TAX TREATY ISSUES IN CYBERSPACE: E-COMMERCE AND THE PERMANENT ESTABLISHMENT CONCEPT

AMANDA R. CARPO *

ABSTRACT

This Paper deals with tax treaty issues raised by electronic commerce and the challenge the internet poses to tax systems worldwide. The main dilemma for governments, apart from discerning where the transaction occurred, is to establish nexus or sufficient contact in a state to exercise its taxing jurisdiction. The international taxation system, through treaties, depends on the concept of a permanent establishment or a fixed place of business. The internet challenges the appropriateness of the concept since significant business may be achieved in a source country with little or no physical presence. Business on the "net" may be conducted on a remote basis.

Permanent establishment issues are related to the issue of income allocation since treaties generally prohibit taxation at the source of active business income unless attributable to a permanent establishment. Whether or not permanent establishment issues are significant depends on characterization of the relevant income. This determines whether they are business profits attributable to a PE or fall under passive income such as dividends, interest, and royalties. Whether fixed automated equipment such as a web server can constitute a permanent establishment should also be addressed.

The Philippine government and the Bureau of Internal Revenue have not addressed these issues adequately. However, the Philippine government, recognizing the need for mutually agreed upon allocation of taxing rights, has assumed a position of cooperation and coordination in a Joint Statement with the United States with the OECD principles and its Model Tax Convention. Consensus is only the first step.

In compliance to the pressing need for uniformity, this thesis proposes to adopt and incorporate the U.S. Software Regulations for characterization of digitized and non-digitized income and develop guidelines for determining the circumstances under which a web server may constitute a PE. However, it will not address the issue whether changes should be made to the PE definition nor will this thesis deal with sales, use, or VAT taxes.

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* *Juris Doctor* 2001, Ateneo de Manila University School of Law; Associate Editor (2000-2001), *Ateneo Law Journal*.

I. INTRODUCTION

Often described as a worldwide network of computer networks, the internet consists of thousands of computers located around the world, each connected to at least one other such computer through relatively high speed telecommunication lines that have been configured to exchange information using standard protocols in order to understand the messages received from other computers and may send messages to them. The different computers run on many different operating systems, but protocols[1] permit them to exchange information. Some computers connected to the Internet are in fact independent systems providing services to their own subscribers, such as bulletin boards and on-line services like CompuServe.[2]

To demonstrate the exponential growth of the internet and its impact on the economy, the United States Census Bureau of the Department of Commerce announced that the estimate of U.S. retail e-commerce sales for second quarter of 2000, not adjusted for seasonal, holiday, and trading-day differences, was $5.518 billion, while total retail sales for second quarter 2000 were estimated at $815.7 billion.[3] Clearly, the internet is not just a hi-tech means of communication. It is a new way of doing business.[4] Significantly, electronic commerce, or the ability to perform transactions involving the exchange of goods or services between two or more parties using electronic tools and techniques,[5] enables on-line businesses to do away with traditional concepts of physical location by operating on a more or less remote basis. Consequently, taxing authorities are challenged by the issue of whether internet commerce requires a complete reformulation of existing tax principles such as residence and source, that are traditionally based on the concept of geographical fixedness.

1 Computers that are connected to the Internet communicate with each other using a protocol or special language called TCP/IP (Transmission Control Protocol/Internet Protocol). TCP/IP defines how information moves among computers on the Internet.

2 Dave Roberts, *Doing Business on the Internet* available at <http://www/crossborder.com/elecomm.html.>.[hereinafter Dave Roberts].

3 United States Government Electronic Commerce Policy Census Bureau Reports, *Retail E-commerce in Second Quarter 2000 Increased 5.3 per cent From First Quarter 2000,* available at <http://www.census.gov/mrts/www/current.html>. E-commerce sales are sales of goods and services over the Internet, an extranet, Electronic Data Interchange (EDI), or other online system.

4 Some commentators in the OECD have even argued that the internet is not a particular type of business but rather a new mode of production, marketing, distribution , and payment.

5 Joseph Guttentag, *Selected Tax Policy Implications of Global Electronic Commerce Dept. of Treasury Office of Tax Policy* (Nov. 1996), available at <http://www/webcom/software/issue/docs_htm/treasec.htm> [hereinafter Joseph Guttentag].

The greatest difficulty with traditional principles is how to define the territorial limits of a state or country's jurisdiction, especially since the internet makes it almost impossible to tax internet commerce based on territory-specific standards.[6]

In order to tax an entity, whether corporate or individual, a state must establish nexus or sufficient contact with the taxpayer either by 1) locating the residence of the taxpayer within the state or 2) linking the source of the income within the taxing state. Income may therefore be taxable in multiple states. Source and residence are two principal forms of taxable nexus used in international systems. Income is generally derived from the source where the economic activity to which it is attributable takes place.[7] These principles are embodied in tax treaties which assign rights based on source and residence. A tax treaty may or may not exist between two different countries.

The Philippines' ability to tax is always subject to the provisions of tax treaties where they exist. One of the major provisions of these treaties is that non-residents doing business in the Philippines are only subject to tax on their active business income in the Philippines if attributable to a permanent establishment. Generally, this means a "fixed place of business."

Active business income, usually denominated as business profits (as opposed to other types of "passive" income) normally generated by an enterprise, is taxable only in the state of residence of the enterprise unless it has a permanent establishment or "fixed place of business" in the source country. The permanent establishment (PE) concept serves as an additional threshold for a country to assert its taxing jurisdiction. If a PE exists, the source state may tax business profits of the enterprise.

This study will focus on an analysis of the concept of a permanent establishment as a condition which defines whether a non-resident has nexus in a source country in the context of the internet and e-commerce. Whether permanent establishment issues have practical significance in a particular case depends in turn on the characterization of the income in question.

6 Oz Shy, *Internet Site Identification and Government's Ability to Tax Internet Commerce*, available at<http://www.harvard.edu/iip/iicompol/papers/shy.html> [hereinafter Oz Shy].

7 Vern Krishna, Koskie Minsky, *Taxation of Electronic Commerce* available at <http://www.torontcounsel.ca/current1.htm.> [hereinafter Vern Krishna and Koskie Minsky].

Many of the tax treaties existing today were created and negotiated in a non-digital era when transactions focused primarily on tangible property and rules of commercial law focused on paper and telephonic transactions.[8] And even while traditional transactions based on so-called brick and mortar establishments are far from extinction, the reality is that the internet is nothing short of a revolution posing potential danger to taxing authorities.

This thesis attempts to resolve the question of whether the permanent establishment concept, as it is currently rationalized, can be applied in the context of e-commerce where at times, the only vestige of a "fixed place of business" is in the form of a web site or web server.

The study will also provide guidelines to determine when a server or site can be considered a PE, as well as the characterization of e-commerce generated income.[9] These two issues are inextricably linked since even if it is determined that a PE exists, it is still necessary to determine what types of income can be attributable to the same as business profits or are better characterized as other types of income. The thesis will analyze the situation where a treaty exists and where one does not exist. Another dimension considered is the present inadequacy of Philippine laws and the current absence of regulations concerning e-commerce payments by the Bureau of Internal Revenue.

This thesis shows that uniformity, cooperation, and consensus on an international level are essential in developing e-commerce tax policy and that the Philippines' adoption of international standards is critical to healthy tax collection and administration as well as to the growth of electronic commerce.

II. OBJECTIVES OF THE STUDY

On July 27, 2000, the Republic of the Philippines and the United States signed a joint statement on e-commerce adopting guidelines and policies which will encourage rather than impede the growth of e-commerce. The statement recognizes the obligation of governments to regulate property rights, noting that any taxation of the internet (and internet commerce) should be consistent, neutral, and non-discriminating. Close cooperation and mutual assistance between the two countries is vital to ensuring effective tax administration and to prevent tax evasion and avoidance on the internet. Both countries

[8] *Id.*

[9] The characterization is adopted from the Technical Advisory Group of the Organization for Economic Cooperation and Development and the United States Software Regulations.

committed themselves to active participation with the Organization for Economic Cooperation and Development (OECD) to achieve consensus on this complex issue.

This makes it necessary to understand the OECD approach and its impact on the tax system as it appears today. Uniform guidelines that are based on a practical understanding of the way the internet operates are required. If a web server or web site is considered a PE, the characterization of internet commerce generated income becomes necessary especially with respect to digitized goods and information.

At the same time, the government, has targeted the following in the Investment Priorities Plan (IPP), pursuant to Executive Order 226, the Omnibus Investments Code: software development projects; information technology (IT) enabled services; support and knowledge based services; and business process outsourcing. These are priority areas of investment. For Board of Investments eligible registered IT firms, the incentives could include income tax holidays (ITH), additional deduction on labor expense, employment of foreign nationals, and unrestricted use of consigned equipment. The hope is that this will translate into internet commerce generated income for the Philippines. If successful, these investments, their corresponding income, and the effect they may produce in our economy cannot be ignored by revenue authorities.

III. E-COMMERCE AND ITS IMPACT ON THE TAXATION OF INCOME

A. BACKGROUND ON THE INTERNET

The Internet began in the late 1960s as a network of computers that the United States Department of Defense developed using communication technology that could continue to function even when it was partially damaged. In the 1980s, the National Science Foundation (NSF) used this same technology to create its own network (NSFNET), which allowed researchers to share data and access resources located on remote computers. Eventually many educational, governmental, commercial, and other organizations connected their own local computer networks to the NSFNET to form what is now known as the Internet.[10] Today, the internet is available to ordinary citizens and may be used for a number of purposes, most notably, e-commerce.

[10] *Library of Congress Brief Guides to the Internet* <http://www.cweb.loc.gov/loc/guides/overview.html>.

While any estimate of the amount of on-line users is speculative at best, it may be generally concluded that their growth is explosive and exponential. One survey pegs total on-line users at 377.65 million worldwide with 89.68 million users in Asia and the Pacific as of September 2000.[11] The same institution has found that over **50%** of the on-line community originates from **outside the US** and that by 2005, **non-US Web users** are forecasted to comprise **700 million** of the total one billion users.[12] Coupled with the low cost of doing business in cyberspace, the implication is that there is a growing captive market of buyers and sellers translating into income generation. Naturally, taxation issues arise.

B. Impact of E-commerce

E-commerce has indeed captured the collective imagination of businesses and consumers worldwide making the "global market place" more than just a pipe dream. While international business transactions are not new, buyers and sellers are operating in ways that exacerbate already complex tax determinations.[13] Geographical fixedness is rendered inutile where businesses may operate on a remote basis rather than through traditional real estate. Instead of visiting stores or establishing headquarters, corporations, individuals and other taxable entities do business through web sites and servers with the transaction occurring on nothing more than electrons.

For consumers, the importance of physical location is reduced especially for service providing firms. There is generally no reason for associating an on-line seller with a physical location since consumers use only the IP address or Internet domain name to transact with the seller. For sellers, businesses are easily relocated since it only implies relocation of computer hardware.[14] This is further complicated by the ability of internet technology to transform vast quantities of information from physical to digital form. The actual mechanics may be illustrated in a simple example:

[11] NUA Internet Surveys, *How Many on Line?,* available at <http://www.nua.ie/surveys/how_many_online/index.html>.

[12] *Id.*

[13] Donald Abelson, *Duty Free Cyberspace: What it Means, Why it is Important.* (June 22, 1999) available at <http://www.ecommercecommission.org/DonAbelson.doc>.

[14] Oz Shy, *supra* note 6.

> A resident of state A connects by his home computer to a server in the state leased by an ISP (Internet Service Provider) located in an offshore low-tax jurisdiction. A retailer in state B, with a web site therein is also connected to an offshore ISP in a low-tax jurisdiction. The resident of state A orders merchandise or transacts business with the state B retailer by placing an order from a web site; he provides his credit card number, and the funds are transferred directly into the retailer's offshore bank account.[15]

As a result of this simple transaction, tax authorities must contend with several problems exacerbated by the fact that the location of a business may differ from the location of the service manager or operator and the computer service that handles the commerce.[16] Moreover, since the location of the server is not easily identifiable, authorities may have to investigate every commercial IP address in order to fight tax evasion. Two basic questions, as raised in a study by Koskie Minsky's, are:[17] 1) As a matter of commercial law, where does the transaction occur? Or 2) as a matter of tax law, which state is entitled to the tax revenues generated from the transaction? On the internet it seems that transactions occur everywhere and nowhere.

The present regime of domestic and international tax law does not provide a definite answer but any solution to this problem depends at least partially, on identifying the country with which the transaction is most closely connected. In the language of tax law, this is called nexus.[18]

One of the other consequences of the internet is a digital economy which is knowledge-based. As one author notes:

> Digital trading greatly accelerates the natural and international mobility of economic operation and the worldwide integration of markets. The mobility of the tax base is greater for production and consumption and greater still for software, marketing, financial services, manufacturing, and communications technology than for real estate and trading.[19]

[15] This example is taken from the paper of Koskie Minsky, entitled Taxation of Electronic Commerce.

[16] Oz Shy, *supra* note 6.

[17] Vern Krishna and Koskie Minsky, *supra* note 7.

[18] *Id.*

[19] Oz Shy, *supra* note 6.

"Intangible" intellectual property type products are growing in prevalence. Via PC, the average user can buy, sell, and trade "tangible" products such as clothing, books, cosmetics, automobiles on-line. They may also engage in trading and selling "intangible" goods such as software or computer programs. The problem is that the classification of these goods as intangibles or tangibles fails to consider the unique characteristics of the internet. For example, music on a CD or a cassette tape is clearly tangible property, but it may be digitized. When it is transferred electronically via internet, not only does it appear in an intangible medium, but the PC user can copy it easily. Does the on-line transfer result in the sale of a good or the transfer of royalty?[20]

The bottom line is that the internet makes it more likely for businesses to conduct activity while avoiding nexus since they conduct business on a remote basis.[21] There is, as one author puts it, "a collision of location independence of the internet and a location dependence of tax rules."[22] Any inquiry with respect to taxation of electronic commerce is initiated by the inquiry: Where does the transaction take place?

C. ROLE OF INTERNATIONAL TAX TREATIES AND THE NEED FOR COOPERATION

Under rules of private and international law as applied in most countries, no assistance is given to enforce tax claims of another country; hence, a country will be more successful in collecting revenue if it focuses its enforcement activities on persons with economic transactions connected with the country, that is, those with the closest economic connection.[23] As a matter of principle, the country of residence is best thought of as the place with which a taxpayer has the closest personal links. The country of source is the country which has the closest economic connection to the income.[24] One problem is establishing nexus alternatively, for there is the danger of double taxation.

In international business, there is great potential for double taxation as source and residence countries assert conflicting jurisdiction. Income tax is typically levied by a country based on 1) domestic and foreign worldwide income of its residents, and 2) on the domestic source income of non-residents.[25] A resident of one country may earn income from a

[20] This will be discussed further in the chapter on characterization issues.

[21] CalTax Policy January 31, 2000.

[22] Dave Roberts, *supra* note 2.

[23] OECD, Electronic Commerce : The Challenges to Tax Authorities and Taxpayers An informal Roundtable Discussion between Business and Government <http://www.oecd.org/daf/fa/turku18.pdf [hereinafter TURKU].

[24] *Id.*

[25] *Id.*

source in another country, but both countries have the right to tax. However, where the source country is given the right to tax, it is usually given precedence over the residence country. The residence country is thus responsible for relieving the double taxation by granting either a tax exemption, foreign tax credit, or both.

Income tax treaties, where they exist, play an important role in delineating the power to tax income and capital gains by mutual concession. The structure of international taxation and the treaty system is to some extent, a zero-sum game.[26] If income is derived by a resident of one country from sources in another, and if both countries have legitimate claim to tax that income and the ability to enforce that claim, then either country will lose revenue by agreeing to grant the other the primary right to tax that income.[27]

The oft-stated purpose of tax treaties is two-fold: 1) the avoidance of double taxation and 2) the prevention of fiscal evasion. Treaties determine which country (either the source country or the residence country) has the prior claim to the tax income derived from one jurisdiction, by a resident of the other, and which country has the obligation to prevent double taxation.[28] If income is taxable in both states pursuant to national tax law, the treaty provisions are applicable and assign the right to tax to the residence or source state.[29] The ultimate goal is to tax active business income in the source country from which it originates and passive income in the country where the recipient resided.

The additional test of most developed countries, which must be satisfied before a country can assert its taxing authority on the basis of source, is a permanent establishment or a PE.[30] Taxation is limited by the existence of a PE or a "fixed place of business" located in the source country. Taxation of income cannot merely be divided along active or passive lines; the permanent establishment concept reflects a compromise since not all active business income is taxable primarily in the source country but rather only that which is attributable to a PE.[31]

[26] Reuven S. Avi-Yonah., *The Structure of International Taxation: A Proposal for Simplification,* 74 UNIV. OF TEX LAW. REV. 1301 (May 6, 1996). [hereinafter *The Structure of International Taxation*].

[27] *Id.*

[28] *Id.*

[29] *See The Structure of International Taxation* s*upra* note 26. The author discusses that even though the source country has the prior right to tax all income and the residence country has the primary obligation to prevent double taxation it is only a concession that does not reflect the optimal allocation. The ultimate goal underlying the international tax regime is that active business income should be taxed in the country from which it originates (the source country) and passive income should be taxed in the country in which the recipient of the income resides.

[30] Vern Krishna and Koskie Minsky, *supra* note 7.

[31] *The Structure of International Taxation, supra* note 26 at 1307.

Income tax treaties generally provide that business profits or enterprise profits are taxable in the state of residence unless they can be attributed to the above mentioned PE in the other state. Business profits are separated from other passive types income such as royalties which are generally not attributable to a PE. That is, even if a PE exists under the definition found in the treaty, if the income may be classified under another type of income, it matters not if a PE exists, and will usually be taxed at a preferential rate. This is the second way that tax allocation between active and passive income is incomplete. The taxation of passive income at its source is not completely abolished but it is reduced to the lowest possible levels.[32]

Therefore, in the context of e-commerce the relevant questions for the purpose of this thesis are:

1) Under what circumstances may a vendor doing e-commerce business abroad constitute a PE?
2) May a web server or web site be a PE? and
3) how may the different types of e-commerce generated income be classified and characterized to determine whether or not they may be attributable to a PE?

To overcome these hurdles, uniformity and consensus in tax policy is needed, keeping in mind the principle of neutrality. This is echoed in the Joint Statement adopted by the Philippines and the United States. If a tax is imposed it should be neutral and without any discriminating effect on e-commerce as opposed to other types of business transactions. On the other hand, there is no principled reason for a permanent tax exemption of e-commerce.[33] It should neither help nor hinder.

Hence, the OECD plays an important role. As early as 1998, uniform taxation guidelines were drafted by this body composed of developed and developing countries. The OECD has also realized that communications technology may permit entrepreneurs to engage in more extensive economic activity without creating a PE.

[32] *Id.* at 1308. The author also mentions that the low rates represent a compromise between the desire of the source country to levy some tax on income derived by foreigners from within the country and the international consensus that such income should be taxed primarily in the residence country. In the absence of a treaty, much higher withholding rates apply reflecting the fact that the source country has no assurance that the income will in fact be taxed by the residence country and therefore, the source country arrogates to itself the taxes that would otherwise be paid to the residence country.

[33] Appeal for a Fair and Equal Taxation of Electronic Commerce, Dec. 14, 1999, available at http://www.ntanet.org/documents/release.pdf>.

It is often said that the power to tax is the power to destroy. At the same time taxation is an unavoidable and essential part of civilized modern society. While it is "hardly a boon" to business, it is the lifeblood of government. The task is to create a balance of interest between the state's interest and ability in enforcing tax collection and allowing the growth of the e-commerce revolution.

IV. PHILIPPINE SOURCE RULES

A. General Principles

Generally, a country's tax system specifies to whom a tax is applicable and what income is subject to tax.[34] The underlying theory behind modern discussions of jurisdiction to tax is the *doctrine of economic allegiance*. There are four bases for economic allegiance: where wealth is produced, where it is finally located, where rights over it can be enforced; and where it is consumed or otherwise disposed of.[35] The first and the fourth bases are the source and residence rules respectively.

Philippine law has adopted the most comprehensive tax *situs* by using all possible legal criteria in determining the tax base.[36] It takes into account source of income, residence, and citizenship.[37] The CTRP provides the following general principles of income taxation in the Philippines:[38]

Section 23 - General Principles of Income Taxation in the Philippines- Except when otherwise provided in this code:

(a) A citizen of the Philippines residing therein is taxable on all income derived from sources within and without the Philippines;

(b) A non-resident citizen is taxable only on income derived from sources within the Philippines;

(c) An individual citizen of the Philippines who is working and deriving income from abroad as an overseas contract worker is taxable only on income from sources within the Philippines; Provided, that a seaman who is a citizen of the Philippines and who receives compensation for services rendered abroad as a member of the complement of a vessel engaged exclusively in

[34] TURKU, *supra* note 23.

[35] *Report on Double Taxation,* League of Nations Doc. E.F.S. 73 F. 19 (1923).

[36] JUSTICE JOSE VITUG, TAXATION LAW AND JURISPRUDENCE (1997).

[37] H. David Rosenbloom, *Source Basis Taxation of Derivative Financial Instruments: Some Unanswered Questions,* 50 U. MIAMI LAW. REV. 605 (April 1996). Rosenbloom states that in some ways citizenship is considered a super-residence concept.

[38] The Comprehensive Tax Reform Program, Republic Act No. 8424, § 23 (1998).

international trade shall be treated as an overseas contract worker;

(d) An alien individual, whether resident or not of the Philippines, is taxable only on income derived from sources within the Philippines;

(e) A domestic corporation is taxable on all income derived from sources within and without the Philippines; and

(f) A foreign corporation, whether engaged in trade or business in the Philippines is taxable only on income derived from sources within the Philippines.

The CTRP does not distinguish between a non-resident alien and a resident alien and states that they are taxable only from sources within the Philippines. So income taxation of aliens in general is made to depend on the pertinent source rules for different species of income. The problem is that internet commerce most businesses are resident somewhere, but the source of income is not readily discernible. In addition, these rules are always subject to tax treaty override and will be disregarded in favor of the pertinent agreement when conditions are met.

B. Engaged in Trade or Business

The CTRP also distinguishes between non-resident aliens engaged in trade or business and non-resident aliens not engaged in trade or business. According to Section 25 (A)(1), "A nonresident alien who shall come to the Philippines and stay therein for an aggregate period of more than 180 days during the calendar year shall be **deemed** a nonresident alien engaged in trade or business." The gist of the Bureau of Internal Revenue Rulings on this subject is a mechanical application of the 180-day period. Once the taxpayer is physically present in the Philippines for a 180-day period he is considered as engaged in trade or business and taxed on his net income. On the other hand, a non-resident *not* engaged in trade or business is taxed on the gross amount of their income (without personal and other deductions) at a flat rate of 25 per cent business.[39]

An alien or foreigner doing business over the internet may escape taxation altogether since he does not ever need to set foot on Philippine soil. Of course, it is a considered opinion that the 180-day period serves as a mere *prima facie* presumption.[40] It may be rebutted by evidence of the totality of the economic transactions of the alien individual. That is to say, it may be otherwise proved that he has made valuable participation in the economic life of the Philippines. Moreover, we rely on our source rules.

[39] *Id.* at § 25 (B).

[40] Weliner v. CIR, CTA Case No. 3170 (1986).

The "engaged or trade or business" concept also distinguishes whether or not a corporation is a resident foreign corporation or non-resident foreign corporation. Apart from the 180-day rule as in the case of individuals, the more pertinent consideration used for corporations and the entities considered corporations[41] is whether they are *doing business* in the Philippines. The phrase "engaged in trade or business" includes the performance of functions of services within the Philippines,[42] to engage in business is uniformly construed as signifying, to follow the time, attention, and labor for the purpose of profit.[43] A more comprehensive criteria is found in the Omnibus Investments Code and Republic Act No. 7042 (Foreign Investments Act of 1991). The former provides:

> Art. 44. Definition of terms. - the phrase "doing business" shall include soliciting orders, purchases, service contracts, opening offices, whether called "liaison" offices or branches; appointing representatives or distributors who are domiciled in the Philippines for a period or periods totalling one hundred eighty (180) days or more; participating in the management, supervision or control of any domestic business firm, entity or corporation in the Philippines, and any other act or *acts that imply a continuity of commercial dealings or arrangements and contemplate to that extent the performance of acts or works, or the exercise of some of the functions normally incident to, and in progressive prosecution of, commercial gain or of the purpose and object of the business organization.*[44] (Emphasis ours)

No general rule can be laid down as to what constitutes *doing* or *engaging in* or *transacting business*. The true test is whether a foreign corporation is continuing the body/substance of the business for which it was organized or whether it has substantially retired from it and turned it over to another.[45] E-commerce raises specific issues as to what constitutes doing business or being "engaged in trade or business." As pointed out by the Canadian Customs and Revenue Agency:

[41] § 22 (B) of the CTRP provides that the term corporation includes partnerships no matter how created or organized, joint stock companies, joint accounts (*cuentas en participacion)*, associations or insurance companies, but does not include general professional partnerships, joint ventures formed for the purpose of undertaking construction projects or engaging in petroleum, coal, geothermal, and other energy operations pursuant to a service contract with the government.

[42] §8 Rev. Reg. No. 2.

[43] Semple v. Guenther, 96 N.W. 895, 896.

[44] Omnibus Investments Code, Executive Order 226, art. 44.

[45] Mentholatum v. Mangaliman 72 Phil 525 (1941).

1) Where electronic goods or services are provided to customers in a state by a non-resident, are these goods and services produced, created, or fabricated in that state?

2) Does the location of a file server, another central computer, or satellite with storage facilities affect the determination of "doing business" in the concept of selling or soliciting orders?

3) In what jurisdiction is the transaction completed and what jurisdiction has the right to impose the tax on the profits?

4) Is the transaction manager/operator of the web server an agent of the non-resident?

C. RESIDENCE

Determination of residence for taxation purposes in the context of e-commerce is more pertinent for individuals than corporations in Philippine law. For corporations, whether resident or foreign, we return to the definition of being engaged in trade or business since for income tax purposes, a foreign corporation organized authorized and existing under the laws of any foreign country is taxed at the same rate as a resident foreign corporation. For income tax purposes, a foreign corporation engaged in trade or business is a resident foreign corporation. Unfortunately, residence concepts rely on evidence of physical location.

Communications technology has the potential to affect residence tests used by some jurisdictions that rely on location of management functions. Under Canadian law for example, corporations that are residents of Canada are subject to tax in Canada on their worldwide income from all sources. Corporations are generally considered residents of Canada if incorporated under Canadian law **or** if central management is in Canada (e.g., where the board of directors of the corporation meet). Residence being the basis of taxation determination of the same is critical to Canada's ability to impose tax.[46] The internet makes it possible for management of a corporation without physical presence of the board of directors at meetings. Video conferencing and other types of technology make it possible for the major decisions of the corporation to be made on-line. This has been adopted locally. In the General Banking Act of 2000 for example, electronic conferencing and electronic board meetings are expressly recognized.

[46] Canadian Customs and Revenue Agency, *Implications and Risks for Canada's Tax Administration*, available at <http://www.ccra.adrc.gc.ca/tax/business/ecomm/ecom4a-e.html> [hereinafter canadian Customs and Revenue Agency].

At the same time, countries like the Philippines assert jurisdiction through the place of incorporation. On the issue of residence therefore, several states claim residence. Hoeren and Kabisch in their study point out that Article 4 paragraph 3 of the OECD Model Convention states that only one place of residence should exist and an enterprise is resident only in the place where effective management is situation or where majority of decision are made.[47]

By allowing fragmentation of economic activity and independence of physical location, e-commerce confounds some of the basic principles of Philippine tax policy and challenges its ability to adapt to it as vendors operate on a remote basis. The challenge is to assign the power to tax to the jurisdiction with a legitimate claim rather than arbitrarily assign receipt, income, or transactions based on considerations that are unrelated to the underlying economic activity.[48]

D. INCOME FROM WITHIN AND INCOME FROM WITHOUT-SOURCE RULES

No discussion of international taxation in the context of e-commerce would be meaningful without considering the source rules. Source of income plays a central role since the country of source has a preferred right to tax income over the residence country (as stated earlier, the country of residence may avoid double taxation by tax credit or tax exemption or a combination of both). Most countries base taxation of passive income on income source.[49] The ability of countries to apply domestic source rules could become crucial if internet businesses migrate to low taxing jurisdictions which are generally expected to fall out of tax treaty networks.[50] Enforcement will also present a problem.

While the main criterion is the place where economic activities occur, some source rules consider physical location while others consider location in a more economic sense. Philippine source rules are contained Section 42 of the CTRP. It provides:

(A) Gross income From Sources within the Philippines- The following items of gross income shall be treated as gross income from sources within the Philippines:

1) **Interests**-Interests derived from sources within the Philippines, and interests on bonds, notes or other interest

[47] Thomas Hoeren, Volker Kabisch, *ECLIP Research Paper Taxation*, available at <http://www/jura/uni/muenster/ecli/Documents/deliverable_2_1taxation.htm>[hereinafter *ECLIP*].

[48] Canadian Customs and Revenue Agency, *supra* note 46.

[49] Veronica A. Santos, *Tax Issues on e-commerce*, PHILIPPINE DAILY INQUIRER, May 5, 2000, at C2.

[50] TURKU, *supra* note 23.

bearing obligations of residents, corporate or otherwise;

2) **Dividends**- The amounts received as dividends;
a. from a domestic corporation; and
b. from a foreign corporation, unless less than fifty percent of the gross income of such foreign corporation for the three year period ending with the close of its taxable year preceding the declaration of such dividends (or such part of such period as the corporation has been in existence) was derived from sources within the Philippine as determined under the provisions of this section; but only in an amount which bears the same ratio to such dividends as the gross income of the corporation for such period derived from sources within the Philippines bears to its gross income from all sources.

3) **Services**- Compensation for labor or personal services performed in the Philippines;

4) **Rentals and Royalties**- Rentals and royalties from property located in the Philippines or from any interest in such property, including rentals and royalties for

a) The use of the right or privilege to use in the Philippines any copyright, patent, design, model, plan, secret formula or process, goodwill, trademark, trade brand, or other like property or right;

b) The use of or the right to use in the Philippines any industrial commercial or scientific equipment;

c) The supply of scientific, technical, industrial, or commercial knowledge or information;

d) The supply of any assistance that is ancillary and subsidiary to, and is furnished as a means of enabling the application or enjoyment of, any such property or right as is mentioned in paragraph (a), any such equipment as is mentioned in paragraph (b) or any such knowledge or information as is mentioned in paragraph (c);

e) The supply of services by a nonresident person or his employee in connection with the use of property or right belonging to, or the installation or operation of any brand or machinery or other

apparatus purchased from such nonresident person;

f) Technical advice, assistance or services rendered in connection with technical management or administration of any scientific, industrial , or commercial scheme; and

g) The use of or the right to use:
(i) Motion picture films;
(ii) Film or video tapes for use in connection with television; and
(iii) Tapes for use in connection with radio broadcasting.

5. **Sale of Real Property**- Gains, profits, and income from the sale of real property located in the Philippines; and

6. **Sale of Personal Property**-Gains profits and income as determined in Subsection (e) of this section. The pertinent portion of subsection E provides that gains, profits, and income derived from the purchase of personal property within and its sale without the Philippines, or the purchase of personal property without and its sale within shall be treated as derived entirely from sources within the country in which it was sold.

The nature of an item of income is important for determining source. For example, the test for royalties is "use" in the Philippines rather than presence in the sense of an office. In an e-commerce transaction the following problem has been pointed out:[51] Suppose a site owner licenses a trademark from a foreign corporation which is used on the site. Treaty and domestic tax law (such as the CTRP) key on where the trademark is used. What determines where a world-wide web site is used? It could be used only where computers on which the WWW site is located. Alternatively, it could be used everywhere the browser downloads the image. The same issues will arise for application written using Java which are small applications downloaded from a WWW server to the browser's computer which run on the browser's computer. Will each browser's access (presumably for a fee) constitute royalty?

Other rules use physical presence, such as for services. To constitute Philippine source income, the service should be performed within the Philippines. But service need not be produced and consumed in the same jurisdiction. It may be produced in one jurisdiction and consumed in another. For example, in the case of medical services, the internet makes it possible for a doctor to examine a patient's MRI without the patient

[51] Dave Roberts, *supra* note 2.

being physically present before him. When the services or information come in digitized form, there is a great possibility, as earlier pointed out, that those service providing firms will migrate to low tax jurisdictions. In addition, it will be difficult to characterize the transaction from royalty income.

According to the U.S. Treasury Department, e-commerce will likely require that residence based taxation assume greater importance than source based rules due to the difficulty in cyberspace of linking an item of income with a specific geographical location.[52] In contrast, all taxpayers have residence somewhere.

This thesis recognizes that new regulations for source rules of electronic commerce are necessary; however, they are not the focus of this work. There are no regulations governing the taxation of e-commerce in existence in the Philippines. However, a *Juris Doctor* thesis from the Ateneo de Manila University School of Law by Olga Barrera proposes interpretative rules and regulations for the taxation of electronic commerce which is definitely worth mention.[53]

It defines electronic commerce as the ability to perform transactions involving the exchange of goods, services, or intangibles between two or more parties using electronic tools and techniques for compensation. The basic principle underlying the proposed regulations is that the internet is only a media which does not change the nature of the transaction. The source of income rules provide:[54]

> **(1) Sale of goods**- (a) real property- gains, profits, and income from the sale of real property located in the Philippines shall be considered as income from sources within the Philippines; (b) personal property- gains and profits derived from the purchase of personal property within and its sale without the Philippines, or from the purchase of personal property without and its sale within shall be treated as derived from the country in which it was sold;
>
> **(2) Sale of service**- compensation for labor or personal services performed in the Philippines are income from sources within the Philippines;
>
> **(3) Royalties**- shall be considered as income from sources within the Philippines if the grantee of the right to use or exploit the invention of know-how contract is a resident of the Philippines.

In contrast to Philippine source rules under the CTRP, the source of royalties is not where actual use is, but in the residence of the grantee. This source rule considers the unique nature of electronic commerce and supports the idea that residence based taxation may prevail over source. However, even if residence of the taxpayer is used, it still does not guarantee taxpayer identification. Considering as well all the issues raised by e-commerce and the difficulty revenue authorities will have in tax administration, its is clear that Section 42 of the CTRP, absent regulations for clarification, is ill-equipped to answer the issues raised by the e-commerce challenge.

E. WHY WEB SERVERS

Source rules for electronic commerce is only part of the problem. Evaluation and application of the concept of "engaged in trade or business" or "doing business in the Philippines" will require a review of the very nature of a web site and the server from which they are operated. When related to permanent establishment concept it is even more relevant.

In the context of electronic commerce there are two possible sites for a PE: the location of the customer signing on to the site to conduct the transaction, and the location of the web server. In the first, there is no fixed place of business and no permanence. In the second, there are "near equivalents" of a fixed place of business. More so when actual orders are conducted through the site.[55]

Under present concepts of permanent establishment, concepts of substantial presence and geographical fixedness are important in determining whether an enterprise has brought itself in a particular tax jurisdiction.[56] Vendors/businesses doing e-commerce can conduct substantial business with a transient and insubstantial presence. Consequently, web sites and servers may have to be included in the notion of what constitutes a PE.[57]

In general, a WWW site is basically a series of related files on a

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[52] Joseph Guttentag, Department of Treasury Office of Tax Policy, *Selected Tax Policy Implications of Global Electronic Commerce* (Nov. 1996) <http://www.webcom.com/software/issues/docs-htm/treas-ec.html>.

[53] Olga Barrera, Electronic Commerce a Taxation Limbo (1999) (unpublished J.D. thesis Ateneo de Manila University School of Law).

[54] *Id.* at 133-144.

[55] Canadian Customs and Revenue Agency, *supra* note 46.

[56] It has been argued by Arvid Skaar in his book, that there has been a gradual erosion of the permanent establishment concept. Arguably in the modern world, businesses can be conducted by communications equipment that does not require a physical presence making the pe concept obsolete and should be replaced by a different threshold such as percentage of sales by a foreign entity or absolute monetary *de minimis* account. See ARVID A. SKAAR, PERMANENT ESTABLISHMENT: EROSION OF A TAX TREATY PRINCIPLE (1991).

[57] Price Waterhouse Coopers, *Electronic Commerce and the Permanent Establishment Issue* <http://www.pwc.global.com/extweb/manissue.nsf>, visited Nov. 4, 2000.

server which may or may involve regular, periodic, or infrequent updates from: 1) the site owner- or the entity for whom the site is maintained; 2) the site developer- or the person who created the site; 3) the host- where the www site files are located; 4) ISP- the Internet Service Provider or the owner of the computer which may act as server.[58]

Direct access to files is available to the site owner or developer. By browsing the site, users may view unique content developed by the site based on input from the browser and may even download software using applications such as Java.[59] It is also possible for them to communicate orders or requests for information for the site owner, developer, or host.[60] In relation to the PE issue, the question is when may these servers and sites be considered a "fixed place of business?" Possible solutions to this problem will be discussed in Chapter 5 of this work.

F. CHARACTERIZATION OF DIGITIZED TRANSACTIONS UNDER PHILIPPINE LAW

Under the present law, no system of characterizing digitized transactions exists. The characterization of income is however crucial since physical products can be digitized and transferred electronically. The E-Commerce act makes little mention of the tax treatment of e-commerce transactions except in one controversial section,[61] which states:

> "Unless otherwise agreed between the originator and the addressee, an electronic data message or electronic document is deemed to be dispatched at the place where the originator has its place of business and received at the place where the addressee has its place of business. This rule shall apply even if the originator or addressee had used a laptop or other portable device to transmit or receive his electronic data message or electronic document. *This rule shall also apply to determine the tax situs of the transaction.*" (Emphasis ours).

In addition,

> For the purpose hereof -
> a. If the originator or the addressee has more than one place of business, the place of business is that which has the closest relationship to the underlying transaction or, where there is no underlying transaction, the principal place of business.
> b. If the originator or the addressee does not have a place of business, reference is to be made to its habitual residence; or
> c. The "usual place of residence" in relation to a body corporate, which does not have a place of business, means the place where it is incorporated or otherwise legally constituted.

Upon first reading, some may argue that the E-commerce Act has repealed the tax code. The one sentence (at the end of the first paragraph of section 23) taken literally, determines the tax *situs* of an electronic transaction as the place where the originator has place of business. For e-commerce, this means that the residence of the taxpayer determines nexus rather than source. The default rule provides that where there is no place of business, the place of business is that which has the closest relationship to the underlying transaction or, where there is no underlying transaction, the principal place of business. Presumably, this means that if residence cannot be determined from several places of business, than the source of income will apply. This provision of the law echoes the regulations developed in the thesis by Olga Barrera. When applied to royalties therefore, does this mean that the *situs* would be the residence or place of business of the addressee or user rather than the place of exploitation? It seems to be so.

Nonetheless, the Implementing Rules and Regulations of the E-commerce Act later clarify that section 23 only applies to the extent not inconsistent with Philippine *situs* rules, and the regulations which may be promulgated by the Bureau of Internal Revenue (BIR) relating to the tax treatment of electronic commerce transactions. Moreover, the rules state that nothing in the section shall be deemed to amend the rules of private international law. The problem is that section 23 is inconsistent with and fundamentally contradicts the substance of section 42 of the CTRP source rules. They are not all based on residence in the sense of a physical location notable in the case of royalties which constitute a majority of e-commerce generated income. What then is the practical meaning of section 23? Is section 23 to be disregarded completely for taxation purposes? Or will it be resorted to when the source of income cannot be determined by traditional principles? The only conclusion drawn by this author is that Philippine tax law has an ambivalent treatment of e-commerce generated income.

Digitized information presents unique issues since information cannot only be transferred electronically, but it can be perfectly reproduced by the purchaser.[62] The transaction may be literally construed as royalty income since the right of reproduction belongs to the copyright holder. Of course, there is a world of difference between having the right to do something and the incidental ability to be able to do it. As vast amounts of information are capable of being transformed into digital

[58] Dave Roberts, *supra* note 2.

[59] Java is Object Oriented Programming Language developed at Sun Microsystems. It is a standardized set of "packages" that support creating graphical user interface; controlling multimedia data; and communicating over networks.

[60] Dave Roberts, *supra* note 2.

[61] Electronic Commerce Act of 2000, Republic Act No. 8792, § 23 (2000).

[62] Joseph Guttentag, *supra* note 5.

form, it is necessary, for classification purposes, to apply the definition or royalties in a manner that considers the unique characteristics of the digitized form.[63]

The U.S. Software Regulations, which will be discussed in the next chapter do not make determinations based on whether property is tangible or intangible. This does not capture the unique features of digitized information. The means of transfer (electronic or otherwise) is properly treated as irrelevant as this ignores the substance of the transaction.[64]

The main question in characterizing these types of income is identifying the consideration for the payment. This will depend on the relevant copyright law and contractual agreements between the parties. To distinguish between transfer of copyright rights and transfer of a copyrighted article it is necessary to look into what constitutes copyright rights under Philippine copyright law. The Intellectual Property Code enumerates the rights of copyright as:[65]

a) The reproduction of the work or a substantial portion of the work;

b) Dramatization;

c) The first public distribution of the original and each copy of the work by sale or other forms of transfer ownership;

d) Rental of the original copy or a copy of an audio-visual or cinematographic work, a work embodied in a sound recording, a computer program, a compilation of data and other materials or a musical work in graphic work, irrespective of the ownership of the original or the copy which is the subject of the rental;

e) Public display of the original or the copy of the work;

f) Public performance of the work;

g) Moral rights;

h) Resale rights.

With digitized information, the problem is that copying is so easily done that it seems that information transferred electronically, even if a mere substitute for physical goods, may always be considered a royalty.

[63] *Id.*

[64] *Id.*

[65] Intellectual Property Code, Republic Act. No. 8293, Chapter V §177.1-177.5 (1998).

The problem of on-line transmission of data (whether or not for commercial purposes) is that the transfer of data on the internet necessarily includes making a copy of that digital content on the random access memory of the user's computer. By itself, this may constitute transfer of copyright rights and even be basis for copyright infringement.

The character of payments received in transactions involving the transfer of computer software[66] depends on the transfer of rights the transferee acquires with regard to the use and application of the program.[67] Philippine law is so far silent on this point and fails to recognize the tax consequences of when income is considered royalty, sale, sale of services, or another type of income.[68]

On the other hand, the United States has created software regulations which help solve characterization problems that arise from the unique nature of e-commerce. The characterization of income is directly related to significance of the permanent establishment issue.

It is urged that these software regulations, considered with the TAG commentary of characterization of e-commerce payments, be adopted to fill the void in Philippine law.

V. CHARACTERIZATION OF E-COMMERCE GENERATED INCOME

A. DIGITIZED AND NON-DIGITIZED PRODUCTS

E-Commerce involves two general categories of products: digitized and non-digitized. Generally non-digitized information is that which has physical form. It is not expressed or cannot be expressed in binary codes of ones and zeroes. It is not or cannot be software. The role of the internet in this type of goods is in retailing or wholesaling. Web pages merely supplement paper catalogs for mail order companies and

[66] *See* ¶ 12.1. Software may be described as a program, series of programs, containing instructions for a computer required either for the operational processes of the computer itself (operational software) or for the accomplishment of other tasks (application software). It can be transferred electronically, on a magnetic tape or disk, or on a laser disk or cd-rom. It may be standardized with a wide range of applications or be tailored for single-users. It can be transferred as an integral part of computer software or in an independent form available for use on a variety of hardware. OECD Revision on the Commentary on Article 12 Concerning Software Payments available at <http://www.oecd.org>.

[67] *Id.*

[68] In copyright law the issue of copyright infringement and violation of the first sale doctrine is dealt with in the case of MAI Computer v. PEAK Computer and Playboy v. Frena.

wholesalers by displaying images of goods and information. Links to the vendors' inventory of goods can make it possible to verify whether the requested goods are in stock.[69] If a sale is made, there will still be actual physical delivery of the item.[70]

These types of sales are easily characterized as sale of goods rather than royalty or services. It is easy to spot the consideration for the payment. Ownership and possession pass to the buyer and there is no retention of rights by the seller. Since the buyer has possession, he also has control over the good. Risk of loss is transferred to him.

To that extent, on-line sale of goods would be no different from remote sales via mail order catalog. In this light, the *Quill* decision of the United States Supreme Court should be mentioned. In *Quill v. North Dakota,*[71] North Dakota, through its Tax Commissioner, filed an action in state court to require petitioner Quill Corporation, an out-of-state mail-order house with neither outlets nor sales representatives in the State, to collect and pay a use tax on goods purchased for use in the State. While the court held that a mail order business did not need to have a physical presence within the state for the state to impose a sales tax on its sales, it *should* have substantial nexus in the taxing state. The court held the State's enforcement of the use tax against Quill placed an unconstitutional burden on interstate commerce.[72] More importantly, the court did not specifically abandon the ruling in *National Bellas Hess v. Department of Revenue of Ill.*[73] Which stated: a "seller whose only connection with customers in the State is by common carrier or the United States mail" lacked the requisite minimum contacts with the State.[74] The ruling solves the problem of the sale of physical goods on-line, but only in part.

The role of the internet however, is more than mere advertisement, since a server can perform the functions of an agent and conclude a sale based on input it receives. The issue is whether the on-line sales are considered doing business and whether or not the server/site is a PE when there is no physical presence (apart from equipment) since there may be sufficient nexus. These concepts will be covered in the next chapter.

The distinctions with respect to characterization are not always so clear with digitized products which, due to their transformation into

[69] Joseph Guttentag, *supra* note 5.

[70] One of the most familiar examples of these transactions is amazon.com, an on-line bookseller. On the amazon web site it is possible to search through their inventories and purchase items on-line. The items are then delivered to customers all over the world.

[71] Quill Corp. v. North Dakota, 504 U.S. 298 (1992).

[72] *Id.* at 9-19.

[73] National Bellas Hess v. Department of Revenue of Illinois, 386 U.S. 753 (1967).

[74] *Id.* at 758.

binary codes of ones and zeroes may be copied easily and transferred electronically. Many types of information can be digitized such as books, compact discs, movies, images, etc. Since these are also intellectual property, they are also the subject of copyright law and their sale, lease, transfer, or license may involve royalty payments.

An item like an encyclopedia for example may be sold as a set of books; as digitized information on a CD-Rom; or accessed on the internet for a fee. With a sufficiently fast modem connection a user might be indifferent as to whether she were accessing a cd-rom on her desk top or a mainframe computer. The latter option includes the advantage of continuous update.[75] The distinction between an on-line service of information and cd-rom is blurred.

Depending on the facts and circumstances, some transactions may be viewed as the purchase of a physical copy while in other cases it may be viewed as royalty income.[76] The availability of goods on-line also blurs the distinction between a sale and a lease.

According to the United States Treasury Department, classifying transactions involving digitized transactions should disregard the form of the transaction (whether tangible or intangible) and instead require a more complex analysis of the rights transferred.[77] The main issue would be the consideration for the payment which in turn depends on the agreement between the parties and the relevant copyright law. This would distinguish whether the on-line purchase of digital information is royalty income or a mere substitute for conventional transactions involving physical objects. Note that, our copyright law distinguishes between a right in the copyright program and the software which incorporates a copy of the copyrighted program. That is to say, it distinguishes between transfer of a copyright and transfer of a copyrighted article.

The following are the subject of copyright laws as enumerated in the IPC:[78]

1. Books, pamphlets, articles, and other writings;
2. Periodicals and Newspapers;
3. Lectures, sermons, addresses, dissertations prepared for

[75] Joseph Guttentag, *supra* note 5.

[76] The tax consequence of the distinction is that income considered a sale is not taxable in the residence country but if considered a royalty, it is taxable in the country of source.

[77] Joseph Guttentag, *supra* note 5.

[78] Intellectual Property Code, Republic Act. No. 8293, § 172.1 (1998).

oral delivery, whether or not reduced into writing or any other material form;
4. Letters;
5. Dramatic or dramatico-musical compositions; choreographic works, and entertainment in dumb shows;
6. Musical compositions, with or without words;
7. Works of drawing, painting, architecture, sculpture, engraving, lithography, and other works of art; models or designs for works of art;
8. Original ornamental designs or models for articles of manufacture, whether or not registrable as an industrial design, and other works of applied art;
9. Illustrations, maps, plans, sketches and charts and three dimensional works relative to geography, topography, architecture or science;
10. photographic works and works produced by a process analogous to photography;
11. Audiovisual works and cinematographic works and works produced by a process analogous to cinematography or any process for making audiovisual recordings;
12. Pictorial illustrations and advertisements;
13. Computer programs; and
14. Dramatizations, translations, adaptations, abridgments, arrangements, and other alterations of literary or artistic works. Collections of literary, scholarly or artistic works, and compilations of data and other material which are original by reason of the selection or coordination or arrangement of their contents.

B. U.S. SOFTWARE REGULATIONS

The U.S. Software Regulations depart from copyright law when appropriate and turn to tax principles to determine whether there has been a complete or partial transfer of copyright rights. The software regulations make room for *de minimis* benefits and copyright rights which are incidental to the transaction in order to properly classify the transaction. So, even if the right to reproduce is allowed on a network of computers which is limited in time or duration, this may not immediately give rise to royalty payments.

1. General Rules

This sentiment is expressed in subsection (g) of the software regulations, which states that "[n]either the form adopted by the parties to the transaction, nor the classification of the transaction under copyright law, shall be determinative."[79] Further, the means of transfer is

[79] U.S. Software Regulations, § 1.861.18(g)(1) (1998).

not taken into account.[80] The rules are applied irrespective of the physical or electronic or other medium used to effectuate the transfer of a computer program. Finally, the right to make copies of the computer program for purposes of distribution, sale or other transfer of ownership, or by rental, lease or lending does not contemplate distribution to related persons, or to identified persons who may be identified either by name or by legal relationship to the transferee.[81] The number of employees of a transferee of a computer program who are permitted to use the program in connection with their employment is not relevant. Neither is the number of individuals who are permitted to use the computer program, in connection with an agreement to provide the programming to the transferee.

A related person is a person who bears a relationship to the transferee specified in section 267(b)(3) (3),[82] (10), (11), or (12),[83] or section 707(b)(1)(B),[84] 1563(a),[85] of the U.S. Tax Code.[86] In applying section 267(b), 267(f), 707(b)(1)(B), or 1563(a) , "10 percent" shall be substituted for "50 percent."

[80] *Id.* at (g) (2).

[81] *Id.* at (g) (3).

[82] U.S. Code Title 26, § 267 provides for deductions for losses, expenses, and interest with respect to transactions between related taxpayers. The enumeration are those considered related taxpayers. Section b (3) provides one of theses groups as: Two corporations which are members of the same controlled group, as defined in subsection (f).

[83] This is also part of the preceding enumeration of related taxpayers for purposes of deuction of losses, expenses, and interest. They are:

(10) A corporation and a partnership if the same persons own -

(A) more than 50 percent in value of the outstanding stock of the corporation, and

(B) more than 50 percent of the capital interest, or the profits interest in the partnership;

(11) An S corporation and another S corporation if the same persons own more than 50 percent in value of the outstanding stock of each corporation;

(12) An S corporation and a C corporation, if the same persons own more than 50 percent in value of the outstanding stock of each corporation.

[84] § 707 enumerates what are considered transactions between a partner and a partnership. Section b (1) (b) provides that certain sales or exchanges of property with respect to controlled partnerships are not allowed deductions from losses from sales or exchanges of property (other than the interest in the partnership) when made between: two partnerships in which the same persons own, directly or indirectly, more than 50 percent of the capital interests or profits interests.

[85] §1563 (a) defines a Controlled group of corporations. The types of controlled groups of corporations as parent subsidiary controlled group; brother sister controlled group; combined group; certain insurance companies.

[86] U.S.C. Title 26.

2. Categories of Transactions

Under the regulations, transactions involving computer programs should be treated as *solely* falling into one of four categories:[87]

(i) A transfer of a copyright right in the computer program;

(ii) A transfer of a copy of the computer program (a copyrighted article);

(iii) The provision of services for the development or modification of the computer program; or

(iv) The provision of know-how relating to computer programming techniques.

If a transaction involves more than one transaction, it shall or should be treated separately unless the transaction is *de minimis,* in which case it will not be treated as a separate transaction but as part of another transaction.

3. Transfers Involving Copyright Rights and Copyrighted Articles

A transfer of a computer program is classified as a transfer of a copyright if, as a result of the transaction, a person acquires any one or more of the rights:[88]

(i) The right to make copies of the computer program for purposes of distribution to the public by sale or other transfer of ownership, or by rental, lease or lending;

(ii) The right to prepare derivative computer programs based upon the copyrighted computer program;

(iii) The right to make a public performance of the computer program; or

(iv) The right to publicly display the computer program.

[87] U.S. Software Regulations, § 1.861-18 (b) (i)-(iv) (1998).

[88] *Id.* at (c)(2)(i) through (iv).

The copyright rights are more general than those enumerated by the Intellectual Property Code. The (c)(2)(i) through (4) rights help distinguish between royalties and business profits since the consensus is that royalty characterization cannot arise in the absence of a transfer of rights to allow a commercial exploitation of these rights by the transferee.[89]

If a person receives a disk with a copy of a computer program which enables him to exercise a *non de minimis* copyright right, and the transaction involves a *de minimis* provision of services or know-how, then the transfer is treated as solely a transfer of a copyright right.

4. Provision of Services

The determination of whether a transaction involving a newly developed or modified computer program is a provision of services or another transaction should be based on the facts and circumstances of the transaction. This includes the intent of the parties who own the copyrights, and who bears the risk of loss.

5. Provision of Know-how

The provision of information with respect to a computer program will be treated as the provision of know-how for purposes of this section only if the information is either information relating to computer programming techniques; furnished under conditions preventing unauthorized disclosure, specifically contracted for between the parties, and considered property subject to trade secret protection.[90]

6. Further Classification of Rights involving Copyrights and Copyright Articles

The sale or transfer of a copyright *right* may be considered a sale of a copyright right or a license of a copyright right depending on whether there is a transfer of all the substantial rights. The transfer or sale of copyrighted *articles* may be considered either a lease or a sale depending on whether, based on the facts and circumstances there has been a transfer of the benefits and burdens of ownership. Some of the special circumstances of computer programs to consider whether or not there

[89] Technical Advisory Group on Treaty Characterization of E-commerce Payments ¶21 (September 1, 2000), available at <http://www.oecd.org/daf/fa/treaties/treatychar-4sept.pdf.> [hereinafter TAG Treaty Characterization of E-Commerce Payments].

[90] U.S. Software Regulations (e). The difference between know-how and business profits will be discussed in the latter part of this chapter.

has been a transfer of substantial rights (in the case of a copyright right) or transfer of the burdens of ownership (in the case of a copyrighted article) are the ability to make copies at minimal cost and certain agreements between the parties. Examples of the latter are requirements that a program be destroyed, or that it will deactivate after a certain period of time.

7. Examples of Transactions

The software regulations are best understood when illustrated by examples in the regulations. They consider whether copyright rights described in (c)(2) of the regulations have been transferred[91]. The test of the transfer of the substantial rights determines whether there has been a sale or mere license of copyright rights as described in (f)(1) of the regulations.[92] The test of the transfer of benefits and burdens of ownership determine whether there is a sale or a lease of a copyrighted article under (f)(2).[93] Other special arrangements unique to computer programs and software are also considered. This determines whether the transaction is a (c)(1)(i) transfer of a copyright, a (c)(1)(ii) transfer of a copy of the computer program (copyrighted article), a (d) provision of services, or a (e) provision of know-how.

The following illustrate typical e-commerce transactions:[94]

Example 1. (i) *Facts.* Corp A, a U.S. corporation, owns the copyright in a computer program, Program X. It copies Program X onto disks. The disks are placed in boxes covered with wrapper on which is printed what is generally referred to as a shrink-wrap license. The license is stated to be perpetual. Under the license no reverse engineering, decompilation, or disassembly of the computer program is permitted. The transferee receives, first, the right to use the program on two of its own computers (for example, a laptop and a desktop) provided that only one copy is in use at any one time, and, second, the right to make one copy of the program on each machine as an essential step in the utilization of the program. The transferee is permitted by the shrink-wrap license to sell the copy so long as it destroys any other copies it has made and imposes the same terms and conditions of the license on the purchaser of its copy. These disks are made available for sale to the general public in Country Z. In return for valuable consideration, P, a Country Z resident, receives one such disk.

(ii) *Analysis.* (A) Under the software regulations, paragraph (g)(1) of this section, the label license is not determinative. None of the copyright rights described in paragraph (c)(2) of the regulations have been transferred in this transaction. P has received a copy of the program however, and therefore, under paragraph (c)(1)(ii) of this section, P has acquired solely a copyrighted article.

(B) Taking into account all of the facts and circumstances, P is properly treated as the owner of a copyrighted article. Therefore, under paragraph (f)(2)[95] of this section, there has been a sale of a copyrighted article rather than the grant of a lease.

Example 2. (i) *Facts.* The facts are the same as those in *Example 1*, except that instead of selling disks, Corp A, the U.S. corporation, decides to make Program X available, for a fee, on a World Wide Web home page on the Internet. P, the Country Z resident, in return for payment made to Corp A, downloads Program X (via modem) onto the hard drive of his computer. As part of the electronic communication, P signifies his assent to a license agreement with terms identical to those in *Example 1*, except that in this case P may make a back-up copy of the program on to a disk.

(ii) *Analysis.* (A) None of the copyright rights described in paragraph (c)(2) of the regulations have passed to P. Although P did not buy a physical copy of the disk with the program on it, paragraph (g)(2) of the regulations provide that the means of transferring the program is irrelevant. Therefore, P has acquired a copyrighted article.

(B) As in *Example 1*, P is properly treated as the owner of a copyrighted article. Therefore, under paragraph (f)(2) of this section, there has been a sale of a copyrighted article rather than the grant of a lease.

Example 3. (i) *Facts.* The facts are the same as those in *Example 1*,

[91] Please refer to the enumeration on the previous page.

[92] (f)(1) of the regulations discusses transfer of copyright rights or the substantial rights test. The determination of whether a transfer of a copyright right is a sale or exchange of property is made on the basis of whether; taking into account all the facts and circumstances there has been a transfer of all substantial rights in the copyright. A transaction that does not constitute a sale or exchange because not all substantial rights have been transferred will be classified as license generating royalty income.

[93] Again, taking into consideration all the facts and circumstances, the determination of whether a transfer of a copyrighted article is a sale or exchange depends on whether the benefits and burdens of ownership have been transferred. A transaction that does not constitute a sale or exchange because insufficient benefits and burdens of ownership have been transferred, such that a person other than the transferee is properly treated as the owner of the copyrighted article, will be classified as a lease generating rental income.

[94] U.S. Software Regulations (h).

[95] (f)(2) refers to transfers of copyrighted articles. Whether the transfer is a lease or sale depends on the benefits and burdens of ownership that have been transferred.

except that Corp A only allows P, the Country Z resident, to use Program X for one week. At the end of that week, P must return the disk with Program X on it to Corp A. P must also destroy any copies made of Program X. If P wishes to use Program X for a further period he must enter into a new agreement to use the program for an additional charge.

(ii) *Analysis.* (A) Under paragraph (c)(2) of the regulations, P has received no copyright rights. Because P has received a copy of the program under paragraph (c)(1)(ii) of the regulations, he has, therefore, received a copyrighted article.

(B) Taking into account all of the facts and circumstances, P is not properly treated as the owner of a copyrighted article. Therefore, under paragraph (f)(2) of this section, there has been a lease of a copyrighted article rather than a sale. Taking into account the special characteristics of computer programs as provided in paragraph (f)(3) of the regulations, the result would be the same if P were required to destroy the disk at the end of the one week period instead of returning it since Corp A can make additional copies of the program at minimal cost.

Example 4. (i) *Facts.* The facts are the same as those in *Example 2*, where P, the Country Z resident, receives Program X from Corp A's home page on the Internet, except that P may only use Program X for a period of one week at the end of which an electronic lock is activated and the program can no longer be accessed. Thereafter, if P wishes to use Program X, it must return to the home page and pay Corp A to send an electronic key to reactivate the program for another week.

(ii) *Analysis.* (A) As in *Example 3*, under paragraph (c)(2) of this section, P has not received any copyright rights. P has received a copy of the program, and under paragraph (g)(2) of this section, the means of transmission is irrelevant. P has, therefore, under paragraph (c)(1)(ii) of this section, received a copyrighted article.

(B) As in *Example 3*, P is not properly treated as the owner of a copyrighted article. Therefore, under paragraph (f)(2) of this section, there has been a lease of a copyrighted article rather than a sale. While P does retain Program X on its computer at the end of the one week period, as a legal matter P no longer has the right to use the program (without further payment) and, indeed, cannot use the program without the electronic key. Functionally, Program X is no longer on the hard drive of P's computer. Instead, the hard drive contains only a series of numbers which no longer

perform the function of Program X. Although in *Example 3*, P was required to physically return the disk, taking into account the special characteristics of computer programs as provided in paragraph (f)(3) of this section, the result in this *Example 4* is the same as in *Example 3*.

Example 5. (i) *Facts.* Corp A, a U.S. corporation, transfers a disk containing Program X to Corp B, a Country Z corporation, and grants Corp B an exclusive license for the remaining term of the copyright to copy and distribute an unlimited number of copies of Program X in the geographic area of Country Z, prepare derivative works based upon Program X, make public performances of Program X, and publicly display Program X. Corp B will pay Corp A a royalty of $y a year for three years, which is the expected period during which Program X will have commercially exploitable value.

(ii) *Analysis.* (A) Although Corp A has transferred a disk with a copy of Program X on it to Corp B, under paragraph (c)(1)(i) of the regulations because this transfer is accompanied by a copyright right identified in paragraph (c)(2)(i) of the regulations, this transaction is a transfer solely of copyright rights, not of copyrighted articles. For purposes of paragraph (b)(2) of this section, the disk containing a copy of Program X is a *de minimis* component of the transaction.

(B) Applying the all substantial rights test under paragraph (f)(1) of theregulations, Corp A will be treated as having sold copyright rights to Corp B. Corp B has acquired all of the copyright rights in Program X and has received the right to use them exclusively within Country Z, and has received the rights for the remaining life of the copyright in Program X. The fact that the payments cease before the copyright term expires is not controlling. Under paragraph (g)(1) of the regulations, the fact that the agreement is labeled a license is not controlling (nor is the fact that Corp A receives a sum labeled a royalty). (The result in this case would be the same if the copy of Program X to be used for the purposes of reproduction was transmitted electronically to Corp B, as a result of the application of the rule of paragraph (g)(2) of this section.)

Example 6. (i) *Facts.* Corp A, a U.S. corporation, transfers a

disk containing Program X to Corp B, a Country Z corporation, and grants Corp B the non-exclusive right to reproduce (either directly or by contracting with either Corp A or another person to do so) and distribute for sale to the public an unlimited number of disks at its factory in Country Z in return for a payment related to the number of disks copied and sold. The term of the agreement is two years, which is less than the remaining life of the copyright.

(ii) *Analysis.* (A) As in *Example 5*, the transfer of the disk containing the copy of the program does not constitute the transfer of a copyrighted article under paragraph (c)(1) of the regulations because Corp B has also acquired a copyright right under paragraph (c)(2)(i) of this section, the right to reproduce and distribute to the public. For purposes of paragraph (b)(2) of this section, the disk containing Program X is a *de minimis* component of the transaction.

(B) Taking into account all of the facts and circumstances, there has been a license of Program X to Corp B, and the payments made by Corp B are royalties. Under paragraph (f)(1) of the regulations, there has not been a transfer of all substantial rights in the copyright to Program X because Corp A has the right to enter into other licenses with respect to the copyright of Program X, including licenses in Country Z (or even to sell that copyright, subject to Corp B's interest). Corp B has acquired no right itself to license the copyright rights in Program X. Finally, the term of the license is for less than the remaining life of the copyright in Program X.

Example 7. (i) *Facts.* Corp C, a distributor in Country Z, enters into an agreement with Corp A, a U.S. corporation, to purchase as many copies of Program X on disk as it may from time-to-time request. Corp C will then sell these disks to retailers. The disks are shipped in boxes covered by shrink-wrap licenses (identical to the license described in *Example 1*).

(ii) *Analysis.* (A) Corp C has not acquired any copyright rights under paragraph (c)(2) of this section with respect to Program X. It has acquired individual copies of Program X, which it may sell to others. The use of the term license is not dispositive under paragraph (g)(1) of the regulations. Under paragraph (c)(1)(ii) of the regulations, Corp C has acquired copyrighted articles.
(B) Taking into account all of the facts and circumstances, Corp

C is properly treated as the owner of copyrighted articles. Therefore, under paragraph (f)(2) of the regulations, there has been a sale of copyrighted articles.

Example 8. (i) *Facts.* Corp A, a U.S. corporation, transfers a disk containing Program X to Corp D, a foreign corporation engaged in the manufacture and sale of personal computers in Country Z. Corp A grants Corp D the non-exclusive right to copy Program X onto the hard drive of an unlimited number of computers, which Corp D manufactures, and to distribute those copies (on the hard drive) to the public. The term of the agreement is two years, which is less than the remaining life of the copyright in Program X. Corp D pays Corp A an amount based on the number of copies of Program X it loads onto computers.

(ii) *Analysis.* The analysis is the same as in *Example 6.* Under paragraph (c)(2)(i) of this section, Corp D has acquired a copyright right enabling it to exploit Program X by copying it on to the hard drives of the computers that it manufactures and then sells. For purposes of paragraph (b)(2) of the regulations, the disk containing Program X is a *de minimis* component of the transaction. Taking into account all of the facts and circumstances, Corp D has not, however, acquired all substantial rights in the copyright to Program X (for example, the term of the agreement is less than the remaining life of the copyright). Under paragraph (f)(1) of the regulations, this transaction is, therefore, a license of Program X to Corp D rather than a sale and the payments made by Corp D are royalties. (The result would be the same, if Corp D included with the computers it sells an archival copy of Program X on a floppy disk.)

Example 9. (i) *Facts.* The facts are the same as in *Example 8*, except that Corp D, the Country Z corporation, receives physical disks. The disks are shipped in boxes covered by shrink-wrap licenses (identical to the licenses described in *Example 1*). The terms of these licenses do not permit Corp D to make additional copies of Program X. Corp D uses each individual disk only once to load a single copy of Program X onto each separate computer. Corp D transfers the disk with the computer when it is sold.

(ii) *Analysis.* (A) As in *Example 7* (unlike *Example 8*) no copyright right identified in paragraph (c)(2) of the regulations has been

transferred. Corp D acquires the disks without the right to reproduce and distribute publicly further copies of Program X. This is therefore the transfer of copyrighted articles under paragraph (c)(1)(ii) of the regulations.

(B) Taking into account all of the facts and circumstances, Corp D is properly treated as the owner of copyrighted articles. Therefore, under paragraph (f)(2) of this section, the transaction is classified as the sale of a copyrighted article. (The result would be the same if Corp D used a single physical disk to copy Program X onto each computer, and transferred an unopened box containing Program X with each computer, if Corp D were not permitted to copy Program X onto more computers than the number of individual copies purchased.)

Example 10. (i) *Facts.* Corp A, a U.S. corporation, transfers a disk containing Program X to Corp E, a Country Z corporation, and grants Corp E the right to load Program X onto 50 individual workstations for use only by Corp E employees at one location in return for a one-time per-user fee (generally referred to as a site license or enterprise license). If additional workstations are subsequently introduced, Program X may be loaded onto those machines for additional one-time per-user fees. The license which grants the rights to operate Program X on 50 workstations also prohibits Corp E from selling the disk (or any of the 50 copies) or reverse engineering the program. The term of the license is stated to be perpetual.

(ii) *Analysis.* (A) The grant of a right to copy, unaccompanied by the right to distribute those copies to the public, is not the transfer of a copyright right under paragraph (c)(2) of the regulations. Therefore, under paragraph (c)(1)(ii) of the regulations, this transaction is a transfer of copyrighted articles (50 copies of Program X).

(B) Taking into account all of the facts and circumstances, P is properly treated as the owner of copyrighted articles. Therefore, under paragraph (f)(2) of the regulations, there has been a sale of copyrighted articles rather than the grant of a lease. Notwithstanding the restriction on sale, other factors such as, the risk of loss and the right to use the copies in perpetuity outweigh, in this case, the restrictions placed on the right of alienation.

(C) The result would be the same if Corp E were permitted to copy Program X onto an unlimited number of workstations used

by employees of either Corp E or corporations that had a relationship to Corp E specified in paragraph (g)(3) of the regulations.

Example 11. (i) *Facts.* The facts are the same as in *Example 10*, except that Corp E, the Country Z corporation, acquires the right to make Program X available to workstation users who are Corp E employees by way of a local area network (LAN). The number of users that can use Program X on the LAN at any one time is limited to 50. Corp E pays a one-time fee for the right to have up to 50 employees use the program at the same time.

(ii) *Analysis.* Under paragraph (g)(2) of the regulations the mode of utilization is irrelevant. Therefore, as in *Example 10*, under paragraph (c)(2) of the regulations, no copyright right has been transferred, and thus, under paragraph (c)(1)(ii) of the regulations, this transaction will be classified as the transfer of a copyrighted article. Under the benefits and burdens test of paragraph (f)(2) of the regulations, this transaction is a sale of copyrighted articles. The result would be the same if an unlimited number of Corp E employees were permitted to use Program X on the LAN or if Corp E were permitted to copy Program X onto LANs maintained by corporations that had a relationship to Corp E specified in paragraph (g)(3) of the regulations.

Example 12. (i) *Facts.* The facts are the same as in *Example 11*, except that Corp E pays a monthly fee to Corp A, the U.S. corporation, calculated with reference to the permitted maximum number of users (which can be changed) and the computing power of Corp E's server. In return for this monthly fee, Corp E receives the right to receive upgrades of Program X when they become available. The agreement may be terminated by either party at the end of any month. When the disk containing the upgrade is received, Corp E must return the disk containing the earlier version of Program X to Corp A. If the contract is terminated, Corp E must delete (or otherwise destroy) all copies made of the current version of Program X. The agreement also requires Corp A to provide technical support to Corp E but the agreement does not allocate the monthly fee between the right to receive upgrades of Program X and the technical support services. The amount of technical support that Corp A will provide to Corp E is not foreseeable at the time the contract is entered into

but is expected to be *de minimis*. The agreement specifically provides that Corp E has not thereby been granted an option to purchase Program X.

(ii) *Analysis.* (A) Corp E has received no copyright rights under paragraph (c)(2) of the regulations. Corp A has not provided any services described in paragraph (d) of the regulations. Based on all the facts and circumstances of the transaction, Corp A has provided *de minimis* technical services to Corp E. Therefore, under paragraph (c)(1)(ii) of the regulations, the transaction is a transfer of a copyrighted article.

(B) Taking into account all facts and circumstances, under the benefits and burdens test Corp E is not properly treated as the owner of the copyrighted article. Corp E does not receive the right to use Program X in perpetuity, but only for so long as it continues to make payments. Corp E does not have the right to purchase Program X on advantageous (or, indeed, any) terms once a certain amount of money has been paid to Corp A or a certain period of time has elapsed (which might indicate a sale). Once the agreement is terminated, Corp E will no longer possess any copies of Program X, current or superseded. Therefore under paragraph (f)(2) of the regulations there has been a lease of a copyrighted article.

Example 13. (i) *Facts.* The facts are the same as in *Example 12*, except that, while Corp E must return copies of Program X as new upgrades are received, if the agreement terminates, Corp E may keep the latest version of Program X (although Corp E is still prohibited from selling or otherwise transferring any copy of Program X).

(ii) *Analysis.* For the reasons stated in *Example 10*, paragraph (ii)(B), the transfer of the program will be treated as a sale of a copyrighted article rather than as a lease.

Example 14. (i) *Facts.* Corp G, a Country Z corporation, enters

into a contract with Corp A, a U.S. corporation, for Corp A to modify Program X so that it can be used at Corp G's facility in Country Z. Under the contract, Corp G is to acquire one copy of the program on a disk and the right to use the program on 5,000 workstations. The contract requires Corp A to rewrite elements of Program X so that it will conform to Country Z accounting standards and states that Corp A retains all copyright rights in the modified Program X. The agreement between Corp A and Corp G is otherwise identical as to rights and payment terms as the agreement described in *Example 10.*

(ii) *Analysis.* (A) As in *Example 10*, no copyright rights are being transferred under paragraph (c)(2) of the regulations. In addition, since no copyright rights are being transferred to Corp G, this transaction does not involve the provision of services by Corp A under paragraph (d) of the regulations. This transaction will be classified, therefore, as a transfer of copyrighted articles under paragraph (c)(1)(ii) of the regulations.

(B) Taking into account all facts and circumstances, Corp G is properly treated as the owner of copyrighted articles. Therefore, under paragraph (f)(2) of the regulations, there has been the sale of a copyrighted article rather than the grant of a lease.

Example 15. (i) *Facts.* Corp H, a Country Z corporation, enters into a license agreement for a new computer program. Program Q is to be written by Corp A, a U.S. corporation. Corp A and Corp H agree that Corp A is writing Program Q for Corp H and that, when Program Q is completed, the copyright in Program Q will belong to Corp H. Corp H gives instructions to Corp A programmers regarding program specifications. Corp H agrees to pay Corp A a fixed monthly sum during development of the program. If Corp H is dissatisfied with the development of the program, it may cancel the contract at the end of any month. In the event of termination, Corp A will retain all payments, while any procedures, techniques or copyrightable interests will be the property of Corp H. All of the payments are labeled royalties. There is no provision in the agreement for any continuing relationship between Corp A and Corp H, such as the furnishing of updates of the program, after completion of the modification work.

(ii) *Analysis.* Taking into account all of the facts and

circumstances, Corp A is treated as providing services to Corp H. Under paragraph (d) of the regulations, Corp A is treated as providing services to Corp H because Corp H bears all of the risks of loss associated with the development of Program O and is the owner of all copyright rights in Program Q. Under paragraph (g)(1) of the regulations, the fact that the agreement is labeled a license is not controlling (nor is the fact that Corp A receives a sum labeled a royalty).

Example 16. (i) *Facts.* Corp A, a U.S. corporation, and Corp I, a Country Z corporation, agree that a development engineer employed by Corp A will travel to Country Z to provide know-how relating to certain techniques not generally known to computer programmers, which will enable Corp I to more efficiently create computer programs. These techniques represent the product of experience gained by Corp A from working on many computer programming projects, and are furnished to Corp I under nondisclosure conditions. Such information is property subject to trade secret protection.

(ii) *Analysis.* This transaction contains the elements of know-how specified in paragraph (e) of the regulations. Therefore, this transaction will be treated as the provision of know-how.

Example 17. (i) *Facts.* Corp A, a U.S. corporation, transfers a disk containing Program Y to Corp E, a Country Z corporation, in exchange for a single fixed payment. Program Y is a computer program development program, which is used to create other computer programs, consisting of several components, including libraries of reusable software components that serve as general building blocks in new software applications. No element of these libraries is a significant component of any overall new program. Because a computer program created with the use of Program Y will not operate unless the libraries are also present, the license agreement between Corp A and Corp E grants Corp E the right to distribute copies of the libraries with any program developed using Program Y. The license agreement is otherwise identical to the license agreement in *Example 1.*

(ii) *Analysis.* (A) No *non-de minimis* copyright rights described in paragraph (c)(2) of the regulations have passed to Corp E. For purposes of paragraph (b)(2) of this section, the right to distribute the libraries in conjunction with the programs created using Program Y is a *de minimis* component of the transaction. Because Corp E has received a copy of the program under paragraph (c)(1)(ii) of the regulations, it has received a copyrighted article.

(B) Taking into account all the facts and circumstances, Corp E is properly treated as the owner of a copyrighted article. Therefore, under paragraph (f)(2) of the regulations, there has been the sale of a copyrighted article rather than the grant of a lease.

Example 18. (i) *Facts.* (A) Corp A, a U.S. corporation, transfers a disk containing Program X to Corp E, a country Z Corporation. The disk contains both the object code and the source code to Program X and the license agreement grants Corp E the right to—

(*1*) Modify the source code in order to correct minor errors and make minor adaptations to Program X so it will function on Corp E=s computer; and

(*2*) Recompile the modified source code.

(B) The license does not grant Corp E the right to distribute the modified Program X to the public. The license is otherwise identical to the license agreement in *Example 1.*

(ii) *Analysis.* (A) No *non-de minimis* copyright rights described in paragraph (c)(2) of this section have passed to Corp E. For purposes of paragraph (b)(2) of this section, the right to modify the source code and recompile the source code in order to create new code to correct minor errors and make minor adaptations is a *de minimis* component of the transaction. Because Corp E has received a copy of the program under paragraph (c)(1)(ii) of the regulations, it has received a copyrighted article.

(B) Taking into account all the facts and circumstances, Corp E is properly treated as the owner of a copyrighted article. Therefore, under paragraph (f)(2) of the regulations, there has been the sale of a copyrighted article rather than the grant of a lease.

As can be gleaned from the above-examples, characterization is an issue which is more pronounced when dealing with digital products or software rather than non-digital products. In the latter, even if ordering is done electronically, it does not involve the use of a copyright. The U.S. Software Regulations also manages to address the issue of neutrality by avoiding any undue discrimination to e-commerce. Since the manner of transfer is not an issue, it is more likely that e-commerce payments can be treated in a manner similar to existing off-line counterparts.

It does not conform strictly to definitions of copyright rights in the Intellectual Property Code, and presumably under U.S. copyright law since this would be impractical hair-splitting for classification under tax law. Even if a user essentially "copies" a program by merely downloading it, this right is merely incidental to the effective utilization of the product.

C. TECHNICAL ADVISORY GROUP ON TREATY CHARACTERIZATION OF E-COMMERCE PAYMENTS

The U.S. Software regulations are useful to the extent of characterizing payments for software for income tax purposes. However, the TAG group of the OECD (Organization for Economic Cooperation and Development) goes a step further by providing for the treaty characterization of e-commerce payments in their commentary.[96] The U.S. Software Regulations are incorporated into their discussion. Essentially, the commentary deals with issues related to e-commerce generated income to be able to classify these as business profits under Article 7 of the OECD Model Tax Convention. Some payments may be taken out of Article 7 by paragraph 7 of the same which gives priority to any other article that deals with the specific type of income concerned. For better understanding, the treaty characterization issues identified may be broken down into general and sub-categories in the following manner:

1) Business Profits and Royalties

   a. business profits and payments for the use of, or the right to use, a copyright
   b. business profits (provision of services) and payments for know-how
   c. business profits and payments for the use of, or the right to use, industrial, commercial, or scientific equipment

   i. digital products
   ii. computer equipment

2) Provision of Services

3) Technical Fees

4) Mixed Payments

Like the Software Regulations, the TAG of the OECD has also made

[96] TAG Treaty Characterization of E-Commerce Payments, *supra* note 89.

an analysis of 27 categories of typical e-commerce transactions. They are analyzed in relation to the OECD Model Tax Convention and the provisions therein. In addition, throughout its work the TAG *assumes* that all payments made in connection with the various transactions identified were received in the course of carrying on a business, whether the parties themselves were carrying on the business. The identified transactions will not be discussed in detail rather, the issues raised herein will be the next topic of discussion.

1. Business Profits and Royalties

Royalties are defined in paragraph 2 of Article of the OECD Model Tax Convention[97] as follows:

> The term "royalties" as used in this Article means payments of any kind received as a consideration for the use of, or the right to use any copyright of literary, artistic or scientific work including cinematographic films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.

The 1997 Double Taxation Convention also includes in the definition of royalties "payments ... for the use, or the right to use, industrial, commercial, or scientific equipment." Some bilateral conventions entered into by the Philippines, and the CTRP[98] includes this definition of royalties. The current OECD Model Tax Convention no longer uses this last definition.[99]

Breaking down the definition, royalty payments may occur in:

1) the use of or the right to use a copyright;
2) provision of know-how (i.e. information concerning industrial, commercial, or scientific experience); and
3) the right to use industrial, scientific, or commercial equipment.

Alternatively they may be considered business profits.

[97] ORGANIZATION FOR ECONOMIC COOPERATION AND DEV., MODEL TAX CONVENTION ON INCOME AND CAPITAL, available at <http://www.oecd.org> [hereinafter OECD MODEL TAX CONVENTION].

[98] Comprehensive Tax Reform Program, Republic Act No. 8424 § 42 (4) (b) (1997).

[99] According to ¶ 9 of the Commentary on Article12 these words were deleted from the definition in royalties in order to "exclude income from the leasing of such equipment from the definition of royalties and, consequently, to remove it from the application of Article 12 in order to make sure it would fall under the taxation of business profits." As will be discussed later in the chapter, in reference to e-commerce payments, the lease of digital products does not give rise to royalty income in any case.

a. Business Profits and Payments for the Use of, or the Right to Use, a Copyright

In determining whether a royalty characterization is proper, the TAG notes that the main question to be addressed is the identification of the consideration. It will in turn depend on the relevant copyright law and contractual arrangements. Even where the electronic downloading of programs may give rise to the right to use the copyright, the same may be merely incidental. If the consideration for the contract is other than copyright rights and the use of copyright is limited to those required to enable downloading, storage and operation on the customer's computer network, the use of the copyright is disregarded in characterization analysis.[100]

The TAG group also distinguishes software from other forms of digital products such as images, sound, or text. In the latter case, the majority considered that the economic substance of the transaction is the acquisition of a digital product for the own use and enjoyment of the acquiror. Digital products such as music, pictures, or movies are indistinguishable from computer programs in that sense.[101]

Mere downloading of a product onto a customer's hard disk or non-temporary media according to the TAG majority, does not constitute use of a copyright and is merely incidental. The minority of the TAG feel, however, that copying is the essence of the transaction. In the absence of transfer of any other rights, mere downloading constitutes use of a copyright since the use does not exist before a customer's act of copying.[102]

b. Business Profits and Payments for Know-how

It is necessary to distinguish whether consideration for payment (of an e-commerce transaction) gives rise to the provision of services which are business profits or to the supply of know-how which is a royalty information concerning industrial, commercial, or scientific experience. The key distinctive feature of know-how is that it is an asset and as such, something already in existence, and not something brough' into being in pursuance of the particular contract.[103]

Know-how is "undivulged technical information that is necessary

[100] TAG Treaty Characterization of E-commerce Payments, *supra* note 89, at ¶ 21.

[101] *Id.* at ¶ 22.

[102] *Id.* at ¶ 24.

[103] *Id.* at ¶ 29.

for the industrial reproduction of a product or process, directly and under the same conditions; inasmuch as it is derived from experience, know-how represents what a manufacturer cannot know from mere examination of the product and mere knowledge of the progress of technique."[104] In addition, in the know-how contract, "one of the parties agrees to impart to the other, so that he can use them for his own account, special knowledge that is unrevealed to the public."[105] Distinguished from a provision of services, the grantor does not guarantee the results thereof nor does he use skills which are customary to his calling to execute the work.

The group also considered the following examples of payments as the provision of services:

- Payments obtained as consideration for after sales service;
- Payments for services rendered by a seller to the purchaser under a guarantee;
- Payments for pure technical assistance; and
- Payments for an opinion given by an engineer, and advocate, or an accountant.

Applying these criteria, the TAG group agreed that on-line advice, communications with technicians and using the trouble-shooting database, would involve actual services being performed rather than know-how.[106]

They noted that some of the practical difficulties of distinguishing between services and know-how may be resolved by criteria made by a ruling of the Australian Tax Office.[107] The ruling cited states that under a contract for supply of know-how, a pre-existing product is transferred for the use of the buyer and, except in the case where the seller divests himself completely of any further interest in the product, the property remains with the seller, subject to the terms of the contract. The buyer only obtains the right to use the product.

In contrast, a contract involving the performance of services involves

[104] The definition by the *Association des Bureaux pour la Protection de la Propriete Industrielle* is used in ¶ 26 of the TAG Treaty Characterization of E-commerce Payments, *supra* note 89.

[105] *Id.* at ¶ 26.

[106] *Id.* at ¶ 28.

[107] Australian Tax Office Ruling IT 2660, "Income Tax: Definition of Royalties" available at <http://www./ato/gov/au/atolaw/view.htm?basic=know-how&&docid=ITR/IT2660?NAT/ATO/00001>.

an undertaking by a contractor to perform services which result in the development of a product. The contractor applies existing skill using his knowledge for his own purposes rather than for transferring know-how. The developed product belongs to the buyer for his own use without having to obtain any further rights from the contractor. As a by-product of the service, a design, plan, or specification may be produced in which a by-product could exist. Normally, the contractor is the owner of the copyright but this should not alter the contract for provision of services. The incidence of cost is another factor to consider. For a supplier of know-how there is little that needs to be done save to copy existing material. A contract for services on the other hand, involves a greater level of expenditure.[108] The TAG group also considers the same criteria applied for provision of services/provision of know-how in the U.S. Software Regulations discussed earlier.

c. Business Profits and Payments for the Use of the Right to Use, Industrial, Commercial, or Scientific Equipment

As mentioned, these words are no longer found in the current OECD Model Tax Convention in the definition for royalties yet they do appear in other bilateral treaties. The majority view of the TAG regarding digital products is that their use cannot be considered payments for royalties (the use of or the right to use industrial, commercial, or scientific equipment) for example, in a limited duration software license. Digital products cannot be considered "equipment" since this only applies to tangible products; the medium they are provided on does not affect the substance of the transaction. Also, "equipment" in the context of the definition of royalties applies to property that is considered an accessory to industrial, commercial, or scientific process.[109]

The minority believes that in limited circumstances, payments for time-limited use of a digital product can be considered a royalty if the following conditions were met:[110]

- The digital product is delivered on a tangible medium, as opposed to being downloaded (equipment) and the digital content are inseparable;
- The tangible medium is returned to the supplier at the end of its period of use, as opposed to becoming simply inoperable;
- The digital product must be used for business purposes, as opposed to personal purposes so as to qualify for industrial, commercial, or scientific.

Tangible computer equipment (hardware) may give rise to "payments

[108] *Id.*

[109] TAG Treaty Characterization of E-Commerce Payments, *supra* note 89, at ¶ 33.

[110] *Id.* at ¶ 34.

for the right to use industrial, commercial, or scientific equipment." The distinction must be made whether the income is for rental or from service contracts. The TAG utilized section 7701(e) of the U.S. Internal Revenue Code. The factors they formulated for these are as follows:[111]

a) The customer is in physical possession of the property;
b) The customer controls the property;
c) The customer has significant economic or possessory interest in the property;
d) The provider does not bear any risk of substantially increased expenditures if there is non-performance under the contract;
e) The provider does not use the property concurrently to provide significant services to entities unrelated to the service recipient; and
f) The total payment does not substantially exceed the rental value of the computer equipment for the contract period.

When these factors are present for application service provider transactions it generally gives rise to services income rather than rental payments. Typically, a service provider uses software to provide service to customers, maintains the software as needed, owns the equipment on which it is loaded, provides access, and has the right to update and replace the software at will. On the other hand, the customer does not have possession or control, accesses the software concurrently with others, and must pay a fee based on the volume of transactions processed by the software.[112]

2. Provision of Services

Payments for the provision of services and payments for the rental of property all fall under Business Profits (Article 7) under the OECD Model Tax Convention. The distinction between provision of services and transfer of property may be relevant for certain bilateral conventions as well as for domestic tax law. The major criteria is whether the customer acquires the goods from the provider. Generally, if the customer owns the property but the ownership was not transferred from the vendor to the customer the transaction should be treated as a services transaction. This would occur if the customer engages the vendor to create an item of property that the customer will own from the moment of its creation, then no property will have been transferred from vendor to customer, and the transaction should be characterized as services.[113]

[111] *Id.* at ¶ 36.

[112] *Id.* at ¶ 38.

[113] *Id.* at ¶ 42.

It is possible, however that if the vendor does transfer ownership of the property it may still be characterized as a services transaction to the extent that this is the predominant nature of the transaction. For example, if the property has little intrinsic value and the vendor creates the value through the exercise of its particular talents and skills to create a unique result for the customer such as in on-line consulting or other professional services this results in service income. The only property the customer receives is a report (for example) specifically made for him that is arguably his property from the moment of its creation. If another type of property is received which is more valuable and not specifically created for the customer the transaction may be considered a sale. It is a sale even if it is property that is electronically downloaded.[114]

It is argued by the minority that the above argument refers to digital products as property and assumes there is transfer of property. In their view, all that has been transferred are rights in intellectual property and what is transferred is the right to use the same. However, a distinction has to be made between a provision of services and transactions which merely make existing digital products available to the customer. Moreover, the minority conceded that where the provider "creates value through the exercise of particular talents and skills to create a unique result to the customer" it is still a provision of services transaction.[115]

3. Technical Fees

With respect to technical fees, defined as payments of any kind to any person other than to an employee of the person making the payments, in consideration for service of a technical, managerial, or consultancy nature, the TAG group had this to say:[116]

> Given the limited number of bilateral conventions that include such provisions, there is relatively little guidance as to their exact scope. The group decided that it would therefore be useful to further research and discuss that issue. It especially invites comments by interested parties that may have practical experience, and, in particular, from countries that have included such provisions in their bilateral conventions.

4. Mixed Payments

[114] *Id.* at ¶ 43.

[115] *Id.* at ¶ 44.

[116] *Id.* at ¶ 47.

The TAG group notes here that there are e-commerce transactions where the consideration for the same covers various elements in which case it seems possible to apply to the whole amount of the consideration the principal part where the other parts are of an ancillary and largely unimportant character. It is the predominant element involved that should be applied to the whole part of the payment. The TAG members noted that the obligation to break down payments for mixed transactions would impose an unreasonable compliance burden on taxpayers.[117]

In summary, these are the principles underlying the TAG conclusions on treaty characterization of e-commerce payments. There is in addition, an analysis of 27 various categories of typical e-commerce transactions. The transactions are defined and analyzed as to whether they constitute business profits under Article 7 of the Model Tax Convention or fall under another species of income. These were the transactions identified:

1. Electronic order processing of tangible products
2. Electronic ordering and downloading of digital products
3. Electronic ordering and downloading of digital products for purposes of copyright exploitation
4. Updates and Add-ons
5. Limited Duration software and other digital information licenses
6. Single use software or other digital product
7. Application hosting-separate license
8. Application hosting- bundled contract
9. Application Service Provider- ASP
10. ASP License fees
11. Web site hosting
12. Software maintenance
13. Data Warehousing
14. Customer Support over a computer network
15. Data Retrieval
16. Delivery of exclusive or other high value data
17. Advertising
18. Electronic access to professional advice (e.g.) consultancy
19. Technical information
20. Information delivery
21. Subscription based interactive web site access
22. On-line shopping portals
23. On-line auctions
24. Sales referral programs
25. Content Acquisition transactions
26. Streamed (real time) web based broadcasting
27. Carriage fees

[117] *Id.* at ¶ 49.

Again, the assumption of the TAG is that the transactions were made in the course of carrying on a business. It is easy enough to decipher whether an entity is carrying on a business through the internet, the question is *where* are they transacting such business. The answer lies in the appropriate application of domestic tax law and treaties where they are applicable. Under Philippine tax law, nonresident aliens and foreign corporations are taxed only on Philippine source income. The "engaged in trade or business" distinction for individuals determines whether they will be taxed on graduated rates on their net income or at a fixed rate on their gross income. In the case of corporations, being "engaged in trade or business" distinguishes whether a foreign corporation is a resident foreign corporation taxed on net income from Philippine sources or a foreign corporation taxed on its gross income from Philippine sources. It is therefore always a question of source of income.[118] The guidelines provided for what constitutes "doing business" in the Foreign Investments Act and the Omnibus Investments Code are also helpful.

Tax treaties where they exist, override domestic tax law and provide for a different threshold for active business income. This is discussed in the next chapter.

VI. E-COMMERCE AND THE PERMANENT ESTABLISHMENT CONCEPT

A. THE PERMANENT ESTABLISHMENT CONCEPT GENERALLY

Historically, the PE concept was first used in Austria-Hungary and Prussia in 1899 as a threshold or standard to evaluate economic nexus. The fundamental idea was that whomever benefits economically from a community ought to pay tax to that community.

[118] *See* Joseph Guttentag, *supra* note 5. Under U.S. tax law, nonresident aliens and foreign corporations are also generally subject to tax on their U.S. source income, including income derived from personal services in the United States, and certain foreign income that is attributable to a U.S. trade or business. Unless a treaty applies, non-resident aliens and foreign corporations are taxed at ordinary graduated rates on their net income effectively connected with a trade or business in the United States, and are taxed at a flat rate on the gross amount of their U.S. source "fixed or determinable annual or periodical gains, profits, and income." A U.S. trade or business includes the performance of personal services in the United States. Therefore being engaged in trade or business in the United States is a threshold for taxation of active business income earned by foreign persons .

The principle that underlies the international tax treaty regime is that active business income should be taxed in the country from which it originates (the source country) and passive income should be taxed in which the recipient of the country resides.[119] The distinction between active and passive income is relevant for several reasons. The arguments reflect the following economic analysis:[120]

> **First**, from an economic perspective one may conceive of worldwide income as being produced by value-adding firms. A firm is a joint venture of people seeking returns. The value added by each firm is the sum of the undistributed profits and the dividends, interests, royalties, and rents that it pays: these last four represent the different ways of distributing the firm's income among the people who invest in it. The investment may be in the form of equity capital, debt capital, or tangible and intangible assets; the distinction is the level and type of risk that the investor is willing to undertake. *From this perspective, the taxation of active business income represents the taxation of the profits of the firm, and the taxation of passive income represents the taxation of the division of those profits of investors in the firm.*
>
> **Second**, the active or passive distinction reflects to some extent, the degree of control exercised over the activity....
>
> **Third**, the active or passive distinction is significant because, to a substantial extent, it overlaps with distinctions among publicly traded corporations and individuals, close corporations, and other legal entities. Much of the worlds' active income is earned by large, publicly traded corporations, and in the international context by MNEs, much of the world's passive income is earned directly by individuals or through close corporations or pass through entities.

And while tax treaties aim at dividing income along passive and active lines, the permanent establishment concept reflects a compromise that not all active business income is taxable primarily in the source country, but rather only income that is attributable to a permanent establishment.[121] Taxation of passive income on the other hand, is not abolished but merely reduced to preferential rates.

[119] *The Structure of International Taxation, supra* note 26, at 1306.

[120] *Id.* at 1308-11 *citing* RICHARD A. BREALEY & STEWART C. MEYERS, PRINCIPLES OF CORPORATE FINANCE 5 (4th ed. 1991); Eugene F. Fama, *Agency Problems and the Theory of the Firm,* 88 POL. ECON. 288, 290 (1980); GARY C. HUFBAUER, U.S. TAXATION OF INTERNATIONAL INCOME: BLUEPRINT FOR REFORM (1992).

[121] *Id.* at 1307. Otherwise, international business would be subject to filing returns and paying tax in every country where it had minimal presence.

The PE is therefore a threshold for allocating tax revenues between source and residence countries using the active/passive business income distinction. In treaties it is generally referred to as a fixed place of business through which the resident of one state engages in trade or business in another state. The threshold of what constitutes[122] a PE is quite low: a seat of management, a branch, an office, a workshop, or a single agent is sufficient. Nevertheless, it is accepted in international fiscal matters that until the enterprise of one state sets up a PE in another state it should not properly be regarded as participating in the economic life of the other state to such an extent that it comes within the jurisdiction of the other states' taxing rights.[123]

Is the concept of a PE valid in an electronic environment where business can be conducted without physical presence? Has electronic commerce rendered the PE concept obsolete? Is it still an appropriate threshold? Rather than seek a complete reformulation of the international tax system as it currently stands, the author believes that it is possible to apply the permanent establishment concept as currently formulated in e-commerce. This is also in consonance with the neutral treatment (for tax purposes) of e-commerce generated income and in keeping with the principles adopted by the OECD.

B. JOINT STATEMENT ON ELECTRONIC COMMERCE

We are obliged under the Joint Statement on Electronic Commerce to coordinate and participate with the Organization for Economic Cooperation and Development to achieve a consensus regarding taxation of electronic commerce.[124] The Statement recognizes that close cooperation and mutual assistance is necessary to ensure effective tax administration and prevent tax evasion and avoidance on the internet.

The OECD has dealt specifically with the PE issue, noting its significance in e-commerce taxation. "Whether income derived from transactions taking place on the Internet qualifies for source taxation hinges on finding that the corporation that earned the income has some presence in the source country under the definition of permanent establishment found in the source country's treaty with the corporation's residence country (usually based on that set forth in either the OECD or U.N. Model Treaty), or in the absence of a treaty, under the source country's national law."[125] The first issue to determine is under what circumstances

[122] *Id.*

[123] Joseph Guttentag, *supra* note 2.

[124] United States-Philippines Joint Statement on Electronic Commerce, July 27, 2000, U.S.-Phil.

[125] Kylie Thorpe, *International Taxation of Electronic Commerce: Is the Internet Rendering the Concept of the Permanent Establishment Obsolete?* Available at <http://www.Law.emory.edu/EILR/volumes/fall97/thorpe.html> [hereinafter Kylie Thorpe].

a vendor constitutes a permanent establishment by doing electronic commerce abroad. As a starting point, we can turn to definitions of permanent establishment and business profits in the OECD Model Tax Convention on Income and Capital.

C. OECD MODEL CONVENTION

The OECD has developed a set of rules to set up a uniform basis for international commerce and finance. The first draft of the Double Taxation Convention on Income and Capital came out as early as 1963 followed by a Model Tax Convention and Commentaries in 1977. The current revised version was published in 1992, and was updated again in 1998. Its main purpose is to prevent double taxation. Many of the bilateral treaties existing today, including those which the Philippines have entered into contain concepts embodied in the Model Tax Convention. For business income, the OECD Model Tax Convention uses the PE concept which requires a significant level of presence and of activity in a country before business income can be taxed.

1. Business Profits

Article 7 of Model Tax Convention provides that the profits of an enterprise of a contracting state shall be taxable only in that state unless there is a permanent establishment in the other contracting state. When a PE exists, only such income that is attributable shall be taxed.[126] It also states that "where profits include items of income which are dealt with separately in other articles of this convention, then the provision of those articles shall not be affected by the provision of this article."[127] Like many bilateral treaties, the Model Convention provides that items of income which fall under other articles will not be attributable to the PE because they are not considered business profits. Only active business income attributable to the PE is taxed by the source country.

2. Definition of a PE in Article 5

The definition of a permanent establishment in Article 5 of the Model Convention does not stray from what we may find in bilateral tax treaties entered into by the Philippines and other countries. It provides:[128]

> 1. For the purposes of this Convention, the term "permanent establishment" means a fixed place of business through which the business of an enterprise is wholly or partly carried on.

[126] OECD Model Tax Convention, *supra* note 97, Art. 7 ¶ 4.

[127] *Id.* at ¶ 7.

[128] *Id.* art.5 ¶ 1-2.The RP-US Tax Treaty for example, provides that a permanent establishment means a fixed place of business through which a resident of one of the contracting states engages in trade or business.

2. The term "permanent establishment" includes especially:
   a) place of management;
   b) a branch;
   c) an office;
   d) a factory;
   e) a workshop; and
   f) a mine, an oil or gas well, a quarry or any other place of extraction of natural resources.

3. A building site or construction or installation project constitutes a permanent establishment only if it lasts more than 12 months.

A PE includes the items mentioned in paragraph 2, a-f. It also includes a dependent agent or one who is acting on behalf of the enterprise and habitually exercises, in the Contracting State, the authority to conclude contracts in the name of the enterprise.

It excludes agents of an independent status such as a broker, or a general commission agent who acts in the ordinary course of his business. It generally excludes, activities which are of a preparatory or auxiliary character as enumerated in paragraph 4 in items *a* through *f* which are:

a) the use of facilities solely for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise;
b) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of storage display or delivery;
c) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of processing by another enterprise;
d) the maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise or of collecting information of the enterprise;
e) the maintenance of a fixed place of business solely for the purpose of carrying on, for the enterprise, any other activity of a preparatory or auxiliary character;
f) the maintenance of a fixed place of business solely for any combination of activities mentioned in sub-paragraphs *a)* to *e),* provided the overall activity of the fixed place of business resulting from this combination is of a preparatory or auxiliary nature.

Noting what is excluded and included in the definition of a permanent establishment, there are three basic elements in the definition

to examine. These are: 1) place of business; 2) fixed place; 3) carrying on business through the fixed place.

Following these criteria, it is necessary to, in the context of e-commerce, discern whether a web server or web site may be considered a permanent establishment.

D. WEB SERVER AS PE WHERE A TREATY EXISTS

1. Server

A file server, as mentioned earlier in this paper, is a small microcomputer and large backing storage device used for management of users files on a network like the internet. The files on the server may represent a vendor's web site for mere advertising, collecting information, or electronic catalogue as well as intelligent agent software providing for immediate downloading of digitized products. On a mirror server the stored files are updated by regular contact to a main server.[129]

The OECD notes that it is important to distinguish between a web site and the server on which the web site is stored since the enterprise that operates the server may be (and usually is) different from the enterprise that carries on business through the web site.[130] It is common for a web site through which an enterprise carries on its business to be hosted on an internet service provider (ISP). Although the fees paid under the hosting agreement may be based on a certain amount of disk space, the OECD sentiment is that these do not typically give to the enterprise space or control over the operation of the server (as opposed to the operation of the web site software itself). The server and its location are, under this logic, not at the disposal of the enterprise, even if the enterprise has been able to determine that its web site should be hosted on a particular server at a particular location; in fact, the enterprise does not even have a physical presence since the web site does not involve tangible assets. The conclusion is that the enterprise cannot be considered to have acquired a place of business by virtue of that hosting agreement. However, if the enterprise carrying on business through the web site also owns or leases and operates the server on which the web site is stored and used, the enterprise can constitute a PE if the other requirements of Article 5 are met.[131]

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[129] *ECLIP, supra* note 47.

[130] OECD, *The Application of the Permanent Establishment Definition in the Context of Electronic Commerce: Proposed Clarification of the Commentary on Article 5 of the OECD Model Tax Convention,* Mar. 3, 2000 available at <http://www.oecd.org/daf/fa/treaties/art5_rev3March.pdf>. [hereinafter *The Application of the Permanent Establishment Definition in the Context of Electronic Commerce*].

[131] *Id.* at ¶ 3.

2. Whether a server may ever constitute a PE

Some feel that because of a server's temporary nature and mixed functions there are doubts whether it may ever be a PE especially if it is the only presence of an enterprise in a country. They may also be portable and there may be no need for human personnel. Mirror web sites on different servers located on different countries may be used so that a customer can be directed from site to site for any function depending on electronic traffic. Web sites may be transferred from server to server in different countries.[132]

The OECD, in their Proposed Clarification of Article 5 of the OECD Model Tax Convention specifically dealing with the application of the PE definition in the context of electronic commerce. deal with several technical arguments against servers as PEs which the Working Party addressed:

> Argument: *one needs to distinguish between the server and the software (web site) that is stored in it. Since the web site itself cannot be a permanent establishment and the server is not automated without the software or web site, the server cannot be a permanent establishment.*
>
> The working party found that it was difficult to follow that logic. Once data and software are stored and operated from a server at any given place, they contribute to the functions performed there and one must then determine whether the business of the enterprise is carried on from that place looking at all that occurs there. By analogy, while employees who do not have the authority to conclude contracts cannot themselves constitute a permanent establishment, one needs to look at the functions performed by these employees in a particular building to determine whether the business of an enterprise is carried on in that building. An empty server, like an empty building, would not in itself be a permanent establishment.[133]
>
> Argument: *a server plays only a passive role; if there is a series of back-up servers (often in different countries and which may or may not be owned by the enterprise) it is difficult at any point in time to tell whether the main server is playing any role at all.*

[132] TURKU, *supra* note 23.

[133] *The Application of the Permanent Establishment Definition in the Context of Electronic Commerce, supra* note 130.

> This raises the distinct issue of what is preparatory or auxiliary. It does not affect the fact that a particular server at a given place may constitute a permanent establishment if the functions performed there go beyond what is preparatory or auxiliary.[134]
>
> Argument: *A server should not be more a permanent establishment of mere users than are users of telephone and data lines, call storing or other information recording or disseminating mechanical machines.*
>
> This comment avoids the question of why communication equipment does not constitute a permanent establishment for the user. If the communication equipment situated at a given location in another country is owned by the user (who is not in the telecommunication business), the reason why there is no permanent establishment is not because there is no fixed place of business rather because the activities performed there are preparatory and auxiliary.

Following this logic, it may be concluded that depending on the facts and circumstances of each case, a web server may constitute a PE. It is still necessary to analyze a web server as PE in the context of the elements of the PE definition.

3. Place of Business

A server may constitute a place of business assuming that it is at the disposal of the vendor. What exactly constitutes "disposal" is contentious since ISP's usually have an interest in organizing the storage allocation of the files on their servers whether or not they consult with vendors whose web sites they host.

As mentioned earlier, the OECD opinion is that an enterprise cannot be considered to have acquired a place of business by virtue of a hosting arrangement since the element of control is missing. However, it is also believed that power of disposal over an undivided interest is enough. Concerning the environment of electronic commerce, another point is decisive. The ISP ensures the accessibility of the vendors web site under a specific URL (uniform resource locator), thus the files provided by the vendor are stored somewhere on the server's memory linked to the URL and can, therefore, be considered specific by Internet Protocol criterions rather than by actual location. Under this point of view, a server constitutes a place of business.[135]

[134] *Id.*

[135] *ECLIP, supra* note 47.

So, a distinction is needed when the vendor's web site is there by virtue of a mere hosting arrangement; when they are the sole user of the whole server or of a specific capacity. In the former, the element of "disposal" is not present, in the latter it may be depending on the other relevant facts and circumstances.

4. Fixed Place

While the OECD Model Treaty does not require that the enterprise be "actually fixed to the soil on which it stands," it does mandate that it must be situated at a distinct place with a certain degree of permanence. Hardware equipment, on which the web site is stored, is located on a certain point on the earth's surface and therefore establishes a fixed place of business.[136] The question for the web server is the need for a certain degree of permanency. Computer equipment may only constitute a PE if the equipment is in fact "fixed." According to the OECD, what is relevant is not the possibility of the server being moved around, but whether in fact it is so moved. In order to constitute a fixed place of business, a server will need to be located at a certain place for a sufficient period of time.[137]

E. Carrying on the Business of an Enterprise Through the Fixed Place

The commentary to the Model Treaty expressly states that "[t]he connection between the place of business and the business activity of the enterprise does not have to involve human beings, or any decision-making activity, as long as an activity is performed there. Thus, fully automatic machinery, computers, etc., may comply with the "business connection test." However, there is one condition: the enterprise must carry on genuine business activity, such as maintenance and actual operation.[138]

Some of the activities the server allows are the opportunity to download, electronic cataloguing, or facilities for immediate downloading. Since the web site serves business purposes, the server can be considered to serve business purposes as well. The Commentary reveals that the business of an enterprise may be carried on through automatic equipment. Whether automatic equipment constitutes a PE under Article 5 of the Model Convention depends on the activity carried on after the initial setting up.

[136] *Id.*

[137] *Application of the Permanent Establishment Definition in the Context of E-Commerce, supra* note 130, at ¶4.

[138] Kylie Thorpe, *supra* note 125.

Another issue raised is what degree of human intervention, if any, is necessary for automatic equipment to be considered as a PE. An analogy is made with automatic equipment and vending/gaming machines. In the *Berkholz Case* decided by the European Court of Justice, gambling machines on board a Danish ship which were regularly maintained were not considered a fixed establishment because of the lack of permanent presence of personnel.[139] The Court reasoned that the place of a business establishment was the regular place of supply.

On the other hand, in the *Pipeline Case,*[140] the German Federal Tax Court had to decide for the purposes of net worth tax whether a pipeline through which a Dutch Corporation supplied oil to German companies constituted a permanent establishment. The Dutch enterprise was the sole owner of the pipeline. All oil was regulated through remote control. The customers received oil at delivery stations which they owned and operated. The Dutch corporation had neither employees nor dependent agents in Germany. All maintenance and repair of the pipeline was performed by independent contractors. The court ruled the pipeline constituted a permanent establishment and that the deployment of persons is not always required; in the case of automated equipment the usage of the fixed place for purposes of the taxpayers business is sufficient.[141]

Given these two cases, by analogy, the only conclusion is that the presence of personnel makes it more likely that a PE exists, but where there is a complete absence of personnel it is still an issue.[142] Consider however, the view of some members of the Working Party that automated equipment *does not* require human intervention for its operation to constitute a permanent establishment. The relevant question is the nature of the business and whether the activities performed through the equipment are the core generating income activities of that business. It is illogical to conclude under this view, that personnel are necessary to constitute a PE when no personnel are required to generate income.[143]

[139] *ECLIP, supra* note 47.

[140] *Pipeline Case*, Judgment of Sept. 10, 1991, Finanzgericht Düsseldorf [EFG] [Tax Court] (F.R.G.) 717 (1992).

[141] *ECLIP, supra* note 47.

[142] *Id.*

[143] *Application of the Permanent Establishment Definition in the Context of Electronic Commerce, supra* note 130, at ¶ 7.

1. Not of a Preparatory or Auxiliary Character

Activities of a preparatory or auxiliary character are excluded from the definition of a permanent establishment under Article 5 of the Model Tax Convention. Whether an activity is preparatory or auxiliary depends on the principal activity of the enterprise. The relationship between the internet activity and the principal activity should be examined on a case to case basis; and it is difficult to make any generalization without information on the scope and purpose of specific activities. For example, advertising by a foreign branch of an advertising company may give rise to a permanent establishment whereas the same activity conducted by a sale company's foreign office should qualify as of an auxiliary nature and not create a PE. But generally, the OECD found that certain activities by themselves, are generally regarded as preparatory or auxiliary:

- Providing a communications link;
- Advertising of goods and services;
- Relaying information through a mirror server for security and efficiency purposes;
- Gathering market data for the enterprise;
- Supplying information.

It is possible that the functions performed through a server may be limited to storage and delivery of information. In such case, it is not likely that the server will constitute a PE if these are of a preparatory and auxiliary character. On the other hand, there is the issue of Intelligent Agent Software where the vendor's web site may be capable of processing and executing orders otherwise making a fully automatically completed transaction. Under an economic point of view, the server can be comparable to a sales outlet and constitute a PE.[144]

2. Dependent Agent

A dependent agent may constitute a permanent establishment in a country. However, a server could not constitute a PE under this classification since pursuant to paragraph 32 of the Commentary on Article 5 of the Model Convention, only a natural person or legal entity can serve as a dependent agent.

In addition, ISPs will not constitute agents of the enterprise to which the web sites belong, because they do not have the authority to conclude contracts in the name of the enterprise or because they will constitute independent agents acting in the ordinary course of their business. Neither can the web site through which the enterprise operates be a PE (as agent) since it is not a "person."[145]

[144] *Id.*

[145] *Application of the Permanent Establishment Definition in the Context of Electronic Commerce, supra* note 130 at par. 15.

3. Summary

There are many arguments that a server cannot constitute a PE in the context of electronic commerce the strongest, of which is that the PE definition is not appropriate at all in an internet environment. In addition, it is argued that as opposed to automated equipment such as gaming and vending machines, computer equipment differs in significant aspects. Carol Dunahoo, writing for the Twelfth Annual Institute on Current Issues in International Taxation, argues that computer equipment is just a means for completing a transaction as opposed to a vending machine where the customer initiates and completes the entire transaction with the machine in person on the spot where it is located.

However, it is the belief of the OECD and of this writer that the principles which underlie the OECD Model Tax Convention, including that of a permanent establishment are capable of being applied to electronic commerce. The work of the OECD in its Revised Draft takes a position on certain identified issues raised by electronic commerce. The majority of the Working Party found that computer equipment may constitute a PE even in the absence of personnel. A web site, on the other hand, cannot constitute a place of business even if a server can, since the former lacks the element of being a fixed place of business. Equipment will not constitute a PE unless its location is actually fixed for a certain period of time. The fact that it is or may be mobile is not relevant. What is relevant is whether the equipment is actually moved. The preparatory or auxiliary exception found in the treaty (and embodied in those entered by the Philippines) may prevent a server from constituting a PE, but this will depend on a case-to-case analysis of the activity and the principal activity of the enterprise.

4. Implications for Non-Treaty Countries

The United States Treasury Department has expressed the opinion that in the context of electronic commerce, the residence of a retailer should be taxable nexus. Any nexus based on a web server according to them is an open invitation to tax avoidance. For tax haven countries without tax treaties, the rules determining a permanent establishment are not directly relevant. However, if a web server is a PE and a company locates a web server in a tax haven country, the goal would be to maximize the significance of the operations carried on by the server. This, according to David Hardesty, allows the company to claim legitimately that profits are being earned by the subsidiary corporation in the tax haven country. Ultimately what is necessary is evidence that the operations of the company are substantial enough to not have the profits attributed to the residence country state.

VII. CONCLUSION AND RECOMMENDATIONS

The Principles underlying the OECD Model Tax Convention may be applied to electronic commerce. The permanent establishment definition as it appears in the Model Tax Convention and as adopted into other bilateral treaties should remain. This is in keeping with an approach to tax policy that prefers neutrality and incremental change. In order to give neutral treatment to electronic commerce, it should not be treated in a manner that discriminates or favors other types of income. To place electronic commerce in a special category, at least at this early stage in its development, would be a deterrent to its growth in general. In the analysis of tax treaty issues related to electronic commerce, it is the substance not the form of the transaction that should be the primary concern. Moreover, the nature and function of computer equipment and web sites should be analyzed in the context of their role in the conduct of business of an enterprise.

With the above generalizations, it is possible to conclude on the basis of this study, that fixed automated equipment such as a server may constitute a permanent establishment where the equipment is located. While fixed automated equipment may constitute a PE, a distinction is required between the equipment and the data and software that is used by or stored on that equipment. A web site may not be a permanent establishment since it does not involve a place of business or equipment that is tangible property. In the case of a web server or fixed automated equipment, it can be considered at the very least, near equivalents.

The argument that equipment plays only a passive role or is a mere means of communication is not a valid one. Instead, it raises the distinct issue of whether the activity is of a mere preparatory or auxiliary character which is an exception to a PE. If an activity is to fall into the exception of being "a preparatory or auxiliary character" so as not to constitute a PE will depend on the individual facts and circumstances of each case. Due regard must be given to the various functions performed by the enterprise through the equipment and the principal nature of the business. Where the functions themselves form an essential and significant part of the core functions of the enterprise as a whole, this could be considered a permanent establishment. On the other hand, the following are examples of activities which by themselves are generally regarded as preparatory or auxiliary:

- Providing a communications link much like a telephone line between suppliers and customers;
- Advertising of goods and services;
- Relaying information through a mirror server for security and efficiency purposes;
- Gathering marketing data for the enterprise;
- Supplying information.

However, even if a server may constitute a permanent establishment, this conclusion cannot be reached each time. It is necessary to consider under what circumstances a server may be a PE. To do this, it is necessary to look into the facts and circumstances of each situation at the same time considering the following elements of the permanent establishment definition:

1) Place of business- To constitute a place of business, it is necessary to determine whether the server is at the disposal of the enterprise. This would mean that it owns and operates the server solely, leases, or owns a specific part. Because of this and the distinction between a web server and a web site, a mere hosting agreement by an ISP does not give rise to a place of business and consequently, permanent establishment.

2) Fixed place of business- Hardware equipment is located in a certain point on the surface of the earth and may establish a fixed place of business. As noted in the Revised Draft, the fact that equipment such as a server is portable does not lead to a conclusion that it is not a PE. Some degree of permanency is necessary. It does not matter whether the equipment is movable rather, whether it is, in fact, moved.

3) Carrying on business- A business can be carried out by automated equipment. Human intervention, the presence of personnel is not necessary to constitute the carrying on of a business especially since their physical presence is not necessary to generated income. The relevant question is the nature of the business and whether the activities performed through the business are the core income generating activities of that business such that the server by itself, handles the relevant transaction by itself.

Finally, there is the issue of whether an ISP through a web hosting agreement constitutes a dependent agent. An ISP cannot be considered a dependent agent either because they do not possess the authority to conclude contracts in the name of the enterprise and will not regularly conclude contracts, or because they may be considered independent agents acting in the ordinary course of their business. A web site cannot be a PE since it is neither a person nor a juridical entity.

The relevance of the permanent establishment issue turns on the characterization of the income generated by electronic commerce.

Characterization determines whether the income may be considered business profits or active business income or passive income such as royalties, dividends, and interest. Since the Bureau of Internal Revenue has no regulations regarding electronic commerce generated income it is advised that the U.S. Software regulations and the OECD TAG Treaty Characterization of Electronic Commerce Payments be adopted.

The underlying principle of these regulations is neutrality; the means of transfer should not affect the character of the income. Therefore, the distinction between intangible and tangible is not relevant. As much as possible e-commerce generated income should be characterized with existing off-line counterparts. For the purpose of interpreting the guidelines, it will be assumed that the transactions were entered into in the course of a business.

In characterizing a transaction, the facts and circumstances of each case should be taken as a whole. The foremost basis of the characterization should be the consideration for the payment. The relevant copyright law and agreement between the parties should also be considered to determine whether there has been the transfer of a copyright right; the transfer of a copyrighted article; the provision of services; or the provision of know-how.

For purposes of characterizing a transaction *de minimis,* copyright rights such as copying when merely incidental or which merely allow effective utilization of the good should give way to the principal contract and the consideration for the payment.

The following treaty characterization pointed out by the TAG are useful and should be adopted:

A. Business Profits and Payments for the Use of, or the Right to use a Copyright

Royalty characterization depends on identifying the consideration for the payment. Where the main consideration is:

1. The right to make copies of the computer program for purposes of distribution to public by sale or other transfer of ownership, or rental, lease, or lending;
2. The right to prepare derivative computer programs based upon the copyrighted computer program;
3. The right to make a public performance of the computer program; or
4. The right to publicly display the program

It may be characterized as royalty payments. If copyrights are *de minimis* they should give way to the primary contract.

B. Business Profits and Know-How

The key element of know-how as distinguished from services is that it is an asset already in existence rather than something brought into existence in pursuance of a contract. It generally refers to information related to programming techniques; furnished under conditions preventing unauthorized disclosure, specifically contracted between the parties; and considered property subject to trade secret protection.

Services, on the other hand, pertain to the creation of a product (which may be know-how) by applying existing skills, knowledge, and expertise. In a service contract, use of knowledge by the contractor is for his own purposes. The product created belongs to the buyer without having to obtain additional rights thereto.

The incidence of cost in know-how contracts is generally less than services since it only involves copying existing material. In a service contract there is usually more expenditure involved.

C. Business Profits and the Use of Industrial, Commercial, or Scientific Equipment

The use of industrial, commercial, or scientific equipment even if no longer found in the OECD Model Convention is still important since it still appears in domestic tax law.

1. Digital Products

The use of digital products cannot be considered payments for the right to use industrial, commercial, or scientific equipment. The following reasons have been set forth by the TAG:

1. Digital products cannot be considered equipment either because this refers only to a tangible product, or because the word "equipment" in the context of the definition of royalties, applies to property that is intended to be an accessory in an industrial, commercial, or scientific process and cannot apply to property that is used in and for itself;
2. Such products cannot be viewed as "industrial, commercial, or scientific" at least when provided to a private consumer; and
3. Payments cannot be considered for the "use or right to use" since this does not apply to products with a short useful life.

2. Computer Equipment

The various factors were adopted by the TAG from section 7701 (e) of the U.S. Internal Revenue Code; They are:

a) The customer is in physical possession of the property;
b) The customer controls the property
c) The customer has significant economic or possessory interest in the property;
d) The provider does not bear any risk of substantially increased expenditures if there is non-performance under the contract;
e) The provider does not use the property concurrently to provide significant services to entities unrelated to the service recipient; and
f) The total payment does not substantially exceed the rental value of the computer equipment for the contract period.

When these factors are present for application service provider transactions it generally gives rise to services income rather than rental payments. Typically, a service provider uses software to provide service to customers, maintains the software as needed, owns the equipment on which it is loaded, provides access, and has the right to update and replace the software at will. On the other hand, the customer does not have possession or control, accesses the software concurrently with others, and must pay a fee based on the volume of transactions processed by the software.

D. Provision of Services

The characterization of payments as provision of services depends on consideration of all the facts and circumstances in each case. The factors considered are:

1. The intent of the parties;
2. Which party owns the copyright rights; and
3. Allocation of the risk of loss.

CONCLUSION

At times, invention and innovation precede their understanding. Any study on the taxation of electronic commerce generates more questions than it answers. It becomes difficult for the law to keep pace with technology and competing interests prevent consensus on policy formulation.

Tax treaties take years, even decades to formulate because of the need for international consensus. Any step toward that must be coupled with firm commitment to understand the underlying technology and its consequences. Cooperation is essential and it is inevitable that Philippine law must achieve a balance of interests in formulating its tax policy.

It is necessary to consider that the Philippines is a developing country and that the U.S. and other developed nations have a clear export advantage in terms of information technology, services, and know-how. It would be to their advantage for tax policy on electronic commerce to shift toward residence-based taxation. They could forego source-based taxation, at least with respect to e-commerce generated income. This is what was embodied in the White Paper written by the U.S. Treasury Department. The view that a web server is not a PE benefits them since they would not lose out on any e-commerce generated income attributable to the PE. A narrower definition of a PE allows them to tax non-resident companies only where the foreign company has "sufficient contacts" within the source country. Capital exporting countries prefer to tax businesses resident within the country without having to provide for tax credits to the source country.

On the other hand, developing countries are generally capital importing (at least with respect to e-commerce); meaning more purchases are made from foreign nations than we make from them. In such a situation, it greatly enhances the tax revenue of a country if it is able to tax the many transactions occurring within its borders instead of just the businesses resident there. In this case finding that a PE exists can allow e-commerce generated income to be taxed in their country. Coincidentally, the TAG opinion that a web server can constitute a PE benefits the Philippines and other developing nations.

One writer sees the dilemma arising from the U.S./developed nation's viewpoint as jeopardizing the historical compromise on which the treaty is based: the sharing of revenues between OECD member countries and the reciprocity of treaty benefits. Elimination of source based taxation of income derived from telecommunication, software services, and licensing of intangibles will only improve the position of the U.S.. In the long run, developing nations will suffer from the U.S. and other developed nations' success. The OECD position in the TAG is to our advantage.

Recognizing the lack with which Philippine tax law addresses electronic commerce and the issues it raises, adoption of the guidelines by the OECD TAG and the U.S. Software Regulations for income characterization is essential. It is also necessary to determine under what circumstances a server may constitute permanent establishment as these issues are intimately related to the larger issue of income allocation under tax treaties.

A REVIEW OF STUDENT WRITTEN WORK ON E-COMMERCE AND RELATED TOPICS

As a supplement to this issue, the Editorial Board has prepared a summary of the different Notes written by students relating to E-commerce and the Internet.[1]

CLOSING IN ON COMPUTER BANDITS: A STUDY ON THE EXTENT OF THE COPYRIGHTABILITY OF COMPUTER SOFTWARES

MA. GABRIELLE ROSARIO M. YLAGAN *(1993)*

Computer scientists have little incentive to develop software for mass distribution because of blatant copyright violations. This thesis discusses whether the visual display of a computer program is protected by copyright. While current law protects computer programs, it fails to define "computer programs." Protection is crucial to the willingness of scientists to invest time and effort in creating software.

The resolution of the issue hinges on two cases decided by the American courts, namely: 1) *Broderbund v. Unison*; and 2) *Lotus v. Paperback Corporation*. The study is limited on the copyrightability of the user interface (the display screen that directly affects the user).

The author proposes a new law be enacted, considering the different facets of a computer program; but warns that the new law must not be so liberal as to allow indiscriminate copying; neither must it be so restrictive as to stifle the growth of the computer industry. As to the problem of determining the extent of infringement of the visual display, the author advocates the use of the substantial similarity test.

COMPUTERS UNDER SEIGE: CRIMINALIZING COMPUTER ABUSES

JOEL MAG-IBA VILLASECA *(1995)*

The pervasive use of computers has expanded traditional categories of criminals. "White collar crimes," denominated as the use of computer technology to steal or manipulate information, financial instruments and other misuse of computer systems of governments, financial institutions and commercial entities. The thesis studies the growth of computer crime and analyzes the responses, both legal and non-legal, that have been used to address the problem.

The adequacy of traditional criminal law doctrines is discussed along

Cite as 45 ATENEO L.J. 461 (2001).

[1] This report was prepared by Silvia Jo G. Sabio and Erlynne E. Uy.A copy of these notes are available at the circulation desk of the Ateneo Law School Library, Rockwell Campus.