there was no reason to apply Article 2 at all.

Of course, the license in *Advent Systems* was non-exclusive, and the court did use Article 2-201. So what does that tell us about *Advent System's* rationale for applying Article 2 to a software transaction? Remember now, we are not talking about just any statute. We are talking about Article 2 -- a true code, one that preempts an entire field of law and displaces all other laws in its subject area, one that is systematic with all of its parts forming an interlocking, integrated body, and one that is so comprehensive and inclusive it can be administered in accordance with its own basic policies. Does its application depend on the subject matter of the transaction? A detailed analysis of contractual terms? Perhaps a paragraph? A sentence? Even a word? No. According to *Advent Systems*, it depends on nothing more than the three letters *n-o-n*.

One would think this was enough, but this court was not done. Having demolished copyright law to get into Article 2, *Advent Systems* then proceeded to shred sales law. First it looked at the statute of frauds in Article 2-401, which requires a quantity term; the contract did not mention a quantity. Of course not. It was a license. The number of copies depended on how vigorously the licensee exercised the *rights*. But since *Advent Systems* had bought into the delusional "goods" imagery, it had no choice but to look for a quantity. After a valiant but ultimately fruitless effort, it gave up and decided that Section 2-401 does not really require a quantity term after all. Instead, it claimed there was an escape hatch in Article 2-404, which allows exclusive output deals without a quantity term but with an obligation of best efforts. That was a problem here, since the licensee did not really give it the old college try. So *Advent Systems* says that "best efforts" in Article 2-404 does not really mean that at all, only "good faith efforts." After ignoring so much other law, what was one more statute to raze? Would it be arch to point out that Article 2-404 deals with exclusive output arrangements, whereas the license at issue was non-exclusive, so this escape hatch was really not available to begin with?

Had *Advent Systems* used the proper imagery, it would have reached the same result with much greater ease. It would have simply applied the state common law statute of frauds. No

[443] *Id.*

quantity term to worry about. Then it would have applied the standard rule that the licensee's obligation is to exploit a work is good faith, not best efforts.[444] But in *Advent Systems*, the stock intellectual equipment was lacking, and so this rough beast of a decision, its hour come round at last, ravaged both copyright and sales law as it slouched towards Bethlehem to be born.[445] *Advent Systems* is more than inapt. It is a monstrosity.[446]

b. *In re DAK Industries, Inc.*[447]

A close runner-up for the prize of most nonsense in a single decision is *In re DAK*. Microsoft granted DAK a worldwide, non-exclusive license to make, adapt and distribute copies of Microsoft WORD. Microsoft delivered a single copy of WORD on a master disc; the license authorized the manufacture of additional copies. DAK agreed to pay a royalty for each copy of WORD sold, along with a fixed "minimum commitment" fee as an advance payment against potential royalties. These minimum commitment fees are absolutely common in book, music, motion picture, and software licenses, because they give a licensee financial incentive to exploit

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[444] The leading case is Zilg v. Prentise-Hall, Inc., 717 F.2d 671 (2d Cir. 1982), which dealt with the obligation to publish a manuscript under an exclusive license that did not set forth the standard of performance. The trial court read the contract as requiring "best efforts to promote the book fully." *Zilg*, 717 F.2d at 679. The court of appeals reversed, noting that the author neither bargained for nor acquired an explicit "best efforts" promise from the publisher.

The court held that the promise to publish

> implies a good faith effort to promote the book including a first printing and advertising budget adequate to give the book a reasonable chance of success in light of the subject matter and likely audience. . . . [Once this obligation is fulfilled,] a business decision by the publisher to limit the size of a printing or advertising budget is not subject to second guessing by a trier of fact as to whether it is sound or valid.

Id. at 717 F.2d 680. *See also* Video Trip Corp. v. Lightning Video, Inc., 866 F.2d 50 (2d Cir. 1989) (holding that the obligation to render accountings arose from the implied covenant of good faith); Doubleday & Co., Inc., v. Curtis, 763 F.2d 495 (2d Cir. 1985) (holding that a publisher's decision not to publish a manuscript required the exercise of honesty and good faith); Alternative Thinking Sys. v. Simon & Shuster, 853 F. Supp. 791 (S.D. N.Y. 1994) (following *Doubleday*); Kleenblatt v. Business News Publ'g Co., Inc., 678 F. Supp. 698 (N.D. Ill. 1987) (holding that the publisher's duty to cooperate in the marketing efforts was based on the implied covenant of good faith and fair dealing); Arnold Productions v. Favorite Film Corp., 298 F.2d 540 (2d Cir. 1961) (obligation to use "best efforts" specifically bargained for); D.S. Magazines, Inc. v. Warner Publisher Services, Inc., 640 F. Supp. 1194, 1207 (S.D. N.Y. 1986) (duty to use "best efforts" met by reasonable efforts to meet its duty to act in good faith).

[445] With apologies to W.B Yates, *The Second Coming*.

[446] And it has spawned an ugly brood. In Colonial Life Ins. Co. v. Electronic Data Sys., 817 F. Supp. 235 (D. N.H. 1993), a district court cited *Advent Systems* without analysis for the proposition that "software has been held to fall within the definition of 'good' under the Code." *Colonial Life*, 817 F. Supp. at 239. In Micro Data Base Systems v. Dharma Sys., Inc., 148 F.3d 649 (7th Cir. 1998), the usually level-headed Seventh Circuit rhapsodized that *Advent Systems* and *Colonial* reach "the right result" and therefore applied Article 2 to *services* under a software development contract. *Micro Data Base*, 148 F.3d at 753.

[447] 66 F.3d 1091 (9th Cir. 1995).

the work. DAK declared bankruptcy before paying the entire minimum commitment, although it continued to sell copies. The issue was whether royalties from post-filing exploitation were an administrative expense, payable to Microsoft, or should be credited against the unpaid commitment, which, as an unsecured debt, would be junior to the secured creditors.

Now, this was a bankruptcy case. It goes without saying that bankruptcy court is inclined to leave as much money as it can in the estate. Thus, the *DAK* court not unexpectedly decided that, because the obligation to pay the entire commitment fee arose before the filing, it was pre-petition debt regardless of whether some installments were due post petition.[448] The case could end right there. But apparently uncomfortable with this statement, the *DAK* court jumps down the rabbit hole into Wonderland.

The court begins thus: "Second, the pricing structure of the agreement indicates that it was more akin to a sale of an intellectual property than a lease for use of that property."[449] What? This was a *non*-exclusive license. Section 101 of the Copyright Act is explicit that a transfer of copyright ownership does not include a non-exclusive license. This transaction could not have possibly been a "sale" of intellectual property.

But the court goes on: "The amount of the minimum commitment, as well as any additional payments, was based on the quantity of units DAK obtained, as in most sales arrangements, not upon the duration of 'use' of the property, as in most rental arrangements."[450] Huh? DAK only obtained *one* unit, a master disc. It was DAK who made the copies pursuant to the license, not Microsoft.[451] This authorization flows precisely from the copyright under Section 106(1). Unlike a sales arrangement, Microsoft was not an output supplier delivering a quantity of manufactured goods. DAK was making the quantity of units it needed, and the duration of the license to use the Microsoft master disc was the essence of the deal.

But the court won't stop: "Third, as in a sale, DAK received all of its rights under the agreement when the term of the agreement commenced." Of course DAK received all of its rights when the term commenced. If it made or sold any copies without having received its rights, it would be a copyright infringer. In fact, if this were a "true sale" under Article 2, then DAK would have received its rights -- title to the copies -- only after Microsoft delivered the master copy, exactly the opposite of this reasoning.

Agonizingly, the court continues: "Fourth, it is more accurate to describe this agreement as granting DAK a 'right to sell' rather than 'permission to use' an intellectual property." This is harrowing. Section 106 grants a copyright owner the exclusive right "to do *or authorize* any of the following: . . . (3) to distribute *copies* . . . of the copyrighted work to the public by *sale*."[452] Granting DAK the "right to sell" by giving "permission to use intellectual property" was precisely what the license was all about.

So why does this happen? Because the *DAK* Court had the wrong image in mind. It

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[448] *In re DAK*, 66 F.3d at 1095.

[449] *Id*.

[450] *Id*.

[451] *Id*. at 1092.

[452] 17 U.S.C. § 106 (1994).

insisted on seeing a software license as nothing more than a sale of goods. This meant it had to find a tangible product to focus on, and so it tried to categorize the transaction as on output deal in which a manufacturer supplies quantities of finished product to a reseller. Its refusal to see the intangible copyright in WORD as separate property lead it to ludicrously inapt results.

c. In re Amica, Inc.[453]

Another standout example of error is *In re Amica*. It gets so many things so wrong that for this reason alone it is difficult to classify. The case involved an attempt by a bankrupt developer to recover its software from a non-performing licensee. The developer entered into a license which "irrevocably transfers to [the licensee] all of its rights, title and interest in ant to the Program and its documentation, including copyright in the programs and the documentation with respect thereto, and all trademarks."[454] The developer also agreed to correct bugs and errors during the six month period following execution of the license.[455] The licensee granted back to Amica a limited, non-exclusive license allowing the developer to perform pre-existing obligations under another license.[456] The licensor declared bankruptcy and sought to cancel the license because the licensee did not adequately perform in marketing the software.

Now, what we have here is a garden variety exclusive publication license. An author -- could be a software developer, or a novelist, or a screenwriter, or a musician - creates a copyrighted work and grants a publisher -- could be a software publisher, or a book publisher, or a movie producer, or a music publisher -- exclusive exploitation rights. Under the Copyright Act, the publisher becomes the owner of the copyright interest in the work within the scope of the license.[457] The publisher wants some improvements to help the marketability of the work -- correcting bugs in a program, editing galleys of a novel, rewriting the screenplay to accommodate stars or budget, rescoring the music - and naturally retains the author to modify the existing work.[458] Authors usually insist on it. This does not mean that the publisher relinquishes ownership of the original work. What the publisher is doing is commissioning the creation of a new derivative work. Confirming that this is what everyone understood, the software publisher grants back a non-exclusive license to the author to fulfill a pre-existing license, something that it had to do to keep the author from infringing the licensee's exclusive rights. All very straight forward, except to a bankruptcy court trying desperately to squirm out of the deal.

The correct approach would have been to ask whether the licensee's obligation to exploit the work was a material covenant whose breach allowed cancellation. Unfortunately, cancellation would have been barred by express language that the transfer "shall not be subject to termination or revocation under any circumstances except [as allowed] (under the Copyright

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[453] 135 B.R. 534 (Bankr. N.D. Ill. 1992).

[454] *In re Amica*, 135 B.R. at 557. Helpfully, the decision sets out the license agreement in its entirety.

[455] *Id.*

[456] *Id.* at 559.

[457] 17 U.S.C. §§ 101, 201(d) (1994).

[458] For one example of this among thousands, *see, e.g.*, Oddo v. Ries, 743 F.2d 630, 634 (9th Cir. 1984) (involving a joint venture where author hired to rewrite magazine articles to produce new work.)

Act).”[459] It is common in copyright transfers to restrict the licensor’s ability to cancel to preserve the licensee’s investment in the marketing. The reference to “termination” was obviously a cautious drafter’s reminder that, despite this language, the transfer could be terminated after 30 years under Section 203 of the Copyright Act.[460]

So what did the *Amica* court decide to do? It declined to read the quoted provisions as an immediate transfer and instead concluded that “title in and right (including copyright rights) to the defined ‘Product’ were intended to pass only after the Program modifications were created by Amica and paid for by BBS.”[461] Maybe that is what the contract meant. Maybe the parties did intend that the copyright interest would not pass until the happening of certain conditions precedent after execution of the license. Although on the face of it this is farfetched, had the court stopped there, the decision would be bearable. But apparently realizing that its contractual interpretation was not overly persuasive, the *Amica* court decides to buttress its finding with an unfortunate foray into Article 2.

First, the Court opines that “title” to the software never passed to the licensee because, under Article 2-401(2), “title to goods passes when the seller completes performance of physical delivery.”[462] It then decided that the obligation to make modifications to the computer program constituted an agreement for “future goods” and that “[w]hen future goods must be created, title does not pass until those goods are finished and shipped to the buyer.”[463] Concluding that the modifications were never completed, the court decided that “title” to the entire computer program never passed.[464] But this was not a contract to create “future goods.” It was an immediate transfer of a copyright in an existing work, along with an obligation to create a new derivative work. At the very best, what may not have passed is an interest in the derivative work, but this would hardly divest ownership of the original work. The assumption that Article 2-401(2) conditions vesting of ownership in a copyrighted work on delivery of a physical copy is directly contrary to the preemptive rules in Sections 202 and 205 of the Copyright Act.

Second, just to be safe, the court latched onto Article 2-401(4)’s proviso that upon a buyer’s rejection of goods, title reverts to the seller by operation of law. It decided that because the licensee did not accept the corrections (derivative work), “title” to the entire program reverted to the licensor.[465] But this reasoning again assumes that the transfer of title to a copy

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[459] *In re Amica,* 135 B.R. at 542; *see* Fosson v. Palace (Waterland), Ltd., 78 F.3d 1448, 1454-55 (9th Cir. 1996) (licensor’s waiver of the right to cancel enforceable).

[460] Why was this reference added? Undoubtedly, the attorney for Amica thought this would protect Amica against a claim for breach of contract should the license be terminated by exercise of the statutory right. It hardly indicated an intent to make the immediate vesting of the license conditional.

[461] *In re Amica,* 135 B.R. at 543.

[462] *Id.* at 552.

[463] *Id.*

[464] *Id.* at 542 (Finding No. 30) and 553.

[465] *Id.* at 552. *Amica* also said: “even if this Court’s view of the Agreement . . . was incorrect and title or rights to the PCH software and modifications passed upon signing the Agreement, then such title and rights reverted to Amica by virtue of the default by BBS in complying with its essential obligations under the Agreement.” *Id.* Since such reversion was barred by the express waiver of a termination right,

dictates what happens to ownership of the copyright. It also fails to acknowledge the contrary authority that cancellation is not automatic, but rather requires an election of remedies.[466]

To see the flaw in this reasoning, note that the licensor agreed to deliver a memorandum of transfer for recording in the Copyright Office.[467] The decision does not tell us whether this was recorded, but assume it was. If *Amica*'s reasoning is correct, then despite Section 204(d) of the Copyright Act, the licensee's ownership interest would not "really" have vested until delivery of the copy and would have reverted upon the rejection of the copy, despite no recording to that effect. More perceptive courts have duly noted the folly in this reasoning.[468]

d. Neilson Business Equipment Center, Inc. v. Monteleone[469]

Dr. Monteleone entered into an agreement to acquire both hardware and software for his medical office. When the computer system did not work, the good doctor sued for breach of implied warranties. The software vendor claimed that the contract actually had three distinct subparts -- hardware, software, and services. It claimed that the hardware was the only element that could be classified as "goods," and because there was nothing defective about the hardware, Dr. Monteleone's claims must fail.[470] The court, however, concluded that the contract was for a "turnkey computer system which may properly be classified as a package constituting goods."[471] As the court put it: "Dr. Monteleone did not intend to contract separately for hardware and software. Rather, he bought a computer system to meet his information processing needs."[472] Unfortunately, despite what Dr. Monteleone may have intended, a separate contract for hardware and software is exactly what he faced under Section 202 of the Copyright Act. Under that provision, the contract to sell the hardware could not affect a license of the copyright.

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the court meant that this reversion happened by law under Article 2-401(4), not as a result of a material breach of a contract allowing cancellation.

[466] *See supra* notes ______ and accompanying text for authorities so stating.

[467] *In re Amica*, 135 B.R. at 557.

[468] *See, e.g.,* Architectronics, Inc. v. Control Sys., Inc., 935 F. Supp. 425, 432 (S.D. N.Y. 1996); In re SSE Int'l Corp., 198 B.R. 667, 671 n.3 (Bankr. W.D. Pa. 1996).

[469] 524 A.2d 1172 (Del. Super. 1987).

[470] *Neilson Bus. Equip*, 524 A.2d. at 1174.

[471] *Id.*

[472] *Id.* at 1174-75.

e. System Design & Management Information, Inc. v. Kansas City Post Office Employees Credit Union[473]

This case has a curious twist; it was the software vendor who was looking to invoke Article 2. Here, unlike *Moteleone*, the hardware and the software came from different parties, and the claim was for dysfunctional software. The software license was never signed, and the court concluded that the claim against the software developer was barred by Article 2-201. As discussed above, it is appropriate to apply a state statute of frauds to a non-exclusive copyright license, just not the one in Article 2. The court decided to do so by imagining that the computer program merged in the copy, and opining that the "sale of the software" was the "predominant purpose" of the transaction.[474] It decided that applying Article 2 was appropriate because this "… simplifies commercial transactions … [and] provides a uniform rule for courts to follow."[475] This is a compelling argument. The public needs a uniform law for computer information transactions. Just not Article 2. The correct law is UCITA.

f. Synergistic Technologies v. IDB Mobile Communications, Inc.[476]

This case illustrates the danger in a mechanical application of the predominant purpose test. When software for a satellite digital switching system failed, the licensee hired another company to repair the source code, and the licensor sued for copyright infringement. The issue was whether the licensee had obtained ownership of a copy sufficient to invoke Section 117. The court decided Article 2 was the answer:

> In a contract providing for both goods and services, such as the contract in this case, the Court must look to which aspect of the contract predominates. Here, more than three quarters of the monies paid . . . were for computer hardware . . . . The remaining monies were paid for computer software . . . . While services were plainly an important part of the contract, the Court finds that "goods" in the form of computer hardware and software predominate. Accordingly, the contract is governed by the UCC.[477]

So under Article 2-401, title to a copy passed to the licensee. The test for applying

[473] 788 P.2d 878 (Kan. Ct. App. 1990). This opinion stated as follows:

> Therefore, the sale of the software is predominant. SDMI remains the owner of the accounting system as intellectual property. Credit Union purchased only a reproduction or the result of the programmer's skill. Credit Union is interested only in the outcome of running the program and whether the program will perform the functions for which it was purchased.

Id. at 882. How could there be a "sale" in a non-exclusive license?

[474] *System Design,* 788 P.2d at 881-82.

[475] *Id.* at 882.

[476] 871 F. Supp. 24 (D. D.C. 1994)

[477] *Synergistic Technologies,* 871 F. Supp. at 29 n.7.

Article 2, then, according to *Synergistic Technologies*, comes solely by sliding the price toggle. While that worked in this case, one may well ask what happens in the next case if the license says that three-quarters of the fee is allocated to the software? A licensee may suddenly find significant problems in the exercise of the Section 117 privileges. Such easily manipulated results benefit no one.

Unlike the above cases, the Federal Circuit, in *DSC Communications Corp. v. Pulse Communications*,[478] utilized a more sophisticated analysis. This case also raised the issue of whether the licensee had obtained sufficient ownership of a copy to activate the Section 117 privilege:

> Not only do the agreements characterize the RBOCs [Regional Bell Operating Companies] as non-owners of copies of the software, but the restrictions imposed on the RBOCs' rights with respect to the software are consistent with that characterization. . . . Each of the . . . agreements limits the . . . right to transfer copies or . . . details of the software to third parties. . . . The agreements also prohibit the RBOC's from using the software on hardware other than that provided by DSC. . . . The fact that the right of possession is perpetual, or that the possessor's rights were obtained through a single payment, is certainly relevant to whether the possessor is an owner, but those factors are not necessarily dispositive if the possessor's right to use the software is heavily encumbered by other restrictions that are inconsistent with the status of owner [or a copy].[479]

As *Pulse Communications* understood, mechanical application of the "predominant purpose" test along the one-dimensional price axis is the wrong approach for computer programs.

C. Later Circular Reasoning Cases

Several cases, rather than analyzing whether Article 2 in fact applies to software transactions, merely assume this to be so. As Bertrand Russell once remarked: "The method of postulating what we want has many advantages; they are the same as the advantages of theft over honest toil."[480] Let us look at the cases that indulge in this circular maneuver.

a. Step-Saver Data Systems Inc. v. Wyse Technology[481]

One of the major cases cited for the proposition that software transactions are subject to Article 2 is the famous, or if you prefer infamous, decision in *Step-Saver*. Sorry to disappoint. The emperor has no clothes. Here is the *Step-Saver* court's entire analysis on why Article 2 applied to the contract in question: "All three parties agree that the . . . program is 'goods'

[478] 170 F.3d 1354 (Fed. Cir. 1999*), cert. denied*, 120 S. Ct. 286 (1999).

[479] *DSC Communications Corp.*, 170 F.3d at 1360-61.

[480] KLINE, *supra* note 426, at 218.

[481] 939 F.2d 91 (3rd Cir. 1991).

within the meaning of UCC § 2-102 & 2-105."[482] This is hardly persuasive. At best, it represents an agreement by these parties in this case to opt-in to Article 2. This does not mean that Article 2 applies to all software transactions between all other parties at any othertime.

b. Arizona Retail System v. Software Link[483]

Arizona Retail should really be called *Step-Saver-Lite* because it involved the same defendant and the same shrinkwrap license. What was the court's reasoning? "In all material respects, the subsequent purchases in this case are equivalent to the purchases in *Step-Saver.*"[484] One can image Galileo's Inquisitors using the same justification for refusing to look through his telescope. If it was good enough for Aristotle . . .

c. ProCD v. Zeidenberg[485]

Although often contrasted with *Step-Saver*, for reasoned application of Article 2, *ProCD* is little better. It held:

> Following the district court, we treat the licenses as ordinary contracts accompanying the sale of products, and therefore as governed by the common law of contracts and the Uniform Commercial Code. Whether there are legal differences between "contracts" and "licenses" (which may matter under the copyright doctrine of first sale) is a subject for another day.[486]

There is one difference in *ProCD*. The software was a database program containing uncopyrightable telephone listings, and the case involved breach of a license to use the uncopyrightable data. Technically, the contract issue was a purely state law question of whether Article 2 applies to a license of a database.[487]

d. M.A. Mortenson v. Timberline Software[488]

In this case, a Washington appellate court followed *ProCD* in upholding the enforceability of a software shrinkwrap license under Article 2. Why did Article 2 apply? "The parties apparently agree that Article II of the Uniform Commercial Code ("UCC") applies to the licensing of computer. We accept, without deciding, this proposition."[489] In other words, the parties again agreed to "opt-in" to Article 2. This case involved an upgrade to a software program that did not work as expected, producing a $2 million underbid. When the licensee sued for breach of warranty, the licensor pointed to the warranty disclaimer in the shrinkwrap. The

[482] *Step-Saver,* 939 F.2d at 94 n.6.

[483] 831 F. Supp. 759 (D. Ariz. 1993).

[484] *Arizona Retail Sys.,* 831 F. Supp. at 766.

[485] 86 F.3d 1447 (7th Cir. 1996).

[486] *ProCd,* 86 F.3d at 1450.

[487] There was also the claim that the Copyright Act preempted the license, which *ProCD* rejected as well.

[488] 970 P.2d 803 (Wash. App. Div. 1 1999)

[489] *M.A. Mortenson,* 970 P.2d at 807.

licensee countered that the shrinkwrap was unenforceable under *Step-Saver* because the initial negotiations only involved the license fee and number of copies without discussion of the license terms, and the order was confirmed in a purchase order. The court disagreed, noting:

> The licensee's arguments ignore the commercial realities of software sales. Reasonable minds could not differ concerning a corporation's understanding that use of software is governed by licenses containing multiple terms. . . . [T]he facts do not support the conclusion that the purchase order constitutes an integrated contract.[490]

Moreover, the licensor's failure to bring up the license terms during price-quantity discussions was hardly surprising. The licensor knew that the licensee had a license for a prior version of the software and that it licensed other software. As such, the licensee was on notice of the existence of the shrinkwrap license, and it installation and use were an assent to the shrinkwrap.[491] Unlike *Step-Saver*, the licensee did not refuse to sign the original license, and the licensor made delivery anyhow.[492]

e. Hospital Computer Systems, Inc. v. Staten Island Hospital[493]

Staten Island Hospital involved the all too familiar situation of a software development degenerating into the usual round of finger-pointing under the rubric of "breach of warranty" and "waiver of breach." Curiously, after extensively analyzing the waiver issue under New York common law, when it came to the damages phase, the court said: "[The licensee] has asserted that he NYUCC governs the contract remedies that are available to it. [The licensor] has not disputed this assertion. The Court agrees that the damage remedies in the NYUCC controls [sic]."[494] This does not mean that Article 2 *ipso facto* applies to every other software license.

f. RRX Industries, Inc. v. Lab-Con, Inc.[495]

RRX Laboratories involved a software package that allegedly "never functioned as intended."[496] The license limited the vendor's liability to the contract price, so the question was whether the licensee could resort to Article 2 to invalidate the limitation and grab consequential damages. The court began in the usual place by looking to the definition of a "good" in Article 2-105, and resorted to the usual test of whether the license was a "good" or a "service."[497] The

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[490] *Id.* at 808.

[491] *Id.* at 809.

[492] *Id.* at 810.

[493] 788 F. Supp. 1351 (D. N.J. 1992).

[494] *Hospital Computer Sys.*, 788 F. Supp. at 1361. In support of this proposition, the court cites only Communications Groups, Inc. v. Warner Communications, Inc., 527 N.Y.S.2d 341 (Civ. Ct. 1988); *see infra* notes 521-23 and accompanying text for further discussion of *Communications Groups*.

[495] 772 F.2d 543 (9th Cir. 1985).

[496] *RRX Indus.*, 772 F.2d at 546.

[497] California law applied to the transaction, so the actual reference was to the California Commercial Code.

court opined, without further analysis, that "the sales aspect of the transaction predominates," and decided that Article 2 applied.

g. Communications Groups, Inc. v. Warner Communications, Inc.[498]

In yet another adventure in the New York court system, a software developer sued for the final installment due on a development contract, and the licensee sought to defend its pocketbook behind the ramparts of warranty. The court began by noting that "[s]oftware . . . is a widely used term with several meanings," including programs and computer language listings, magnetic cards, or paper cards programmed to instruct a computer, and programs used in a computer.[499] One might say the same thing about, says, a "novel." Sometimes it means a copyrightable "literary work," other times its embodiment in a "book" or a "periodical." What about a "film?" Sometimes it means a copyrightable motion picture, other times its embodiment in celluloid or a videocassette or a DVD. Or an "album." Sometimes its means a copyrightable sound recording or music. Other times its means a phonorecord or a music CD. That popular usage may fail to distinguish between the copyrightable work and the physical embodiment does not excuse courts that make the same mistake. Nonetheless, the court reasoned: "it seems clear that computer software, generally, is considered to be a tangible, moveable item, and not merely an intangible idea or thought, and therefore qualifies as a 'good' under Article 2."[500] Wrong image; wrong result.

h. Chaltos System v. National Cash Register Corp.[501]

As discussed above, in this case "[b]oth parties . . . concede[d] the applicability of the U.C.C." [502] to the lease of a computer system.

i. In re Amica, Inc.[503]

Here is the court's reasoning for applying Article 2: "The terms [sic] 'goods' [in Article 2-102] includes computer programs. *RRX Industries* . . ."[504] That's it.

j. Dreier Co., Inc. v. Unitronix Corp.[505]

This case involved a computer system consisting of hardware and payroll software. After noting a distinct difference between the tangible hardware and the software to run it, the Court concludes: "Nevertheless, most authorities agree that the sale of a computer system involving both hardware and software is a 'sale of goods' notwithstanding the incidental service aspects of

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[498] 527 N.Y.S.2d 341 (Civ. Ct. 1988).

[499] *Communications Groups,* 527 N.Y.S.2d at 344 (citations omitted).

[500] *Id.* (citing in support without analysis *RRX Indus., Chaltos,* and *Triangle Underwriters*).

[501] 479 F. Supp. 738 (D. N.J. 1979), *aff'd in part and remanded in part,* 635 F.2d 1081 (1980), *appeal after remand*, 670 F.2d. 1304 (1982).

[502] *Chaltos Sys.*, 635 F.2d at 1084.

[503] 135 B.R. 534 (Bankr. N.D. Ill. 1992).

[504] *In re Amica*, 135 B.R. at 540.

[505] 527 A.2d. 875 (N.J. Super. A.D. 1986).

the sale; therefore Article 2 . . . applies," both to the hardware and the software.[506] While early cases certainly apply Article 2 to hardware, they do not stand for the proposition that it also applies to software.

k. Schroders, Inc. v. Hogan Systems, Inc.[507]

This case involved a license of a software accounting package; no hardware was involved. The court began, "recent case law demonstrates a willingness of the courts to construe software-hardware packages as falling within the purview of Article 2."[508] It continues, "[a]lthough the parties' agreement in the instant matter did not involve the sale of computer hardware, but simply a licensure of software, the arrangement should nonetheless be construed to fall within the provisions of U.C.C. Article 2."[509] While it is doubtful that *Triangle Underwriters* stands for the first proposition, it certainly does not stand for the second. The court simply made up the applicability of Article 2 to a software license.

l. Photo Copy, Inc. v. Software, Inc.[510]

This is another suit for unpaid license fees and breach of warranty in which the court simply assumed that Article 2 applied.

m. USM Corp. v. Arthur D. Little Systems, Inc.;[511] *Pentagram Software Corp. v. Voicetek Corp.*;[512] *Vmark Software, Inc. v. EMC Corp*;[513] *Novacore Technologies v. GST Communications Corp.*[514]

This series of four Massachusetts cases could certainly qualify as Exhibit A for Cantor's law. The story begins when USM retains Arthur D. Little Systems to develop a "turnkey" computer system. Did Article 2 apply? "The parties assume that the [turnkey software development] contract, providing for both the sale of goods and the delivery of services, is subject to . . . Article Two of the Uniform Commercial Code. . . . [T]hat assumption is correct," said *USM Corp.*[515] So Article 2 applies because the parties assume it applies. Another opt-in.

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[506] *Dreier Co.,* 527 A.2d at 879 (citing *Chaltos* and *Triangle Underwriters*).

[507] 522 N.Y.S.2d. 404 (Sup. Ct. 1987).

[508] *Schroders, Inc.*, 522 N.Y.S.2d at 406 (citing *Triangle Underwriters*).

[509] *Id*.

[510] 510 So.2d 1337 (La. App. 1987).

[511] 546 N.E.2d 888 (Mass. App. Ct. 1989).

[512] 22 UCC Rep. Serv. 2d 646 (Mass. Dist. Ct. 1993).

[513] 642 N.E.2d 587 (Mass. App. Ct. 1994).

[514] 20 F. Supp. 2d 169 (D. Mass 1998).

[515] *USM Corp.*, 546 N.E.2d at 894. There is a follow-up. After the decision was rendered, the software developer declared bankruptcy, so USM sued the developer's E&O carrier. But the policy only applied to consulting services, and the court had already decided the contract was a "sale of goods." That was enough for the insurer. Not so fast, said USM Corp. v. First State Ins. Co., 641 N.E.2d 115 (Mass. App. Ct. 1994). While it was true that the contract was a "sale of goods," services were involved too. Although the prior decision found the defect existed in the system controllers -- in the goods aspect of the contract -- there were defects in the services aspect too, so the insurer was liable. What is going on? This

This was enough to fool the court in *Pentagram*, which averred that a turnkey system was within Article 2 simply because *USM* supposedly said so.[516]

Then comes *Vmark*, a case about "[a] common but foreseeable frustration of modern life -- the failure of new computer hardware or software to work properly."[517] Said this court: "The parties and the trial judge assumed, without discussion, that the parties' computer software license agreement is governed by art. 2 of the Uniform Commercial Code. . . . Although the issue has not been definitively decided in Massachusetts, we accept the assumption."[518]

Four years later, *Novacore* appears. "The parties agree that the Agreement is governed by Article Two of the Massachusetts Uniform Commercial Code . . . and that the computer software product is best characterized as a 'good' pursuant to [UCC] 2-102," citing of course *USM* and *Vmark*.[519] Whether Article 2 applies to software transactions absent party agreement to opt-in is still an open question in Massachusetts.

n. Micro Data Base Systems v. Dharma Systems, Inc.[520]

Dharma licensed its SQL Access program to MDBS and, for a separately stated price, agreed to modify the program. Dharma completed the work but refused to deliver disks of the modified program until MDBS signed the license agreement, which MDBS refused to do. So, does Article 2 apply to custom software licenses? The usually perceptive Seventh Circuit had only this to say: "[W]e can think of no reason why the UCC is not suitable to govern disputes arising from the sale of custom software - [so] we'll follow it."[521] Sure beats honest work.

o. Novell, Inc. v. Network Trade Center, Inc.[522]

This case raised the question of whether a distributor of software became an owner of a copy sufficient to activate a first sale defense. In deciding that a software transaction is under Article 2, the court merely assumes this to be so, citing to *Advent System* and *Step-Saver*.[523]

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is hardly a principled application of a consistent rule. The court was determined that USM should prevail no matter what, and set about to manipulate the facts and the law to see that it did. Is there any better evidence that a law that allows such free-wheeling manipulation is incoherent?

[516] *Pentagram*, UCC Rep. Serv. 2d at 648. The court also relied on *Advent Systems.*

[517] *Vmark*, 642 N.E.2d at 590.

[518] *Id*. at 587 n.1 (citing *USM Corp*.). The gravamen of the action was fraud and misrepresentation, and as the court noted, "the applicable provisions of the U.C.C. are not critical to our analysis." *Id*.

[519] *Novacore,* 20 F. Supp. 2d at 169, 183.

[520] 148 F.3d 649 (7th Cir. 1998).

[521] *Micro Data Base,* 148 F.3d at 654. Because this was a diversity decision, the specific issue was whether under New Hampshire law, Article 2 applied to a software development contract. For this proposition, *Micro Data Base* relied on the decision of the district court in Colonial Life Ins. v. Electronic Data Sys., 817 F. Supp. 235, 239 (D. N.H. 1993).

[522] 25 F. Supp. 2d 1218 (D. Utah 1997).

[523] *Novell, Inc.,* 25 F. Supp.2d at 1222.

D. *Modern Right Reasoning Cases*

Not every court has been confused by the wrong image. The proof is a series of decisions by modern courts prepared to look closer at the real nature of a software transaction and applying correct legal reasoning.

a. *Berthold Types Ltd v. Adobe Systems, Inc.*[524]

Right images make right results easy. This case shows that. Berthold licensed Adobe the nonexclusive right to distribute its copyrighted software for computer typefaces in the Adobe Font Library. Pursuant to the agreement, Adobe decided to discontinue providing them. Berthhold, while admitting that the Agreement authorized Adobe's conduct, asked the court to use Article 2 to impose an implied obligation to continue carrying the typefaces. However, the UCC did not apply to this transaction because it involved a license, not a sale of goods. With the right image in mind, the court's answer was easy:

> "A 'sale' is defined as 'the passing of title from the seller to the buyer for a price." [Citation.]. A pure license agreement, like the 1997 agreement, does not involve transfer of title, and so is not a sale for Article 2 purposes.

a. *Adobe Systems Inc. v. One Stop Micro.*[525]

This is another a stunning refutation of the "sale" categorization for mass market software licenses. Adobe provided its popular "Adobe PageMaker" and related software for personal computers under various shrinkwrap licenses. Some versions were licensed for the educational market under advantageous price terms. One Stop admitted to adulterating numerous educational versions by cutting open the box, opening the shrinkwrap, and removing the "educational use only" labeling. When Adobe sued for copyright infringement, One Stop claimed the transaction was really a "sale," making its conduct was protected under the "first sale" doctrine. The court concluded that "[t]he numerous restrictions imposed by Adobe indicate a license rather than a sale because they undeniably interfere with the reseller's ability to further distribute the software."[526] In so holding, the court accepted expert testimony that "[t]he industry uses terms such as 'purchase,' 'sell,' 'buy,' *etc.* … because they are convenient and familiar, but the industry is aware that all software, including Adobe's software, is distributed under license."[527]

a. *Architectronics, Inc. v. Control Systems, Inc.*[528]

This case involved a claim for breach of a software development agreement and misappropriation of trade secrets. The defendant said that because the software was provided with a circuit board, the contract was a "transaction in goods" within Article 2 and hence barred by the Article 2 statute of limitations. In finding that the longer state statute applied, the court held that "[b]ecause the predominant feature of the [license agreement] was a transfer of

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[524] 101 F.Supp2d 697(E.D. Ill. 2000).

[525] 84 F.Supp.2d 1086 (N.D. Cal. 2000.)

[526] *Id.* 84 F.Supp.2d ___.

[527] *Id.* 84 F.Supp.2d ___..

[528] 935 F. Supp. 425 (S.D. N.Y. 1996).

intellectual property rights, the agreement is not subject to Article 2 of the UCC."[529] In so going, it gave the following insightful illustration:

> This conclusion may follow more obviously from the following hypothetical analogous set of facts: Suppose the parties here are book publishers, that Architectronics gives CSI a written outline for a new novel, and that CSI agrees to write the novel. An agreement provides that CSI will own the copyright to the novel, but will grant Architectronics the exclusive right to reproduce and distribute the novel. When Architectronics sells copies of the book to consumers, the sale will be a "transaction in goods" under the UCC. But in the agreement between Architectronics and CSI, Architectronics is contracting for intangible intellectual property rights, even though it will receive a "hard" copy of the novel when CSI finishes the project. The agreement to write the novel would not be a "transaction in goods" under the UCC.[530]

Precisely. The copy is not the copyright.

b. In re SSE International Corp.[531]

In this bankruptcy case, the issue was whether a security interest in accounts attached to royalty proceeds from a license to furnish know-how. The secured creditor argued that the know-how was embodied in heat-resistant steel casings, that these were goods, and that the license proceeds were really accounts generated by a sale of goods. The trustee said the know-how was separate from its physical embodiment, so the proceeds were general intangibles not covered by the security agreement. A perceptive bankruptcy court held:

> [B]ecause the subject of the "license" agreement in question was the debtor's rights to its know-how and not merely a reproduction of debtor's ideas and thoughts, the debtor furnished . . . intellectual property rather than goods. This determination is made *independent of whether the tangible medium by which the debtor furnished such rights . . . constituted a good*."[532]

This was exactly correct. The court did not confuse the intangible know-how with its embodiments by assuming that the know-how somehow merged in the castings. It did not waste time on a superfluous and misleading predominant purpose analysis. It understood that the intangible interest was separate property and could not be treated in the same manner as the tangible medium that embodied it. In so doing, it gave this example of the foolishness of confusing the content with the container:

> This holding prevents a strange, if not nonsensical, result that could occur were this Court to hold that the debtor's intellectual

[529] *Architectronics,* 935 F. Supp. at 432.

[530] *Id.* at 432 n.5.

[531] 198 B.R. 667 (Bankr. W.D. Pa. 1996).

[532] *In re SSE Int'l Corp.,* 198 B.R. at 670 (emphasis added).

> property rights in its know-how were goods merely because they were embodied in a tangible medium that itself constitutes a good. Because "[a] security interest in . . . goods . . . may be perfected by the secured party's taking possession of the collateral," [UCC] 9-305, an entity could perfect its security interest in the debtor's intellectual property, if it were a good, by merely taking possession of a tangible medium, such a written manual, embodying such intellectual property. Perfection by such methods could have disastrous results, however, because mere possession of the tangible medium by the secured entity would undoubtedly fail to notify other entities of such security interest, which is the point of perfection in the first place. Therefore (a) perfection of a security interest in intellectual property must be by filing in accordance with [UCC] 9-302(a), and (b) this principle further supports the overwhelming authority for the proposition that intellectual property is not a good.[533]

c. Kaplan v. Cablevision of Pennsylvania, Inc.[534]

A Pennsylvania court was also undeceived by a class action plaintiff arguing that cable television programming was a "transaction in goods" under Article 2. The plaintiff claimed that the cable system used electric signals to transmit the programming, that electricity was a good,[535] and hence Article 2 applied. The court dispensed with the confused line of thinking thus:

> [T]he transmission of cable television programming is not a "transaction in goods" as defined by [Article 2-105(a)] and relevant case law. Although the audio and video signals which the Cable Companies transmit move through the cable wires, the Official comment to [Article 2-105] instructs us that the definition of goods "is not intended to deal with things that are not fairly identifiable as movables before the contract is performed." . . . The signals transmitted through the cable wires to the subscriber's home are not "fairly identifiable as movables before the contract is performed." The Cable Companies do not sell a tangible, separate identifiable good - instead they supply a continuous stream of audio and video signals.[536]

The court may also have added that the programming, being copyrighted works, were not goods.

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[533] *Id.* at 670 n.3.

[534] 671 A.2d. 716 (Pa. Super. Ct. 1996).

[535] *Kaplan,* 671 A.2d at 724.

[536] *Id.* *Kaplan* also relied on Satellite Television & Associated Resources, Inc. v. Continental Cablevision of Virginia, Inc., 714 F.2d 351 (4th Cir. 1983) (holding that cable television systems provide services and not "goods" for purpose of the Clayton Act).

d. Applied Information Management, Inc. v. Icart,[537]

In *Applied Management*, a case previously discussed, the court also understood that the copy cannot be confused with the copyright. As it said with regard to a non-exclusive software license:

> [A]n agreement of this nature may convey rights and interests in two, rather than only one, form of property: the developer may transfer copyright rights in the software program (intellectual property rights) and at the same time transfer rights in the copy of the program through the material object that embodies the copyrighted work (personal property rights).[538]

d. Novemedix, Ltd. v. NDM Acquisition Corp.[539]

We discussed *Novemedix* previously. Once again, it held that a patent license was not a "sale of goods" within Article 2 despite the delivery of physical embodiments of the invention.

So what do all these decisions mean? Nothing more than that many able courts had the wrong image in mind, and were led into error. More modern courts, using the correct image, were not. In Galileo's time, the wrong image of celestial mechanics caused ever more tedious complications as people tried to contort observed facts into their spherical imaginings. No amount of adjusting and accommodating would ever do, however, because the underlying image was wrong. A whole new system was required. The same is true now about applying Article 2 to software transactions. The underlying mechanics are simply wrong, and no amount of folding, spindling or mutilating will ever make them work.

IV. WHAT LAW IF NOT ARTICLE 2? - REVISITED

Let us revisit the question asked earlier: what law should apply to software transactions? Again consider a retail transaction in LINUX, only make the example ever sharper and use the facts in *Step-Saver*. Assume a licensee calls Red Hat Software, orders a copy of LINUX over the phone, and sends a purchase order confirming price and quantity. Assume Red Hat Software sends an invoice confirming price and quantity but nothing else. The copy of LINUX arrives with a shrinkwrap copy of the GNU Public License. What contract law applies to this transaction?

1. The Disaster Of Applying Article 2?

Some would argue that Article 2 applies, and that under Article 2-207 the shrinkwrap license is unenforceable in its entirely, or at least insofar as it waives implied warranties and restricts any privileges under copyright law. But what other results must also follow?

Under the GNU Public License, the waiver of implied warranties was an essential condition to the copyright owner's authorization for making and distributing the copy of LINUX. If this condition is now eliminated from the contract, then such copying and distribution was

[537] 976 F. Supp. 149 (E.D. N.Y. 1997).

[538] *Applied Info. Management*, 976 F. Supp. at 150.

[539] 166 F.3d 1177 (Fed. Cir. 1999).

unauthorized and the copy is infringing. *Step-Saver* admitted this, but *in that case* found no infringement because the copyright owner admitted to an implied license.[540] But this is not and cannot be the universal case. Even if the customer somehow became the owner of the copy, the customer would have at best only the limited privileges accorded under the Copyright Act. But LINUX is an operating system. An essential purpose of using LINUX is to make adaptations, and to distribute copies of the new versions. Without the shrinkwrap, those uses are unprivileged and infringing even if done by the authorized owner of a copy.

It gets worse. If Article 2 applies and invalidates the shrinkwrap, then just what are the terms of the license for LINUX? If the default rules in Article 2 apply, then mere delivery of the copy of LINUX would create a contract under Article 2-206, something which Section 202 prevents. The scope of the license would be determined by course of dealing and usage of trade under Article 2-208, which the Copyright Act prohibits. Under Article 2-210(2), the license to use LINUX would be assignable, contrary to preemptive federal law. The owner of the CD could resell the CD under Article 2, but under Section 109 there would be no first sale privilege because without the license the copy was unauthorized. Article 2 would authorize rental of the CD, but federal law would prohibit it without consent of the Linux Organization under Section 109(b). Under Article 2-309(2), the license would be terminable at will, which is not the copyright rule.

Without an enforceable warranty disclaimer in the shrinkwrap, Article 2-314 would apply an implied warranty of merchantability on content - i.e., the LINUX program itself - raising First Amendment issues. If the copy was provided to the retail outlet on consignment, then the licensee's creditors would claim a interest in LINUX superior to that of the Linux Organization under Article 2-326, despite their failure to comply with the mandatory writing requirements for such a lien in Section 204(a). Under Article 2-401, there should have been a mandatory transfer of "title" (ownership) to the worldwide copyright in LINUX by operation of law, which is certainly not the case. Under Article 2-401(2), the Linux Organization arguably could not commence an infringement action to protect its rights unless and until it first conducted a foreclosure sale under Article 9, directly contrary to Section 501 of the Copyright Act.

Assume the licensee wanted LINUX on a DVD, and found a CD had been purchased by mistake. The licensee should be able to nonetheless load the CD on the licensee's computer while sending the CD back to the vendor in exchange for a DVD. Not under Article 2-401(3). Rejecting the CD would cause an automatic revesting of title to the CD in the vendor, vitiating the Section 117 privilege and making loading the program unto the hard drive an infringement. Assume that the retailer had only been a bailee of the copy, for example in a true consignment. Under Article 2-403, it could still pass good title to the copies to licensee, but not under Section 109. Under Article 2-502, by merely paying for the copy, the licensee would claim a special property interest in its LINUX license superior to creditors of the Linux Organization, in contradiction to Section 205 of the Copyright Act and Section 365(n) of the Bankruptcy Code. Under Article 2-512, the licensee would claim a right, prior to purchase of the copy, to load LINUX onto a computer for inspection, contrary to Sections 106 & 117. Under Article 2-601, the licensee could reject the entire license for any defect in the copy, ignoring the mandatory separation of rights and copies in Section 202.

[540] *Step-Saver,* 939 F.2d at 96 n.7.

If the licensee rightfully rejected the copy, then under Articles 2-602 & 2-603, the licensee would assert the right, and in some cases even the duty, to resell the copies, but such a resale would be infringing under Sections 106 & 109. Under Article 2-711, for a rightful rejection, the licensee would believe it had a security interest in the LINUX license to the extent of any payments without the necessity of complying with the writing requirements in Section 204(a).

Does any of this make sense? Must we litigate to death each possibility in every commercial transaction until we finally get it right?

Applying Article 2 to a software transaction - applying *all* of Article 2 in the preemptive, systematic, and comprehensive manner it is meant to be applied - even in the mass market, is a disaster.

2. The Benefits of Applying UCITA

The Uniform Computer Information Act has been crafted to meet this challenge. I will not discuss all the details of the UCITA here, since they are covered elsewhere in this issue of the law journal. In broad overview, however, there are at least three immediate benefits of UCITA: standardization, uniformity, and innovation.

a. Standardization

The legal standards for information contracting are in disarray. As this article has shown, the most basic conceptual underpinnings for determining what contract law applies are a shambles. When one considers emerging issues in e-commerce, it gets even worse. Does clicking an "I Agree" icon make an enforceable contract? What about contracts made by electronic agents? What are the rules for digital authentication? What happens in the case of consumer error? Many e-commerce sites merely ask the customer to fill in basic payment information. But this leaves many critical terms up in the air. Absent specification, what is the duration of a software license? How many users are permitted? Can the software reside on more than one machine as long as it is not used simultaneously? If copies are ordered, who pays the shipment and insurance costs? What warranties, if any, apply? What are the remedies for breach? Should the law presume that without agreement on these points there is no deal? Or should it provide default rules that apply where the parties have remained silent? The default rules in Article 2 cannot answer these questions. UCITA does.

b. Uniformity

Commercial contract law should be made by the states, not the federal government. Information transactions are an explosive part of modern commerce. But e-commerce is national and even global. To realize its potential, both software suppliers and customers alike need for a single, uniform law. Article 2 was crafted for an industrial wares economy, not an on-line information one. To deal with e-commerce we need a modern set of uniform rules specially crafted for the new world in which we find ourselves. Those are the rules in UCITA.

c. Innovation

The law should encourage developers and innovators to bring competitive and innovative new products to market by allowing them to control their transaction costs in an appropriate manner. Two examples are JAVA and LINUX. (JAVA is a program developed by Sun

Microsystems to run on any platform.[541]) This makes it particularly well-suited to the Web where computers run Windows, UNIX, Mac OS, etc. The JAVA Software Development Kit can be downloaded for free subject to Sun's shrink-wrap license,[542] which includes a waiver of implied warranties and consequential damages. LINUX, as already discussed (you probably believe *ad nauseum* if you have reached this point) does the same. Both offer customers a critical trade-off: valuable free software on an "as is" basis in exchange for reduced transaction costs. A modern commercial law should support these possibilities. UCITA does.

CONCLUSION

As the dramatic changes in the economy demonstrate, it is essential to reconcile commercial law to copyright in computer information transactions. The commercial law doyens propose to do so by "dumbing down" the copyright aspects of the transaction until nothing is left but the sunset world of existing Article 2. The copyright mandarins would pretend that commercial law does not exist for copyrights, so that the information economy can evolve no further than the tired sale of copies paradigm on which they were weaned. Neither approach, however, meets the needs of the dawning world of on-line, global e-commerce. We need a new image of information transactions that reconciles commerce and copyright, incorporates the best of both, and provides a foundation for future growth. Change may be difficult for those whose careers depend on knowing what once was and proclaiming its eternal prolongation. It was also difficult in Galileo's time. But the public interest does not begin and end with the convenience of the cognoscenti.

The fight against entrenched ideas and old illusions, it seems, is a never-ending battle. Llewellyn fought the same fight against the antiquarians of his day. He gave them this rejoinder:

> 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.[543]

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[541] *See JAVA*, (visited Jan. 3, 2000) <http://java.sun.com.>.

[542] *See JAVA Software Deveopment Kit*, (visited Jan. 3, 2000) <http://java.sun.com/products/jdk/1.2/license>.

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

So it does today. It is a pity that as we enter the Twenty First Century, the very means Llewellyn used to fight the evil in his day -- Article 2 -- has become its instrument in ours.

We need to move on, to adopt a new commercial code specially tailored to software transactions in harmony with federal law. This requires that we have the courage to see the world as it is, not as we imagine it to be, and adjust our thinking accordingly. There is only one choice. It is time now for the bar to demand, and the courts to affirm, what we should have declared so long ago: Article 2 cannot apply to software transactions.

APPENDIX A: GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

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<one line to give the program's name and a brief idea of what it does.> Copyright (C) 19yy <name of author>

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Also add information on how to contact you by electronic and paper mail.

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