Classification of Software Contract

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The contract, under which software is transferred, is often known as a software contract. The classification of such a contract is still debatable in many legal systems. This is most likely due to its unique nature in terms of the transferee's limited authority and the intangibility of the computer programme (software). A software transaction usually involves two elements, namely, the supply of software and its licence. It is still controversial whether these two elements are embedded in one or two contracts.

Classifying a software contract as one type of contract or another may have significant legal consequences. At the international level classifying a software contract as a sale contract will make it fall under the General Agreement on Tariffs and Trade with Goods ("GATT") whereas classifying it as a service contract will make it fall under the General Agreement on Trade and Service ("GATS"). Furthermore, the United Nations Convention on the International Sale of Goods ("CISG") applies only to sale of goods contracts and, hence, classification of a software contract is necessary for determining its applicability.

At the national level the application of certain domestic rules, *e.g.*, implied terms, consumer protection, etc., may depend on the type of contract. While the law provides warranties as to the quality of goods sold, there are no such warranties in the case of a service contract, under which services are supplied with reasonable care and skill.

This paper seeks to find out whether a software contract can be classified under the traditional method of classification adopted in English law or as a new type of contract governed by common-law rules. If the latter possibility becomes our choice, the next question will naturally be whether a new legislation is needed to deal with such a contract. The United States ("US") Uniform Computer Information Transactions Act is a model of such legislation and, hence, studying its applicability and scope is necessary in this work. The last part of this paper examines the applicability of the CISG to a software contract as it is the well-known international uniform commercial law.

Classification Under English Law

Contracts are classified as sale of goods or supply of services depending on the substance of each contract. The contract is for service if its substance is to exercise skill and labour for the production of an article provided that materials used are ancillary; on the other hand, if the contract involves a transfer of property in goods, the contract will be a contract of sale. In *Robinson v. Graves*,[1] Greer L.J. stated:

> If you find, as they did in *Lee v. Griffin,* that the substance of the contract was the production of something to be sold by the dentist to the dentist's customer, then that is a sale of goods. But if the substance of the contract, on the other hand, is that skill and labour have to be exercised for the production of the article and it is only ancillary to that there will pass from the artist to his client or customer some materials in addition to the skill involved in the production of the portrait, that does not make any difference to the result, because the substance of the contract is the skill and experience of the artist in producing the picture.[2]

It is still debatable whether or not a software contract falls under this traditional classification. The issue of classification in cases of fixing or updating software issue seems to be less confusing than in cases where the transaction involves the transfer of software. On the face of it, the former transaction is for services. Nevertheless, a programmer who contracts to update or fix the software of an electronic system may need to transfer supplementary software in addition to the services supplied. If this becomes the case, the contract will include a supply of software and service.

It is worth noting that the service of the supplier to ensure that the software supplied is properly functioning should not affect the classification of a software contract. This service is nothing more than ensuring that the software is of conforming quality. However, it must be noted that English cases show that warranty of quality of software receives

[1] [1935] 1 K.B. 579.

[2] *Robinson v. Graves* [1935] 1 K.B. 579, 587. In the leading case, *Lee v. Griffin* (1861) 1 B. & S. 272, Crompton J., at p.275, pointed out that "... where the contract is for a chattel to be made and delivered, it clearly is a contract for the sale of goods. There are some cases in which the supply of the materials is ancillary to the contract, as in the case of a printer supplying the paper on which a book is printed".

special treatment. In *Saphena Computing Ltd. v. Allied Collection Agencies Ltd.*[3] it was held that software was not a commodity which was delivered once, only once and for all, but one which would necessarily be accompanied by a degree of testing and modification. Although this decision may bring about justice in cases of custom-designed software, it is difficult to imagine how it can apply to cases of standard software. The customer who obtains standard software from a retailer or downloads it on-line expects it to be immediately ready for its general use. This work is not intended to deal with the liability for defective software but it is initially submitted that the court should be cautious in applying the decision in *Saphena* to future cases of standard software.

Software can be classified as standard and custom-designed. Standard software is normally manufactured as copies designed for unlimited number of users whereas custom-designed software is specially designed and programmed for the particular needs of only one user.[4] Both types of software, it is submitted, should be classified similarly. Under the contract of custom-designed software, the party who orders the software does not provide more than information about the intended use of the ordered software and does not pay for intellectual efforts in producing the software. This case is not much different from the case where the buyer orders machinery to be specially manufactured for his particular needs without supplying the seller with raw materials; here, the contract is still classified as a sale of goods. Indeed, as an American court put it, the extensive services rendered in producing the custom-designed software are necessary for achieving the ready-to-use programme as the final product.[5]

In discussing the issue of classification of software contracts, it does not seem appropriate to argue whether a software contract can be classified as a lease contract. A lease contract enables the lessee to use a chattel for an agreed period of time. Definitely, a software contract is not a lease contract for three main reasons. Firstly, software is usually provided as a copy and more copies may be delivered to others whereas, under a lease contract, the lessee receives the article itself; secondly, under a lease contract the lessee is obligated to return the article whereas under a software contract the transferee retains the software; thirdly, the transferee can usually retain the software for an unlimited period of time whereas,

[3] [1995] F.S.R. 616.

[4] F. Diedrich, "Maintaining Uniformity in International Uniform Law *via* Autonomous Interpretation: Software Contracts and the CISG", (1996) 8 *Pace Int'l L. Rev.* 303, 326-327.

[5] *Analysts International Corporation v. Recycled Paper Products, Inc.* 1987 U.S. Dist. LEXIS 5611.

under a lease contract, the lessee has the right to use the article for a limited period of time.

Needless to say, classification of an access contract is beyond this debate. Under an access contract, a party is granted access to a database. Such a contract does not involve any sale; the essence of such a transaction is the service provided by the owner of the database. There is no transfer of a property right in a movable object. There is no doubt that such a contract is a service contract.

The discussion above leads to the question of whether a software contract can be considered as a sale or service contract or a contract that does not fall under this traditional classification. Whether or not the classification is affected by the means of delivery of the software is a central issue.

I. Types of Software Delivery

Software can be transferred physically or electronically. Furthermore, software can be embedded in machinery. The following will deal with the issue of classification in relation to the major methods of software delivery.

A. Software Delivered via Physical Means

Software may be embedded in a machine for the purpose of its functionality. In most cases, the buyer of the machine has no knowledge of the existence of the software. Software may also be saved on a physical medium for the purpose of its delivery. The following will deal with each type of delivery separately in order to find out how a software contract can be classified in each case.

1. Software Embedded in Machinery

Software is intangible; being embedded in hardware does not make it tangible.[6] While hardware is necessary to execute software, software is still a set of instructions that are capable of such execution.[7] Software may

6 On the contrary, Plotkin argues that, "although software is often described as 'intangible' or 'abstract', executable software stored in the memory of a computer is in fact a physical component of the computer." R. Plotkin, "From Idea to Action: Toward a Unified Theory of Software and the Law" (2003) 17 *Int'l Rev.L.Computers & Tech.* 337, 338.

[7] *Ibid.*, at p. 338.

be embedded in machines, such as televisions, cars, etc, for the sake of their functionality. Here, software, it is submitted, must be dealt with as part of the subject-matter of the contract, under which the machinery is delivered. This is justified on the ground that the purpose of the transaction is to obtain the proper functionality of the hardware and not the software itself. In such cases, the customer usually does not obtain a licence for the software. Indeed, the machinery is not just a physical medium for the delivery of software.

The situation may be different in cases of a computer system that comprises both hardware and software. Here, as Bradgate suggests, the customer obtains (a) property in the hardware and (b) a licence to use the pre-loaded software.[8] The Australian court seems to have a different view. In *Toby Constructions Products Pty Ltd v. Computa Bar (Sales) Pty Ltd.*[9] the Supreme Court of New South Wales held that a sale of a computer system, comprising both hardware and software, was a sale of goods.[10] Sir Iain Glidewell LJ, in *St. Albans City and District Council v. International Computers Ltd*,[11] accepted this view but his comments were *obiter*.

In cases of computer system transactions, a distinction can be drawn between operating system software, *e.g.*, Windows, and application software, *e.g.*, Microsoft Office. While the former is used to operate the computer, the latter is executed by the computer for certain functionality. The operating system embedded in a computer must follow, it is submitted, the type of contract under which the whole computer system is delivered. This is similar to the case where software is embedded in a car or television. However, in cases of application software, the customer, it is submitted, will be involved in two contractual relationships, namely, sale of hardware and supply of software. It should be noted that the distinction between these kinds of software does not come into the picture where software is delivered separately *via* a physical medium, as discussed below.

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[8] R. Bradgate, "Beyond the Millennium – The Legal Issues: Sale of Goods Issues and the Millennium Bug" 1999 (2) *The Journal of Information, Law and Technology (JILT)*, section 3.3. Available at <http://www.law.warwick.ac.uk/jilt/99-2/bradgate.html>.

[9] [1983] 2 NSWLR 48.

[10] *Toby Constructions Products Pty Ltd v. Computa Bar (Sales) Pty Ltd.* [1983] 2 NSWLR 48, 54.

[11] [1996] 4 All E.R. 481.

2. Software Incorporated in Physical Medium

Inconsistency among legal writers can be found in cases where the physical medium (such as floppy diskettes and CDs), is used for the purpose of delivering software. The physical medium, on which the software is stored, can be obtained directly from the programmer but it is more often obtained from a retailer. In cases of obtaining the software directly from the programmer, one can envisage three possible classifications of the transaction, namely, a sale of goods contract, a transaction consisting of two contracts, and an innominate contract governed by the common-law rules of contract law. These possibilities will be examined in detail.

Under a sale of goods contract, the seller must deliver goods, hand over any document related to them and transfer the property in the goods sold whereas the buyer is bound to pay the price and take delivery of goods. Delivering a diskette containing software for a price is, on the face of it, a sale of goods. However, this is unrealistic because the value of the physical medium is usually trivial to consider here. The transferee is interested in the software rather than in the physical medium used for its delivery. Brennan distinguishes between the goods-centric image and the information-centric image. He states:

> The goods-centric image sees a software transaction as a delivery of *this particular CD.* It makes the medium the message, the container the content and the CD the computer programme. The information-centric view sees just the opposite. The essence of the transaction is the legal authorization *to use the programme;* the CD is just the means to enable that use. One needs a jar to carry caviar, but that does not make the jar the essence of the meal.[12]

Indeed, the physical medium containing the software is like the container of a physical commodity that a customer purchases from a retailer. The transferee looks at the functionality of the software and the scope of the authorised use.

It may be argued that a defective medium may cause trouble in running the software and, as a result, this may raise the programmer's liability on the ground of defective software resulting from the defective

[12] L. Brennan, "Why Article 2 Cannot Apply to Software Transactions" (2000) 38 *Duquense L. R.* 459, Section I-B. Available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=261912>.

physical medium. However, strictly speaking, this does not make the medium the subject-matter of the transaction. This can simply be understood by comparing a software transaction, where software is delivered *via* a physical medium, with a sale of goods contract, where physical goods require proper packing for delivery. In the latter case the packing material is incidental and not the subject-matter of the transaction. Nevertheless, if the goods are damaged due to defective packing, the buyer will sue for defective goods. By analogy, the physical medium used for delivering the software should not be dealt with separately. Saying otherwise will make the subject-matter of the transaction the container (the physical medium) and the software incidental. This is far away from the reality of the transaction.

In view of this, can the transaction be classified as a sale of software? There seem to be two main aspects that distinguish a software contract from a sale of goods contract. Firstly, under a sale of goods contract the buyer is, in principle, free to use the goods bought or resell them or dispose of them without any restriction. This may not exist in a software contract where the customer is governed by licence terms, whereby he is usually granted certain proprietary rights[13] and not complete ownership.[14] In other words, under a software contract, the transferee will be concerned with two elements, namely, a licence to use the software and a defect-free performance of the software, while a under sale of goods contract the buyer is only interested in the conforming goods since he does not need a licence to utilise the goods. It can be argued that a software contract may include a term that allows the transferee to copy or re-transfer the software; hence, the difference between a software contract and a sale of goods contract vanishes. However, it should be noted that, under a sale of goods contract, the buyer's authority to resell does not need a special agreement between the parties for that effect; indeed, this authority is the usual effect of the sale contract.[15] Under a software contract, this authority needs to be agreed upon.

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13 The maker may issue a general public licence that provides for distribution of a source code and allow downstream users to copy, modify, and re-distribute the code. See D. McGowan, "Legal Implications of Open-Source Software" (Undated), available at the website of the Social Science Research Network <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=243237>.

[14] The use of software, from a technical point of view, involves making a copy of it. That occurs whenever the software is loaded by a computer. See J. Carter, "Article 2B: International Perspectives" (1999) 14 *JCL* 54, 59.

[15] Section 2 of the Sale of Goods Act 1979 states "(1) A contract of sale of goods is a contract by which the seller transfers or agrees to transfer the property in goods to the buyer for a money consideration, called the price... (4) Where under a contract of sale the property in the goods is transferred from the seller to the buyer the contact is called a sale. (5) Where under a contract of sale the transfer of the property in the goods is to take

The second main aspect of a software contract is that the customer obtains a copy of the software and the programmer keeps his status as the proprietor; in other words, copies of the software can be, apart from cases of exclusive licences, delivered to an unlimited number of people. Under a sale of goods contract, the property in the goods passes to the purchaser and the seller in principle has no control over the use of the goods. Therefore, it is submitted that a software contract is not a contract for the sale of goods and, so, the Sale of Goods Act does not apply to software contracts. This submission saves the effort of arguing whether software is classifiable under "goods" for the sake of applying the Sale of Goods Act since a software contract is not a sale contract in the first place.

The second possible classification deals with a software transaction as a transaction made under two contracts, namely, the supply of software contract and the licence contract. The proprietor will warrant the proper functionality of the software and also grant the transferee a licence to use it. This possibility does not suggest a separate contract for the transfer of ownership in the physical medium.[16] It rather provides for two other contracts: a contract for the supply of software, which is concerned with its functionality, and a licence contract, which draws the scope of the transferee's authority to utilise the software.

Nevertheless, making two contracts for one transaction does not seem realistic. Here the transferee pays one price for acquiring conforming software to use. This may lead us to the third possibility, *i.e.*, one contract with two elements: supply and licence. This possibility creates a new type of contract which we are unfamiliar with. This might be necessary in the light of rapid developments in information technology. In the Scottish case, *Beta Computers (Europe) Ltd. v. Adobe Systems (Europe) Ltd.*[17] Lord Penrose suggested that, although the supply of proprietary software for a price may involve elements of nominate contracts such as a sale, it would be inadequately understood if expressed wholly in terms of any of the nominate contracts. Lord Penrose obviously was against the idea of

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place at a future time or subject to some condition later to be fulfilled the contract is called an agreement to sell."

[16] Therefore, Section 202 of the United States Copyright Act should not be understood as suggesting two contracts for the software transaction. The Section states "ownership of a copyright, or any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy of phonorecord in which the work is first fixed, does not of itself convey any rights in the copyright work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object."

[17] [1996] S.L.T. 604.

concluding two contracts for the software transaction. This approach, it is submitted, brings the law in line with reality.

The application of Lord Penrose's opinion to cases where software is obtained from a retailer, but not directly from the programmer, may need further discussion. The retailer guarantees the proper functionality of the software and transfers the licence that states the scope of utility allowed to the customer. The programmer, but not the retailer, issues the licence. The retailer has no control over the terms of the licence attached to, or enclosed in, the package.[18] Does this mean that, where a customer obtains the software from a retailer, there will be two contracts, *i.e.*, the supply contract between the customer and the retailer and the licence contract between the customer and the programmer? The present writer has no doubt that the answer is in the positive. The main issue here is whether the requirement of consideration is satisfied.

In certain cases the customer may be required to register the licence in return for information about upgrade. In most cases the licence takes the form of the so-called shrink-rap agreement. Under this agreement the customer will be bound by the terms of the licence at the time he uses the software. The enforceability of such a licence is in debate.[19] Although the enforceability issue is outside the scope of this paper, it should be noted that the purchaser expects such a licence to be delivered with the software when he obtains the software from a retailer. The requirement of consideration is satisfied as the user obtains the authority to use the software and the programmer keeps the property in the software in order to gain more revenue by delivering copies to other users. Privity will not be an obstacle since the customer and programmer will be parties to a direct collateral contract, *i.e.,* the licence agreement. If this view is accepted, the customer will be in two contractual relationships with the retailer and the programmer. As for the defective functionality of the software, the customer will have the choice to sue the retailer or the programmer or both. If the retailer is sued alone, he may shift the liability up the chain of contracts till it reaches the programmer.

An argument may be advanced on the basis of analogy between a software contract and a sale of books contract. A book, like a software CD, contains copyrighted information and its sale does not affect the

[18] N. Kawawa, "Contract Law Relating to Liability for Injury Caused by Information in Electronic Form: Classification of Contracts – A Comparative Study, England and US" (2000)1 *The Journal of Information, Law and Technology (JILT),* section 4. Available at ‹http://www.law.wawick.ac.uk/jilt/ 00-1/kawawa.html›.

[19] R. Bradgate, "Beyond the Millennium – The Legal Issues: Sale of Goods Issues and the Millennium Bug" (1999) 2 *The Journal of Information, Law and Technology (JILT)* section 3.3.4.

intellectual property. The copyright in the content remains in the author; the book, as a physical item, is owned by the buyer. Therefore, it might be argued that there is no need to discuss whether there is a collateral contract between the customer and the programmer. However, this argument cannot be accepted since the customer does not need a licence to read the book whereas the use of software requires a licence.[20]

B. Software Transmitted Electronically (Electronic Software)

Although the classification of a software contract was not the key point in *St. Albans City and District Council v. International Computers Ltd.*,[21] Sir Iain Glidewell pointed out that a sale of software delivered electronically is not a sale of goods.[22] Contracts of electronic software do not fall under the Sale of Goods Act 1979.[23]

In most contracts of electronic software the transferee downloads the software online. This will take us to the third possibility of classification, *i.e.*, a contract with two elements, as previously discussed. Such a contract, it is submitted, is of a unique nature that involves two elements, namely, the supply of conforming software and a licence to use the software. It is also common that a retailer installs software directly on the customer's computer. If this becomes the case, there will be, it is submitted, two contracts: the supply contract between the customer and the retailer and the licence contract between the customer and the programmer.

Nevertheless, the European Union ("EU") made a unified classification of electronic software contracts. The E-Commerce

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[20] *Ibid.*, at section 3.3.2.

[21] [1996] 4 All E.R. 481. For a detailed analysis of this case, see A. White, "Caveat Vendor? A Review of the Court of Appeal Decision in *St. Albans City and District Council v. International Computers Limited*" Commentary (1997) 3 *The Journal of Information, Law and Technology (JILT)* <http://clj.warwick.ac.uk/jilt/cases/97_3stal>. The facts of this case can be summarised as follows. The plaintiff, a local authority, had contracted with the defendants for the provision and installation of software to enable the local authority to create a database of eligible poll tax payers. The software contained an error so that the figure submitted to central government was overstated and the local authority, therefore, suffered loss. The local authority brought an action for damages.

[22] Similar view can be found in *Eurodynamics Ltd v. General Automation Ltd.* 6 September 1988 (Unreported), QBD. Quoted in N. Kawawa, *op.cit.*

[23] Section 61(1) of the Sale of Goods Act 1979 states "In this Act, unless the context or subject matter otherwise requires... 'Goods' includes all personal chattels other than things in action and money, and in Scotland all corporeal movables except money; and in particular 'goods' includes emblements, industrial growing crops, and things attached to or forming part of the land which are agreed to be severed before sale or under the contract of sale; and includes an undivided share in goods."

Directive[24] deals with certain aspects of electronic contracting. It treats an electronic software contract as an information society service, a concept that was defined in the Directive of Information and Technical Standards.[25] Under the latter Directive, "information society service" is defined as "any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services".[26] Accordingly, an electronic software contract can be classified as a service contract in the European Union.

II. Effect of Classification

In *St. Albans City and District Council v. International Computers Ltd.*[27] the court seemed to be in favour of treating the duty of the programmer as more than a duty of skill and care. The court held that, in the absence of any express term as to quality or fitness for purpose or any term to the contrary, the contract for a transfer into a computer of a programme, intended by both parties to instruct or enable the computer to achieve specified functions, is subject to an implied term that the programme will be reasonably fit for its intended use, *i.e.*, reasonably capable of achieving the intended purpose. A similar approach can be found in *Saphena Computing Ltd. v. Allied Collection Agencies Ltd.*[28]

Seemingly, the programmer is required to supply software that is fit for its intended use. The English authorities may impose such a requirement, regardless of the classification of the contract, in order to bring about justice. In *Samuels v. Davis,*[29] the court relied on the relationship between the parties and the purpose of the contract to state

[24] Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on Certain Legal Aspects of Information Society Services, in Particular Electronic Commerce, in the Internal Market (Directive on Electronic Commerce), OJ 178, 17.7.2000.

[25] Article 2(a) of the Electronic Commerce Directive.

[26] Article 1 of the "Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998, laying down a procedure for the provision of information in the field of technical standards and regulations," OJ L 204, 21.7.98, as amended by the "Directive 98/48/EC of the European Parliament and of the Council of 20 July 1998," OJ L 217, 5.8.98.

[27] [1996] 4 All E.R. 481.

[28] [1995] F.S.R. 616; see also *IBA v. EMI Electronics and BICC Construction Ltd.* (1980) 14 BLR 9.

[29] [1943] 1 K.B. 527. In this case the defendant who was a dental surgeon sued for the price of a denture. The defendant claimed that the denture was unsatisfactory and the plaintiff should have supplied a denture of satisfactory quality, regardless of whether the contract was for sale of goods or for work done and materials supplied.

that the duty of the dentist was to achieve reasonable success in the work done, provided that there was reasonable co-operation from the patient.

One may argue that the approach adopted in *St. Albans* and *Saphena* suggests that software contracts include an implied warranty of quality similar to the warranty of quality provided by statutes concerning sale of goods contracts and, hence, paying attention to the classification of software contracts is pointless. However, it should be noted that the implied term found in *St. Albans* and *Saphena* may not be always available in cases of software contracts. For example, in *Stephenson Blake (Holdings) Ltd. v. Streets Heaver Ltd.*[30] the court imposed the duty of skill and care rather than a duty to produce a programme fit for the intended use. The court held that the defendant was under a contractual duty to exercise skill and care in supplying the software. In this case the plaintiff, who had no knowledge of computer technology, relied on the expertise of the defendant who was in the business of providing computerised information systems.

Moreover, the implied term of quality found in *St. Albans* and *Saphena* is not necessarily identical to the requirement of satisfactory quality, required by the Sale of Goods Act.[31] The term, "merchantable quality", found in the common law, was replaced by the term, "satisfactory quality", in cases of sale of goods. Satisfactory quality is judged with reference to certain aspects provided by statute. Merchantable quality is the term that can be imposed in software contracts under the common law in accordance with the approach stated in *Saphena,* as discussed above.

Furthermore, the relationship between the parties in *St. Albans* and *Saphena* may not be found in all cases, especially, in cases of standard software. Most computer programmes are designed for generic use. Here, a great deal is left for the court to find out the legal basis on which it can require the software to be reasonably capable of attaining its intended use. Certainly, the mentioned cases can be of considerable help in the case of custom-designed software, where the programmer is aware of the exact purpose of the software.

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[30] 2 March 1994 (Unreported). Quoted in N. Kawawa, "Contract Law Relating to Liability for Injury Caused by Information in Electronic Form: Classification of Contracts – A Comparative Study, England and US," (2000)1 *The Journal of Information, Law and Technology (JILT),* section 5.6. ‹http://www.law.wawick.ac.uk/jilt/00-1/kawawa.html›

[31] R. Bradgate, "Beyond the Millennium – The Legal Issues: Sale of Goods Issues and the Millennium Bug," (1999) 2 *The Journal of Information, Law and Technology (JILT),* section 3.3.3. Available at <http://www.law.warwick.ac.uk/jilt/99-2/bradgate.html>.

The US Uniform Computer Information Transactions Act

The United States of America has recently dealt with information transaction as a new type of contract that needs peculiar regulation. In July 1999 the National Conference of Commissioners on Uniform State Laws (NCCUSL) approved and recommended that the Uniform Computer Information Transactions Act (UCITA) be enacted in all states.[32] UCITA was revised in 2000 and 2002.[33] Originally, UCITA was intended to be Article 2B of the Uniform Commercial Code (UCC). In order to be part of the UCC, UCITA must have been jointly approved by the NCCUSL and the American Law Institute (ALI). Owing to some procedures, the NCCUSL decided to approve UCITA alone as a separate Uniform Act.[34]

UCITA deals with transactions of computer information. Section 102(a-11) defines computer information transaction as "an agreement or the performance of it to create, modify, transfer or license computer information or informational rights in computer information". Section 102(10) defines computer information as:

> ... information in electronic form which is obtained from or through the use of a computer or which is in a form capable of being processed by a computer. The term includes a copy of the information or any documentation or packaging associated with the copy.

Accordingly, software contracts fall within the scope of UCITA. Under a software licence contract, the licensee has the right to use or access the software or information. Section 102(a-12) defines a computer programme as "a set of statements or instructions to be used directly or indirectly in a computer to bring about a certain result. The term excludes "separately identifiable informational content". UCITA applies to all transactions of software delivered electronically or on a diskette. It treats the physical medium as part of the software. Indeed, the packaging of

[32] C. Fendell and D. Kennedy, "UCITA is Coming: Part Two: Practical Analysis for Licensor's Council," (2000) 17 *Computer Law.* 3.

[33] The numbers and text of UCITA's provisions quoted in this work are in accordance with the 2002 revision. The text of UCITA 2002 and its official comments are available at <http://www.law.upenn.edu/bll/ulc/ucita/2002final.htm>.

[34] T. Cox, "Chaos versus Uniformity: the Divergent Views of Software in the International Community," (2000) 4 *Vindobona Journal of International Commercial Law and Arbitration* 3, section IV(A). Available at <http://cisgw3.law.pace.edu/cisg/biblio/cox.html>.

computer information is within the meaning of "computer information", as mentioned above.[35] UCITA applies to both standard and custom-designed software.

Absent UCITA,[36] the courts distinguish between two types of contract, *i.e.*, a sale of goods contract and a service contract, depending on various tests, such as the predominant factor test and the gravamen test. Under the former test the court looks at the core subject-matter of the transaction in question. In other words, under this test the UCC applies to transactions of sale of goods and supply of services, provided that the services are incidental.[37] Under the gravamen test the applicable rules depend on whether the action is brought because of defective goods or defective services. The UCC applies to cases of defective goods, whereas actions for defective services are dealt with under the common law.[38]

UCITA makes it clear that software is not a kind of goods. Section 102(a-33) defines goods as "all things that are movable at the time relevant to the computer information transaction" and states that the term does not include "computer information" or "general intangibles". Furthermore, in a number of cases, the courts have decided that computer information and informational rights are not goods.[39]

In practice a transaction may involve more than one type of contract. For example, a single contract may include a transfer of property in a machine and a supply of software. In the same transaction an intellectual property may be granted.[40] A contract to produce a motion picture may be

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[35] UCITA also applies to access contracts and contracts of correction and support, under which services are provided for the correction of operation problems in computer information. See Sections 611 and 612.

[36] Before UCITA writers examined the applicability of the UCC to software contracts. See A. Beckerman-Rodau, "Computer Software: Does Article 2 of the Uniform Commercial Code Apply? (1986) 35 *Emory Law Journal* 853; A. Beckerman-Rodau, "Computer Software Contracts: A Review of the Case Law," (1987) 21 *Akron L. Rev.* 45. In addition, the issue of whether software is licensed or sold was necessary for the application of the "first sale doctrine," which allows the owner of a copy to transfer it to somebody else without asking the copyright owner's permission.

[37] D. Tuomey, "Weathering the Commercial Storm: Why Everyone Should Steer Clear of the Uniform Computer Information Transaction Act", (2002) 1 *The Journal of Information Law and Technology (JILT)*, section 4. Available at <http://elj.warwick.ac.uk/jilt/02-1/tuomey.html>. The author quotes *BMC Indus. Inc. v. Barth Indus., Inc.*, 160 F.3d 1322 (Fla. 1998).

[38] N. Kawawa, *op.cit.* n.**30** at section 6.4. The author quotes *Herbert Friedman & Associates, Inc. v. Lifetime Doors, Inc.* 1989 U.S. Dist. LEXIS 15239 (N.D. Ill. 1990).

[39] *United States v. Stafford*, 136 F.3d 1109 (7th Cir 1998); *Allison v. United States*, 525 U.S. 849 (1998); *Specht v. Netscape Communications Corp.*, 2002 WL 31166784 (Fed. Cir. 2002); *Fink v. DeClassie* 745 F.Supp 509, 515 (N.D.Ill. 1990).

[40] J. Carter, "Article 2B: International Perspectives," (1999) 14 *JCL* 54, 66. Notice of intellectual property is not within the sphere of application of UCITA. Section 105(d) of UCITA states that "this [Act] does not apply to an

governed by more than one law, such as copyright law, the common law of services, etc. Here, it is worth noting that every law is regulating one aspect of the transaction. Section 103(b-1) of UCITA provides:

> If a transaction includes computer information and goods, this [Act] applies to the part of the transaction involving computer information, informational rights in it, and creation or modification of it...

Certainly, the issue here is, not whether multiple sources of law apply but, the extent to which every source applies in lieu of the other sources.

However, this raises the question of whether software embedded in machinery is within the scope of UCITA or treated as part of the machinery and, hence, falls under Article 2 of the UCC. Generally, in cases of sale of goods containing software, the general rule is that UCITA applies to the software and aspects of the agreement relating to the creation, modification, access to, or transfer of the software. The UCC applies to the aspects of the agreement related to the tangible goods. However, this general rule may not easily apply, especially, in cases where the use of software is not the material purpose of the transaction. Therefore, in certain cases, a transaction of software embedded in a machine might fall outside the sphere of application of UCITA. In determining the applicability of UCITA to such cases, the materiality test must be taken into account. That is to say, in order for UCITA to apply, software, embedded in the sold goods, must be material for their functionality.[41]

Materiality depends on the importance of the software and the nature of the goods sold. For example, in a transaction involving the sale of a car, UCITA does not apply to aspects related to the software of a clock installed in the car. However, the software embedded in a machine is material if its access is necessary for the machine's functionality. Here, the value of the software is not taken into account for deciding the materiality.

Where the use of the software, embedded in machinery, requires the buyer to obtain a licence, there is no question that the software is material.

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intellectual property notice that is based solely on intellectual property rights and is not part of a contract. The effect of such a notice is determined by law other than this [Act]."

[41] Section 103 (b-1) of UCITA states: "... However, if a copy of a computer programme is contained in and sold or leased as part of goods, this Act applies to the copy and computer programme only if... giving the buyer or lessee of the goods access to or use of the programme is ordinarily a material purpose of transactions in goods of the type sold or leased."

Indeed, materiality is always clear if the software is separately licensed. In other cases, to determine the materiality of software, one may look at many factors, which have been officially stated as including:

> the extent to which a computer programme's capabilities are a material part of the appeal of the product, the extent to which negotiation focused on that capability, the extent to which the agreement made the programme capacity a separate focus, whether there are significant post-transaction obligations of programme support and the extent to which the programme is or could be made available commercially, separate and apart from the goods.[42]

Nevertheless, unless agreed otherwise, UCITA does apply to software embedded in a computer, regardless of materiality. Section 103(B-1) makes it clear that UCITA applies to the aspects related to software embedded in a computer or a computer peripheral. It states:

> If a transaction includes computer information and goods, this [Act] applies to the part of the transaction involving computer information, informational rights in it, and creation or modification of it. However, if a copy of a computer programme is contained in and sold or leased as part of goods, this act applies to the copy and computer programme only if: (A) the goods are a computer or computer peripheral; or (B) giving the buyer or lessee of the goods access to or use of the programme is ordinarily a material purpose of transactions in goods of the type sold or leased.

Anyhow, parties to a software contract can expressly agree to exclude the application of UCITA or a number of its default rules. Although UCITA provides a comprehensive coverage of aspects related to software transactions, parties may find that default rules are not good enough for their interests. Parties may also agree to modify or completely avoid the application of certain parts of UCITA.[43] Furthermore, provisions of UCITA may be slightly modified in the several states in which it is passed.

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[42] The official comments on Section 103 of UCITA.

43 B. Kobayashi, & L. Ribstein, "Uniformity, Choice of Law & Software Sales," (1999) 8 *Geo. Mason L. Rev.* 261, section III C. Available at <http://papers.ssrn.com/paper.taf?abstract_id= 215730>.

Here, parties may agree to apply the law of the state that best suits their interest.[44]

Of course, they cannot include any term in their contract that violates fundamental public policy. If a contract contains such a term, the court may refuse to enforce the contract or enforce the remainder of the contract without the impermissible term; the court may also choose to limit the application of the impermissible term to the extent that its application will not violate fundamental public policy.[45] Furthermore, the court may not apply unconscionable terms. Section 111(a) states:

> If a court as a matter of law finds a contract or a term thereof to have been unconscionable at the time it was made, the court may refuse to enforce the contract, enforce the remainder of the contract without the unconscionable term, or limit the application of the unconscionable term so as to avoid an unconscionable result.

The application of UCITA is not automatic. For example, provisions of UCITA pre-empted by federal law is not applicable to the extent of the pre-emption.[46] Moreover, where there is a contradiction between UCITA and a consumer protection law, the latter prevails.[47] Nevertheless, UCITA must be liberally construed in order to govern the vast majority of cases of the subject-matter regulated by its provisions.[48]

UCITA provides a comprehensive regulation of computer information transaction. Formation of contract is regulated by modern rules that take into account the rapid development of information technology. Similar to Article 2 of the UCC, UCITA provides for

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[44] C. Fendell, and D. Kennedy, "UCITA is Coming: Part Two: Practical Analysis for Licensor's Council" (2000) 17 *The Computer Law.* 3, 4.

[45] Section 105(b).

[46] Section 105(a) of UCITA.

[47] Section 104 of UCITA.

[48] Rules of interpretation of UCITA's provisions help to expand its sphere of application. Section 106(a) states "This [Act] must be liberally construed and applied to promote its underlying purposes and policies to: (1) support and facilitate the realization of the full potential of computer information transactions; (2) clarify the law governing computer information transactions; (3) enable expanding commercial practice in computer information transactions by commercial usage and agreement of the parties; (4) promote uniformity of the law with respect to the subject-matter of this [Act] among States that enact it; and (5) permit the continued expansion of commercial practices in the excluded transactions through custom, usage, and agreement of the parties."

warranties of quality and third-party claims. Moreover, breaches and the remedies for them are also regulated by UCITA.

UCITA emphasises the common understanding of intellectual property protection. Section 501(b) makes it clear that the "transfer of a copy[49] does not transfer ownership of informational rights". Transfer of informational rights needs to be expressly agreed upon. According to an official statement:

> While obtaining ownership of a copy may give the copy owner some rights with respects to that copy, it does not convey ownership of the underlying intellectual property rights in a work of authorship, a patented invention or other intellectual property. The copy is merely a conduit for use, but not ownership, of rights.[50]

Section 501 refers to the agreement between the parties for specifying the time and place of conveyance. If the agreement does not provide for that time, ownership passes when the software is in existence and identified to the contract. It is worth noting that UCITA distinguishes between the terms "agreement"[51] and "contract".[52] The former includes the relationship between the parties in fact; this includes express terms, usage of trade, course of dealing, and circumstances of the particular transaction.[53] The term, "contract", includes the legal obligations under the agreement, as affected by the law.

The Applicability of the CISG to Software Contracts

The CISG is concerned with international sale of goods contracts. The CISG does not define the term, "goods", nor does it provide examples

[49] Section 102(a) of UCITA defines the term, "copy," as "the medium on which information is fixed on a temporary or permanent basis and from which it can be perceived, produced, used, or communicated, either directly or with the aid of a machine or device."

[50] The official comment on Section 501 of UCITA.

[51] Section 102(a) defines "agreement" as "the bargain of the parties in fact as found in their language or by implication from other circumstances, including course of performance, course of dealing, and usage of trade as provided in this [Act]."

[52] Section 102(a) defines "contract" as "the total legal obligation resulting from the parties' agreement as affected by this [Act] and other applicable law."

[53] The official comment on Section 501 of UCITA.

of it. Commentators define goods as movable and identifiable separate objects.[54] It is still dubious whether the term, "goods", includes intangible movable objects. This issue is more critical in cases of electronic software.

There is no express exclusion of software from the sphere of application of the CISG. However, it must be noted that electronic transmission of software was not in use at the time when the CISG was enacted. Sale of electricity was expressly excluded from its sphere of application. By analogy, must electronic software contracts be also excluded on the ground that both electricity and software are intangible?

In answering this question, one must take into account the main aim of the CISG, *i.e.* achievement of uniformity. Therefore, the types of sale excluded from its sphere of application must be limited to the exceptions mentioned in Article 2. Certainly, Article 2 states an exhaustive list and not a list of examples.[55] There is nothing in the CISG indicating that contracts, with intangible subject-matter, do not fall within the sphere of its application. Moreover, if all sales of intangible goods were not intended to fall within the sphere of application of the CISG, there would be no need for an express exclusion of the sale of electricity. Furthermore, the CISG commentary explains that the exclusion of electricity was due to unique problems of electricity. Tangibility of the subject-matter of a contract, it is submitted, has nothing to do with the applicability of the CISG. Schlechtriem points out:

> ... goods should be understood as widely as possible so as to cover all objects which form the subject-matter of commercial sales contracts... Computer programmes (software) will therefore have to be recognised as goods falling under the CISG. Since the 'corporeal' nature of the goods is pushed into the background in such a case, that must also apply to the delivery, by electronic transfer, of programmes sold.[56]

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[54] F. Diedrich, "Maintaining Uniformity in International Uniform Law *via* Autonomous Interpretation: Software Contracts and the CISG," (1996) 8 *Pace Int'l L. Rev.* 303, 330.

[55] Article 2 of the CISG states "This Convention does not apply to sales: (a) of goods bought for personal, family or household use, unless the seller, at any time before or at the conclusion of the contract, neither knew nor ought to have known that the goods were bought for any such use; (b) by auction; (c) on execution or otherwise by authority of law; (d) of stocks, shares, investment securities, negotiable instruments or money; (e) of ships, vessels, hovercraft or aircraft; (f) of electricity."

[56] P. Schlechtriem, *Commentary on the UN Convention on the International Sale of Goods (CISG)* (Oxford 1998), p.23. The argument applies similarly to cases of standard software and custom-designed software since Article 3(1) of the CISG states: "Contracts for the supply of goods to be manufactured or produced are to be considered sales unless the party who orders the goods undertakes to supply a substantial part of the materials necessary for such manufacture or production."

Less inconsistency among legal writers can be found in cases where software is delivered by the use of a physical medium, *e.g.*, diskette or CD.[57] In such a case scholars may argue that a software contract is a sale contract.[58] This argument considers the disk as the subject-matter of the contract and, hence, the issue of software does not come into the picture. In other words, this transaction can be treated as a sale of tangible movables, which is the subject-matter of the CISG. As previously discussed, this view does not take the reality of the transaction into consideration. The subject-matter of the transaction is the software and not the medium. Indeed, the medium is nothing more than a container.

Of course, the case is different where software is embedded in machinery, such as televisions, cars, etc. In such cases there is no question about the applicability of the CISG to such items since the subject-matter of the transaction is the machinery; and the software is only incidental. Here, software is used in working the machinery without being separated from it. The CISG applies to sale of the whole item and not to its parts separately.[59]

Needless to say, under the sale of goods transaction, the seller is obligated to transfer the property in the goods.[60] According to Lookofsky, this applies to the sale of software where a property in a copy of a programme is transferred, regardless of the means of delivery.[61] Lookofsky also argues that the protection of software by copyright rules does not affect the classification of the contract as a sale contract. Such rules prevent the buyer from making copies of the programme without the permission of the seller. But, this does not change the fact that the subject-matter of the contract, *i.e.*, the individual copy purchased, is a kind of goods.[62]

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[57] T. Cox, "Chaos Versus Uniformity: the Divergent Views of Software in the International Community," (2000) 4 *Vindobona Journal of International Commercial Law and Arbitration* 3, para.II.A.2.

[58] J.W. Carter, "Article 2B: International Perspectives," (1999) 14 *JCL* 54, 67.

[59] The CISG does not apply to access contract. Under this type of contract, there is no transfer of a property right in a movable object. It does not seem possible for such a contract to fall within the sphere of application of the CISG.

[60] Article 30 of the CISG states: "The seller must deliver the goods, hand over any documents relating to them and transfer the property in the goods, as required by the contract and this Convention."

[61] J. Lookofsky, "In Dubio Pro Conventione? Some Thoughts about opt-outs, Computer Programmes and pre-emption under the 1980 Vienna Sales Convention (CISG)," (2003) 13 *Duke J.Comp.& Int'l L.* 263, 276.

[62] *Ibid.*, at p.277.

However, deciding whether software is a kind of goods or not may not be the only obstacle facing the application of the CISG. The question here is whether a software contract can be classified as a sale contract in the first place. Indeed, under normal circumstances, property in the software does not pass to the transferee. Even if we agree with Lookofsky that the copy of the software constitutes goods, the reality of the bargain is that the transferee usually has nothing more than the right to use the copy and he cannot transfer it to others. This is why, it is submitted, the CISG does not apply to software contracts. In this area its application is limited to the case where software, embedded in machinery, is incidental and not the core subject-matter of the transaction.

Conclusions

The traditional classification of a contract as sale or service does not seem to be adequately applicable to a software contract. Such a contract may involve aspects of nominate contracts; but, it is, it is submitted, a new type of contract that involves two elements: the supply of software and the licence. Where the customer obtains the software from a retailer and its licence from the programmer, the customer may be involved in two contractual relationships with the retailer and the programmer.

Means of delivery, whether electronic or *via* a physical medium, should have no effect on the classification of a software contract. Although delivery *via* a physical medium, such as a diskette, appears as performance of a sale of goods contract, one should not ignore the fact that the actual subject-matter of the transaction is the software and not the medium. Indeed, ignoring the means of delivery for the purpose of classifying a software contract brings the law in line with reality. However, the case is different where software is not the core subject-matter of the transaction and supplied as part of certain machinery. In such cases the machinery is the core subject-matter of the transaction rather than a physical medium. Here the software, it is submitted, must be dealt with as part of the subject-matter of the contract, under which the machinery is delivered.

Under the classification of one contract with two elements, a software contract will be governed by common-law rules of contract. In other words, deciding whether or not there is an implied warranty that the software will be fit for its intended purpose depends on the relationship between the parties and, hence, will be decided in accordance with the circumstances of each case. This may not be helpful in cases of standard

software designed for generic use. Therefore, it is submitted, new regulations are needed to provide implied warranties of quality.

According to the E-Commerce Directive, software delivered electronically is a kind of service. Under service contracts there is only a duty of skill and care. This does not, it is submitted, deal with the reality of a software transaction since the transferee usually expects the software to be defect-free, regardless of the programmer's skill and care.

UCITA is a comprehensive uniform law that regulates software contracts and takes into account their specific nature. It applies to standard and custom-designed software contracts, regardless of their means of delivery. UCITA provides for warranties of quality and third-party claims. It can be noted that UCITA is an updated version of the UCC, set up to deal with the rapid development in information technology.

The rapid development in the field of information technology pushes for an update of laws at both domestic and international levels. Serious obstacles make the CISG, it is submitted, inapplicable to software contracts. The CISG is concerned with sale of goods; a number of prominent writers argue that software can be considered as goods under the CISG and, hence, software contracts are within its sphere of application. However, the intangibility of software is not the only obstacle facing the application of the CISG. The question here is whether a software contract is a sale contract in the first place. While property passes to the buyer under the sale contract, property usually does not pass under a software contract. Furthermore, there is an obvious difference between a software contract and a sale contract in terms of the limited utility of software allowed for the transferee. Therefore, it is submitted, modification of the CISG or a new convention is needed to regulate the international software contract.

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