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INTRODUCTION

Innovative business practices, novel modes of ordering commercial relationships, and neoteric commercial behavior which deviate from established patterns are challenging the application of existing legal rules and principles to modern day disputes. Yet, wholesale disregard for existing legal principles is often unnecessary as the recent expansion of contracting in an electronic medium demonstrates. Codification of the Uniform Electronic Transactions Act ("UETA") as a bridge between paper-based legal principles and the electronic medium resulted in the extension of existing substantive principles of contract and commercial law, avoiding the unnecessary creation of yet another legal regime. Similarly, the Uniform Commercial Code ("U.C.C.") is a coordinated rather than an exhaustive statement of commercial law. It does not specifically address every foreseeable transaction or issue; no attempt was made by the drafters to plug every foreseeable gap with rules. Courts were expected to develop the U.C.C. analogically through the application of its delineated purposes and policies as unforeseen transactional models and human genius and imagination expanded contractual relationships.

This article proposes the application of Articles 2 and 2A of the U.C.C. to the sale, barter, and "lease" of virtual property, computer game images or digital art, especially that virtual property which is created or acquired in Massively Multiplayer Online Role-Playing Games ("MMORPG") and exchanged, sold, licensed or "leased" in real world transactions. This article will, first, provide some background on the world of MMORPGs; second, identify the specific transactions among the various contractual relationships arising in MMORPGs to which Articles 2 and 2A should be applied; third,

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demonstrate the drafters' intent for the analogical development of the U.C.C. to address novel transactions and unforeseen subject matter; and, finally, respond to objections to the application of U.C.C. Articles 2 and 2A. This article will articulate three fundamental bases for the application of the U.C.C.: (1) the drafters' intent, as reflected in the statement of policies and purposes of the U.C.C., that the U.C.C. be extended consistent with its reason or a functional approach to the application of the U.C.C.; (2) the policy approach to the application of the U.C.C. to transactions that are non-paradigmatic sales transactions; and (3) application of the U.C.C. by analogy. This article rejects the tangibility requirement of Sections 2-105 and 2A-103(1)(j) as a limitation on the applicability of the scope provision of these articles and as a limitation on the express policy goal of liberal construction of the U.C.C.\(^1\)

Given the widespread commercial and individual dissemination of information, the ease of transferability, and rapidly evolving technological advancement, a uniform and predictable set of rules to govern these transactions is imperative. This article proposes the recognition of Article 2 as the "new common law" and posits that the revision of the scope provision of amended Article 2 severely deviates from both national and international models for governance of commercial transactions. What is needed is a flexible legal regime, one that is adaptable to the doubtless changes that current technological advances harbinger. It is believed that unamended Article 2 is such a regime. Economic data generated from empirical research by others on the gaming and transactional activities of professional students will support the positions taken in this article.

**I. THE CONTEXT**

In 2002, economist Edward Castronova estimated that several million individuals\(^2\) held accounts with multiplayer online games. A Massive Multiplayer online game is the virtual experience of a Nintendo game amplified by modern cinematic action, sound and visual content coupled with online chatting among as few as 50 or as many as several thousands of real players from various nations who have logged onto a company provided server that creates the visual context for the game. Unlike Nintendo games, many of the games never end. New chapters, new episodes, or new conquests are released by the game provider with new challenges. Some players have

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1. U.C.C. § 1-103 (a) (2008).
2. The average age of MMORPG players is 26, 25% are teenagers, 50% work full-time, 36% of are married, and 22% are parents. The population is fairly diverse, including high-school students, college students, early professionals, middle-aged homemakers, and retirees. *See* The Daedalus Gateway, *The Psychology of MMORPGs*, available at [www.nickyee.com/daedalus/gateway_demographics.html](http://www.nickyee.com/daedalus/gateway_demographics.html) (last visited May 6, 2009).
logged years of conquests; included among their ranks is a retired general practitioner of medicine in his twelfth year of “playing” a game.3

A player begins by purchasing a game CD at Wal-Mart or downloading the game from the game provider’s website. After assenting to a User Agreement, the player selects or creates an avatar, an electronic image that represents the player and is manipulated by the computer user.4 The player then spends an average of ten hours per week in the game world, chatting with others, undertaking various tasks such as purchasing, producing, and consuming goods5 to develop the game-story.

“Guildwars,” “There,” “Everquest,” and “Ultima” are several of the more popular multiplayer games. In Guildwars, each player creates a character from eight distinct professions. These characters become “embroiled in a brutal war of conquest between two warring factions.” The game has a story and its players complete a quest to kill an evil intruder or squelch the advances of a foe to advance the story. In Guildwars only fifty players may engage in play in a city or district, a designated gaming area, at a time. This limitation on participants prevents the game from bogging down. Individual players may select to be assisted by non-player, computer generated characters, who add dimension to the game. During the game, skills may be purchased with game money; weapons may be purchased or sold with game money as part of the interaction within the game. Weapons of warfare such as a shield, a bludgeon, or sword, and other computer images may be earned or purchased to enhance the player’s performance and success in the game. Magical charms, powers, and shawls with endowments of power, may be found, purchased at auctions, or stripped from a conquered foe as part of the game. Increasingly, these virtual assets, computer images or digital art, are available for purchase in the real world for real dollars. An estimated $2 billion in US dollars in real money trade of virtual goods occurs worldwide annually in virtual world and real world transactions.6

II. BEYOND THE CONFINES OF THE VIRTUAL WORLD – TRANSACTING IN THE REAL WORLD

A. ECONOMICS AND SCOPE OF REAL WORLD TRANSACTIONS

“Virtual-world participants design costumes, furniture, and houses for their avatars, and sell their creations to others. Real estate is created or acquired, subdivided, leased, taxed and transferred in the game. In 2005, $165

3. Professor Coleen Barger’s husband. Coleen Barger is a professor at University of Arkansas-Little Rock, William H. Bowen School of Law.
million dollars was transacted in Entropia Universe ($650 per player) and $360 million in Second Life in 2008. These creations and acquisitions, virtual chattels, are also bought, bartered, or sold in private transactions or on eBay and other websites. Through GamingOpenMarket.com, over $2,190,000 has been traded in that system in Lindens, the currency of the game Second Life, in 2005. An estimated $3 million in real world exchanges occurred in 2003. In 2005, game providers and economists estimated that $100 million was spent on virtual goods. Thus, the exchange continues with varying price tags. A Wonder Bread delivery man acquired a castle on eBay for the game Ultima at the price of $750. As a result of pressure from some game providers, both eBay and Yahoo! announced the discontinuation of the sale or exchange of game content on their sites in 2005. Yet, isolated postings can still be found on eBay. In May of 2006, Entropia Universe announced the planned distribution of real world Entropia ATM Cards as a means of redeeming virtual assets; for example, 10 Project Entropia dollars are equivalent to $1. Sony announced the opening of an “official” trading website for real world acquisition of virtual assets for its games. The selling player is charged a “nominal listing fee” of $1 for goods and coins, $10 per character and a service fee of 10% of the transaction price. In 2008, Linden Labs, parent company for Second Life, acquired two virtual market sites. Game providers are now beginning to cash-in on the secondary market of real world transactions in virtual goods.

B. VIRTUAL ASSETS – DIGITAL ART OR INFORMATION

The virtual assets addressed herein are computer codes or computer information, images created by the game software as a player interacts with the program. These images are created in either the real world by the player and introduced into the game environment or in the virtual/game world.

Digital Art, computer codes or information, is broadly defined in the Principles of the Law of Software Contracts as "literary and artistic information stored electronically, such as music, photographs, motion pictures, games, books, newspapers and other images and sounds." Similarly, the Uniform Computer Information Transactions Act ("UCITA") defines information as "data, text, images, sounds, mask works, or computer programs, including collections and compilations of them." The game in which the shawl, bludgeon, or sword is used is within this definition of digital art. Likewise, the objects created or used as part of the game, the avatar used by the player or the shawl or bludgeon stripped from a conquered foe, "member content"—an object created and introduced into the virtual world by the gamer such as t-shirts—are within this definition of digital art. Some argue that these objects should be deemed "virtual property" justifying real world regulation and real world adjudication of virtual or game world disputes between players. Although the focus of this article is the real world sale, exchange, lease, or license of virtual assets or digital art, the author believes that virtual world disputes, disputes arising among players/users within the game are subject to the rules of the game as administered by the game provider. Despite the real world value of the assets, the dispute is one of rights in a game housed on the game provider's server. Signing on to the game, a player enters into the virtual game world subject to the game provider's rules and regulations. Entering into the doors of a real world casino provides an analogy. Although the game provider may be subject to the regulation by the real world of its "game" or may be subject to challenges by its users for failing to resolve disputes consistent with the terms of the "rules of the

17. PRINCIPLES OF THE LAW OF SOFTWARE CONTRACTS § 1.01 (f)(1) (Tentative Draft No. 1, 2008) [hereinafter Principles of Software Contracts]. This definition is a modification of that stated in the Preliminary Draft No. 3, 2006, of "literary and artistic information stored electronically, such as music, photographs, motion pictures, games, books, newspapers and other multimedia products that integrate multiple kinds of digital information." The Reporter cites the following articles discussing various forms of digital media in support of the definition of digital art: Peter Moore, Steal This Disk: Copy Protection, Consumers' Rights and the Digital Millennium Copyright Act, 97 NW. U. L. REV. 1437, 1457 n.158 (2003); Dan L. Burk, Muddy Rules for Cyberspace, 21 CARDOZO L. REV. 121, 121-24 (1999); Lydia Pallas Loren, The Changing Nature of Derivative Works in the Face of New Technologies, 4 J. SMALL & EMERGING BUS. L. 57, 58-59 (2000). Digital art is expressly excluded from the scope of Principles of Software Contracts. See PRINCIPLES OF SOFTWARE CONTRACTS § 1.06 cmt. a & Scope Summary Overview, at p.18 (Tentative Draft No. 1, 2008).  
18. UCITA § 102(a)(35).  
game” or the User Agreement, these disputes are real world disputes subject to the applicable legal rules and principles. The analogy to the casino loses it force when licensed and regulated entities open branch or affiliated offices within the game world and engage in their regulated trades or businesses. Assume, for example, a gamer’s real world bank opens a branch office in Second Life. The branch permits bank customers through their avatars to order forms, to apply for loans, to check balances of real world bank accounts, and to make remote deposits into the customer’s real world account. The branch bank has not lost its status as a regulated entity and remains subject to the oversight of the appropriate regulatory bodies in all jurisdictions where its services can be accessed. The reasonable expectations of the game participants and conservation of increasing scarce judicial resources support this outcome.

C. REAL WORLD EXCHANGES – THE GOVERNING LAW

What law governs real world transactions of virtual game assets or sale or transfer of a digital masterpiece to a patron or museum? Virtual game assets, the products generated, are computer images: (1) digital art of goods—appliances, food, furniture, costumes, weaponry, and money; (2) computer images of real estate that are constructed, used or occupied during the game by the player’s avatar; or (3) the sale of a game account with its accrual, the avatar, the loot gathered such as game money, real estate or “goods.” It is reported that some game developers view the virtual property created as being inseparable from the underlying computer code or data that produces the image that appears as an object on the video screen. Because of the inseparability of the object or image from the underlying computer codes, these game developers assert ownership of the property created.


24. See generally Mucinskas, supra note 16.

In contrast, the User Agreement for Guildwars provides that the member, the player, does not own the characters and distinguishes game content—the visual context provided by the game provider's server such as the graphics, sound effects, music, animation-style video, and game content from member content, the images submitted or created by the player. Under the User Agreement for Guildwars, the game provider reserves all rights under various copyright laws to game content. When the gamer, the member, assents to the User Agreement, the member grants a "non-exclusive, universal, perpetual, irrevocable, royalty-free, sub-licensable right to exercise all rights of any kind or nature associated with" member content when member content is submitted or created in a "service area." Modern commercial licensing theory views this type of grant as more than a mere promise not to sue, rather it is a commercial contract enforceable pursuant to its terms. Here, the member grants the game provider the right to use or incorporate the content, sell or assign, to license or grant others the right to use, as well as the right to modify the member content. Consequently, the member has retained the right to use the content and the right to transfer the privilege to use or the right to sell or assign the member content to others.

Other game developers view virtual property in terms of functionality; "each item has a purpose and function within the video game and can be traded for another item" within the virtual world. Because the assets are the byproduct of player time and money within both the virtual and real worlds, gamers are free to sell or exchange these assets on real world trading blocks. This question of the applicable law is not limited to computer images in online games but is also relevant to the burgeoning use of digital media for creative activity by artists and the acquisition of their works of art.

Although maintaining the broadly stated scope of the unamended versions, both Amended Articles 2 and 2A expressly exclude information from the definition of goods. Neither Revised Article 1 nor the Amended Ar-

28. See generally, Raymond T. Nimmer, Jeff Dodd, MODERN LICENSING LAW § 1:5 (Westlaw Database updated November 2007); see also Nimmer, LAW OF COMPUTER TECHNOLOGY §§ 6:1 et seq.
30. Raysman, supra note 11.
31. Mucinskas, supra note 16.
32. U.C.C. § 2-103(1)(k): Goods means all things that are movable at the time of identification to a contract for sale. The term includes future goods, specially manufactured goods, the unborn young of animals, growing crops, and other identified things attached to realty as described in Section 2-107. The term does not include information, the money in which the price is to be paid, investment securities under
articles define "information." Commentary to the amended definition of goods explains that the exclusion is limited to "information not associated with goods . . . [the] article does not directly apply to an electronic transfer of information" such as the downloading of software. However, transactions in "smart goods," goods containing one or more computer programs, are within the definition of goods, but the sale of a CD containing architectural plans, which is copyrightable subject matter, is not a good. Commentary to amended Article 2 further directs courts to determine whether the transactions including both the sale of goods and the transfer of rights in information are within the Article. Beyond being confusing and fostering nonuniform construction of the applicability of amended Article 2 to transactions in information, the amended definition of goods and its commentary run counter to the mandated purposes and policies of the U.C.C. of simplifying and clarifying the law governing commercial transactions. Is the amended Article to be applied indirectly, by analogy, to electronic transfers of information? The language of commentary does not negate that possibility. The amended definition also deviates from the both the prevailing domestic law on the application of Article 2 to software and the prevailing approach for determining the applicable law to mixed transactions through the application of the predominate feature or predominate purpose test. Finally, the amended definition deviates from the prevailing view of courts applying the UN Convention on Contracts for the International Sale of Goods ("CISG") in international transactions in software.

Article 8, the subject matter of foreign exchange transactions, or chose in action. U.C.C. § 2-103 (1)(k) (2008) (emphasis added).

34. 17 U.S.C. § 102(a)(8).
35. U.C.C. § 2-103 cmt. 7 (2008).
36. Id.
38. See note 61, infra, listing the jurisdictions that apply Article 2 to software transactions. See also RESTATEMENT (THIRD) TORTS § 19 cmt. d (1997).
40. The Vienna Convention (hereinafter, “CISG”).
41. Oberster Gerichtshof [OGH] [Supreme Court] June 21, 2005, 5 Ob 45/05m (supply of standard software program on data carriers, CD-ROM, is the sale of goods within CISG); OLG Z [Provincial Court of Appeals] Germany, September 17, 1993, 2 U 1230/91 (CISG applicable to sale of computer chip because goods includes all tangibles and intangibles that might be the subject of an international sales contract); Landgericht [LG] [District Court] München, February 8, 1995, 8 HKO 2466/93 (CISG applicable to computer programme delivered and installed by the seller); Silicon Biomedical Instruments B.V. / Erich Jaeger GbmH, Arrondissementsrechtbank [Rb] [ordinary court of the first instance and court of
Consistent with amended Article 2, the Principles of Software Contracts excludes information that falls within the definition of digital art from its scope. Although digital art is recognized as software, the Principles of Software Contracts directs that the two are distinguishable for four reasons: (1) digital art lacks a utilitarian function; (2) digital art is a “mis-fit” within existing categories of intellectual property; (3) the production of digital art generates engineering challenges; and (4) the contractual arrangements for the transfer of rights in digital art are varied.

Regardless of the view of the property interest held by the player or the multiplicity of contractual arrangements, the inherent flexibility of the U.C.C., its broad guidelines, and its internal cohesiveness make it relevant for resolving real world exchanges, sales, leases or licenses of digital art and other nonpayment virtual assets, such as e-notes. The U.C.C. provides a “reasonable core of contract principles” and its application will result in reasonably predictable and uniform results. Indeed, its design was structured to maintain its viability for the eventuality now confronting legal authorities who seek to address this latest commercial endeavor.

1. Analogical Development of the U.C.C.

The drafters of the U.C.C. intended to expand the applicability of the U.C.C. to commercial transactions that were neither transactions solely for services nor exclusively transactions for real estate. The U.C.C. was not designed to be an exhaustive statement of all commercial law with the concomitant task of addressing every potential occurrence and every foreseeable transaction or issue and requiring the plugging of every foreseeable gap with rules in the form of a civil law code. Courts were expected to develop the U.C.C. through analogical development of the text—the application of the

 appeal to the Kantongerecht], June 28, 2006, Rolnummer 82879/HA ZA 02-105 (Neth) (software developed for distribution by the buyer to hospitals and medical providers within Articles 2 & 3 of CISG—goods manufactured or produced); Handelsgericht Zurich [HG] [Commercial Court], February 17, 2000, HG 980472 (the purchase of software and the purchase of software an hardware are sales of goods within the CISG). But see Østre Landsret [Appellate Court] Denmark, March 7, 2002, B-3539-00 (development of an internet website, the software development held a service).

42. See supra text accompanying note 17.
43. PRINCIPLES OF SOFTWARE CONTRACTS § 1.01 (j) (Tentative Draft No. 1, 2008).
44. PRINCIPLES OF SOFTWARE CONTRACTS § 1.06 cmt. a & scope summary overview, at p.20 (Tentative Draft No. 1, 2008).
45. Id. at 21.
46. Id.
delineated purposes and policies—as unforeseen and new circumstances and practices were confronted. Comment 2 to Revised Article 1 states:

This Act is drawn to provide flexibility so that, since it is intended to be a semi-permanent piece of legislation, it will provide its own machinery for expansion of commercial practices. It is intended to make it possible for the law embodied in this Act to be developed by the courts in the light of unforeseen and new circumstances and practices.

Courts are expected to "recognize the policies embodied in an act as applicable in reason to subject-matter . . . not expressly included in the language of the act" or intentionally excluded if reason and policy require. Indeed, Comment 1 to Revised Article 1 Section 1-103, declares "[n]othing in the UCC stands in the way of the continuance . . . by the courts" of the application to subject-matter not expressly included or intentionally excluded if reason and policy require the application of the U.C.C. Barco Auto Leasing Corp. v. PSI Cosmetics, Inc., and Advent Systems Ltd. v. Unisys Corp., both presented new transactional forms of the long term lease of goods, for the useful life of the goods before the codification of Article 2A, in order to govern the lease of goods and the licensing of software in 1991. In both instances, existing articles provided an analogous context for resolving the issues, when the transaction was a lease and not a sale, and when the subject of the transaction was not within the definition of a traditional good. In both of these instances, an extension of the U.C.C. to accommodate innovative practices resulted.

Section 1-103 also supports the analogical extension of the text of the relevant articles. "Unless displaced by the particular provisions of this Act,

49. Mitchell Franklin, On the Legal Method of the Uniform Commercial Code, 16 LAW & CONTEMPORARY PROBLEMS 330, 333, 340 (1951). Accord U.C.C. § 1-102 cmt. 1 (1999). See e.g., Oliver v. Bledsoe, 5 Cal. App. 4th 998 (1992) (addressing the effect of the strict foreclosure on a note given as collateral for a line of credit, the court determined that a deliberate gap in the U.C.C. was to be resolved by judicial rulemaking in light of applicable statutes, precedents, and principles such as commercial reasonableness and the overarching policies and purposes of the U.C.C.).


52. U.C.C. Rev. Art. § 1-103 cmt. 1.

53. Id.


55. 925 F.2d 670 (3d Cir. 1991) (licensing of software).

56. U.C.C. § 1-102. Purposes; Rules of Construction; Variation by Agreement.

(1) This Act shall be liberally construed and applied to promote its underlying purposes and policies.

(b) to permit the continued expansion of commercial practices through custom, usage and agreement of the parties . . . .

the principles of law and equity . . . shall supplement its provisions." Through Section 1-103 of the U.C.C., the drafters sought to institute the non-exclusive principle.\(^{57}\) The original drafters nestled or superimposed provisions of the U.C.C. over existing principles of common law and equity.\(^{58}\) Unless displaced, the inclusion of the general non-statutory law available under Section 1-103 provides a mechanism for avoiding obsolescence and for maintaining the continued viability of the U.C.C. More importantly, these principles prevent the statutory provisions from "operating mechanically"\(^{59}\) without consideration for justice, fairness, or the general public order. The general supplemental principles are available tools to assist in achieving a just result. As business ethics and values evolve and community mores change, the principles of common law and equity generally evolve to accommodate and control innovative business practices, the novel modes of ordering and modifying commercial relationships, variations in financing mechanisms, and commercial behavior that deviates from established social norms. Ideally, as the principles of common law and equity evolve, supplementation of the U.C.C. with these evolving principles ensures the continued expansion of the U.C.C., as commercial practices expand through custom, usage, and the agreement of the parties.\(^{60}\) A gap in the U.C.C. includes an unforeseen issue within the scope of an existing article or a transactional context, not envisioned or expressly excluded when the U.C.C. was initially drafted.

If the U.C.C. is silent on the issue or the transactional mode is a new form of transacting, the court should determine whether an applicable analogy exits within the U.C.C. If the answer is no, do reason and the policy of a particular article justify applying the article of the U.C.C. to the transaction? If the answer is yes, the relevant article should be applied unless the court determines that the purposes and policies of simplification, clarification, modernization, predictability, and uniformity will not be served by applying the U.C.C. More importantly, in the absence of an analogy within the U.C.C., if the policies and purposes of the U.C.C., in general, justify the application of the U.C.C. policy to a commercial transaction and such an

57. Gregory E. Maggs, Karl Llewellyn’s Fading Imprint on the Jurisprudence of the Uniform Commercial Code, 71 U. COLO. L. REV. 541, 572 (2000). Professor Maggs suggests several reasons for the nonexclusive principle: (1) Llewellyn and the other drafters perceived a tension between having general legal rules and considering the equities of particular cases. Section 1-103 provided a solution by requiring judges to use all available law to reach just and equitable results unless the U.C.C. specifically displaced the pre-existing background law; (2) the drafters saw theoretical difficulties with attempting to make the U.C.C. an exclusive body of law; (3) Llewellyn did not want to "corral" judges. With the existence of Section 1-103, judges remained in a position to exercise discretion to achieve justice with the availability of common law and equitable principles. Maggs, supra at 572-77; See also State of New York, Law Revision Commission, Study of Uniform Commercial Code Article 1 – General Provisions 41 (analysis of Section 1-103 by Professor Carl H. Fulda) (1954).


59. Maggs, supra note 57.

application will simplify, clarify and modernize the law governing commercial transactions, the U.C.C. should then be applied.

D. GOODS ARE PERSONALTY

Contrary to the assertion of some that Article 2 was designed for manufactured goods, goods are personalty, personal property, which of necessity includes software, computer images or digital art, and information. Both Revised Article 1, now codified by 34 states and current Article 1, recognize as the primary policies driving the construction of the U.C.C., the modernization of the law governing commercial transactions and the continued expansion of commercial practices through custom, usage, and the agreement of the parties. The scope provision of Article 2 expressly provides: "Unless the context otherwise requires, this Article applies to transactions in goods..." The general provisions of Article 1 such as the definitions, choice of law, and stated policy goals are applicable to all substantive articles. However, neither Article 2 nor Revised Article 1 defines "transaction". The general definition of transaction, according to Merriam Webster 11 Collegiate Dictionary, is:

Something transacted; especially: an exchange or transfer of goods, services, or funds (electronic transactions) 2a: an act, process, or instance of transacting; b: a communicative action or activity involving two parties or things that reciprocally affect or influence each other.

Consequently, a sale, a lease, an exchange or barter, a license, and a bailment are transactions. Similarly, Article 2A states a principle of broad applicability to "any transaction, regardless of form, that creates a lease." A lease is "a transfer of the right to possession and use of goods for a term in return for consideration... unless the context clearly indicates otherwise, the term includes a sublease." Here, we observe the expansive scope of both articles to include transactions not merely sales or leases, reflecting the


62. U.C.C. § 2-102, Scope; Certain Security and Other Transactions Excluded From This Article (2002): Unless the context otherwise requires, this Article applies to transactions in goods; it does not apply to any transaction which although in the form of an unconditional contract to sell or present sale is intended to operate only as a security transaction nor does this Article impair or repeal any statute regulating sales to consumers, farmers or other specified classes of buyers.


64. U.C.C. § 2A-103(j) (emphasis added).
envisioned flexibility of the U.C.C., the "machinery" or mechanism for encompassing the expansion of commercial practices.

At first blush, however, the stated limitation of transactions in goods and the definition of goods appear problematic. The term goods "means all things (including specially manufactured goods) which are movable at the time of identification to the contract for sale other than the money in which the price is to be paid, investment securities (Article 8) and things in action." The focus is on movability, in order to distinguish transactions for services, or real property from transactions for personalty.65 If the subject of a transaction is personalty, personal property, and not within the scope of an existing article such as Article 8 on uncertificated securities, the goods definition is not a limitation on the application of either Article 2 or 2A. Indeed, the Official Comments to Section 2-105 provide that despite the express exclusion of investment securities from the scope of Article 2, its application was not prohibited if "the application of a particular section of this Article by analogy to . . . securities when the reason of that section makes such application sensible and the situation involved is not covered by the Article of this Act dealing specifically with such securities."66

1. Movability – A Basis for Distinguishing Personalty from Reality

The drafters employed the concept of movability as a basis for distinguishing personalty from real property for defining the scope of the Article. A threaded distinction exists in Article 2 between personalty and real property. This distinction is reflected in Section 2-107, governing transactions for minerals and the like extracted from the real estate,67 and Section 2-304, establishing the applicability of Article 2 to barter transactions involving an exchange of goods for something other than money including real estate or services.68 The goal of the U.C.C. is the simplification and modernization of commercial law, and to make the laws of the various jurisdictions uniform with one another.69 Most jurisdictions have a systematic regulation of real property and no need for uniformity exists. Local laws governing real property within its borders are not to be lightly disregarded.70 However, the commentary suggests that the policies of the Article are not to be disregarded or displaced because of the presence of real estate, a subject matter that is otherwise excluded by the definition of goods unless Section 2-107 is satisfied. Indeed, the official commentary to Section 2-304 suggests the

66. Id. (emphasis added). See, e.g., Agar, 264 N.Y. 248 (applying the Sales Act to investment securities).
70. U.C.C. § 2-304 cmt. 3.
extension of Article 2 beyond the goods being exchanged for real estate, if necessary to implement the policies of the Article. The policies of the Article are to have priority over local real estate law.71

2. Things in Action” or Chose in Action – Payment Intangibles

The exclusion of “things in action” or “chose in action”72 refers to the exclusion of rights of action, or the ability to sue to collect a debt or a share of stock.73 This limitation is inapplicable to information,74 notwithstanding Revised Article 9’s broader definition of things in action as including all intangible personal property. Without accepting the relevancy of the position taken in Revised Article 9, the tangibility limitation is not a barrier to the application of Articles 2 or 2A to transactions for digital art. If software is deemed tangible for the purposes of copyright law, those key characteristics should likewise satisfy the tangibility requirement for Article 2. “For purposes of the Copyright Act software producers argue that copies of software in random access memory (RAM) are ‘material objects’ deserving copyright protection.”75

3. An Expanded Definition of Goods – Intangibility Not a Barrier

Case authority reveals an expansive definition of goods. Twenty-two jurisdictions include software within the definition of goods.76 Of these twen-

71. Local statutes dealing with realty are not to be lightly disregarded or altered by language of this Article. In contrast, this Article declares definite policies in regard to certain matters legitimately within its scope though concerned with real property situations, and in those instances the provisions of this Article control. Id.
73. BLACK'S LAW DICTIONARY 199 (8th ed. 2004).
76. Micro Data Base Sys., Inc. v. Dharma Sys., Inc., 148 F.3d 649 (7th Cir. 1998) (under New Hampshire law, creation of custom software is a “transaction in goods” and thus governed by Article 2); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (applying Wisconsin law: shrinkwrap license included with computer software was binding on buyer under U.C.C.; seller proposed contract that buyer could accept by using software after having opportunity to read license); D.P. Technology Corp. v. Sherwood Tool, Inc., 751 F. Supp 1038 (D. Conn. 1990) (computer systems, including software, are goods rather than services); I-Lan Systems v. Netscout Serv. Level Corp., 183 F. Supp 2d 328 (D. Mass. 2002) (applying Massachusetts Article 2 to interpret clickwrap license agreement that granted network support provider a right to use the software; U.C.C. best fulfilled the parties' reasonable expectations); Dahlmann v. Sulcus Hospitality Techs. Inc., 63 F. Supp. 2d 772 (E.D. Mich. 1999) (applying Michigan law and holding the sale of hotel computer reservation systems, including hardware, software, training, installa-
ty-two, three exclude custom designed software, thereby distinguishing the service of producing software from the personality created. Yet, this approach is inconsistent with the treatment of an agreement for the manufacture of custom goods or contracts for sculptures and portraits to be created. In New York, stock in a cooperative housing corporation is the sale of personality governed by Article 2. Although things in action are expressly excluded, Article 2 was applied in this case. Even electricity has been held to constitute a good. More importantly, the commentary to Section 1-103 expressly provides for the expansion of the application of the provisions of...
the U.C.C. to unforeseen and new circumstances and practices, even though the subject-matter was not expressly included or was "intentionally excluded."81

4. The Functional Approach for Determining the Applicability of Articles 2 and 2A

Courts confronted with a transaction in which the economic realities approximate a sale, have applied Article 2 to the transaction by analogy. This principle is applicable in the context of a license of software. If, for a fee, the transfer of rights to use a copy of software gives the transferee/user an unlimited period for possession without the obligation to return the copy, the transaction has been treated as a sale because the licensee has acquired ownership even though title was not conveyed.83 If, however, the agreement grants a right to use or a right to access the software for a limited period and the software is either removed from the user's computer or access is, thereafter, denied, the transaction should not be treated as a lease if the licensor has not retained a significant residual interest at the expiration of the term.84 Courts are accustomed to applying the tests of Revised Article 1-203(a) and its predecessor, to transactions for other products for distinguishing a sale from a lease. Nothing limits the application of these principles to software.

The determination is a factual one. The key distinction between transactions that are sales and those that are leases is not whether at the end of the term the product is returned but rather whether the rights that are no longer available at the end of the term had economic value when the right to use or the right to access the software is terminated. The question is whether the program substantially dated and, therefore, without market value?

5. The Policy Approach for Determining the Applicability of Articles 2 and 2A

Because U.C.C. rules and policies are general in nature, scholars and courts view the U.C.C. as replete with premises and assumptions that are applicable to contractual relationships regardless of the subject matter.85 These rules and policies are the byproduct of deliberative processes that re-

81. Id.
result in a broad based consensus among participants from business, academia, the judiciary, practitioners, and the legislature. The rules and principles, therefore, reflect accepted community standards. Unless antithetical because the particular facts before the court or the applicable trade practices deviate from those upon which the premises and assumption are derived, the underlying policy goals and objectives of a provision are relevant regardless of the otherwise nonapplicability of the U.C.C. to the transaction. Furthermore, the policy approach facilitates the stated goals of the U.C.C. of simplifying, modernizing, and making uniform the law governing commercial transactions. Unlike the approached advocated in this article, the analogical development and extension of the whole of Articles 2 or 2A, the policy approach results in the application of discrete provisions only if the court determines that the policies of a given section are relevant to the issue raised sub judice. Consequently, predictability, certainty, and uniformity may not be attained through the application of the policy approach.

E. OBJECTIONS

Inherent in the U.C.C. is the flexibility to address transactions involving exchanges, leases or licenses in digital art. Yes, some object to extending current statutory law to the sale or grant of rights to use computer images or virtual assets. Responses to these objections provide a sound basis for extension. In his essay entitled: An Essay on Article 2's Irrelevance to Licensing Agreements, Ray Nimmer identified four key objections to the application of Article 2 to licensing agreements. His objections are:

Objection #1: A sale conveys title to the goods when the seller completes what is required for delivery but a license is a conditional or limited grant of rights or permissions.

Response: The scope of Article 2 is not limited to sales and its provisions impose obligations, recognize rights, and provide remedies irrespective of title. Furthermore, Article 2A specifically addresses the

86. Id. at 885.
87. See e.g., U.C.C. 2-313 cmt. 2.
88. See e.g., In re CFLC, Inc., 209 B.R. 508 n.10, U.C.C. Rep. Serv. 2d 1187 (B.A.P. 9th Cir. 1997). Here, the court rejects the argument that an additional term in a commercial services invoice should be treated as an additional term appearing in an acceptance or confirmation by analogy under U.C.C. Section 2-207. The court reasoned that the exclusion of transactions intended as a security transaction from the scope of Article 2 and the applicability of Article 9 to the transaction justified its refusal to apply Section 2-207 to a non-sale, secured transaction. The facts did not establish a course of dealings between the parties that would create an expectation that the purported additional term, the creation of a security interest in the goods shipped, would result as the invoice stated.
89. U.C.C. § 1-103 (a) (1) (3) (2008).
91. Id.
92. U.C.C. § 2-401.
right to use personal property without the granting of title. More importantly, modern licensing theory recognizes that the essence of licensing agreements is that of a commercial transaction. In point of fact, the economic realities of a licensing agreement may replicate a sale.

Objection #2: The extensive default rules of Article 2 are property based and envision the transfer of title which is adverse to intellectual property interests should title be conveyed.

Response: Default rules are merely default rules and are subject to a contrary agreement between the parties. The agreement not only includes the express, negotiated terms but also implied terms based on course of dealings, trade usage, and course of performance. Default rules inconsistent with the agreed to terms, whether express or implied terms, should not govern the transaction. Moreover, Article 2A does not contain the elaborate default rules of Article 2. The fundamental transactional paradigm of Article 2A is distinguishable from that of Article 2. Parties generally negotiate the particulars of a transaction granting the possession and limited use of personalty. This distinction is reflected in prevailing End User License Agreements.

Objection #3: Article 2 provides that, in a sale, the seller warrants that the goods are not infringing as delivered, while in licensing the core presumption is that no assurances of non-infringement are given unless they are made expressly.

Response: As all other implied warranties imposed by Article 2, the Warranty of Title and Against Infringement, U.C.C. Section 2-312, may be excluded or modified by the agreement of the parties. Like-

93. "As transactions in information have become more pervasive in commerce, however, a pure passive view [a license is merely a covenant not to sue] provides an increasingly inadequate doctrinal or practical base for understanding license transactions. A second perspective, treating a license as a more complete, active commercial transaction better suits much of modern licensing." Nimmer & Dodd, supra note 28, at § 1.6.


96. U.C.C. § 2-312.

Warranty of Title and Against Infringement; Buyer's Obligation Against Infringement.

(1) Subject to subsection (2) there is in a contract for sale a warranty by the seller that
(a) the title conveyed shall be good, and its transfer rightful; and
(b) the goods shall be delivered free from any security interest or other lien or encumbrance of which the buyer at the time of contracting has no knowledge.

(2) A warranty under subsection (1) will be excluded or modified only by specific language or by circumstances which give the buyer reason to know that the person selling does not claim title in himself or that he is purporting to sell only such right or title as he or a third person may have.

(3) Unless otherwise agreed a seller who is a merchant regularly dealing in goods of the kind warrants that the goods shall be delivered free of the rightful claim of any third person
wise, Article 2A’s Warranties Against Interference and Against Infringement may be excluded or modified in a writing unless circumstances, including course of performance, course of dealing, or usage of trade, give the lessee reason to know that the goods are being leased subject to a claim or interest of any person.97

Objection #4: Under Article 2, contract rights may be assigned unless the assignment would materially harm the other party, while in licensing, a non-exclusive license cannot be assigned by the licensee without the licensor’s permission.

Response: Assignment of Rights pursuant to Article 2 is subject to the agreement of the parties but, more importantly, the material harm limitation is triggered in the context of software licenses. Free assignability adversely impacts the protections granted to intellectual property interests by both federal and state regimes and should, therefore, be inapplicable to software transactions. Default provisions yield to terms implied from industry custom or the transactional paradigm.

In addition to the objections raised by Dean Nimmer, some might also argue the following:

Objection: Transfer and use provisions are an integral part of licensing agreements; neither Article 2 nor Article 2A is designed to address these.

Response: Transfer and use provisions are part of the bargain in fact or are terms imposed in standard form agreements. These restrictions provide a basis for determining whether the nature of the transaction is in fact a sale or merely a right to possess or a right to access the information. Most importantly, trade usage, like course of dealings, is by definition part of the agreement. These terms, if customary, should be accorded the same effect as other applicable usage in other industries. If not customary and if voluntarily assented to, these terms are part of the bargain in fact.

by way of infringement or the like but a buyer who furnishes specifications to the seller must hold the seller harmless against any such claim which arises out of compliance with the specifications.

Id. (emphasis added).


Exclusion or Modification of Warranties.

(4) To exclude or modify a warranty against interference or against infringement (Section 2A-211) or any part of it, the language must be specific, be by a writing, and be conspicuous, unless the circumstances, including course of performance, course of dealing, or usage of trade, give the lessee reason to know that the goods are being leased subject to a claim or interest of any person.
Objection: Articles 2 and 2A impose an obligation to meet the “perfect tender” rule.

Response: The perfect tender rule requires that the provider of goods/products deliver or permit access to: (1) the products sold, that is, the product that was promised, described, modeled or sampled; or (2) the product that would pass without objection in the trade under contract description; or (3) a product that falls within the parameters of variance permitted by course of dealings or trade usage. Every producer should have the obligation to provide a product that meets the obligation undertaken. Service contracts generally impose the lesser standard of substantial performance. The rationale for the distinction is rooted in the difficulty in valuing the defect, in compensating the expectation interest when the product does not work, and in limiting the promisee’s ability to retain the benefit of the performance of a service, such as the construction of a building without compensating the provider if the heightened standard of perfect tender is imposed. With software, access to the defective product can be denied or the product returned.

All of the potential objections can be effectively addressed. The comment to unrevised Section 1-205 and revised Section 1-303 are particularly instructive on the adjustment that should be made to give effect to the commercial context in which novel subject matters or innovative modes of transacting justify extending the application of the U.C.C.:

[T]he meaning of the agreement of the parties is to be determined by the language used by them and by their action, read and interpreted in the light of commercial practices and other surrounding circumstances. The measure and background for interpretation are set by the commercial context which may explain and supplement even the language of a formal or final writing.

CONCLUSION

The commercial milieu is part and parcel of an agreement. Confidence in the judiciary’s role as interpreter of agreements should not be eroded by the mere presence of unique circumstances presented by the digital age. The drafters did not intend for Article 2 to become obsolete or antiquated but rather envisioned that its scope would be expanded as commercial transactions expanded and evolved. The subsequent expansion should then be memorialized in a revised promulgation by the relevant quasi-legislative bodies, as the parameters of the evolving regime become apparent. Articles 2 and 2A should be expanded to govern the real world sale, barter, exchange, and lease of nonpayment virtual assets, especially those acquired or created as
part of Massive Multiplayer Online Role-Playing Games, and other forms of
digital art.