A Uniform International Sales Law Terminology

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A Uniform International Sales Law Terminology, by Vikki M. Rogers* and Albert H. Kritzer** [1]

I. Introduction

> "... Why are the realists right? We lawyers have to work with blunt, unreliable tools - words!...[W]e must work with words - mushy, ambiguous things even for ordinary communications ..."[2]

There is no doubt that the choice and application of words is the essence of the lawyers' function,[3] yet words are the very "rascals"[4] that the lawyer cannot with an absolute degree of certainty dominate or confine. Lawyers, recognizing the significance of words, particularly in the context of commercial law, have written volumes on the impact and choice of words in contract negotiations and drafting. Lists of faux amis have been reiterated to stress that undue reliance should never be placed on a mere word.[5] The indeterminacy of words and their meanings provides both opportunities and limitations.[6] When dealing with parties from different countries with varying legal systems, cultures and languages, we are further warned that words are infused with meaning based on the experiences and backgrounds of their users, and often cannot be relied upon to have any fixed interpretation without further clarification. [page 223]

The complexity of issues that arise from ambiguities in language extend much further than contract negotiating and drafting. In international sales law,[7] such ambiguities are a stumbling block to the uniform interpretation of the law.[8] As an example, even though the drafters of our uniform international sales law - the UN Convention on Contracts for the International Sale of Goods (CISG) -

[1] The authors gratefully acknowledge Professor Marie S. Newman, Director of the Law Library and Associate Professor of Law at Pace University School of Law for her advice and guidance in the preparation of this article, particularly of the section 'Development of Case Reporters in England and the United States," of which she drafted portions. We would also like to thank Ralph Amissah for information he provided on information technology and the possible applications of a information retrieval thesaurus to computer search engines. Additionally, the authors acknowledge and thank Professor Bella Hass Weinberg, St. John's University, for her review and suggestions to the paper.

[2] John O. Honnold, The Sales Convention in Action - Uniform International Words: Uniform Application?, 8 J.L. & Com. 207 (1988); also available at <http://www.cisg.law.pace.edu/cisg/biblio/honnold-sales.html> (last modified July 28, 2000). See also for similar sentiment, Roy Goode, Commercial Law 23 (2d ed.1995) ("Those whose business it is to work with words soon acquire an appreciation of the limitations of language.")

[3] "How forcible are the right words." Job 6:25.

[4] William Shakespeare, Twelfth Night act III, sc. 1.

* Vikki M. Rogers: This article is dedicated to my parents, Danielle and Robert Rogers, for their unrelenting patience during the several months that they had to hear about this article and for their ability to always put things back into perspective. Thank you.

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[5] "Words strain; Crack and sometimes break; Under the burden." T.S. Eliot, Four Quartets (1943).

[6] Larry A. DiMatteo, The Law of International Contracting 13 (2000).

[7] The concept of "international sales law" is intended by the authors to include, inter alia, the UN Convention on Contracts for the International Sale of Goods (CISG), UNIDROIT Principles of International Commercial Contracts (UNIDROIT Principles), the Principles of European Contract Law (PECL) and the general principles of international commercial law (lex mercatoria).

[8] "[U]niformity does not automatically result from agreeing on the same words for international rules; the objectives of the agreement can be undermined by different national approaches to interpreting and applying the uniform international rules." John O. Honnold, Uniform Words and Uniform Application. The 1980 Sales Convention and International Juridical Practice 115, 116 in Peter Schlechtriem (ed.), Einheitliches Kaufrecht und nationales Obligationenrecht (1987).

took great strides to root out words that carry "domestic baggage,"[9] courts and arbitration panels still struggle with the words, and their legal implications, when they interpret and apply this international law. The conflict between infusing domestic notions into legal terminology and the struggle to decipher the intent and appropriate application of international sales law autonomously has created an environment that often cannot provide requisite assurances of predictability of outcome in the application of the law.

6 "The selection of uniform rules and uniform laws is not enough, as this does not ensure their uniform application, without which the purpose of establishing uniform law is largely defeated."[10] Attainment of this goal would increase reliance on the law in the world of practice. Lawyers like to play by rules that ensure that, if the game is played a certain way, a reasonably predictable outcome will be guaranteed. Lawyers would be less quick to opt out of uniform international sales law if they could be more certain of outcomes.

7 The focus of this article is not on the weaknesses of words and their potential ability to cause confusion at the various stages of the legal process. Rather, it concentrates on the power of words and their potential to foster the uniform interpretation of international sales law. The analysis takes a somewhat unorthodox approach, however, focusing on the research tools we use to obtain knowledge of international sales law. Tools currently in place may at times hinder strides towards uniformity in the substantive interpretation of international sales law. When persons use the same methodology to access the same information, [page 224] they also conceptualize the law in the same framework.[11] Thus, the structure for the retrieval of information provides a paradigm for thinking about the law itself.[12] Currently, neither a uniform methodology nor a uniform structure exists for the retrieval of information on international sales law.[13] The creation of a controlled indexing language can create the structural backbone for retrieval systems in international sales law and, accordingly, foster the substantive development of the law.

8 This article explores the impact that information retrieval systems[14] developed over the last century, in particular the system conceived by West Publishing Company, have had on the uniform application and harmonization of US law. It also suggests that international sales law is at the brink of the same frontier US law was at a century ago, thus providing a unique stage in time where structuring the dissemination of information can have a long-term impact on the substantive development and interpretation of international sales law. Lastly, the article discusses various tools that could be used to create a system of information retrieval and evaluates their potential effectiveness.

[9] John O. Honnold, Uniform Laws for International Trade: "Care and Feeding" for Uniform Growth, 1 Int'l Trade & Bus. L.J. 1 (Australia 1995); also available at <http://www.cisg.law.pace.edu/cisg/biblio/honnold3.html> (last modified September 24, 1998).

[10] Ralph Amissah, The Autonomous Contract: Reflecting the Borderless Electronic-Commercial Environment in Contracting, (visited May 1, 2001) <http://www.jus.uio.no/lm/the.autonomous.contract.07.10.1997.amissah/doc.html>.

[11] See generally, Robert C. Berring, Collapse and Structure of the Legal Research Universe: The Imperative of Digital Information, 69 Wash. L. Rev. 9, 19 (1994).

[12] 12. Id.

[13] "Whenever codes have been drafted, or digests and encyclopedias of law compiled, from the time of the Romans to the present, the first problem that presented itself was always that of classification." Charles C. Ulrich, A Proposed Plan of Classification for the Law, 34 Mich. L. Rev. 226 (1935). Although there have been strides to make the information available (without any distinct methodology to its dissemination), the international commercial law community has not collectively engaged itself in discussions on the classification of the CISG, UNIDROIT Principles or Principles of European Contract Law.

[14] Information retrieval systems include those published in print and electronic forms, such as the West digest system, WESTLAW and LEXIS.

9 **II. Learning from History: The Impact of Legal Research Methodology on the Substantive Interpretation and Development of the Law**

10 "From the late nineteenth century, the development of the American legal system can be seen as a history of the development of forms of legal publication. This history poses the question whether the forms of publication have been mere vehicles for the transmission of legal knowledge, or important influences in the development of that knowledge."[15] More than a century after modern research mechanisms were developed, it appears evident that the answer to this question is the latter. In the United States, information retrieval systems established by legal publishers, particularly West Publishing Company, "remade the structure of legal thinking by providing one."[16] In scenarios where judges from different [page 225] jurisdictions were once trusted on a leap of faith, information retrieval systems that used a "blanket system"[17] of reporting in a uniform format began to hold judges accountable and forced them to adhere to notions of consistency in their application of law. Attempts to apply the law in a non-uniform manner without the support of easily accessible legal doctrine[18] ceased to be acceptable.

11 Before the development of information retrieval systems in the United States is explored in detail, it is necessary to address two questions that arise at the outset: (1) Why discuss the development of research methods in the United States in isolation? It seems to be a subject that is far removed from the topic of international sales law. (2) Why limit this discussion to the development of research methods in that country? Do the authors suggest that US legal research methodologies are better than those of other jurisdictions? Does an information retrieval system derived from a common law tradition based on stare decisis provide an adequate model for the progression of a global uniform application of international sales law?

12 The first question can be answered rather simply. Because the connection between international sales law and information retrieval systems does seem remote in the abstract, it is easier to explain by example: first, by outlining the connection between research methodology and the development of substantive law; second, by analogizing this evolution to the impact that the same approach could have on the uniform application of international sales law.

13 To answer the second question, the importance of case law in the fruition of international sales law must be addressed. The goal of attaining the uniform application of international sales law lends itself to an analysis of case law as a means to obtain uniformity. In fact, "the practitioner of the CISG has a duty, extrapolated from [Article] 7(1), to consider case law from other Contracting States and other states applying the CISG via Article 1(1)(b), as well as from arbitral tribunals."[19] What does uniformity in this context

[15] Robert C. Berring, Legal Research and Legal Concepts: Where Form Moulds Substance, 75 Calif. L. Rev. 15, 15 (1997).

[16] Berring, supra note 11 at 19.

[17] The "blanket system" of case law reporting required the comprehensive reporting of all cases, without making editorial judgments or selective reporting of "significant decisions." Thomas A. Woxland, Forever Associate with the Practice of Law: The Early Years of the West Publishing Company, 5 Legal Reference Services Q., no. 1, at 123 (1985).

[18] Berring, supra note 15, at 19 ("No judge could determine a point that did not have a location in the West system; it was complete").

[19] Camilla Baasch Andersen, Reasonable Time in Article 39(1) of the CISG - Is Article 39(1) Truly a Uniform Provision?, in Pace Review of the Convention on Contracts for the International Sale of Goods 72 (1999). Article 7(1) calls for consideration of interpretations of the CISG by courts of other countries, as well as rulings on this Convention in one's own country. The highest authorities of many jurisdictions have stated, as did the US Supreme Court, that "the opinions of our sister signatories [to an international convention] are to be entitled to considerable weight." Air France v. Saks, 470 U.S. 392, 404 (1985) (defining the term "accident" as used in the Warsaw Convention).

mean, but a presumption that a dispute, which must be resolved under an international law, will yield the same [page 226] outcome regardless of the jurisdiction in which the situation is analyzed.[20] Scholars have remarked on the homeward trend that could result if opinions from varying jurisdictions are not consulted in the decision-making process.[21]

14 A comparison of case law from varying jurisdictions will provide information on the manner in which the law has already been applied, thus making uniformity more viable.[22] Simply put, a "comity

[20] Article 7(1), "[p]roperly understood . . . requires a process or methodology involving awareness of and respect for, but not necessarily blind obedience to, interpretations of the CISG from outside one's own legal culture - an approach not unlike the treatment U.S. courts accord decisions of other [US] jurisdictions when applying [the US] Uniform Commercial Code." Harry M. Flechtner, Several Texts of the CISG in a Decentralized System: Observations on Translations, Reservations and Other Challenges to Uniformity Principle in Article 7(1), 17 J.L. & Com. 187 (1998); also available at <http://www.cisg.law.pace.edu/cisg/biblio/flecht1.html> (last modified August 11, 1999). Professor Flechtner further indicates that the "intentional flexibility that permits the CISG to accommodate the incredible diversity of circumstances in its subject matter and milieu" should not be lost when strides towards uniform application are made. Id. The authors agree with this conclusion; efforts towards uniform application of a uniform law should not strain the flexibility of that law to account for various scenarios in international transactions.

[21] "The Convention, faute de mieux, will often be applied by tribunals (judges or arbitrators) who will be intimately familiar only with their own domestic law. The tribunals, regardless of their merit, will be subject to a natural tendency to read the international rules in light of the legal ideas that have been imbedded at the core of their intellectual formation. The mind sees what the mind has means of seeing." John O. Honnold, Documentary History of the Uniform Law for International Sales Law 1 (1989) (referring to the phenomenon Professor Honnold has labeled the homeward trend).

[22] UNCITRAL has taken innovative steps to share knowledge of CISG case law, as have UNILEX and the Pace Institute of International Commercial Law in concert with the Centre for Commercial Law Studies of Queen Mary College, University of London, and others.
- Prominent UNCITRAL initiatives include the appointment of National Correspondents to identify and report CISG cases from their jurisdictions; publication of abstracts of CISG cases - CLOUT [Case Law On UNCITRAL Texts] abstracts that are widely disseminated by UNCITRAL and others - and, most recently, UNCITRAL interpretive analyses of CISG cases. The latter program has commenced with analyses of issues associated with CISG article 6 and CISG article 78. For information on these subjects go to UNCITRAL's web site, <http://www.un.or.at/uncitral>. UNILEX, edited by Michael Joachim Bonell, also provides an admirable service to our profession: abstracts and full texts of CISG cases and other materials. UNILEX is a commercial service, available from Transnational Publishers in either printed form or CD-ROM. Many of the case texts reported in UNILEX can also be obtained from UNCITRAL or on the Autonomous Network of CISG texts, see below.
- The Institute of International Commercial Law of the PACE University School of Law, in consortium with the Centre for Commercial Law Studies of Queen Mary College, University of London (QM College), and others has launched related initiatives.
- In concert with learning centers of many countries, Pace has helped foster the creation of an Autonomous Network of CISG Websites <http://www.cisg.law.pace.edu/network.html> The CISG online web site of the UNIVERSITY OF FREIBURG, set in place by Peter Schlechtriem <http://www.jura.uni-freiburg.de/ipr1/cisg/title.htm>, is a pioneer participant in this network.
- Pace, in concert with QM College, has also helped set in place a Case Translation Programme <http://www.cisg.law.pace.edu/cisg/text/queenmary.html>. More than 100 QM translations of CISG cases should be freely available on the Internet prior to year-end.
- A most recent activity is co-sponsorship by QUEEN MARY and Pace of the Vienna International Sales Convention Advisory Council (CISG-AC). This Council was established on June 2, 2001. The Chair of the Council is: Peter Schlechtriem. Other charter members of this Council are: Eric E. Bergsten, Michael Joachim Bonell, E. Allan Farnsworth, Alejandro M. Garro, Royston M. Goode, Sergei N. Lebedev, Jan Ramberg, Hiroo Sono and Claude Witz. Loukas M. Mistelis is Secretary of the Council. The first two interpretive rulings of the Council are to be on notice of lack of conformity of goods and electronic issues under the CISG. They are being authored by Council members Eric E. Bergsten and Jan Ramberg. The Charter of the Council calls for endorsement of each interpretive opinion by all members of the Council; where that is not feasible, reasoned concurring or dissenting opinions by Council members are written. In this respect, the rulings of this "Conseil des

of nations" is the goal that should be sought by the entire international community. There should be an informal and [page 227] voluntary recognition by courts of one jurisdiction of the decisions of another.[23] If courts and arbitral tribunals are not aware of the cases decided in other jurisdictions, any attempts at uniformity will be effectively destroyed; only through the odd chance that all fora apply the same interpretation would uniformity be achieved.

15 A global jurisconsultorium on uniform international sales law is the proper setting for the analysis of foreign jurisprudence.[24] "[C]ourts . . . have to develop their jurisprudence in company with the courts of other countries from case to case."[25] The examination of case law does not reduce the importance of legislative history and scholarly commentaries when interpreting the law. The same [page 228] methodologies used to retrieve case law can be applied to other sources. The scope of this paper is not limited to case law retrieval, but rather the analysis is based on a system that, compelled by tradition, focused on case law.

16 Additionally, reliance on case law is not unique to common law jurisdictions. Civil law tradition, although basing its history on reliance on a code and not stare decisis, has been moving towards a stronger reliance on case law.[26] In fact, to nurture the harmonization of European contract law, a "European Doctrine of Precedents" has been proposed.[27] Accordingly, an analysis based on the evolution of information retrieval systems in a common law system should not preclude the credibility of the model to be simulated on an international level.

17 Finally, the analysis of the development of information retrieval systems in the United States was chosen because the factors that were present over one century ago - when modern research systems were conceived for US domestic law - is a picture that can again be painted at the start of this century, but for international sales law.

18 "Knowledge is of two kinds, we know a subject ourselves, or we know where we can find information upon it."[28] In the late 1800s and early 1900s practitioners faced a great challenge in finding information on a particular legal topic. Henry Terry aptly summarized the early quandary:

19 > "In substance our law is excellent, full of justice and good sense, but in form it is chaotic. It has no systematic arrangement

Sages" will be similar to those of national Supreme Courts.

[23] An improved ability of States to borrow more freely from one another is precisely that which uniform international sales law needs today. US state courts accord comity to rulings on the Uniform Commercial Code by courts of sister US states. See Flechtner, supra note 20. The "comity of nations" would operate similar to the manner that has been recommended in "The Role of the European Court of Justice (ECJ) in the Interpretation of Uniform Law among the Member States of the European Communities," i.e., with the "integrative force of a judgment [of the court of a sister State] based on the persuasive reasoning which the decisions of the court bring to bear on the problem at hand." Jürgen Schwarze, in International Uniform Law in Practice [Acts and Proceedings of the 3rd Congress on Private Law held by the International Institute for the Unification of Private Law (Rome 7-10 September 1997)] 221 (Oceana New York, 1998).

[24] There is much analysis from many jurisdictions. As of July 30, 2001, the cisgw3 web site of the Pace University School of Law at <http://www.cisg.law.pace.edu> reports 871 court and arbitral rulings on the CISG and citations to 4,712 law journal articles, monographs and texts containing material related to the CISG, and the texts of approximately 300 of these commentaries. The number of CISG cases will grow as will the number of commentaries on the uniform law.

[25] Lord Scarman, 2 ALL E.R. 696, 715 (1980). See also Leif Sevón, Observations in International Uniform Law Practice/Le droit uniform international dans la pratique 135 (1988).

[26] See Klaus Peter Berger, Harmonization of European Contract Law: The Influence of Comparative Law, 50 Int'l & Comp. L.Q. 877-900 (2001) = ZeuP 2001, 4-29: "This tendency of converging case law methods in civil and in common law, and the necessity of a European methodology, provide the background for a Europeanization of the doctrine of precedents"

[27] Id.

[28] John West, Symposium of Legal Publishers, 23 Am. L. Rev. 396 (1889).

which is generally recognized and used, a fact which greatly increases the labors of lawyers and causes unnecessary litigation."[29]

20 The official reports were often years old by the time they reached the practicing bar, and the quality of the reports, once filtered through various publishers, varied and could not necessarily be relied on because the information was not gathered and organized in a systematic way. Methods of classifying and arranging the law tended to create chaos in the law itself.[30] It was not until 1876, when John West published his Syllabi, a precursor to the National Reporter System, that comprehensive and uniform indexing of cases began. And it was not until [page 229] 1896, when West published the Century Digest, that easy, comprehensive access was provided to United States case law.[31] The effects of the National Reporter System and West's American Digest System on the development of American law are discussed infra. For purposes of this section, it is only necessary to draw the parallels between the retrieval systems for US law at the end of 19th century and the methods that exist today for research in international sales law.

21 In both eras, bits and pieces of legal jurisprudence and doctrine are scattered, rather than brought together into a coherent body of information. The search methodology is varied, if existent at all; research results vary from lawyer to lawyer and from jurisdiction to jurisdiction. The time it takes to obtain copies of decisions is long and there are never assurances that the practitioner has accessed all of, and is applying, the most current information. Like their counterparts of a century ago, researchers today are almost guaranteed to miss information,[32] and the credibility of their sources is often open to question.

Yet, a comprehensive case law reporting and classification system 22 to organize US law did prevail and furthered the substantive development of the law. Because of their incredible success, these classification systems are analyzed here to determine whether a similar approach can have the same salutary impact on the growth of international sales law today.

1. Development of Case Reporters in England and the United States[33] 23

Reporting of cases has a venerable tradition in both England and 24 the United States. English-language case reports, Year Books, were manuscript law reports prepared from 1292 to 1535.[34] These early

[29] Richard Delgado & Jean Stefanic, Why Do We Tell the Same Stories?: Law Reform, Critical Librarianship, and the Triple Helix Dilemma, 42 Stan. L. Rev. 207, 214 (1989). "Some scholars note that the inability of lawyers to follow the development of the law either nationally or locally threatened stare decisis because of the 'enormous' and 'unrestrained quantity' of competing reporters, which 'discouraged research and inevitably led to a conflict among authorities." Id. quoting Woxland, supra note 17 at 116.

[30] Charles C. Ulrich, A Proposed Plan of Classification for the Law, 34 Mich. L. Rev. 226, 227 (1935).

[31] The Century Digest summarizes all United States cases that West could locate, for the period 1658 through 1895.

[32] See, e.g., Supermicro Computer v. Digitechnic, 2001 U.S. Dist. Lexis 7620 (N.D. Cal. 30 January 2001) ("the case law interpreting and applying the CISG is sparse"). This statement was made even though an ample amount of CISG case law is available at various sources (with which the court was evidently unfamiliar); including links to presentations on over 850 CISG cases at <http://www.cisg.law.pace.edu/cisg/text/casecit.html>.

[33] For purposes of this section, a brief overview of legal reporting in the US prior to 1876 is given because heavier reliance is placed on the impact the West Publishing Company had on the development of American jurisprudence after 1876. Excellent coverage of the development of legal reporting is given in the following sources and should not be overlooked: Duncan Kennedy, The Structure of Blackstone's Commentaries, 28 Buffalo L. Rev. 209 (1979); Erwin C. Surrency, History of American Law Publishing 111-127 (1990); Symposium of Legal Publishers, 23 Am. L. Rev. 396 (1889); Berring, supra note 15.

[34] Berring, supra note 15 at 18 citing F. Hicks, Materials and Methods of Legal Research with Bibliographic Manual 94 (1923) ("The first report to be

reports were collections of notes [page 230] taken down concerning actions at the court,[35] rather than case reports as we think of them today.[36]

25 Nomative case reporters[37] followed the Year Books. These reports were individually compiled by a member of the bar who would gather notes of the courts' decisions as recorded by himself, from other lawyers or, perhaps, from the notes of judges.[38] Although recognized as crucial building blocks in the development of law, these reporters were disorganized and often contradictory.[39] Moreover, the quality, reliability, and comprehensiveness varied because the texts were frequently rewritten and subjective; intellectual input was involved in the production of the reporters.[40] Early court reporters, both in England and the United States, were entrepreneurs, transcribing, editing and publishing the cases of one or more courts, and functioning independently of one another.

26 Edmund Plowden published the earliest nominative reports in England in 1571. Plowden's reports were characterized by their high degree of accuracy and completeness, a standard that was unfortunately not met by later compilers.[41] From 1571 until the 1640s, only a few volumes of law reports were published; however, in the 1640s and 1650s, a "flood of reports"[42] was issued by a number of publishers, most of them of dubious quality and value. Not until 1756, when Burrow's Reports appeared, was "there . . . a series approximating in fullness and accuracy the standards of a modern law report."[43] Burrows and his followers turned law reporting into a specialized field and began a new era in the law.

27 In the United States, the era of nomative court reports began in 1789 with Ephraim Kirby's Connecticut Reports.[44] In his preface, Kirby expressed the wish [page 231] that a "'permanent system of common law' . . . would emerge in the country."[45] His wish soon came true. As the legal system in the new republic rapidly expanded, there was an urgent need for access to case reports and a willingness by lawyers to pay for them.[46]

28 By 1810, nomative reports were being published for the US Supreme Court, as well as for the state courts of Connecticut, Vermont, New York, Massachusetts and New Jersey.[47] Yet, by the middle of the

printed in succession to the Year Books was Les Comentaires, ou les Reports, of Edmund Plowden, first published in 1571. It was, like the Year Books, written in Law French, but English translations of it were published in 1761, 1779, 1792 and 1816").

[35] J.H. Baker, Records, Reports, and the Origins of Case-Law in England, in Judicial Records, Law Reports, and the Growth of Case Law 21 (J.H. Baker, ed., 1989).

[36] Id.

[37] Nomative reports are "named for the person who recorded or edited them." Morris L. Cohen et al., How to Find the Law 16 (1989).

[38] Id.

[39] Id.

[40] Id.

[41] J.P. Dawson, The Oracles of Law 65 (1968).

[42] Id. at 75.

[43] Id. at 77.

[44] Berring, supra note 15 at 19. During the colonial period, no American case reports were published. See Lawrence M. Friedman, A History of American Law 323, n. 55 (2d ed. 1985) (Friedman points out that some reports were published many years after the cases were decided. For instance, "Joseph Quincy's Massachusetts Reports (1761-1771) . . . [were] published in 1865."). Practicing lawyers relied on English case reports or gleaned the law from precious English legal treatises. Id. at 323. In part, this was because most judges in the American colonies were not legally trained, and "colonial lawyers considered the Superior Courts of England as the ultimate authority on the common law. . . ." See Erwin C. Surrency, A History of American Law Publishing 24-25 (1990). Some lawyers prepared manuscript volumes of local cases for their personal use and then shared them with their colleagues in the practicing bar.

[45] Friedman, supra note 44 at 323.

[46] Id.

[47] Like the English nomative reports, these early law reports were produced by private entrepreneurs eager to meet the demands of the burgeoning bar; gradually, however, appointed officials supplanted them and the nominative

19th century, the number of American case reports was still only a few hundred. The growth of official reports led to the reduction in publication of nomative report features; consequently, the character of the reporting process changed.[48] As the reporter became a state-appointed functionary, the position became political in many respects.[49] The production was erratic; quality varied and the reports took on a subjective form.[50] These reports did, however, "[e]nable states to put together their own common law, as independent of the common law of England, or other states, as they liked. At the same time, the reports made it possible for states to borrow more freely from each other."[51] They also provided for a system of comprehensive reporting and introduced a standard numbering pattern for volumes.[52]

29 It was not until after the Civil War, when the number of cases in the US increased dramatically, that commercial reporting developed.[53] ". . . West Publishing Company . . . began a profitable business based on taming the dragons of case law. The states published their decisions very slowly; West published them fast, and bound them up into regional reporters."[54] West prospered because "[b]y the 1880's, the legal profession was more than ready for a comprehensive court reporting system on a national scope."[55] At that point, the information retrieval system that has shaped American jurisprudence came into existence. In 1876, John West published his Syllabi, a weekly legal newssheet that provided full texts [page 232] of the decisions of the Minnesota Supreme Court, uniformly indexed.[56] Because of its popularity, it expanded to report cases of the Supreme Court of Wisconsin and was renamed the North-Western Reporter. In 1897, the publication was expanded yet again to include decisions of the Supreme Courts of Michigan, Iowa, Nebraska, North Dakota, and South Dakota. It was then renamed the North West Reporter. Within two years, the Federal Reporter and Supreme Court Reporter followed.[57] The entire set of West case reporters is known as the National Reporter System.

2. The Impact of West's Case Digest System on American Research Methodologies and the Development of Substantive Law[58] 30

West introduced two distinct ideas to the US legal community that 31 have had a profound effect on the development of US law. First, West introduced the idea of comprehensive case reporting through its National Reporter System. ". . . Cases, whether "legally worthy" or not, were entered into his "blanket system" of reporting."[59]

reports began to die out. In some ways, this development was salutary because "[o]fficial reports tended to be fuller and more accurate than unofficial reports, but they were also much more standardized.

[48] Id.

[49] Id.

[50] See generally, Berring, supra note 11 at 20.

[51] Friedman, supra note 44 at 325.

[52] See generally, Berring, supra note 15 at 19.

[53] See generally, Berring, supra note 15 at 21.

[54] Friedman, supra note 44 at 409.

[55] Woxland, supra note 17 at 117.

[56] Woxland, supra note 17 at 116. See also Virginia Huck, The Many Words of Homer P. Clark 113 (1980), quoted in Surrency, supra note 44 at 49.

[57] West Publishing Company encountered many strong competitors, but its regional reporters, along with its other reporters gave it comprehensive nation-wide coverage that eventually forced its competitors out of business. Id. Twelve years after the publication of West's "Syllabi" it could describe itself as "one of the largest publishing houses of any kind in the country." Woxland, supra note 17 at 116, quoting Stahl, Giant with a Low Profile, 10 Corp. Rep. 40 (Feb. 1979).

[58] The idea of the case law digest was not created by West Publishing Company. See for a detailed history of the origin of the digest, Surrency, supra note 44 at 111-127.

[59] Many decisions that judges wrote did not enter the classification system. Each state and federal court had rules for what should and should not be

32 "One effect of the blanket system, established by the West Publishing Company, has been to present the reports of several states in a single series . . . . This must necessarily have the effect of bringing about more general comparison of the adjudications of the different American jurisdictions upon particular questions, which must in the end result in a unification of the law."[60]

33 The blanket system had unintended consequences, and led to West's second great contribution to the development of American law. The eminent legal scholar, Grant Gilmore, noted that the effect of West's blanket report system was that "the number of volumes published increased year by year in geometric [page 233] progression . . . there were simply too many cases, and each year added its frightening harvest to the appalling glut. A precedent-based, largely non-statutory system could not continue to operate under such pressures."[61]

34 In order to foster efficient access to what Gilmore referred to as the "appalling glut" of case law, West purchased the U.S. Digest from a competitor in 1887, and eventually replaced it with the Century Digest in 1896.[62] With the advent of what came to be called West's American Digest System,[63] a comprehensive indexing scheme for state and federal case law, the legal researcher need not rely on his memory anymore for the information he needed.[64] High value was placed on retrieving information, and the American Digest System with its Topics and Key Number arrangement was the answer to this new challenge.[65] "...West produced a subject breakdown of every possible subject which could be the topic of an issue of law that could be resolved by a judge . . ."[66] "It [West] had a definite advantage in its uniformity, for the user did not have to determine the 'mental peculiaries and idiosyncrasies of the compiler of each new digest' to find the subject it needed."[67] "The classification system was valued as were such features as the cross-references, scope-notes, and the feature that all cases from the same state were grouped together in each heading."[68] Prior to the Digest System, "there was no comprehensive or uniform indexing of state and federal cases."[69]

35 West developed a subject classification system that satisfied the requirements for the American state and federal systems.[70] "Only a rudimentary knowledge of the federal nature of American law is required to recognize how bizarre it is to think that one subject classification system could serve all the states and the federal system as well."[71] But it was not bizarre and it did work. These categorizations became internalized in American law.[72] "The legal information system [page 234] intertwined itself with the organiza-

published. Yet, even if a decision was available at the court, it was not considered "published" unless it was published in a West Reporter. See, Robert C. Berring, Chaos, Cyberspace and Tradition: Legal Information Transmogrified, 12 Berkeley Tech L.J. 189, 192 (1997).

[60] Review of Lawyer's Reports Annotated, 22 Am. L. Rev., at 922 (1889) in Thomas A. Woxland, supra note 17 at 123.

[61] Grant Gilmore, The Ages of American Law 58-59 (1977).

[62] Id.

[63] "A digest is recognized in legal literature as an index to the points of law found in reported decisions. . . ." See supra note 58.

[64] See generally, Berring, supra note 15 at 22.

[65] The plan's originator, John A. Mallory, joined West's editorial department when the company acquired a smaller competitor. Mallory developed the American Digest Classification Scheme and the original Key Number Digest. See Delgado & Stefanic, supra note 29 at 215.

[66] Berring, supra note 11 at 21.

[67] Surrency, supra note 44 at 122 (footnote omitted).

[68] Id. at 123.

[69] Delgado and Stefanic, supra note 29 at 214. For a detailed history of the development of the American Digest System within the West Publishing Company, see Surrency, supra note 44.

[70] Berring, supra note 11 at 22.

[71] Id.

[72] Id.

tion of the law itself."[73] As the digest put one set of ideas at the researcher's disposal, it became difficult to visualize that another, or to imagine that another set of ideas could exist.[74] Moreover, as West grouped legal concepts into categories, they were then embedded in the courses taught in the classroom and became part of the intellectual wherewithal of the law school professor and judge.[75] "How one organized the law became the center of what the law could and did mean. While this was a conscious process for Langdell[76] and for West, as time passed, legal scholars forgot that choices had been made and began to see the existing categories as inevitable; thus the gestalt of law was created."[77] All legal thought had been homogenized based on the structure that was established to retrieve it.[78]

36 In the same vein that legal entrepreneurs were thinking over 100 years ago, the international sales law community at the dawn of this century must consciously decide how it wants to organize legal information so that it can begin to mould the manner in which the world conceptualizes international law.

III. A New Frontier: Organization and Dissemination of Materials on International Sales Law 37

> "Since the mere possession of writings does not give knowledge, how are we to extract from this almost incomprehensibly large collection of written records the knowledge that we need?"[79] [page 235] 38

[73] Id. at 24.

[74] Id at 22.

[75] Id. There is a presumption that if international materials were organized into a uniform classification scheme, they would become embedded in the law school curriculum through legal research classes, international law classes, moot court competitions and international law reviews. This development would inevitably make the classification system the way to conceptualize the law.

[76] "The whole corpus of legal education is constructed around Dean Langdell's theory that the law library, the place where the law student conducts research, is the laboratory of the law, and the process of legal research has been intertwined with the process of legal reasoning that is still the core of legal pedagogy." Id. at 9.

[77] Id. at 23. See also Geoffrey C. Bowker & Susan Leigh Star, Sorting Things Out: Classification and Its Consequences 108 (1999) ("[Informational] infrastructure does more than make work easier, faster or, more efficient; it changes the very nature of what is understood by work. Such changes always span multiple disciples, industries, and lines of work").

[78] West has been praised for having "been one of the largest factors in extending throughout all parts of this country the knowledge and use of the decisions of all [of the US's] highest courts, both state and federal, and thereby aiding to bring them all into harmony." Thomas A. Woxland, supra note 17 at 123 quoting Rich, The Debt of the Nation to Law Publishers, 30 Case and Comment, 3.5 (Jan. - Feb. 1924).

[79] Daniel D. Dabney, The Curse of Thamus: An Analysis of Full-Text Legal Document Retrieval, 78 Law Libr. J. 5, 12 (1986). In his article, Dabney includes part of Plato's Phaedrus. In Phaedrus, Socrates, in a conversation with Phaedrus, describes the legend of Theuth. Theuth was the Egyptian god who invented many arts (e.g., arithmetic, astronomy). His greatest discovery was writing. The King at the time, Thamus, who usually praised Theuth's inventions, did not approve of writing. He refused to teach it to his people. "If men learn this, it will implant forgetfulness in their souls; they will cease to exercise memory because they rely on that which is written, calling things to remembrance no longer from within themselves, but by means of external marks. What you have discovered is a recipe not for memory, but for reminder. And it is no true wisdom that you offer your disciples, but only is semblance, for by telling them of many things without teaching them you will make them seem to know much, while for the most part they know nothing ..." Phaedrus 275 a-b.
If the conclusion of this story is correct, and we do not possess knowledge internally, but must seek knowledge from the writings we retrieve, Plato should have continued the conversation between Socrates and Phaedrus to evaluate the systems that should be created to access the knowledge that one is seeking (e.g., for international commercial law: international codes, case law, scholarly commentaries, legislative history). The story should have also analyzed the impact that the research tools used to access the writings would have on the manner that we conceptualize the writings we uncover.
For a more modern view similar to Thamus', see comments by another state leader: "Much reading is an oppression of the mind and extinguishes the natural candle." William Penn quoted in Daniel Akst, On the Contrary: A

39 Enormous strides have been taken to revolutionize the speed and manner in which information on international sales law is disseminated. The University of Freiburg's CISG online website,[80] directed by Professor Schlechtriem, was among the first, and remains a leading site for reporting hundreds of CISG cases. The cisgw3 web site of the Institute of International Commercial Law of the Pace University School of Law,[81] in addition to case presentations, offers researchers a bibliography on the CISG, the Principles of European Contract Law (PECL) and UNIDROIT Principles that exceeds 5,000 entries.

40 Uniquely, a large percentage of the resources that have been established - UNCITRAL, Unilex, Pace, the Members of the Autonomous Network of CISG Websites - have offered their information on the Internet free of charge. This has enabled persons from all geographical backgrounds to utilize the sources, thus taking great strides toward the development of the global jurisconsultorium that is necessary to foster the uniform application of the law.

41 The challenge is that in international sales law, more attention has been paid to the amount of information that is disseminated rather than the manner in which it is presented. A predictable retrieval system should be the next step to build solidly upon that which the international community has already created. There is an incorrect presumption that researchers know the legal concepts about which they need information and how to obtain this information. If the West approach had simply been to provide a comprehensive system of reporting without systematically classifying the information obtained, it is possible that [page 236] the ability to properly rely upon precedent would have been strained because of the conflicts arising in jurisdictions based on the inability to obtain necessary legal materials.[82] Honnold has recognized that the ability to retrieve information is just as important as the amount of information that is available:

> "The development of a homogeneous body of law under the [Sales] Convention depends on the channels for the collection and sharing of judicial decisions and bibliographic material so that experience in each country can be evaluated and followed or rejected in other jurisdictions."[83] 42

1. Methodologies Currently Established for Retrieval of International Sales Law 43

There are three systems currently in place for the retrieval of materials on international sales law - the print index, computer-based Boolean searching and a system of organization based on substantive legal content. Each of these systems is analyzed in turn to determine whether any of them can provide the necessary structure for the creation of the framework to conceptualize international sales law. 44

(1) The traditional print index " . . . allows a researcher to locate relevant information in a collection of documents. The most common type lists subjects alphabetically, followed by a reference allowing the researcher to locate the information in the document collec- 45

Corner Office Has Little Room for Books, N.Y.Times, July 1, 2001, Business, at 4.

[80] See supra note 22.

[81] Id.

[82] Delgado & Stefanic, supra note 28 at 214.

[83] J.O. Honnold, supra note 2 at 127 as quoted in Ralph Amissah, Revisiting the Autonomous Contract (to be published). See also Lief Sevón, Observations, in International Uniform Law in Practice [Acts and Proceedings of the 3rd Congress on Private Law held by the International Institute for the Unification of Private Law (Rome 7-10 September 1997)] 135 (Oceana: New York, 1998) "To be able to take account of decisions from other countries one has first to be aware of them"; In the same vein: "[p]roper reporting of decisions [is an] essential prerequisite for the proper working [of the rule of precedent]." René David, The Legal Systems of the World, in International Encyclopedia of Comparative Law, Martinus Nijhoff: The Hague 133 (1984).

tion."[84] Most books on international sales law, e.g., Honnold's Uniform Law for International Sales Law[85] and Schlechtriem's Kommentar zum Einheitlichen UN-Kaufrecht (CISG),[86] include print indexes. The problem with this retrieval system is that, at the present time, indexes are usually generated from a subjective list of terminology. A single uniform law is represented by different terms in various indexes.[87] Accordingly, information could be lost because the user does not have the benefit of standardized terminology established to categorize the information. Also, the comprehensiveness and styles of these indexes vary dramatically. In some indexes, broad category headings are used to encompass a multitude of [page 237] international and domestic law concepts, while other indexes are so detailed that information might be missed unless the user is aware of the nuances in the legal concepts.[88]

46 (2) The second system is computer-based and relies on Boolean searching as the major means to find relevant information. Boolean searching, discussed in more detail infra, allows a user to search machine-readable files for keywords that best describe a topic. A unique feature of the Boolean system is that the user can combine keywords or phrases using the operators "and", "or" and "not." The problem, however, is that Boolean searching presupposes that users know exactly what they are looking for because it relies on exact terminology. For example, searching for material on "acceptance of goods" will not retrieve documents that employ the term "taking delivery of goods". Unless the material within the computer is "marked" in a certain way, Boolean searching does not take into account synonyms.

47 Lawyers are accustomed to terminology derived from their domestic laws. Yet, a lawyer using domestic terminology to obtain information on international concepts may not retrieve information he or she is seeking (e.g., the phrase "rescission of the contract" may not retrieve CISG cases reflecting "avoidance of the contract"). Moreover, since many persons are not familiar with the range of commands that retrieval systems provide to refine searches (e.g., nested Boolean searching or obtaining relevancy rankings), document retrieval by laypersons can have minimal and inconsistent results.

48 Web pages that include a Boolean search option, usually also provide the contents of the site in a list; sub-categories may be displayed after the top-level heading is "clicked." The lists frequently give only the title of the item of information, however, and not the category or term for the legal concept that the work represents. Therefore, this search method may really be useful only when the user knows the precise title of the document he or she is looking for.

49 (3) The third retrieval system we have today in international sales law moves away from traditional research methodologies and relies more heavily on the substantive content of the law as a means for the structure of its classification system. It has taken two forms. Both are organized under a provision of a law. Taking the CISG as an example, the first organizes its documents by legal issue, the second also by the use of an "Annotated Text Page."

50 (a) UNILEX uses a system that organizes CISG cases under each CISG Article pursuant to a list of legal issues that could arise under that Article.[89] The user is led to a case abstract

[84] Carol M. Blast & Ransford C. Pyle, Legal Research in the Computer Age: A Paradigm Shift, 93 L. Lib. Journal 285, 291 (2001).

[85] J. O. Honnold, Uniform Law for International Sales Law (Kluwer Law International 1999).

[86] Peter Schlechtriem (ed.), Kommentar zum Einheitlichen UN-Kaufrecht-CISG [Commentary on the UN Convention on the International Sale of Goods (CISG)] (C.H. Beck 1998).

[87] See e.g., Addendum.

[88] Id.

[89] UNILEX, edited by Professor Bonnell, also includes a traditional print index and a table of cases organized by country.

and copy of the text of the case. UNCITRAL [page 238] organizes its CLOUT abstracts in a similar manner, with a different coding system.[90]

51 (b) The Institute of International Commercial Law of the Pace University School of Law[91] applies the CLOUT coding system and accompanies it with Annotated Text Pages[92] for each individual Article of the CISG. These pages enable researchers to analyze the sum, i.e., the CISG Article, through all of its parts, i.e., the statute itself and its legislative history, scholarly commentaries, and case law. The pages also provide comparisons with the UNIDROIT Principles and PECL. The intent is to enable persons to access the contents of "books" of information on each element of the spectrum of issues present in the CISG by clicking on the materials most relevant to their research.

52 Both forms of the third retrieval system take closer strides towards the creation of the architecture necessary for information retrieval; however, neither goes far enough to offer a system that will aid sufficiently in the uniform conceptualization of all international sales law - not yet at least.

[90] As discussed in A/CN.9/SER.C/GUIDE/1, paras. 18-19, "the Secretariat [of UNCITRAL] [has publish[ed], based on classification schemes ("thesauri") separate indices for the UNCITRAL legal texts covered by CLOUT. The purpose of such indexes is to assist users of CLOUT in identifying cases relevant to a given issue by listing cases under the provision or sub-issue with which they deal." <http://www.uncitral.org/english/clout/indices/index1.htm>.

[91] Available at <http://www.cisg.law.pace.edu>. This retrieval system will be improved by classifying its materials according to descriptor categories. These categories, derived from the information retrieval thesaurus, the Uniform International Sales Law Thesaurus that is currently being constructed, will provide a framework for the conceptualization of international sales law.

[92] Recognizing that the analysis of any CISG Article should combine the actual CISG Articles, case law, legislative history and scholarly commentary, the Pace database provides "Annotated Text Pages" that seek to integrate all of this information for each CISG Article at one source.

2. Problems with Current Information Retrieval Systems for International Sales Law 53

All of the aforementioned methods assume that the user has a so- 54 phisticated level of knowledge in researching international topics. Most lawyers do not have this knowledge. Collectively, the information is too scattered among the different resources; individually, none of the current resources has established a system adequate to ensure quick, thorough retrieval results when the number of CISG cases and commentaries grows into the tens of thousands. Moreover, foreign case law that is provided through these sources is often written in a language unknown to the reader.[93] [page 239]

A uniform system for information retrieval should be created to 55 provide a framework for how the law itself should be viewed. Additionally, a systematic, comprehensive case translation program must coexist with the information retrieval system to ensure that information that is retrieved can actually be utilized.[94] These two elements have the potential to lift international sales law from the domestic law paradigm. International sales law must be given a

[93] See Franco Ferrari, Applying the CISG in a Truly Uniform Manner: Tribunale di Vigevano (Italy), 12 July 2000, Uniform Law Review, NS-Vol. VI., 203, 206 (Kluwer Law Publishing 2001) ("Resorting to foreign case law undoubtedly promotes the uniform application of the CISG. However, requiring interpreters to consider foreign decisions can create practical difficulties . . . foreign case law is often written in a language unknown to the interpreter").

[94] The QM Case Translation Programme was inaugurated on September 27, 2000. As of July 27, 2001, over 150 full texts of CISG cases in English or English translation have been entered on or are being readied to enter on the cisgw3 website. Additional case translations are being processed. The 150+ case translations cited include opinions of the Supreme Courts of Argentina (1 case), Austria (3 cases), France (4 cases), Germany (8 cases), Hungary (1 case), Israel [relevant excerpts only] (1 case), Netherland (1 case), Switzerland (1 case), and of the Supreme Constitutional Court of Colombia (1 case). See supra note 22 for further reference to Pace Law School and Queen Mary CISG Translation Programme that has been designed to coexist with the information retrieval system.

structural backbone so that it can stand autonomously. Creating the architecture for an information retrieval system that can absolve the homeward trend is the next hurdle for the international community. The creation of a uniform system for the retrieval of knowledge on international sales law is one of the elements required to meet the goal of a true global jurisconsultorium and uniform application of international sales law.

56 This goal begs the next question: What should the blueprints for the creation of a uniform system of information retrieval look like? What are the first realistic steps that should be taken towards establishing a framework for international sales law? As was the situation over a century ago in the US, the answer is found in library science methodologies, specifically, the creation of an information retrieval thesaurus.

57 3. Uniform International Sales Law Indexing Language

58 A uniform system for information retrieval would help achieve a more consistent application of international sales law. The term "uniform system" suggests that in different media - print or computer-based - legal concepts would be indexed using the same controlled terminology. Ideally, all information sources would be merged to provide a "one-stop shop" for international sales law. Until that goal is realized, consistent, uniform classification of information in the various sources is the next best practical step.

59 There are two tools that could be used for the creation of a uniform language for the classification of information - classification schema, and information retrieval thesauri.[95] [page 240]

60 (1) The first option, a classification schema, assigns numbers to categories of information. Subjects are then classified by number (e.g., the Dewey Decimal System). This system does not provide the structure necessary to create an autonomous international vocabulary. Creating categories for legal topics could be a respectable beginning, but it will ultimately be a flawed route to the control of information because it allows too many domestic law ideas to be pushed into broad categories.

61 (2) The second option, the creation of an information- retrieval thesaurus for international sales law, is the most effective tool for the organization of materials in this field of law. Unlike either the UNCITRAL Thesaurus on the CISG,[96] which provides a helpful outline of the contents of each Article of the Sales Convention, or Roget's Thesaurus, which provides a list of synonyms, the information thesaurus is a controlled vocabulary[97] containing all the possible subject headings for an index (called "descriptors") and charting the semantic relationships between the terms. The following highlights the main technical aspects of such a thesaurus. The subsequent discussion focuses on the use of a thesaurus for indexing international sales law materials.

62 An information retrieval thesaurus can be created using either a deductive method (terms are extracted from documents, but no control over the terms is made until enough terms are gathered, and

[95] Paul Miller, I Say What I Mean, But Do I Mean What I Say? Ariadne Issue 23 (visited June 18, 2001) <http://www.ariadne.ac.ukk/issue23/metadata/>.

See also J. Milstead, "How Do I Build a Thesaurus" (visited June 4, 2001) <http://www.asindexing.org/thesbuild.shtml> (prepared specifically for American Society of Indexers web site) for information on the top-down and bottom-up methodologies for thesaurus construction.

[96] See supra note 65.

[97] In the alternative, an uncontrolled vocabulary is essentially a list of words and phrases. This list can be drawn from the information that is to be classified. Uncontrolled vocabularies lack structure and do not provide a mechanism to deal with the challenges that exist in the creation of a multilingual, international vocabulary, a vocabulary that must be released from the confines of domestic legal connotations.

then relationships are assigned) or through an inductive method (terms are selected as they are encountered in documents; vocabulary control and relationships are applied at the outset).[98]

63 For the creation of an international-sales-law thesaurus, an inductive method should be applied to immediately delineate domestic terms from international terms and select preferred descriptors. The scope of this thesaurus is international sales law, the range of its domain can therefore vary based on subjective definitions of this field. Generally, we can commence assembling descriptors for this thesaurus by deriving them from the CISG, UNIDROIT Principles, Principles of European Contract Law (PECL), lex mercatoria, case law, and scholarly commentaries on them, arbitration rules (inter alia, institutional rules and the UN Model Law on International Arbitration) and Incoterms. Reference materials that are released by the United [page 241] Nations and other organizations and associations should also be incorporated. For example, the United Nations has published an "International Trade Law Terminology" in three languages, and the International Chamber of Commerce provides a book of "Key Words in International Trade" with terminology represented in five languages.

64 It is not necessary that every commentary on international sales law (ranging in the thousands) be consulted in the creation of this thesaurus. Rather, "key" books and articles should be referred to initially. Descriptors can be modified later, or new descriptors added based on the terms discovered through further research and indexing - the thesaurus is alive; it can always be modified to reflect new legal thoughts. Moreover, since this is a list reflecting international terminology, it should be annotated so that different jurisdictions can be assured that it reflects a balance of sources from different countries and legal cultures.

[98] National Information Standards Organization, Guidelines for the Construction, Format and Management of Monolingual Thesauri, ANSI/NISO Z39.19-1993 at 27.

65 Although the thesaurus is premised on the idea of extracting terms from international sales law and then applying its terms to classify this law, the imputation of commercial law terms from domestic laws should not be precluded. This feature will only enhance the influence the thesaurus could have on the goal of an autonomous interpretation of international sales law generally. By way of illustration: in the United States a person conducting research on international sales law who is not familiar with its domain would likely use the terminology from Article 2 of the UCC in that person's search. If the thesaurus includes terminology from the UCC, but directs the user to terms which represent parallel legal concepts in international sales law, the researcher is more likely to get all the information needed and is no longer relying on domestic law to find the answer to international legal questions. The incorporation of domestic laws into the structure will impact the substantive development of the law[99] as well as making the search mechanisms derived from the thesaurus more user-friendly.

66 One of the unique attributes of the information retrieval thesaurus is that it establishes relationships among the terms. The relationships have the ability to control the terms that will denote legal concepts and also place each term within a framework delineating its position in the hierarchy of all of the other descriptors representing legal concepts. [page 242]

4. Relationships Established Between the Descriptors 67

68 Semantic relationships[100] - An information retrieval thesaurus denotes the permanent relationships arising from the definition of the

[99] See generally Bowker & Star, supra note 77 at 141, stating that one benefit of the ICD (International Classification of Diseases) is that "it can be used in transnational comparisons, especially where there are radical local differences in belief, practice, and knowledge representation".
[100] See supra note 98 at 13.

subjects involved. There are three types of relationship:

69 a. Equivalence relationship[101] - it includes synonyms, quasi-synonyms (terms whose meanings may be regarded as different, but which are treated as equivalents for purposes of the thesaurus),[102] variant spellings, acronyms, full forms, and translations. For example:

70
```
Entry Term - rescission of contract
       Use - avoidance of contract
Descriptor - avoidance of contract
       Used for -    termination of contract
                rescission of contract
                renunciation of contract
                repudiation of contract
                cancellation of contract
                cancellation of contract
```

71 (in its multilingual form could also direct the user, for example, from the German equivalent of "avoidance of contract" (Rücktritt) to the English term, which would lead to all the information on the subject regardless of the language).

72 A further example:

73
```
Entry Term - PECL
       Use - Principles of European Contract Law
Descriptor - Principles of European Contract Law
       Used for (UF) -    PECL
                Lando Principles
```

74 b. Hierarchical relationship[103] - represents broader and narrower terms for each descriptor that is in the thesaurus. The broader term provides the researcher with the context of the legal concept. For example:

75
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Descriptor - damages
```

[101] Id.
[102] Id. at 15.
[103] Id at 16.

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Broader Term (BT) -    remedies
Narrower Term (NT) -    consequential
damages
                exemplary damages
                liquidated damages
                incidental damages [page 243]
```

76 c. Associative relationship[104] - represented within the thesaurus by related term codes and covers "associations between descriptors that are neither equivalent nor hierarchical; yet the terms are semantically or conceptually associated to such an extent that the link between them should be made explicit in the thesaurus, on the grounds that it may suggest additional descriptors for use in indexing or retrieval."[105] For example:

77
```
Descriptor - damages
       Related Terms (RT) - calculation of
damages
                mitigation of damages
                reduction in damages
                proof of damages
```

78 Relationships such as these are explained in the Addendum to this paper and defined and explained further in the ANSI/NISO Guidelines for the Construction, Format and Management of Monolingual Thesauri.[106] The ANSI/NISO Guidelines (and the Addendum to this paper) also illustrate other elements of thesaurus construction, including the use of the "scope note." This is a note following a descriptor explaining its coverage, specialized usage, or rules for assigning it.[107] A scope note allows the creator to tailor the terminology so that its application is limited. If a word has a certain "scope" in domestic law but a different "scope" in, for example, the CISG or the UNIDROIT Principles and the PECL, the scope

[104] Id.
[105] Id. at 3
[106] See supra note 98.
[107] Id. at 3.

note is used to direct the user to apply the term only in the manner defined by the CISG or in these "restatements."

79 English is today the most popular language for writings on international sales law. An international sales thesaurus may therefore commence with the English language; however, the mechanisms used to organize this field of law should not be reliant solely on the terminology of one language. Applying relevant thesaurus standards, the information retrieval thesaurus should also include various languages to effectively incorporate materials from around the world into the framework. The International Standards Organization has established a standard for the creation of a multilingual thesaurus.[108]

80 Software invented for the creation of information retrieval thesauri permits the creator of a thesaurus to generate broad subject categories for its terms. These categories could be most effectively used in this domain by assigning terms to specific international law instruments (or, more specifically, the Article numbers within the law), e.g, the CISG, UNIDROIT Principles or PECL. Similar categories can be created for terms derived from Arbitral Associations or [page 244] Incoterms. By creating relationships between terms and assigning them to subject categories, the thesaurus designer provides a multitude of possibilities for the creation of search mechanisms, for manipulating the presentation of information based on users' needs in the confines of a uniform terminology.

81 A thesaurus is the first, but essential, step in the creation of a uniform framework for the conceptualization of international sales law. The thesaurus becomes most useful when case law, scholarly commentaries and legislative history materials are indexed together for information retrieval. All these documents can be classified under descriptors from the thesaurus, with different descriptors assigned to different legal instruments as appropriate; those descriptors are then used in the index. For example, because the CISG and the UNIDROIT Principles and PECL assign different meanings to the terms "avoidance" and "termination":

- 82 For CISG purposes, all information on termination of contract pursuant to the uniform law will be placed under its preferred term "avoidance of the contract" rather than "termination of the contract." The index will have the cross-reference to "termination of contract," see "avoidance of contract (CISG)."
- 83 "Termination of the contract," however, will remain a preferred term in the thesaurus to categorize similar information on topics relating to the UNIDROIT Principles and PECL, but with a different scope note defining its usage in these contexts.[109]

84 The marvel of a thesaurus is that it can ensure that all information is "tagged" using the same terms, which will have the implicit effect of teaching lawyers to associate and categorize particular terms with either their domestic law or a particular international legal instrument. Consider the comments of Daniel P. Dabney in his article, The Curse of Thamus: An Analysis of Full-Text Legal Document Retrieval:

> 85 "Another effect of subject authority control [thesaurus control] in indexing may be an influence on the substantive development of the subject of the collection. For example, some of the terms that might be used as subject headings have connotations that implicitly comment on the subject matter so indexed. Consider, for example, that generations of lawyers and judges have found law relating to employment relations under the heading "Master and Servant." This subject heading no doubt seemed reasonable to the legal community of the

[108] Documentation - Guidelines for the establishment and development of multilingual thesauri, ISO 5964 (1985).

[109] See the Addendum to this Article for further comments on thesaurus treatment of "avoidance" and "termination" under the CISG and the UNIDROIT Principles and PECL.

> turn of the century when the heading was incorporated into the West key number system. A different segment of the society of that period might have found it reasonable to put such material under the heading "Toiler and Leech," and colored fruitful perception of the topic in a different way. "Toiler and Leech" seems outrageous to us; "Master and Servant" seems merely archaic, but this is to a large extent the effect of familiarity. . . . The precoordination [page 245] of subject headings in a thesaurus also may affect the development of the literature by making it appear that certain ideas go together and others do not."[110] 88

86 This quote is not only an indication of the influence that a thesaurus can have on the perception, growth and development of concepts in the law, but further serves as a warning to the international sales law community as it works to create an information retrieval system. A methodology that is created to classify information must maintain a high level of flexibility to ensure that new legal thoughts are not recycled into archaic classification schemes. Descriptors should be periodically reviewed by practitioners and academics within this area of law to ensure that the terms are representative of current legal concepts, and are not, in effect, hindering the progression of the law.

87 It is now time to index all international sales law based on a uniform terminology derived from a suitable information retrieval thesaurus to influence the substantive development of the subject, so that courts and arbitral tribunals will place certain legal ideas together (international) and keep others apart (domestic and international).

A. Does Free-Text Searching or Boolean Logic Eliminate the Need for an International Sales Law Indexing Language?

> "[A] revolution in legal research is taking place right now because of a technological change. . . . With computers, researchers can formulate their own word searches rather than rely entirely on the predetermined indexing of a digest."[111] Many people applaud the fact that free-text searching and Boolean logic have liberated researchers from the confines of an index.[112] Since so many research sources on international sales law are computerized and will continue to evolve in this format, it is necessary to examine whether it is even necessary to create a information retrieval thesaurus for indexing international sales law at this stage. 89

Free-text searching and Boolean logic are tools used in the context of computer-based searching. "Full-text searching enables a researcher to search for every occurrence in the database of any word or combination of words without a pre-existing index."[113] "Boolean logic is a syntactical calculus used for the comparison of data items (words and numbers) and combinations of data items. . . . The power of the Boolean search is the ability to match items that have a specific [page 246] relationship within a document.[114] In a full-text system, such as LEXIS or WESTLAW the use of these conjunctions allows the researcher to create a context - to specify a relationship 90

[110] Dabney, supra note 79 at fn. 8.
[111] Blast & Pyle, supra note 84 at 285.
[112] Dabney, supra note 79 at 17 ("In full-text document retrieval, there is no human subject indexing").
[113] Robert C. Berring, Full-Text Databases and Legal Research: Backing into the Future, 1 High Tech. L. J. 27,28 (1986).
[114] Boolean combinations of descriptors can also exist. Free-text searching can independently function without Boolean operators.

between the terms for which the researcher is searching."[115] Although these systems have been praised because they do not rely on a pre-coordinated index, they have also been criticized because they do not provide the non-inaugurated researcher (a researcher unfamiliar with the conventions of database searching or unfamiliar with the subject he is seeking to research) with the tools to obtain all of the information he may need on a particular area of law.[116] It is important to consider the mechanics of computer-based research in order to understand why it is not well suited to retrieving legal concepts. "Information in legal databases is organized by words [which are] ... placed in a massive alphabetized list, and [their] location ... noted; this is called the concordance ... the computer essentially compares the words in our request to the concordance, and notes the documents that have the word combinations we have requested ... There is no discernible framework ... There is no overriding organization of concepts and rules. Searching for concepts and rules is something that computers are notoriously poor at doing."[117] [page 247]

91 Whether a supporter or critic of Boolean or free-text searching, neither approach should be considered the last and most effective tool for creating a uniform information retrieval methodology for international sales law. Free-text searching assumes a certain level of knowledge with respect to the terminology that must be used in the search. As mentioned supra, in most applications it has not been made to handle synonyms nor consider the legal background of the user (possibly using domestic terminology familiar to him

[115] See supra note 112.

[116] Dabney reports as follows on the current Lexis and Westlaw approach: "Both LEXIS and WESTLAW rely almost exclusively on the ability of the systems to recognize words supplied by the user. The difficulty with this approach is that there is an imperfect correspondence between words and ideas." Op cit. at 17. Because many judges and practitioners are not likely to use exactly the same words to describe concepts or ideas, West Publishing has tried to compensate by creating a "Full-Text Plus" system. "This system refers to the fact that the WESTLAW database contains the full text of cases plus the same text of headnotes and Digest summaries printed in the National Reporter System. West posits that this addition introduces 'normalized' language because the trained editor has again entered the picture. The uniform language in the headnote and syllabus are supposed to compensate for the imprecision of the judicial author. Thus, the searcher can formulate a search strategy knowing that his search phrase will be matched up both with the text of the judicial opinion and with the 'normalized' language introduced by West editors in the headnotes and case synopsis." Id. at fn 68.

[117] Barbara Bintliff, From Creativity to Computerese: Thinking Like a Lawyer in the Computer Age, 88 Law Library Journal 338, 346 (1996).
"LEXIS and WESTLAW have begun to develop concept-based systems and have introduced 'natural language' search interfaces as a step in this direction. We now have Freestyle and WIN, respectively. Natural language moves towards a conceptual search system, with a list of thousands of commonly used legal phrases indexed in addition to words. But natural language requires a complex search interface, which substitutes a series of mechanical judgments for our decision-making process. The computer program 'identifies' the 'concepts,' which are basically nouns or legal phrases, in the search request, and matches them against its inventory of words and legal phrases. The program identifies other documents with the same concepts and ranks its findings by statistical relevance - primarily by the number of times the concept occurs and how close to the beginning of the document it first occurs.
Like other computer searches, sometimes the results of natural-language searches are extraordinary, and sometimes they are worthless; usually they are somewhere in between. In any event, your ability to think in computerese and the underlying logic of the computer program determines the outcome of your research. This isn't the bias-free, untouched-by-human-hands results we expect of a computer, for many decisions are made for you by the computer program. Furthermore, many programmers are convinced that a better search, even for conceptual information, can be crafted using the Boolean techniques. One developer of CD-ROM-based legal materials stated that natural-language searching compared to Boolean searching is like using an automatic transmission versus a stick shift. 'You don't need to know anything about transmissions to drive an automatic, but all the race cars have stick shifts.'" Russ Armstrong, CD-ROM v. Law Books, Law-Lib Discussion List (Jan. 8, 1996) email at <law-lib@ucdavis.edu.in> Blintiff at 347.

or her).[118] These search mechanisms are useful in a national law context, because the framework for the law is already understood, and terms can be used with a level of confidence[119] and security that they will produce complete and relevant research results. In the context of international sales law, a uniform terminology that represents legal concepts for the purposes of searching must still be created.[120] [page 248]

[118]WESTLAW does now provide its users with an option to check a thesaurus of "Related Terms" when a researcher is conducting a search. It therefore permits its users to search with broader terminology, increasing chances of success for the retrieval of relevant information. Although Westlaw does not currently account specifically for the domain, i.e., terminology, of international sales law, it is the sort of technology into which the International Sales Law Thesaurus could easily be incorporated.

[119]This confidence is probably unjustified. "Several extensive studies have clearly documented a false sense of security on the part of computer researchers. One study commented that users felt that 'because the source is 'technological,' they are finding everything or, at the very least, finding the best materials. ...We have suspended our sense of disbelief when it comes to computers." Bintliff, supra note 116, at 349, quoting F.W. Lancaster et al., Searching Databases on CD-ROM: Comparison of the Results of End-User Searching with Results from Two Modes of Searching by Skilled Intermediaries, 33 RQ 370, 382 (1994).

[120]As Professor Germain puts the problem and a solution: ". . . Search engines are essentially of two kinds, human-mediated 'intellectual' indexes and 'robot' or automated indexes. In the intellectual indexes, individual web sites are classified by hand according to various classification schemes . . . 'Robot' or automated indexes use programs that download every page ... so that every word on every page can be indexed by a ... search engine ... An April 1998 study by the journal Science concludes that search engines are not thorough in finding relevant documents, because they each only index a fraction of the total documents available ... The lesson is not to rely on just one engine . . ." Claire M. Germain, Content and Quality of Legal Information and Data on the Internet with a Special Focus on the United States, 27 Int'l J. of Legal Info. 296 (1999) [citations omitted]. For more on difficulties associated with "intellectual" indexes and "robot" or automated indexes, see Section 6 of Graham Greenleaf et al., Moving Access to Law into the 21st Century (visited June 18, 2000) <http://www2.austlii.edu.au/~graham/AALS/Restatement-A.html>.

For international sales law, an index (based on the terms in the thesaurus) should be incorporated into search interfaces to allow the user to see and utilize the framework that has been created for the law.[121] Law librarians have recommended the combination of Boolean searching with editorial features (e.g., indexing, etc.).[122] Possibly, a "mark-up language," e.g., legal XML,[123] could be used to incorporate the relationships established in the thesaurus to ensure high recall[124] of relevant[125] documents. Whichever alternative is adopted, computer-assisted legal research in its present form does not justify the abandonment of the precoordinated index. 92

IV. Conclusion 93

It is in the interests of all lawyers engaged in the scholarly and practice-oriented world of international sales law to achieve the uniform application of the law's uniform words. The architecture must be built for the framework that will form the pillars of international sales law, enabling it to stand autonomously in light of domestic notions that have the potential to threaten its foundations. The International Sales Law Thesaurus is an idea whose time has come. It will provide the structural backbone for the consistent indexing and retrieval of sales law materials, thus paving a road for the global conceptualization of the law itself. 94

[121]See, e.g., supra note 92.

[122]Dabney, supra note 69 at 34 ("The addition of good human indexing to CALR data bases is a promising approach to the problem of improving retrieval performance in such systems . . .").

[123]See Legal XML Standards Development Project at <http://www.legalxml.org>.

[124]Recall is the percentage of the total number of relevant documents in a database that are retrieved by the search being studied. See supra 69 at 15.

[125]Relevance is the relationship between a question and a document that makes the document important to the person researching the question. Id. Dabney points out that as recall goes up, relevance goes down, and vice versa. This is a problem inherent in most CALR systems. Id. at 16.

95 ## V. Addendum: A Further Illustration of the Structure of an Information Retrieval Thesaurus

96 The construction of an information retrieval thesaurus will create a fixed international sales law vocabulary that can be used for indexing materials on the subject. It will ensure uniformity in the use of terminology in indexes, and [page 249] also forms the basis for the architecture of the index as it has mapped out the hierarchical relationships among descriptors.

97 The thesaurus would provide the underpinning for the sets of descriptors that open up tailored access to broad ranges of international sales law materials.

98 A myriad of issues arise during the thesaurus' creation, however, because different terms are used in different legal instruments to represent the same legal concepts and/or the same term exists within a single instrument to connote several legal concepts.

99 The following chart illustrates this, focusing on the term "avoidance." Avoidance of a contract is a legal remedy to stop performance of the contract under Articles 49 and 64 of the CISG. This remedy may be invoked by one party when the other party has committed a fundamental breach of contract or, in certain cases, failed to perform within an additional fixed period of time. Simply put, it is a cancellation of the contract. "Avoidance of the contract," however, is not a term found in domestic laws, it is a term created by the drafters of the CISG. The term "avoid" is found in other international instruments as well (yet, within a different legal context). Moreover, different terminology is used in other international instruments to represent a legal concept that is similar to the CISG's concept of "avoidance." The chart illustrates the various terms that exist to represent similar legal concepts, or simply cause confusion:

100

CISG	UNIDROIT Principles	PECL	Domestic Law
Avoidance of contract	Termination of contract	Termination of contract	
Article 49	Article 7.1.5	Article 8:106	Rescission
Article 64	Article 7.3.1	Article 9:301	Repudiation
			Renunciation
			Termination
			Cancelation
			Cancellation
			Rejection
			Revocation
Agreement to terminate Contract	Agreement to terminate contract		
Article 29	Article 3.2		
	Avoidance of contract	Avoidance of contract	Nullity actions
	Article 3.5	Article 4:103	
	Article 3.7	Article 4:107	
	Article 3.8	Article 4:108	
	Article 3.9	Article 4:109	
	Article 3.10		
	Article 3.11		
		Avoidance of term	
		Article 4:110	

Looking at the chart from left to right, the terms that are in "bold" have the same legal meaning, but are represented by different words. The terms that are "italicized" do not necessarily have the same legal meaning as these "bolded" terms, but are domestic terms that might be used to get to the legal concepts represented by the terms from the three international instruments ("bolded" terms). 101

The following illustrates how the thesaurus could create a structure 102

for these sets of descriptors and decipher the relationships between the terms from varying sources.

Thesaurus Codes and Relationship Indicators:

Standard thesaurus codes:

BT = Broader term

NT = Narrower term

RT = Related term

SN = Scope note

U = USE

UF = Used for

Legal codes:

CISG = CISG Article

PECL = Principles of European Contract Law Article

UNIDROIT Priniciples = UNIDROIT Principles of International Commercial Contracts Article

avoidance of contract (CISG)

```
      >
      CISG:                   49
                               64
                               72
                               73
                               81
      SN:                      In case of fundamental breach
or non-performance in additional period of time.
      UF:                      cancelation of contract [page
251]
                               cancellation of
contract
                               effective avoidance of
contract
                               ipso facto avoidance of
contract
                               rejection of contract
                               repudiation of contract
                               resolution of contract
                               revocation of
acceptance
                               termination of contract
      BT:                      avoidance (commercial
law)
                               remedies (commercial
law)
      NT:                      avoidance of contract by
buyer (CISG)
                               avoidance of non-conforming
installment (CISG)
                               avoidance of contract by
seller (CISG)
                               partial avoidance of contract
(CISG)
      RT:                      notice of avoidance of
contract (CISG)
                               termination of contract
(UNIDROIT Principles, PECL)
```

termination of contract

```
      U:                       agreement to terminate
contract (CISG)
                               avoidance of contract
(CISG)
```

termination of contract (PECL, UNIDROIT Principles)

```
      UNIDROIT Principles:     7.1.5
                               7.3.1
      PECL:                   8:106
                               9:301
      SN:                     In case of fundamental breach
or non-performance in additional period of time.
```

BT: remedies (PECL, UNIDROIT Principles)
termination
RT: avoidance of contract (CISG)
notice of termination of contract (PECL, UNIDROIT Principles)

121 **agreement to terminate contract (CISG, UNIDROIT Principles)**

122 CISG 29
UNIDROIT PRINCIPLES: 3.2
BT: agreements (law)
NT: oral agreement to terminate contract (CISG, UNIDROIT Principles)
written agreement to terminate contract (CISG, UNIDROIT Principles)
RT: avoidance of contract (CISG)
release from contractual obligations [page 252]

123 **avoidance of contract** (PECL, UNIDROIT Principles)

124 PECL: 4:103
4:107
4:108
4:109
UNIDROIT Principles: 3.2
3.7
3.8
3.9
3.10
3.11
3.12
SN: In case of relevant mistake, fraud, unjustified threat, gross disparity, third party fraud, threat, gross disparity or mistake.
UF: nullity actions
BT: avoidance
NT: avoidance of contract by buyer (PECL, UNIDROIT Principles)
avoidance of contract by seller (PECL, UNIDROIT Principles)
partial avoidance of contract (PECL, UNIDROIT Principles)
RT: avoidance of term (PECL)
termination of contract (PECL, UNIDROIT Principles)

[page 253] 125

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