On the Net and the liberation of information that "wants" to be free
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A call for action by the United Nations, Universities, researchers, and development agencies, with reference primarily to international trade law

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On the Net and the liberation of information that "wants" to be free   a

1 - Introduction

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"Thinking is not just being right and avoiding error. Thinking is exploration, new concepts and design for a better future." - Edward de Bono

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There are several possible ways for the Net to be used, one of which results in the creation of a vast domain of valuable public information. With the Net we face something new and rapidly developing, that is completely different from the tools that have been available to us before. Mildly put, the Net redefines the rules for the dissemination of information. To take advantage of the Net, it is necessary to examine its potential and the array of new opportunities it brings with it, and then to work towards the realisation of the goals that are most attractive. The focus of this article is not on the way the technology of the Net will develop, but rather on the opportunities the Net opens for the publication of writing undertaken for non-commercial purposes.[1] In the past such publication has been largely through commercial channels, without a realistic alternative. This article suggests that there is much extremely valuable information that "wants" to be free, and how it now can be made so. It also suggests that the acts of individuals and institutions interested in non-commercial publication, can make a difference in this happening, and in fact "are" the difference. For those interested in the publication of information on a non-commercial basis, the Net is able to deliver today.[2] Will the non-commercial publishing sector create a valuable public domain of information, or must the temptations or necessity of commerce as before, subsume it. Most problems named in connection with the Net are details that have solutions, technical or otherwise, which others and I would be prepared to take up in other writings.

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2 - Past, present and future perspectives of information and the Net

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In this section on the Net and information, we look first back in time, and then forward, from a number of different perspectives, to provide background as to the nature of the Net and some of its implications.

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[1]Non-commercial motives for publication might include for example: many scholarly writings - for peer review, achieving higher qualification, gaining tenure and critical acclaim; working towards harmonisation of a given area of law; development assistance. These examples are developed further in this paper.

[2]The same is not true of commercial use. Massive investments are being put into the Net to make it usable for commercial purposes. Net commerce requires a number of additional elements to be put in place, amongst them payment systems, and encryption. Commercial publishers are aware of the possibilities of the Net, and will play a major role in publishing on it when the additional technology required by them is fully in place.

Developments during the course of writing this paper in relation to user interfaces, suggest that commercial providers now also deliver conent over the Net with similar utility and user friendliness, namely: the announcement by Lexis-Nexis$^{®}$ of its latest offering developed together with Microsoft$^{®}$ (29.01.1997); and the latest version of the Norwegian law database Lovdata$^{®.}$

2.1 - Short historical perspectives

Short takes on: the importance of written information; the development of usability of the Net, and; the author's experience with the Net.

2.1.1 - The importance of writing in a historical context

Writing has been the primary vector for the advancement of higher learning (and certainly law). This may be because it is a concise medium for recording information, which can be carefully formulated before publication; it may be expanded upon or summarised; it may be dealt with in units of expression, which may be built upon if approved, and otherwise can be ignored or rejected; it provides building blocks for use in other works. No doubt much has been written on the subject. In any event as the means of dissemination of writing have improved, centres of higher learning have spread.[3] The Net implies writing may be instantly available everywhere.

Paper libraries for all their merits impose limitations on the sharing of information and structure of education, easily recognised if contemplated. The library must be physically proximate to the user. Materials not contained within the library may not be easy to come by. Studies have to be designed so as not to have too many students doing research into the same topic, requiring access to the same materials - (undergraduate) students must be largely confined to textbooks and collections of study materials.

2.1.2 - A perspective on the usability of the Net

The first graphical browsers in 1993 made it clear to me that the Net was ready to be used by anyone, of whatever background, who had access, and a use for the information to be found there. These browsers largely removed the learning threshold required to obtain information from the Net. Now lawyers could use the Net if they had reason to. There were few legal resources on the Net.[4] Describing the possibilities of the Net to potential users proved to be insufficient, as it appeared that few who had not experienced it in practice within their field of interest could perceive its value. Ananse/ ITL set out to demonstrate the usefulness of the Net, and to promote and provoke further activity.

The Net is currently undergoing a change similar to that which occurred in 1993, this time on the publication side. Publication has continually been simplified until it is now so simple that anyone with the right connection to the Net can publish. All that is needed in addition to a suitable connection to the Net is Internet server software, which

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[3]Prior to writing there was only the oral tradition; The first writing was done largely on immoveables - rock walls, wood. With paper, writing became moveable, but making copies was slow; The printing press made possible the mass production and distribution of texts, which greatly enhanced the spread of higher learning. Adapted from paper *"Distance Learning in Cyberspace"* Moira J. Simpson presented at the 4th International Conference on Substantive Technology in the Law School and in Practice, University of Montreal, Quebec, 3-6 July 1996.

[4]Telnet applications and the traditional commercial databases, are not included in our discourse about the Net.

can reside on your PC or elsewhere, and your Word Processor, which will allow you to save texts in several file formats including "html" the standard file format of the Net.[5] The result is a totally new economics and dynamics of publishing.

2.1.3 - A brief history of the site Ananse/ ITL (International Trade Law)

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In 1993 the ITL originally named Ananse[6] was begun. The initiative was early, this was one of the very first law sites on the Web,[7] and existed at a time when the Web had about 200 servers as compared with the millions that exist today. ITL was the first Web site dedicated to a given area of law on the Net, international trade law, and is to date recognised as the premiere site[8] for international trade law materials[9] and links to related information on the Net. It must be stressed however that this effort is experimental, and a demonstration of what is possible.

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Several motives lay behind the development of Ananse/ITL, which also give a general idea of what it attempts to do. (a) Working within an academic environment, it was an opportunity to explore how the Net might be used in relation to legal research and education.[10] (b) It facilitated access to international trade law materials, and had a community effect in that work once done, need not be repeated by others. Recognition that these materials, (which were of global interest) came from disparate sources and that they were more difficult to come by than they ought to be. (c) It was also clear that such a collection would be of interest and to the benefit of those in international law circles interested in promoting the harmonisation and unification of law. Primarily by increasing the availability of materials and thereby the awareness of such efforts,

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[5]This is not to suggest that it can also be done in a more sophisticated and complicated manner, nor that there may important choices with regard to the most appropriate technologies.

[6]After a spider of West African (Ghanaian) folklore, admired for its intelligence and industriousness. In the most popular fable with which Ananse is identified: Ananse collected for himself, all the information/knowledge/wisdom of the world. This Ananse intended should be stored securely in a secret place at a great height, out of reach of all other creatures. The repository of information was broken however, being accidentally dropped from this great height. As a result of this, the information was scattered even further afield than it had been previously, to the greater benefit of all creatures on earth.

[7]Others active at the time included Cornell University, Legal Information Institute and Indiana University.
Note: Web is short for World Wide Web or WWW, (it is a lot shorter to say than either).

[8]By such other sites as: the United Nations; UNCITRAL; The Research Division of the WTO; The US Library of Congress; The Norwegian State Department; Cornell University Legal Information Institute; Yale University Library, United Nations Scholar's Workstation, and too many other Universities to mention. Excite$^{\®}$ provides the following description: "This wonderfully full site explores issues of international trade law, complete with full-text treaties, conventions and laws (including GATT). Compiled by Ralph Amissah and hosted by the University of Tromso, Norway."

[9]The ITL provides information and links related to international trade law. The ITL presents the full texts and where relevant country implementation details of several of the most important conventions and other documents used in International trade. It presents these materials by subject (e.g. free trade, sale of goods, transport, insurance, payment), chronologically, and has information pages on trade related organisations. The ITL also maintains extensive links to other sites related by the subject international trade.

[10]The work being conducted at a University institution this has been one of the most publicised objectives to date.

of their purposes and of related writings around the globe.[11] (d) The fact that so many independent organisations lay behind the promotion of the different works made it difficult and unlikely for them to co-ordinate their initial efforts amongst themselves, or for anyone to ensure that they decide to build the bases for the public. Ensuring that the materials were available encouraged organisations to get involved with the Net, and take charge of their own publication there. (e) It provides a cost effective contribution in an area essential to development.[12] (f) It offered a chance to explore how much, and by what means publication on the Net could be automated.[13] (g) A personal interest in all the matters above. (h) Backing from IRV, the Law Faculty of the University of Tromsø, and excellent assistance at hand at various times, from such people as Geoffrey Armstrong, Tommy Johansen and Thomas Nordgård; (i) It was an idea whose time had come and it was necessary to demonstrate that this was the case.

"We have defined our objective broadly and generously as being: 18

"To investigate the potential of W3 as an information resource, with regard to legal   19
research and education. This we plan to do taking a practical example, - focusing on international trade law as a limited and vitally important area of law that is of international interest". [This we shall pursue as far as we are able.] This statement of "our objective" dates back to the project's conception in June 1993. It ought now be moderated, but its spirit remains unaltered. Within this time span The Web has proven its worth, independently of any individual's efforts or investigations - its creators apart.

"To explore, utilise and demonstrate the potential of the new IT mediums insofar as   20
they pertain to our chosen subject area." "

2.2 - The future: what is all this about the Net?   21

A brief look at the change the Net represents and its structure and dynamic with regard   22
to information content.

2.2.1 - The future is not what it used to be: the Net alters what is possible   23
and practicable

The Net is, somewhat paradoxically, infinitely large and small at the same time. With   24
regard to information that can be stored, the Net provides unlimited space. In relation to subject matter this means it can accommodate any work from the most general to the most specific, of any magnitude, depth, breadth, scope and quality. At the same

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[11]This objective was reflected in letters sent to the United Nations early in the project's development, requesting permission to publish their materials. The request (which was granted) stressed the importance of the widest possible dissemination of these materials.

[12]This was an important motivation and personal justification behind the growth of presentation of materials beyond the subject matters covered within our syllabus, and is perhaps the strongest single argument as to why these materials should always remain free.

[13]Much has been achieved through extensive use of the programming language Perl.

time, all information is proximate or adjacent to each other, there being no relevant "distance" in space or time between points within this space. The Net places all within its unlimited space on your desktop - whether it (your desktop or the information) is physically located in New York, Tokyo, Tromsø or Accra. The Net also has an infinite number of entry points[14] for the addition (publishing) and extraction (printing, reading, browsing, surfing) of the information it contains. There is no limit to the number of users and information providers who may share this space. Each individual member can contribute. Publication is instantaneous, and change (updates, corrections, migration of location of information, deletions) can be effected immediately by whoever has control of the particular item of information.

Here is a brief summary of some of the advantages[15] of the Net over a paper based system.[16] (a) It allows much faster access and high speed searches of massive databases. (b) It allows for direction to other works by hyper-linking. (c) It allows for the building of different presentations based on the same material, according to requirement. (d) It requires less space, both in terms of storage methods - CD ROMS, hard disks, and in terms of the Net being all pervasive. (e) There is no degradation of the original text (though parts of the information may be destroyed or replaced). (f) Publication is instantaneous, updating is immediate. (g) A single published copy, is available world-wide. (h) A single publication is available in an unlimited number of copies to an unlimited number of users.

2.2.2 - Developmental and organisational dynamics within the chaos of the Net

The word "chaos" in the heading is used advisedly, in its newly acquired scientific meaning, not as synonymous with randomness or disorder, but rather of a system in which simple rules can lead to extremely intricate results.[17]

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[14]Those who are pedantic may point out The Internet is close to running out of address space (TCP/IP addresses). They will also be aware that The Internet Engineering Steering Group is working on the next generation addressing system IPng to rectify the problem before it occurs.

[15]As to disadvantages. In the long term it is too early to tell whether there are any, apart from the requirement of a device with which to extract the information it contains. For those who require the restricted flow of information - whether for commercial or other purposes, the technology (if not the law) will develop to protect their need. In the short term there are a few. These include the fact that being new, it may in some cases require adaptation of some traditionally established patterns, and in other must be further developed to fit these patterns; and its volatility - being subject to change without notice, has to be thoughtfully dealt with as do problems of quality control - which as I shall explain is an overstated concern. That replication from the Net is unlimited poses challenges for many, who are dependent on the restricted flow of information .

[16]These result from both the digitisation of text and characteristics of the Net.

[17]Some of the most useful analogies / metaphors for understanding the Net both in relation to its structure, and development dynamic, can be made in relation to Chaos theory a branch of mathematics and physics. Chaos is not randomness or disorder, it examines non-linear systems in which simple sets of deterministic rules can lead to highly complicated (detailed) results, which cannot be predicted accurately. Much can be meaningfully drawn for example from the analogy between the Net and a fractal image. The similarities between aspects of the Net and Chaos theory - analogical or metaphorical - become more apparent on an examination of the subject. A good introduction is provided by *"Chaos"* James Gleick. Development of these ideas would requires a separate article.

The features discussed under the previous heading mean that the Net is inherently scalable. Which in turn means that if there is sufficient motivation for individuals to publish in any given area and a certain threshold of active participation is achieved, the Net can become largely self-organising and self-sustaining. What follows in an explanation of what this statement means.

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The Net is the size and "shape" of the information that is contributed to it. It may be referred to as "scaling" or scalable. Whether 1000 individuals each publish one useful document, or 1 organisation publishes 1000 useful documents, the Net grows by 1000 documents in the useful information it contains. There will always be a mix of active contributing individuals and institutions. And as stated regardless of the manner of contribution, there is no limit to the Nets size, (or quality). The effect is cumulative.[18]

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Use of the Net results in a strong tendency for individuals and institutions to follow the example set by others with similar interests. This may be described as "patterning". Each participant wishes to be published and that others will use and cite their work. The more participants there are of a kind with which one identifies (whatever that may be), the more interesting it becomes to participate. Example one: For universities and researchers alike publication is considered an important if not essential part of the existing tradition: for peer review, to demonstrate their calibre, and their contribution to the advancement of their field. The reward if successful is the promotion of themselves and their expertise through achieving critical acclaim, and having their work cited and built upon, and promoting themselves and their expertise. Each recognised university/ journal/ authority/ researcher that decides to avail themselves of the possibilities will attract others. Example two: For an organisation whose purpose is the harmonisation of international trade law, the objective is in having as many states as possible sharing the same rules of law, and achieving a common application of these rules in contracting states. This requires that these rules be known and further, is greatly assisted by having a shared body of experience from contracting states - court decisions, scholarly writings, etc. on how these rules apply in practice. A number of independent organisations share this interest, once one such organisation recognises the benefit and pursues this end using the Net, others are likely to follow. Patterning results in self-perpetuation.

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Furthermore use of the Net has a high degree of sorting and quality control built in - this may be referred to as "self-organising." Pathways are built between individuals and institutions that are particularly interested in each other's work. As suggested by the examples given in relation to self-patterning the result is that it is likely that works of greater merit will be cited more frequently than lesser works. Important works remain those of authorities (old and new or newly discovered), because the works of authorities are recognised as such and most frequently cited. Almost as important as the individual items placed on the Net, are the connections that develop between items within the Net. These connections can be seen as analogous to a neural network, with

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[18]Information can be deleted by individuals who originally put them in place, but equally once placed on the Net, if recongised as being of value prior to such deletion, can be saved by others and re-disseminated, subject to copyright restrictions, of which a it more is noted under section 4.3.

many pathways, some being strengthened, and others fading in importance.[19]

Authenticity of text may be assured through use of digital signatures.[20]   32

3 - Who might the possibility of free information interest, and why?   33

In this section we discuss examples of individuals and organisations that have interests other than commerce in publishing, what these interests may be, and why the Net should be of interest to them.   34

3.1 - Publications from centers of higher learning   35

It has been suggested by some that the Net is not suitable for higher learning, and a deeper understanding of the material contained on it. This argument focuses on the perceived use of hyper-media for jumping from item to item on the Net. Surfing is typically associated with the short attention spans of the user and can result in an unstructured digestion of information. Consider however, that anything that exists in book form can be presented in digital format, and hypermedia. Presentation is more flexible. Assuming the same quality of substance and presentation, surely, any perceived limitations fall back upon the individual user and her/his use or misuse of the potential that the Net provides.   36

Universities have already been mentioned as examples of producers of works that have reason to publish other than commerce. If it were thought of as a worthwhile goal, the Net could become a primary means of publication of scholarly articles, at the very least, of doctoral thesis. There are several possible ways of organising this. Researchers, or editors could place their final work on the Net and or submit a copy ready for publication by their Institute, the University, or university library or university publisher. The University could take control of publication insisting on submissions going through them, and selecting the works on which to place their name. Alternatively university libraries could collect publications by members of the university for dissemination via the Net.[21] A coalition of universities, or single university if of high enough repute, could   37

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[19]Apart from the more obvious connection with "hyperlinks", this observation is equally true of search engines, of which there will continue to be more, many highly specialised and selective.

[20]This is a short data string that characterises/identifies the document. It need not be unique, however: it should be very difficult to generate a document with a matching signature; and any change in the document should (with near certainty) result in a change in its signature. The result being that it is extremely difficult to alter the document and preserve the signature. Digital signatures are an important step in ensuring a reliable reference system.

[21]Digital Libraries: The Future: The vision of computers powerful enough to organize and index huge treasure troves of scientific literature using intelligent functions such as "vocabulary switching"-classifying an article that mentions "Unix" under "operating systems" even if the words "operating systems" do not appear in the article-is finally coming to fruition, 32 years after it was first outlined in J.C.R. Licklider's "Libraries of the Future" (1965). Large-scale simulations on the HP Convex Exemplar supercomputer at the National Center for Supercomputer Applications have resulted in

take the initiative, and pull in contributions, by requesting the submission of published articles to them. The problem with the scenario envisaged, is that it does not take account of cost, assuming that this can be kept very low or covered by a reallocation of resources. Again problems may be encountered due to the fact that most publication is done through journals, which operate on a cost recovery basis, and occasionally subsidised basis. Research will have to be done as to whether distribution of such journals is much affected by their availability on the Net, and as to alternative solutions, such as their placement on the Net six months or a year after publication.

The Net infused with limitless information, with guidance as to what is relevant, identified by recognised authorities or tutors, would allow deeper research than has ever been possible before. It would allow equally for a broader understanding of subjects. A more serious problem is that of information management. With the possibility of unlimited information at ones fingertips, there is perhaps a greater need to determine which readings are of primary importance, and to develop the techniques to retrieve the information that is of particular interest. [38]

Furthermore, it must be observed, despite our stated primary interest in writing that the Net is not limited to writing and offers other possibilities. Such as, the public offering of lectures, moots and audio-visual instructional material. Examples: (a) Universities could offer lectures by their leading authorities in a given field; (b) Large organs such as the World Trade Organisation and smaller units such as UNCITRAL would be able to host and disseminate a world-wide series of lectures via the Net, on subjects of particular importance to them, on which they wish to stimulate discussion, and achieve a common understanding. These lectures would always be available and callable on demand. Interactive long distance tutoring is another, though less efficient alternative.[22] This other dimension of the Net as a major communications channel, has implications of its own, and opens numerous other possibilities that are beyond the scope of this text. The Net, unlike previously existing broadcast media forms, allows unlimited specialisation and choice. The publisher is able to provide for a highly specialised audience, that looks for precisely what they need, and receives it when needed. It presents an opportunity for organisations recognised as authorities in a given area - such as the UN and institutions of higher learning to make a real impact. [39]

3.2 - Private international trade law

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In private international law, common texts that are arrived at seek to strike a fair balance between the rights and obligations of all parties.[23] They are rarely drafted in the interest of a specific party or lobby. This is because the transactions they regulate govern individual actors rather than States. Taking sale of goods law for example, every State will have buyers and sellers, both sides having an interest in the "fair" operation of the rules.[24]

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In international trade conflicts and divergences arising from the laws of different States are recognised as constituting an obstacle.[25] A number of organisations are actively engaged in attempting to reduce these conflicts and divergences.[26] In seeking to do so two basic techniques are employed, which are complimentary. The first is to provide greater certainty as to what law applies to a dispute, and as to which court/ arbitration tribunal has jurisdiction over a dispute. The second is to achieve the harmonisation in a given area of law, through achieving a common solution in all States. This may be regarded as the removal of conflicts in law by having the universally accepted regulation of a particular transaction and achieving a common solution in all States.

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Of the former type the single most important example must be the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards 1958, (New York), to which there are over 100 contracting states, and which accounts for the im-

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generating concept spaces for 10 million journal abstracts across 1,000 subject areas covering all engineering and science disciplines-the largest vocabulary switching computation ever achieved in information science. Future developments will require automatic indexing with scaleable semantics to coordinate searches among the one billion repositories likely in the next century. (Science 17 Jan 1997 p327) Edupage summary.

[22]Engineering, via African Virtual University: The African Virtual University, sponsored by the World Bank, is providing engineering students the opportunity to take courses in electrical engineering from a professor at the University of Massachusetts at Amherst. The professor's stateside course is videotaped and transmitted via satellite to participating institutions in Ethiopia, Ghana, Tanzania, Uganda and Zimbabwe. The professor is available by telephone three times a week to answer questions that the on-site instructor can't answer, or for which clarification is needed. Eventually, the African Virtual U. will be available in more than 40 countries on the African continent. (Chronicle of Higher Education 17 Jan 97 A24) Edupage summary.

[23]Even where drafted primarily by developed nations.

[24]Exceptions to which this generalisation does not apply, are to be found within such areas as intellectual property law, and carriage of goods (prior to the Hamburg rules).

[25]See e.g. the *United Nations General Assembly Resolution 2102* (XX).

[26]Oragnisations such as UNCITRAL (The United Nations Commission on International Trade Law), Unidroit (International Institute for the Unification of Private Law), and The Hague Convention on Private International law have been active in promoting the harmonisation of private international law. UNCITRAL has been particularly successful in the promulgation of its texts because of its broad membership and wide participation in the preparation of its texts.
The International Institute for the Unification of Private Law (Unidroit) is an independent intergovernmental organisation with its seat in Rome. Its purpose is to examine ways of harmonising and co-ordinating the private law of States and of groups of States, and to prepare gradually for the adoption by the various States of uniform rules of private law. Unidroit's objective, as defined in its Statute and as indicated by its full name, is the unification of private law.
The Hague Conference on Private International Law is an intergovernmental organisation the purpose of which is "to work for the progressive unification of the rules of private international law" (Statute, Article 1)

portance and success of arbitration in international commercial disputes. It may be regarded as the pillar upon which subsequent developments in this area of law have been built.[27] In the area of applicable law belonging also to the former type, there is no equivalent of similar importance. The latter type covers the regulation of a multiplicity of transactions from sale of goods and agency to the carriage of goods. The Net has much to offer both types, but for our enquiry we must confine ourselves, and shall look at the most significant convention to date of the second type The United Nations Convention on Contracts for the International Sale of Goods 1980 (CISG).[28] Sale of goods law may be regarded as the backbone of international trade, and this convention is currently applied by 46 countries which represent over two thirds of world trade. Much of what is suggested is applicable by analogy to other areas of law.

The objective of the CISG is to achieve a uniform international sales law through contracting States agreeing on a common sales law text, and courts and tribunals following the spirit of its interpretation clause on which much has been written. The provision (Article 7) instructs: 44

> "**(1)** In the interpretation of this Convention, regard is to be had to its international character and to the need to promote uniformity in its application and the observance of good faith in international trade. 45

> **(2)** Questions concerning matters governed by this Convention which are not expressly settled in it are to be settled in conformity with the general principles on which it is based or, in the absence of such principles, in conformity with the law applicable by virtue of the rules of private international law." 46

Conventions increasingly provide in their interpretation clauses for the taking into account of their international character, and the need to promote uniformity in their application.[29] Professor John Honnold, a former Secretary of UNCITRAL, in his excellent (seminal) article, "Uniform Words, Uniform Application" points out that countries agree- 47

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[27]Arbitration: of current interest and to be found on the Net, eg.: the South African Law Commission *"Discussion Paper 69, Project 94: Draft International Arbitration Act for South Africa"* which is based on the UNCITRAL Model Law open for comments until 31 March 1997 (will be highly influential in Africa); England, *Arbitration Act 1996*, not based on the UNCITRAL model law, drafted with careful consideration of modern arbitration practice (influential within the Commonwealth).

[28]The CISG has been hailed as "the centrepiece of international trade law", Clive Schmitthoff, *Export Trade: The Law and Practice of International Trade*, 9th ed. (Stevens & Sons, London: 1990) p. 252. As "the first truly international sales law to be accepted by broad segments of the international community of nations", Id. at 18. As "the most significant piece of substantive contract legislation in effect at the international level" *Financial Times* (London: September 21, 1993). And as "the biggest success so far achieved by intergovernmental attempts at unification of commercial laws." Sevón, Leif. *"Obligations of the buyer under the Vienna convention on the international sale of goods"*. Tidskrift utgiven av Juridiska föreningen i Finland, nr. 126, 5-6 (1990) pp. 327-343. "It is beyond doubt that the UN Sales convention will be the predominant instrument governing the rights and obligations of sellers and buyers in the international sale of goods". For this collection of quotes see *"A Uniform Commercial Code for International Sales? We have it now"*. Stewart F. Hancock, Jr. New York State Bar Journal, January 1995.

[29]Examples: *The United Nations Convention on Contracts for the International Sale of Goods 1980*, Article 7; *The Unidroit Principles of International Commercial Contracts, 1994*, Article 1.6; *The Principles of European Contract Law*, (1996 draft of the final text) Article 1.106; *The United Nations Convention on the Carriage of Goods by Sea (The Hamburg Rules) 1978*, Article 3; *The United Nations Convention on the Limitation Period in the International Sale of Goods* 1974 and 1978, Article 7.

ing on a common text does not guarantee that the Convention will be applied uniformly by their courts and tribunals. In this article, using input from a team of professors from around the world gathered for the purpose, Professor Honnold examines the problems faced in achieving uniformity, and the methods by which it might be achieved. The problems discussed are diverse. Though the focus is on the CISG, much of what is discussed applies by analogy to other efforts in the private international law area. The article is essential reading to all interested in the harmonisation of private international law, and is an example of a writing that ought to be available on the Net. A positive trend was noted in the attitudes of States in applying conventions of an international character, taking greater account of the decisions and methods of other contracting States. A difficulty however, has been in knowing what has been written and decided elsewhere. In discussing solutions, Professor Honnold suggests the following: "General Access to Case-Law and Bibliographic Material: The development of a homogenous body of law under the Convention depends on 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."[30] He then goes on to discuss "the need for an international clearing-house to collect and disseminate experience on the Convention" the need for which, he writes there is general agreement. He also discusses information-gathering methods through the use of national reporters. He poses the question "Will these channels be adequate? ..."[31] The Net, used properly, could provide for the hopes of Professor Honnold and his team of Professors - with all the requisite information available world-wide.[32] With the Net where a decision or scholarly writing already exists on a particular article or provision of a Convention, anywhere in the world, it will be readily available. Whether or not a national court or arbitration tribunal chooses to follow their example, they will be aware of it (and able to find out, as they are instructed to by the convention text to which they are contracting States). Whatever a national court decides will also become internationally known, and will add to the body of experience on the Convention. Nor is it particularly difficult to set into motion the placement of such information on the Net. With each interested participant publishing for their own interest, the Net could provide the key resources to be utilised in the harmonisation and reaching of common understandings of solutions and uniform application of legal texts. Works from all countries would be available.

Such a library would be of interest to the institution promulgating the text, governments, practitioners and researchers alike. It could place at your fingertips: (a) Convention texts. (b) Implementation details of contracting States. (c) The legislative history. (d) Cases generated by the Convention around the world - courts/ arbitration where possible. (e) The Official and other Commentaries. (f) Scholarly writings on the Convention. (g) Bibliographies of scholarly writings. (h) Textbooks. (i) Student study

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[30]J. Honnold, *"Uniform words and uniform applications. Uniform Words and Uniform Application: The 1980 Sales Convention and International Juridical Practice"* / J.O. Honnold. Einheitliches Kaufrecht und nationales Obligationenrecht. Referate Diskussionen der Fachtagung. am 16/17-2-1987. Hrsg. von P. Schlechtriem. Baden-Baden, Nomos, 1987. p. 115-147, at p. 127-128.

[31]A suggestion was made that it could be expected that the information be made available through UN Depository Libraries. See Samson (*Canada & Quebec*)

[32]The technology did not the exist in a form that would make his idea practicable, nor did its user-base exist at that time.

material collections. (j) Information on promotional activities, lectures - moots etc. (k) Discussion groups/ mailing groups and other more interactive features.

With the CISG this has already started to happen. UNCITRAL under Secretary Gerold 49 Herrmann, has its own database through which it distributes its case law materials collected from national reporters (CLOUT). Comprehensive and informative bibliographies are available including those of Professor Claire M. Germain, of Cornell Law School Library, and Professor Peter Winship of SMU Law School. Two important efforts are underway which focus on the CISG: one at Pace University, Institute of International Commercial Law (IICL) - The CISG Database; the other at the University of Freiburg, Institute of Foreign and International Law - The Rabel Website. These have extensive materials and their own bibliographies on the CISG. At the IICL for example Professor Albert Kritzer, and Professor Michael Will of the University of Geneva, have collected the first 350 cases world-wide on the CISG. There is nothing comparable on traditional national or commercial databases. The model for distribution of information is not as yet clear.

3.3 - Public international trade law (assumptions and some development issues) 50

Public international trade law, which is of the world economy, is the realm of inter- 51 state relationships and by its nature involves power relationships, making it a more sensitive area to discuss than private law. Nevertheless it is worth making the following points.

Modern economic theory relies heavily on the concept of the efficient market. Informa- 52 tion is assumed to flow freely. Governments and individuals making important decisions are assumed to have access to more or less the same body of public information. To date this assumption has been false, and especially so for lower and middle income countries. These countries, apart from being the weaker party in negotiations, often do not have much background information on what they are negotiating. Information required is not readily available. Economic theory assumes that once information is public, it is known everywhere. By now this should be reminiscent of rhetoric of the Net.

Most lower and middle income countries recognise that for their development it is 53 necessary to become better integrated with the world economy. This is one of the messages repeatedly delivered by developed nations and development agencies. Envisaged as necessary are internal legal reforms and restructuring to make markets more open and attractive to foreign investors; and also, becoming a better integrated part of the framework of international trade. Information is required to enable this to happen. This integration requirement relates both to the structures in place for public international law, and to rules and regulations applied within private international law.

Professors Joseph François, Chair of Development Economics, Erasmus Univer- 54 sity, and Bernard Hoekman of the World bank recognising the potential of the Net to

help rectify this problem are working on a project to provide information in the fields of economics and international trade law.

3.4 - Development assistance to lower and middle income countries   55

It goes without saying that the development of a large repository of scholarly works on   56
various subjects and other germane material would provide development assistance to
lower and middle income countries - whether or not this is the motivating factor behind
its occurrence. Already donor agencies are recognising the potential of the Net and the
fact that linking governments and ministries, schools and universities to the Net can
be much more cost effective than attempts to build libraries.

There are also domestic efforts under way, for example for law reporting to be done   57
through the Net as a more cost effective and timely alternative to the traditional means
of publication. The Zambian University Legal Information Institute (LII), in collaboration
with the LII at Cornell University, now does its law reporting through the Net. The
availability of law reports has also been cited as resulting in an improvement in the
functioning of the legal system through judgements becoming more informed.

The connection between the Net and better integration into the international trading   58
system through the enactment of appropriate legislation and development has already
been made.

4 - How information might be freed   59

"You see things and say 'Why?'; but I dream things that never were and I say 'Why   60
not?"' - George Bernard Shaw

On the background of discussions in the earlier sections, we now look to describe how,   61
utilising the characteristics of the Net and the dynamics of its use, one might set up a
free information repository, and/ or keep costs to a minimum.

4.1 - A hypothetical example based on a World Bank, UNCITRAL or   62
UNCTAD law repository on the Net

The UN sets up an information repository, for the dissemination of its texts and for   63
the collection of relevant works related to them produced elsewhere by recognised
institutions. Contracting States are encouraged to submit all information related to
United Nations instruments produced within the State, including their reports and cases
generated. Universities and academic journals are invited to submit their published
scholarly works on UN materials. The information is available via the Net.

The purpose of the base is made known to governments, and reporting is encouraged.   64
Elected government reporters submit official reports and relevant juridical decisions in
the national courts to the base. (In some cases the UN has already set up rudimentary

government reporting systems for this purpose.) If governments start to ensure that their legal reports are available in digital format, it takes little additional effort to iden-tify and submit those which are of interest to the UN. Researchers could also provide assistance in identifying those cases and materials that would be of interest to the UN base.

Universities being independently interested in the publication and dissemination of their scholarly works publish on the Net independently. Whenever a scholarly writing is published that is of interest to The UN base, a notification of this is sent to the appro-priate UN department. A submission is made of the finalised digital ("html" or other) versions, and/ or the location on the Net from which a copy can be downloaded and incorporated into the UN base. Such notification and submissions may be organised on an individual researcher basis after official publication by a department, by the de-partment itself, at the university level or by a scholarly journal. — 65

Individuals can take from any of these bases free of charge. Individuals can produce and publish their own works, which if worthwhile may come to be recognised as such and assimilated. — 66

To ensure the cycle works, the UN could also appoint scouts for relevant scholarly writ-ings and law reports, from within different State research communities who volunteer their services - possibly for mention or a token (such as a certificate) for having con-tributed to the UN information collection/ dissemination effort. — 67

Unidroit, the Hague Conference on Private International Law, the World Bank and in-deed any other organs to which such a system is suited could set up similar structures, along lines suitable for their objectives. — 68

Within the chain each member has an interest in playing an active participating role. Finalised work is completed at source prior to submission. Publication can be auto-mated. — 69

4.2 - Reiteration of the universities role and interest — 70

If universities and other organisations operate on the premise that a substantial part of the information they produce should be publicly available, they create a valuable body of information to be used on the Net to which others, will wish to contribute. Whether cost-recovery is necessary depends on what the cost is in relation to the per-ceived returns to the contributing entity and the perceived desirability of recovering cost. Publishing on the Net as we have noted is inexpensive for many of the individuals and institutions under discussion here. The returns include advertising and prestige, and if a certain threshold of participation by others is reached, participation becomes an end in itself. — 71

4.3 - Support for a non-commercial publishing system — 72

Assuming that governments continue to fund full access to the Net at institutions of — 73

higher learning and within such organisations as the United Nations, the following are suggested to be basic requirements for the effective functioning of a non-commercial/ public domain:[33]

Information should be completed at source as far as possible. This includes any additional information, catchwords, or summaries. This means that authors complete their final text for publication. In our UNCITRAL example this would mean that UNCITRAL took care of its own productions, and that submissions made to UNCITRAL should be in completed form whether they be of cases or reports by governments or of scholarly writings by universities, or from any other authority. In the University example researchers or appointed editors would be responsible for the final work submitted to the University for publication. [74]

Information submitted for publication should be in a form that facilitates dissemination (digitised) allowing for immediate conversion and publication. [75]

Submissions should be authoritative (capable of being cited in an acceptable way). Any citation method/mechanism should be vendor neutral. [76]

Publications or submissions for publication as the case may be, should be free of charge to anyone who wishes to obtain them. [77]

Publication on the Net should be without restrictions on re-use and without license fees. With the proviso that in re-use the authorship and integrity of the text is maintained whether reproduction is in full or in part.[34] [78]

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[33]Suggestions are derived through generalisation and some modification from the *"AustLII Technology and politics of Law on the Net"*, Graham Greenleaf, Andrew Mowbray, and Geoffrey King. Paper prepared for the 4th International Conference on Substantive Technology in the Law School and in Practice, University of Montreal, Quebec, 3-6 July 1996.

[34]It is not possible in this text to enter a discourse on the subject of copyright, beyond mention of the fact that copyright law holds good for the Net. However copyright notices are provided as examples. Two alternative simple provisions for the individual author:
"Copyright *[Author's Name]*. This document may be freely reproduced.";
"Copyright *[Author's Name]*. Reproduction and distribution are permissible for non-profit purposes only. No substantive changes of any kind are to be made to this document without the author's written consent."
States have more complicated interests. Reproduced here are the relevant provisions of British "CROWN Copyright" permission for free publication. It is suggested that organisations with professed harmonisation of law objectives should be at least as liberal in their approach to relevant materials:
"2.1 Reproduction without permission or charge
2.1.1 For the following specified types of Crown material, English language reproduction in any media, other than the uses described at para 4.3, is permitted world wide, without prior permission and free of charge.
* Acts of Parliament, Statutory Instruments and Statutory Rules and Orders.
* Press Releases from Departments, Agencies or other Crown bodies. While these are obviously for unrestricted use at time of issue, they may also be freely reproduced thereafter, singly or in compilation (but NOT for the sole purpose of providing a commercial Press Release service per se).
2.1.2 Such reproduction is subject to the following conditions being complied with:
(i) reproduction takes place within a value-added context; i.e. where the Official text has had value added to it by compilation with other related text, analysis, commentary, annotation, indexing or cross-referencing (this may be taken as covering both commercially published and in-house databases);
(ii) that an acknowledgement of Crown copyright is featured as well as a statement of the source. The copyright acknowledgement will generally be in the following form: Reproduced with the permission of

Digital signatures may be used to authenticate texts. 79

In considering this model, bear in mind that the net today, without additions is able to support this model. Storage is inexpensive. Input, can be by authorised submissions from any location on the Net, collection of such input can be largely automated. Authorised submissions once made to a particular database are automatically published with indexes being automatically updated. 80

It is easiest to start at the top of a hierarchy, but equal interest at the individual level reinforces the sustainability of the model, e.g. a researcher's wish to publish his work. The structure once in place looks after itself. It is self-sustaining. 81

5 - Conclusion 82

It is suggested that the Net provides immense flexibility of design for the collection and dissemination of information. This is a result of the fact that publishing on the Net is inexpensive, much can be automated, and that it is inherently scaleable. Furthermore, a targeted information dissemination area can be co-ordinated based on either or both: a centralised collection and publication effort; or through independent decentralised publication efforts. We have suggested that there may be any number of independent motors for such a system to pepetuate itself, driven by the interests of individual members involved - which may or may not be similar. If the primary purpose of publication of a type or class of information is not commercial and there is sufficient underlying motive the Net offers the possibility for much of that information to be made free. The characteristics of scalability, patterning and self-organisation, and a suggested underlying dynamic towards self-sustenance, should be examined in seeking answers as to how information should be added to the Net, and by whom - with as much as possible being completed at source. These dynamics can be utilised to reduce administrative costs, and increase the efficiency of information collection/gathering and dissemination. Any non-commercial publishing design or model, whether centralised or decentralised, and whether internationally oriented, as primarily discussed here, or domestic, can 83

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the Controller of HMSO;
(iii) the material is reproduced accurately and in a fashion and context which is in no way misleading as to the intended meaning and application of the material;
(iv) specific permission should be sought for translations or adaptations.
2.2 Reproduction for which prior permission is necessary
2.2.1 Prior permission must be sought, and fees and royalties may be charged, for the reproduction of any Crown material not specified at section 2.1.1 above.
2.2.2 The Copyright Unit may waive or reduce fees in respect of applications for use of Crown material for professional, technical or scientific purposes where profit is not a main purpose of reproduction. Consideration of reduction or remission of fees will also be given to reproduction in works of scholarship, in the journals of learned societies and similar non-profit-making bodies, for educational purposes, and in other cases where the need for the fullest dissemination of official information is paramount and outweighs any other considerations. ...
6.3 In general, all Crown and Parliamentary copyrights are reserved and, notwithstanding particular privileges allowed in this letter, will be exercised in appropriate cases." CO(P) 48/1022 (23 September 1996)

benefit from taking into account and utilising wherever practicable, the dynamics built into the nature of the Net - in particular those of patterning and self-organising.

There are in fact several attempts by individuals underway, to operate meaningful non-commercial projects on the Net.[35] Which models succeed in the long run depends on many factors. For the dynamics envisaged in this paper, however, a certain threshold of active participation is required - where sufficient numbers of users of a given type - researchers/ judges/ institutions, wish to become active participants - because they (directly or indirectly) recognise the benefits of the system and wish to maintain it. There is a possibility and perhaps even a certainty that a non-commercial model will become established in some areas. Establishment in one field or area does not guarantee that it will take off in others. There are vested interests, with capital, and a strong voice, that have little interest in such a new system establishing itself, because the system as it is works for them. There will be persuasive arguments that cost recovery must form a necessary part of the equation. There are also existing bureaucracies within Universities and other organisations that could benefit from such a system, that may not be able or willing to adapt to take advantage of the opportunities presented. This article does not seek to belittle the many very real problems connected with the management and indexing of such vast volumes of information on the Net. Neither does it address many real problems,[36] related to such issues as language, and translation, which it will in some cases be necessary to tackle. Indeed it is likely that such added value will remain in the domain of the commercial publisher.

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The article does demonstrate that there are motivating forces for non-commercial publishing, and that with the right thinking and design structures set in place, there is much that can take care of itself.

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The availability on the Net of infinite adjacent (or proximate) space, in which information can be stored, that is made immediately accessible world-wide, guarantees that the Net will change the way we work. There are different paths along which various aspects of the Net could develop. To achieve them will take a conscious effort. It may still be that only a restrictive commercial or elitist model comes to exist. The Net is the most powerful information tool we have ever had, it empowers and makes possible the liberation of much valuable information.

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> "We can easily forgive a child who is afraid of the dark; the real tragedy of life is when men are afraid of the light." - Plato . . . on "enlightenment"

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Endnotes

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* The Net as used here refers primarily to The World Wide Web and The Internet as it

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[35]To name a few: The Legal Information Institute, Cornell University; The Australian Legal Information Institute; Find Law at Stanford University; Project Argonaut at Hieros Gamos; Law Journal Extra; The Canadian Governments Legal texts; the Zambian Legal Information Institute.

[36]Not all problems currently fussed about are equal, eg. citation in the long run is not a problem; nor need texts that migrate their location on the Net be.

has been since the advent of first graphical browsers, which greatly simplified its use. The Net is used to include not only the communication channels it provides but also the connected storage devices. The focus is of the paper is on writing and information repositories, and the meaning applied to "the Net" should be adjusted accordingly. Traditional commercial databases using telnet applications are excluded from our discourse, however, the Net is growing in features and flexibility to allow publication of information to be based on all kinds of more traditional database applications.

** Work paper for the 10th Anniversary Publication of the Law Faculty of the University of Tromsø. First published on the Net - 7th February, 1997. It is intended that further research be done into the subject matter of this paper. [90]

*** Information Technology consultant and lecturer of private law aspects of international trade, at the Law Faculty of the University of Tromsø. Creator of ITL (International Trade Law) formerly called Ananse, which is described briefly within the text of this article. [91]

Endnotes