

E-Commerce Taxation and Cyberspace Law: *The Integrative Adaptation Model*

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ABSTRACT

This article argues that the current debate on international taxation of e-commerce is totally tax oriented and ignores cyberspace law and that this separation is unjustified and harmful to the development of e-commerce taxation law. Mutual intellectual feeding and integrative debate that is open and interesting to the general legal scholarly community is necessary to improve e-commerce law.

To begin a debate on e-commerce taxation as part of cyberspace law, the author describes and incorporates for the first time the primary cyberspace literature into the e-commerce taxation debate. The author draws lessons from judicial jurisdiction in cyberspace, criminal law in cyberspace, and copyright law in cyberspace to argue that the law of cyberspace can help evolve the e-commerce tax regime. The article also examines the changes in these fields of law as they have adapted to cyberspace.

Finally, the article presents the Integrative Adaptation Model to integrate the cyberspace law and e-commerce taxation debates. The Integrative Adaptation Model consists of four layers of adaptation: (1) developing income-classification rules and residency rules by case law, (2) introducing new source rules based on the location of the parties to the transaction and the physical income-production components, (3) using technology to apply the tax regime to e-commerce, and (4) gaining international consensus through international treaties. The Integrative Adaptation Model is appropriate for taxing international e-commerce income.

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[†] The University of Michigan Law School, Michigan Grotius Visiting Scholar. I would like to thank Professor Reuven Avi-Yonah, Professor David Gliksberg, Professor Aharon Barak, Professor Oliver Oldman, and Professor Terry Fisher for their unique and generous support. Thanks to the University of Michigan Law School and the Fulbright Program for their financial support of this research.

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I. INTRODUCTION

¶1 The Internet is an opportunity and a challenge of the 21st century. It is an opportunity for liberty, equality, and e-commerce. It is a challenge to the state,

international order, and the law.¹ E-commerce presents enormous challenges to the international tax regime, which focuses on territorial and personal bases of tax jurisdiction. These challenges stem from the very basic character of e-commerce as global, borderless, virtual, and anonymous, whereas the international tax regime is a state-based regime focused on territorial borders and physical presence. These challenges can be divided into three categories. First, feasibility challenges question whether the current regime can be applied to e-commerce. Second, normative challenges question whether the current regime should be applied to e-commerce. Third, acceptability challenges question whether countries will accept the application of the current regime to e-commerce.²

¶2 The tax literature reveals several policy proposals to cope with these e-commerce challenges. For example, the Organization for Economic Cooperation and Development (OECD) proposed to give tax jurisdiction to the country of the server, if the server is an essential part of the business activity.³ Professor Reuven Avi-Yonah proposed to give tax jurisdiction to the country of the consumers (demand jurisdiction).⁴ Professor Jinyan Li proposed to apply formula taxation to e-commerce.⁵ The U.S. Department of the Treasury proposed to tax e-commerce exclusively according to personal jurisdiction.⁶

¶3 In this article, I argue that a very basic point is missing from the tax debate because it ignores the cyberspace law literature that deals with similar challenges of applying the current territorial law to the Internet. The current tax literature pays no

¹ See generally, e.g., E-SERVICE: NEW DIRECTIONS IN THEORY AND PRACTICE (Roland T. Rust & P.K. Kannan eds., 2002); GLOBAL E-COMMERCE: IMPACTS OF NATIONAL ENVIRONMENT AND POLICY (Kenneth Kraemer et al. eds., 2006); THOMAS LEINBACH & STANLEY BRUNN, WORLDS OF E-COMMERCE: ECONOMIC, GEOGRAPHICAL AND SOCIAL DIMENSIONS (2001); ANDREW SHAPIRO, THE CONTROL REVOLUTION: HOW THE INTERNET IS PUTTING INDIVIDUALS IN CHARGE AND CHANGING THE WORLD WE KNOW (1999); MARK STEFIK, THE INTERNET EDGE: SOCIAL, LEGAL, AND TECHNOLOGICAL CHALLENGES FOR A NETWORKED WORLD (1999); DON TAPSCOTT ET AL., HARNESSING THE POWER OF BUSINESS WEBS (2000).

² See generally RICHARD DOERNBERG ET AL., ELECTRONIC COMMERCE AND MULTIJURISDICTIONAL TAXATION (2001); DALE PINTO, E-COMMERCE AND SOURCE BASED INCOME TAXATION (2002); BJÖRN WESTBERG, CROSS-BORDER TAXATION OF E-COMMERCE (2002); RICHARD WESTIN, INTERNATIONAL TAXATION OF ELECTRONIC COMMERCE (2000).

³ ORGANIZATION FOR ECONOMIC AND CO-OPERATION DEVELOPMENT [OECD], TAXATION AND ELECTRONIC COMMERCE: IMPLEMENTING THE OTTAWA TAXATION FRAMEWORK CONDITIONS (2001); OECD, IMPLEMENTATION OF THE OTTAWA TAXATION FRAMEWORK CONDITIONS: THE 2003 REPORT (2003); OECD, Tax and Electronic Commerce, http://www.oecd.org/findDocument/0,2350,en_2649_33741_1_119666_1_1_1,00.html.

⁴ Reuven S. Avi-Yonah, *International Taxation of Electronic Commerce*, 52 TAX L. REV. 502 (1997).

⁵ JINYAN LI, INTERNATIONAL TAXATION IN THE AGE OF ELECTRONIC COMMERCE: A COMPARATIVE STUDY (2003).

⁶ OFFICE OF TAX POLICY, U.S. DEP'T OF THE TREASURY, SELECTED TAX POLICY IMPLICATIONS OF GLOBAL ELECTRONIC COMMERCE 22, available at <http://www.treas.gov/offices/tax-policy/library/internet.pdf>. Other countries have had their own proposals. See, e.g., CANADA REVENUE AGENCY, CONDUCTING BUSINESS ON THE INTERNET, available at <http://www.cra-arc.gc.ca/tax/business/topics/ecomm/menu-e.html>; Adrian Sawyer, *Electronic Commerce: International Policy Implications for Revenue Authorities and Governments*, 19 VA. TAX. REV. 73 (1999).

attention to anything beyond the borders of tax law. However, the tax challenges are not unique to the application of the international tax regime to e-commerce. Instead, the tax challenges are only one aspect of the difficulties in regulating the Internet and gaining jurisdiction to set the rules, to judge, and to enforce the law. In this way, the tax challenges are similar to other challenges of applying current legal doctrines to cyberspace. Therefore, we must not overlook cyberspace law in the debate on e-commerce taxation.

¶4 I argue that the link between tax issues and other cyberspace law issues is very strong, which makes the neglect of cyberspace law literature in the tax debate very problematic. Filling this fundamental gap opens the door to valuable and rich research and literature on cyberspace law. Incorporating this literature into the debate on e-commerce taxation is necessary and helpful because it adds the perspective and experience of other fields that cope with cyberspace challenges. It also makes the tax debate more interesting to legal scholar community in general, which ultimately will produce a more fruitful debate.

¶5 I show these connections by introducing cyberspace law literature and showing its link to e-commerce taxation issues. The introduction of cyberspace law literature is also intended to open the minds and the hearts of tax scholars to this literature. My mind and heart opened to this literature after a long process of research, which I organize here as a tool in debating e-commerce taxation.

¶6 The first lesson that e-commerce taxation may take from the cyberspace law literature is that current international tax laws can and should be applied to cyberspace activities, but these laws should be modified and adapted to meet the unique characteristics and needs of cyberspace. The tools for making these adaptations include case law, new legislation, and international treaties, depending on the nature and difficulty of the challenge. The second lesson is that the law of taxing e-commerce income should emerge in an evolutionary, rather than revolutionary, manner. These lessons led me to develop the *Integrative Adaptation Model* for taxing international e-commerce income.

¶7 The *Integrative Adaptation Model* adapts the existing international tax regime instead of changing it completely. The model is integrative in the sense that it borrows from adaptations made in other legal regimes as applied to the Internet to meet the special characteristics of e-commerce. In structuring the model, I applied the lessons from cyberspace law literature and used different adaptation tools in different aspects of the law, as the emerging cyberspace law teaches.

¶8 The *Integrative Adaptation Model* suggests four layers of adaptations to the international tax regime to make it applicable to international e-commerce income. First, the regime should develop income-classification rules and residency rules by case law. Case law succeeded in adapting similar challenges in fields of judicial jurisdiction, criminal law, and copyright law, and I argue for expanding the success to e-commerce taxation. Second, the international tax regime should introduce new source rules based on the location of the parties to the transaction and the other physical components of the

income-production process. These challenges require more intervention to overcome the territorial difficulty; my suggested source rules address these challenges. Third, the regime should use technology to apply the law to e-commerce transactions. This layer relies heavily on the well-established insight of cyberspace law that “code is law.” This layer clearly reflects what tax scholarship gains from adopting cyberspace law. Fourth, the regime should create international consensus through international treaties. As cyberspace law experience revealed, international treaties are playing a central role in developing an international law of cyberspace, and international taxation should expand this role to e-commerce taxation.

¶9 The *Integrative Adaptation Model* suggests an appropriate model for taxing cross-border e-commerce income. It copes with e-commerce feasibility challenges step by step with tools that have proven successful in other fields of law. The model suggests a process of developing the international tax regime to handle the ongoing challenges of e-commerce taxation. I argue that the model surmounts the normative challenges of e-commerce taxation and structures a tax law that realizes basic tax policy considerations. Finally, I suggest that the model handles the acceptability challenges and has the potential to create international consensus because it is an evolutionary model that does not totally abandon the current regime.

¶10 This article proceeds as follows. Part II presents the challenges e-commerce poses to the current international tax regime. Part III briefly presents the current debate on e-commerce taxation and criticizes it.⁷ In these two parts, I set the background for my arguments and show the limited perspective of the current debate. Part IV begins filling the gap in the debate on international taxation of e-commerce by evaluating it in the context of broader cyberspace law. In this part, I describe the links between e-commerce taxation and cyberspace, introduce and organize cyberspace law literature to become a tool in debating e-commerce taxation, argue for the benefits of using this tool, and show the benefits of incorporating cyberspace law literature into the tax debate. I intend for this process to start a different debate on e-commerce taxation as part of cyberspace law. Part V applies cyberspace law literature to e-commerce taxation and introduces my *Integrative Adaptation Model* for taxing international e-commerce income. I developed this model by applying the analytical process I call for the earlier sections when debating international taxation of e-commerce.

II. THE CHALLENGES OF TAXING INTERNATIONAL E-COMMERCE INCOME

¶11 The international tax regime developed in the 1920s.⁸ In general, the regime recognizes two bases for tax jurisdiction.⁹ The first is source-based taxation, or territorial

⁷ It is not the aim of this article to discuss in depth all the proposals made for taxing international e-commerce income.

⁸ See REUVEN S. AVI-YONAH, *The Structure of International Taxation: A Proposal for Simplification*, 74 TEX. L. REV. 1301, 1303 (1996); Michael Graetz & Michael O’Hear, *The “Original Intent” of U.S. International Taxation*, 46 DUKE L. J. 1021 (1997).

⁹ For examples, see general surveys of the international tax regime. REUVEN S. AVI-YONAH ET AL., *U.S. INTERNATIONAL TAXATION: CASES AND MATERIALS* (2d ed. 2005); MICHAEL GRAETZ, *FOUNDATIONS OF INTERNATIONAL TAXATION* (2003); JOSEPH ISENBERGH, *INTERNATIONAL*

jurisdiction. In source-based taxation, the country has jurisdiction to tax income sourced to its territory. Source rules determine the source of the income for this purpose by distinguishing between different categories of income. Hence, income classification is the first step needed to apply source-based taxation. The justification for source taxation is that the source country has contributed infrastructure and other facilities in the income-production process. From an economic point of view, source taxation may advance capital import neutrality (CIN).¹⁰

¶12 The second basis for tax jurisdiction is residence, or personal jurisdiction. In residence-based taxation, the country has jurisdiction to tax its residents on their worldwide income. In this system, the determination of residency for tax purposes is critical. The justification for residence-based tax jurisdiction stems from the contribution of the country of residence to the abilities of the income producer. It is alternatively justified by the social contract made between the members of the country and the governing body. From an economic point of view, residence-based taxation may advance capital export neutrality (CEN).¹¹

¶13 These two bases of taxation sometimes lead to double taxation. The classic example of double taxation occurs when a resident of one country produces income in a different source country. A network of bilateral treaties based on model tax treaties has developed over time to prevent double taxation by allocating tax jurisdiction between the countries to the treaty based on different categories of income.¹² According to the leading model treaty of the OECD, the jurisdiction to tax business income is given to the country that hosts the permanent establishment of the business. Permanent establishment is defined in Article 5 of the OECD Model Tax Treaty to include a “[f]ixed place of business through which the business of an enterprise is wholly or partly carried on.”¹³

¶14 The term “e-commerce” has several definitions.¹⁴ According to the U.N. definition, it includes “[c]ommercial activities conducted through an exchange of information generated, stored, [or] communicated by electronic, optic, or analogous

TAXATION: U.S. TAXATION OF FOREIGN PERSONS AND FOREIGN INCOME (3d ed. 1990); JOEL D. KUNTZ & ROBERT J. PERONI, U.S. INTERNATIONAL TAXATION (1992); ADRIAN OGLE, THE PRINCIPLES OF INTERNATIONAL TAX: A MULTINATIONAL PERSPECTIVE (1993); SOL PICCIOTTO, INTERNATIONAL BUSINESS TAXATION: A STUDY IN THE INTERNATIONALIZATION OF BUSINESS REGULATION (1992); David Gliksberg, *The Effect of the Statist-Political Approach to International Jurisdiction of the Income Tax Regime—The Israeli Case*, 15 MICH. J. INT’L L. 460, 460 (1994); Robert A. Green, *The Future of Source-Based Taxation of the Income of Multinational Enterprises*, 79 CORNELL L. REV. 18 (1993); Charles I. Kingson, *The Coherence of International Taxation*, 81 COLUM. L. REV. 1151 (1981).

¹⁰ See PEGGY B. MUSGRAVE, TAXATION OF FOREIGN INVESTMENT INCOME: AN ECONOMIC ANALYSIS (1963); PEGGY B. MUSGRAVE, UNITED STATES TAXATION OF FOREIGN INVESTMENT INCOME: ISSUES AND ARGUMENTS (1969).

¹¹ MUSGRAVE, ECONOMIC ANALYSIS, *supra* note 10.

¹² See *Double Taxation and Tax Evasion: Report and Resolutions Submitted by the Technical Experts to the Financial Committee of the League of Nations*, League of Nations Doc. G.216M.85 1927 II (1925).

¹³ OECD, ARTICLES OF THE MODEL CONVENTION WITH RESPECT TO TAXES ON INCOME AND CAPITAL (Jan. 28, 2003), available at <http://www.oecd.org/dataoecd/52/34/1914467.pdf>.

¹⁴ See DOERNBERG ET AL., *supra* note 2, at 37.

means.”¹⁵ The U.S. Department of the Treasury defines it as “the ability to perform transactions involving the exchange of goods or services between two or more parties using electronic tools and techniques.”¹⁶ In this article, I define “e-commerce” as any commercial transaction conducted wholly or partly by using the Internet.

¶15 It is also necessary to distinguish between three types of e-commerce: e-commerce in tangible products, e-commerce in intangible products, and e-commerce in services. All three types of e-commerce are *global*, in the sense that e-commerce takes place on the globe without real meaning given to territorial borders between countries. E-commerce ignores or even destroys territorial borders.¹⁷ All types of e-commerce are also *virtual*, in the sense that their existence is on the Internet and their physical existence outside the Internet is limited. The right answer to the question of where e-commerce occurs is “on the Internet.” It is very artificial to pinpoint the location of e-commerce in terms of a geographical location outside the Internet. The last feature of all types of e-commerce is its *anonymity*, in the sense that the e-commerce transaction, its parties, and its details are at least partially anonymous. However, the three types of e-commerce differ in terms of the extent to which each is global, virtual, and anonymous. Generally, e-commerce in tangibles is less global and less virtual than e-commerce in intangibles, and e-commerce in services is somewhere in between. This difference has tax consequences—as the global or virtual nature of the e-commerce increases, the tax challenges become more difficult. Likewise, anonymity is always present to some extent but varies between the different types of e-commerce. The level of anonymity depends on the architecture of the Internet and on the available locations technologies. As the level of anonymity increases, the tax challenges become harder.

¶16 These features of e-commerce pose challenges for the application of the current international tax regime to e-commerce. The challenges vary in their source, nature, and difficulty. It is helpful to distinguish between three categories of challenges in order to deal properly with them. Feasibility challenges comprise the first category: can the current international tax regime apply to e-commerce income? Normative challenges comprise the second: should the current international tax regime apply to e-commerce? Acceptability challenges comprise the third: will countries accept application of the current regime to e-commerce income?

A. Feasibility Challenges

¶17 The lack of compatibility between the current international tax regime and the features of e-commerce raises feasibility challenges in applying the current regime. It is not clear that the current regime could be applied to e-commerce. The premises of the two are different, the perspectives are different, and the concepts are different. There are five main feasibility challenges, which I outline below.

¹⁵ Richard Hill & Ian Walden, *The Draft UNCITRAL Model Law for Electronic Commerce: Issues and Solutions*, 13 COMPUTER L. 18 (1996).

¹⁶ OFFICE OF TAX POLICY, *supra* note 6, at 9.

¹⁷ David Johnson & David Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1368-78 (1996).

1. Income-Classification Rules

¶ 18 The information-technology revolution generated endless new products, services, and methods of doing business that do not reflect the classic categories of transactions. A wide range of intangible products and services are being traded with these new methods. In the age of e-commerce, for example, a book can be bought in a striking number of ways; for example, it is possible to subscribe to a database that includes the book or to download an electronic version of the book to the customer's desktop. One can also receive online updates of the book. These possibilities make it difficult to classify the transaction in the classical categories of "trade income" or "services income." The standard categories anticipated products, services, and businesses that predate e-commerce, but the current age is different. E-commerce cannot be easily classified according to the old transactional categories.¹⁸

2. Source Rules

¶ 19 The current source rules face an initial problem in applying to e-commerce because the rules are strongly territorially based, whereas e-commerce is not.¹⁹ The current source rules are rooted in two premises: (1) that territorial borders separate countries and define their legal jurisdiction and (2) that each income is produced in a territory of a single country. Accordingly, source rules are designed to identify the territorial country of the income according to economic allegiance between the income and the country. In this process, source rules rely on and use physical concepts of territory and place. But all this is weakened in nonterritorial e-commerce. The global character of e-commerce gives very limited, if any, meaning to territorial borders between countries. Similarly, the virtual nature of e-commerce gives very limited, if any, meaning to the location of e-commerce income in territorial place. All three types of e-commerce—especially e-commerce in intangibles and services that sometimes have no connection at all to physical place outside the Internet—challenge the traditional notions of territoriality. Therefore, the very basic justifications and concepts behind the source rules are challenged by e-commerce. This challenge is both theoretical and conceptual, touching the roots of source rules. Coping with this challenge necessitates more intervention and change in the current law.

3. Permanent Establishment

¶ 20 The challenges of applying the permanent-establishment principle to e-commerce have gained special attention in the debate on e-commerce taxation and have been

¹⁸ See Clayton Chan, *Taxation of Global E-Commerce on the Internet: The Underlying Issues and Proposed Plans*, 9 MINN. J. GLOBAL TRADE 233, 255 (2000); Arthur J. Cockfield, *The Law and Economics of Digital Taxation: Challenges to Traditional Tax Laws and Principles*, INT'L BUREAU OF FISCAL DOCUMENTATION BULL. 606, 613 (2002); Diane Ring, *Exploring the Challenges of Electronic Commerce Taxation Through the Experience of Financial Instruments*, 51 TAX L. REV. 663, 666 (1996); WESTIN, *supra* note 2, at 211-81; PINTO, *supra* note 2, at 140.

¹⁹ DOERNBERG ET AL., *supra* note 2, at 169-300; LI, *supra* note 5, at 516-19; See John Sweet, *Formulating International Tax Laws in the Age of Electronic Commerce: The Possible Ascendancy of Residence-Based Taxation in an Era of Eroding Traditional Income Tax Principles*, 146 U. PA. L. REV. 1949, 1960-72 (1998).

discussed extensively.²⁰ E-commerce enterprises can sell their products or services worldwide with very limited physical presence in any particular consumer's country. They can operate without agents because they can directly, easily, and cheaply contact customers worldwide. Therefore, the premise of the permanent-establishment rule—that is, to conduct business in a country, you need a presence there—does not apply to e-commerce. The concept of “fixed place” is meaningless in e-commerce business because it can be located anywhere and can conduct business everywhere.

4. Residency

¶²¹ E-commerce taxation challenges are not limited to source-based taxation. Residence-based taxation also faces challenges. The main challenge is to determine the residency of e-commerce corporations.²¹ These corporations usually lack fixed physical facilities. Their Web sites are usually their main storefronts, and their employees are highly mobile. The physical presence of the corporation in a “central place of management and control” is limited, and the mobility of the corporation is very high. Therefore, it is not easy to determine the “central place of management and control” of such a corporation in order to determine its residency under traditional definitions. In addition, it is easy to abuse the traditional definitions and locate an e-commerce corporation in a low tax jurisdiction to reduce or even to escape taxation all together.

5. Enforcement

¶²² The enforcement of the current international tax regime on e-commerce faces many difficulties.²² The global character of e-commerce makes it difficult for any one country to monitor and tax e-commerce income. International cooperation is needed to handle e-commerce taxation, but such cooperation is not easy, given the conflicting interests of different countries. In addition, the virtual nature of e-commerce makes it difficult to monitor and control e-commerce transactions even if countries are cooperating. The limited physical presence of the transaction and the limited physical assets of an e-commerce corporation outside the Internet make it difficult to reveal the business's transactions and income, which in turn makes it difficult to enforce the business's tax duties even if such duties were clearly determined. Furthermore, the anonymity of e-commerce makes it hard for tax authorities to discover the existence of e-commerce transactions, the parties to the transactions, and the details of the transactions. Since tax authorities often lack such basic information, they often cannot levy taxes on e-commerce transactions. The outcome of all these enforcement difficulties is

²⁰ See Avi-Yonah, *supra* note 4, at 532-41 (1997); Charles Kingson, *Taxing the Future*, 51 TAX L. REV. 641, 653-56 (1996); Barrett Schaefer, *International Taxation of Electronic Commerce Income: A Proposal to Utilize Software Agents for Source-Based Taxation*, 16 COMPUTER & HIGH TECH. L. J. 111, 124-40 (1999); Sweet, *supra* note 19; Kyrie Thorpe, *International Taxation of Electronic Commerce: Is the Internet Age Rendering the Concept of Permanent Establishment Obsolete?*, 11 EMORY INT'L L. REV. 633 (1997).

²¹ See DOERNBERG ET AL., *supra* note 2, at 301; LI, *supra* note 5, at 510.

²² See Arthur Cockfield, *Balancing National Interests in the Taxation of Electronic Commerce Business Profits*, 74 TUL. L. REV. 133 (1999); DOERNBERG ET AL., *supra* note 2, at 174-76; Charles McLure, *Taxation of Electronic Commerce: Economic Objectives, Technological Constraints, and the Tax Laws*, 52 TAX L. REV. 269, 317 (1997).

underenforcement of the current international tax regime on e-commerce. This is true of all three types of e-commerce but particularly of e-commerce in intangibles and services.

B. Normative Challenges

¶ 23 While the feasibility challenges address whether the current international tax regime is *able* to tax e-commerce income, the normative challenges address whether it is the *appropriate* regime for taxing e-commerce income. The regime is based on several policy considerations, each of which is challenged by e-commerce. E-commerce touches *inter-individual equity*.²³ The challenge is to tax e-commerce taxpayers and non-e-commerce taxpayers equally, since they are equal according to the leading principle of ability to pay. *Inter-nation equity* is also affected by e-commerce.²⁴ The current regime tries to allocate tax jurisdiction according to the economic allegiance principle in order to achieve fair distribution of the international tax pie among the countries involved.²⁵ But the logic of the current economic allegiances and the premise behind the contribution of each country to the production of the income are not applicable to e-commerce today. For example, the logic of giving the source country priority in taxing active income, while the residence country has priority to tax passive income,²⁶ cannot simply be applied to e-commerce income. Finally, it should be considered whether applying the current international tax regime to e-commerce income achieves *economic efficiency*, a concern that has warranted considerable discussion in the literature and has played a central role in designing the current international tax regime.²⁷ The challenge is to ensure these efficiencies in taxing e-commerce income.

C. Acceptability Challenges

¶ 24 International consensus is a must in any international tax regime. Such consensus was reached after a lengthy series of negotiations in the 1920s, when the current

²³ See Richard Musgrave, *Tax Equity with Multiple Jurisdictions*, in PUBLIC FINANCE IN A DEMOCRATIC SOCIETY: THE FOUNDATIONS OF TAXATION AND EXPENDITURE 210-14 (2000); Nancy Kaufman, *Fairness and the Taxation of International Income*, 29 LAW & POL'Y INT'L BUS. 145, 167-88 (1998).

²⁴ See Richard Musgrave, *Inter-Nation Equity*, in PUBLIC FINANCE IN A DEMOCRATIC SOCIETY: THE FOUNDATIONS OF TAXATION AND EXPENDITURE 307-29 (2000); Kaufmann, *supra* note 23, 188-201.

²⁵ *Report on Double Taxation Submitted to the Financial Committee by Professors Bruins, Einaudi, Seligman, & Sir Josiah Stamp*, League of Nations Doc. E.F.S. 73.F.19 20 (1923).

²⁶ On the logic of this distribution rule and its future, see Avi-Yonah, *supra* note 8.

²⁷ See MUSGRAVE, ECONOMIC ANALYSIS, *supra* note 10; MUSGRAVE, ISSUES AND ARGUMENTS, *supra* note 10; Reuven S. Avi-Yonah, *Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State*, 113 HARV. L. REV. 1573, 1608 (2000); Mihir Desai & James Hines, *Evaluating International Tax Reform*, 43 NAT'L TAX J. 487 (2003); Martin Feldstein & David Hartman, *The Optimal Taxation of Foreign Source Investment Income*, 93 Q. J. ECON. 613, 617 (1979); Daniel Frisch, *The Economics of International Tax Policy: Some Old and New Approaches*, 47 TAX NOTES 581 (1990); Michael Graetz, *Taxing International Income: Inadequate Principles, Outdated Concepts, and Unsatisfactory Policies*, 54 TAX. L. REV. 261 (2000); Thomas Horst, *A Note on the Optimal Taxation of International Investment Income*, 84 Q. J. ECON. 793 (1980).

international tax regime was designed.²⁸ But a lot has changed since that consensus. E-commerce upsets the consensus of the 1920s because countries have varying and contradictory views on taxing international e-commerce income. The challenge is to renew or rebuild the international consensus concerning taxing international e-commerce income.²⁹

III. THE CURRENT DEBATE: THE RESPONSES TO THE CHALLENGES

¶ 25 The current debate about international taxation of e-commerce focuses mainly on feasibility challenges. The challenges are debated solely from a tax law perspective, using technical tax law arguments. This debate has suggested several responses to deal with e-commerce taxation challenges. Currently, there are four main suggestions: (1) that the international regime clarify income-classification rules and consider servers as permanent establishments;³⁰ (2) that the regime apply a one-source rule, demand jurisdiction, to all e-commerce income;³¹ (3) that the regime apply formula taxation;³² and (4) that the regime exclusively apply residence based taxation (personal jurisdiction) to e-commerce.³³ I will now briefly discuss these responses and argue that they fail to present a deep and interesting discussion of e-commerce taxation that might lead to appropriate taxation.³⁴ I emphasize that one of the reasons behind this failure is the lack of consideration of cyberspace law literature, arguments, insights, and experience.

²⁸ See MICHAEL GRAETZ, FOUNDATIONS OF INTERNATIONAL INCOME TAXATION 4 (2003); Reuven Avi-Yonah et al., U.S. INTERNATIONAL TAXATION: CASES AND MATERIALS 2 (2d ed. 2005); Reuven Avi-Yonah, *All of Piece Throughout: The Four Ages of U.S. International Taxation*, 25 VA. TAX REV. 313, 338 (2005).

²⁹ In my view, to deal properly with acceptability challenges and to design an acceptable international tax regime for e-commerce income, we need to incorporate international-relations literature, which deals with state behavior and international-cooperation strategies. However, the acceptability challenges are not central to this article and to the *Integrative Adaptation Model*. Therefore, I do not incorporate international-relations theories into my discussion here.

³⁰ OECD, *supra* note 3.

³¹ Avi-Yonah, *supra* note 4.

³² LI, *supra* note 5.

³³ OFFICE OF TAX POLICY, U.S. DEP'T OF THE TREASURY, *supra* note 6.

³⁴ For additional responses, see DOERNBERG ET AL., *supra* 2 (tax-base-erosion approach); PINTO, *supra* note 2; Nicolas DeBoynes, *International Tax Policy and the New Economy*, 2 GLOBAL JURIST FRONTIERS (2002) (virtual permanent establishment); Richard Doernberg, *Electronic Commerce: Changing Tax Treaty Principles a Bit?*, TAX NOTES INT'L, 2417 (2000); Richard Doernberg, *Electronic Commerce and International Tax Sharing*, TAX NOTES INT'L, 1016 (1998); Luc Hinnekens, *Looking for an Appropriate Jurisdictional Framework for Source-State Taxation of International Electronic Commerce in the Twenty-First Century*, 26 INTERTAX 192 (1998) (virtual permanent establishment); Diane Ring, *Exploring the Challenges of Electronic Commerce Taxation Through the Experience of Financial Instruments*, 51 TAX L. REV. 663, 666 (1996); Arthur Cordell, *Taxing the Internet: The Proposal for a Bit Tax*, Address to the International Tax Program at Harvard Law School (Feb. 14, 1997) available at <http://arraydev.com/commerce/jibc/9702-05.htm>.

A. Clarifying Income-Classification Rules and Considering Servers as Permanent Establishments

¶²⁶ The OECD plays a central role in the field of e-commerce taxation.³⁵ OECD responses to e-commerce taxation challenges are much more developed than national responses. It has even been argued that the OECD role is replacing a national role.³⁶ The OECD started the discussion on e-commerce taxation in 1997 during the Turku Conference. In 1998, the Ottawa Taxation Framework was designed and approved. The leading principle of this framework is as follows:

The taxation principles that guide governments in relation to conventional commerce should also guide them in relation to e-commerce.... Existing taxation rules can implement these principles. The application of these principles to e-commerce should be structured to maintain the fiscal sovereignty of countries, to achieve fair sharing of the tax base from e-commerce between countries and to avoid double and unintentional non-taxation.³⁷

¶²⁷ Following Ottawa, five Technical Advisory Groups (TAGs) continued the research and dialogue. Their work resulted in several reports on different issues of e-commerce taxation challenges. These reports suggested explanations and clarifications to several principles and concepts of the current international tax regime. The primary challenges the TAGs addressed were income classification and permanent establishment. As to income-classification issues, a set of clarifying examples and rules was added to the OECD Model Tax Treaty. This set included a large number of technically detailed examples of transactions and the classification of each one. As to the permanent-establishment principle, it was added to Article 5 of the OECD Model Tax Treaty, which stated that a server might constitute permanent establishment as long as it was “an essential and significant part of the business activity of the enterprise as a whole, or where other core functions of the enterprise are carried on through the computer equipment.”³⁸

¶²⁸ I argue that the OECD view is limited because it ignores cyberspace law perspectives and misses central, important insights that can be brought by wider perspective and open-minded thinking. The OECD discussion exclusively focused on tax issues and did not pay any attention to cyberspace law literature that dealt with difficulties of regulating the Internet and applying the current law to Internet activity. The OECD discussion also lacked real attention to the normative challenges and acceptability challenges of e-commerce, concentrating only on the feasibility challenges. For all these reasons, the OECD approach is difficult from an analytical point of view and cannot

³⁵ See OECD, *supra* note 3.

³⁶ Arthur Cockfield, *The Rise of the OECD as Informal “World Tax Organization” Through the Shaping of National Responses to E-Commerce Challenges*, 8 YALE J.L. & TECH. 136 (2006).

³⁷ OECD, *supra* note 3.

³⁸ OECD, CLARIFICATION ON THE APPLICATION OF THE PERMANENT ESTABLISHMENT DEFINITION IN E-COMMERCE: CHANGES TO THE COMMENTARY ON THE MODEL TAX CONVENTION ON ARTICLE 5, art. 48.2 (Dec. 22, 2000), available at <http://www.oecd.org/dataoecd/46/32/1923380.pdf>.

produce satisfying outcomes to appropriately tax cross-border e-commerce income.

¶ 29 The OECD approach is still based on the territorial location of the server, a highly irrelevant and mobile factor and one that cannot lead to well-established taxation of e-commerce income. The specific OECD proposals to the feasibility challenges are not likely to lead to successful taxation of international e-commerce income. The clarifications to income-classification rules are arguably so sophisticated that they cannot even be used as a helpful tool in the process of classification. The large number of examples given with many technical and specific details cannot be used as a guiding and useful working tool for tax authorities or for the international business community.

¶ 30 As for the rule of the server as a permanent establishment, it is still a rule that relies on physical location, with all the difficulties of applying rules based on physical locations to the Internet. It is difficult to make a connection between an e-commerce transaction and a server in one place or another. It is also easy to deliberately locate the server in any low-tax jurisdiction or tax haven. Furthermore, there is no justification for giving sole jurisdiction to tax the income to the country of the server, because often there is no real economic allegiance between the place of the server and the production of the income. Finally, reliance on the location of the server will open the door to tax manipulation.³⁹ The ten years' experience since the rule was accepted shows that it does not actually generate taxation of international e-commerce income. The OECD itself is gradually reaching the same conclusion.⁴⁰

B. Applying a One-Source Rule for All E-Commerce Income: Demand Jurisdiction

¶ 31 Professor Reuven Avi-Yonah articulated one of the first responses to the challenges of e-commerce taxation.⁴¹ He considered the main challenges and made several proposals, though it is important to note that he, too, did not give any attention to cyberspace law literature and arguments; instead, he focused entirely on tax. First, he suggested “sidestep[ping] the classification issue by subjecting services, royalties, rents, and sales in electronic commerce to the same source rule.”⁴² Second, he argued that a nonphysical threshold is required to tax e-commerce income.⁴³ Therefore, he suggested that “a gross withholding tax is imposed on sales (and services) provided through electronic means into the Demand Jurisdiction, at a rate equal to the corporate tax rate in the Demand Jurisdiction.”⁴⁴

³⁹ See Arthur Cockfield, *Transforming the Internet into a Taxable Forum: A Case Study in E-Commerce Taxation*, 85 MINN. L. REV. 1171, 1194 (2001); Cockfield, *supra* note 18, at 608; DOERNBERG ET AL., *supra* note 2, at 184; Li, *supra* note 5, at 459.

⁴⁰ See Cockfield, *Transforming the Internet*, *supra* note 39, at 1197.

⁴¹ Avi-Yonah, *supra* note 4.

⁴² *Id.* at 545.

⁴³ *Id.* at 535.

⁴⁴ *Id.* at 537.

¶ 32 Professor Stanley Katz criticized these proposals.⁴⁵ He argued that the suggested gross withholding tax leads to overtaxation or double taxation in some circumstances. In my opinion, the first proposal to apply one-source rule for all categories of income is feasible but problematic from a neutrality point of view because it makes two separate international tax regimes: one for e-commerce and one for non-e-commerce. Furthermore, there is a serious difficulty in a proposal that gives sole authority to tax e-commerce income to the demand jurisdiction. The demand jurisdiction contributed its markets to the production of the income, but there is no reason to abandon the right of taxation of the other jurisdictions. The sharing of the tax pie according to this proposal does not meet the normative criterion of international equity.

C. Formula Taxation

¶ 33 Professor Jiyan Li examined the international tax regime in the age of e-commerce.⁴⁶ She argued that e-commerce exposes and exacerbates the rooted difficulties of the regime in the globalization era.⁴⁷ To manage these difficulties, she proposed making a distinction between portfolio income and direct business income.⁴⁸ As to portfolio income, she proposed a uniform withholding tax by the payer's country of residency. As to direct business income, she proposed to split the jurisdiction to tax the income among the different countries involved in the transaction according to a formula that takes into account all the relevant economic-allegiance factors.

¶ 34 This proposal ignores the basic features of e-commerce as global, virtual, and anonymous commerce. It tries to locate the places of e-commerce and the contribution of each place to the production of the income. But all the current challenges of e-commerce stem from the basic fact that there is no *place* for e-commerce except the Internet, as a place of its own. Hence, the proposal generates the same challenges that face the current international tax regime. The global character of e-commerce makes it difficult to determine the relevant countries to plug into the formula. The same is true of the virtual nature of e-commerce. The anonymity of e-commerce makes it even more difficult to apply the formula.

D. Exclusive Residence-Based Taxation (Personal Jurisdiction)

¶ 35 One of the first responses to e-commerce taxation challenges was made in 1996 by the U.S. Department of the Treasury.⁴⁹ The Treasury argued that

[t]he growth of new communications technologies and electronic commerce will likely require that principles of residence based taxation assume even greater importance. In the world of cyberspace, it is often difficult, if not impossible, to apply traditional concepts to link an item of

⁴⁵Stanley Katz, *International Taxation of Electronic Commerce: Evolution Not Revolution*, 52 TAX L. REV. 655 (1997).

⁴⁶Li, *supra* note 19.

⁴⁷*Id.* at 494.

⁴⁸*Id.* at 590.

⁴⁹OFFICE OF TAX POLICY, U.S. DEP'T OF THE TREASURY, *supra* note 6.

income with a specific geographical location. Therefore, source based taxation could lose its rationale and be rendered obsolete by electronic commerce. By contrast, almost all taxpayers are resident somewhere.⁵⁰

¶ 36 This and other similar proposals might deal well with the feasibility challenges of e-commerce because they totally ignore territorial taxation and focus on personal taxation.⁵¹ But personal taxation cannot be applied to e-commerce, because it is difficult to determine e-commerce corporation residency. In addition, as mentioned above, it is easy to escape such taxation because e-commerce is anonymous, and in any case, e-commerce corporations can easily receive residency in a low-tax or zero-tax country. But the main difficulty with the Treasury proposal lies in its normative basis. It gives advantages and benefits to resident countries, which tend to be developed countries, over source countries, which tend to be developing countries.⁵² It infringes inter-individual equity and economic efficiency because it distinguishes between the tax regime on e-commerce and the tax regime on non-e-commerce transactions. It would be very difficult to gain international consensus for such a proposal, as evidenced by the ten years that has passed since the proposal was first made, without its adoption.

¶ 37 The OECD proposal is the current leading proposal being applied on the positive level, but it does not produce satisfying taxation of e-commerce income. Reasons for the failure include the limited perspective of the debate and its technical approach. I will show that the debate is missing a basic point that if filled, will enrich the debate and lead to better solutions. I will start filling this gap in the next part, in which I aim to usher in a new era of debating e-commerce taxation and designing successful tax models for e-commerce income.

IV. FILLING THE GAP: INTRODUCING AND INCORPORATING CYBERSPACE LAW

¶ 38 My survey of the literature on e-commerce taxation does not draw on the general debate concerning the law and the Internet. This separation is unjustified and harmful. The tax challenges are similar to other challenges in applying the current law to Internet activity. The roots of all these challenges are common; they all stem from the basic differences between the current law and the Internet.

¶ 39 A mutual intellectual exchange is required in order to deal comprehensively with e-commerce taxation challenges and to reach better solutions. It is logical and necessary to incorporate arguments and experiences from cyberspace's normative and positive literature and experience into the tax debate. Incorporating cyberspace law literature into the debate on e-commerce taxation adds interest to the debate and opens it to the general legal and scholarly community, adds new perspectives and insights to the tax debate, and gives new direction and paths to cope with the challenges. We cannot properly address e-commerce taxation issues without tapping the cyberspace law resources already

⁵⁰ *Id.* at 23.

⁵¹ Ine Lejeune et al., *Does Cyber-Commerce Necessitate a Revision of International Tax Concepts?*, 38 EUR. TAX'N 50 (1998); Sweet, *supra* note 19; Thorpe, *supra* note 20.

⁵² Cockfield, *supra* note 22; David Forst, *Old and New Issues in the Taxation of Electronic Commerce*, 14 BERKELEY TECH. L.J. 711 (1999).

developed by scholars and experience. The theoretical debate on e-commerce taxation will become totally different than the current debate after incorporating the cyberspace normative debate. The positive proposals for taxing e-commerce income will be better designed after incorporating the insights and experiences of the positive law on cyberspace in different fields.

¶40 Cyberspace law literature intensively addresses issues of Internet regulation.⁵³ The questions of who should regulate and how to regulate the Internet are fundamental questions that arose in the beginning of the debate on law and the Internet. In the *normative debate*, there are two polar views. According to “cyber-libertarians,” the appropriate regulatory regime for cyberspace is a self-governance regime in which users set the rules.⁵⁴ “Cyber-skeptics” are critical of a such a system. They view it as anarchic and would apply existing law to cyberspace.⁵⁵

¶41 Between these two extremes, a wide range of views has been expressed. One of the leading middle-ground ideas was expressed by Professor Lawrence Lessig, who argued that regulating the code of the Internet itself is one basic way of regulating the Internet.⁵⁶ He recognized the difficulties of regulating the Internet according to current legal structures but concluded that it can be regulated by current state law as was argued by cyber-libertarians.⁵⁷ Lessig thinks that there are new and old challenges, and each needs different treatment.⁵⁸ Lessig developed the widely accepted view that “Code is Law,”⁵⁹ arguing that the architecture of the Internet has a lot of impact on its regulation. In his view, there are “architectures of control,” and each has a different level of control and regulatory capability.⁶⁰ Therefore, successful regulation of the Internet starts with conscious design decisions in the Internet architecture by code writers. Hence, Code is Law, and countries can and should regulate the code to maintain liberty.⁶¹

⁵³ See generally, e.g., STUART BIEGEL, *BEYOND OUR CONTROL? CONFRONTING THE LIMITS OF OUR LEGAL SYSTEM IN THE AGE OF CYBERSPACE* (2001); MARCUS FRANDA, *GOVERNING THE INTERNET: THE EMERGENCE OF AN INTERNATIONAL REGIME* (2001); ADAM THIERER & CLYDE WAYNE CREWS JR., *WHO RULES THE NET? INTERNET GOVERNANCE AND JURISDICTION* (2003).

⁵⁴ Llewellyn Joseph Gibbons, *No Regulation, Government Regulation, or Self-Regulation: Social Enforcement or Social Contracting for Governance in Cyberspace*, 6 CORNELL J.L. & PUB. POL'Y 475 (1997); I. Trotter Hardy, *The Proper Legal Regime for “Cyberspace,”* 55 U. PITT. L. REV. 993 (1994); Johnson & Post, *supra* note 17; Henry H. Perritt, Jr., *Cyberspace Self-Government: Town Hall Democracy or Rediscovered Royalism?*, 12 BERKELEY TECH. L.J. 413 (1997).

⁵⁵ Jack Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199 (1998); Jack Goldsmith, *The Internet and the Abiding Significance of Territorial Sovereignty*, 5 IND. J. GLOBAL LEGAL STUD. 475 (1998); John Rothchild, *Protecting the Digital Consumer: The Limits of Cyberspace Utopianism*, 74 IND. L.J. 893 (1999); Timothy S. Wu, *Cyberspace Sovereignty? The Internet and the International System*, 10 HARV. J. L. & TECH. 647 (1997).

⁵⁶ LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999).

⁵⁷ *Id.* at 19-20.

⁵⁸ *Id.* at 192-94.

⁵⁹ *Id.* at 3-8.

⁶⁰ *Id.* at 30-42.

⁶¹ *Id.* at 44-60, 199.

A. The Normative Debate on Internet Regulation

¶⁴² Cyber-libertarians argue that there are significant and fundamental differences between current law and cyberspace that make the current law unfeasible to regulate cyberspace. In addition, they argue that self-governance is the legitimate regulatory regime for the Internet because it reflects the liberal-democratic values of “the consent of the governed” and “community autonomy.” They add that cyberspace is conceived by users, legislators, and courts as a place in and of itself and should, therefore, have its own rules. Cyber-libertarians argue also that a self-governance regime has fewer externalities and better economic efficiency than other regimes.

¶⁴³ From the other side, cyber-skeptics argue that applying the current law in cyberspace is possible because they do not see cyberspace as involving fundamental and difficult challenges. In addition, they argue that applying the current law to cyberspace has no more externalities than any application of the law to transnational transactions and that it is equally efficient from an economic point of view. I will turn now to expanding on these arguments and incorporating them into the tax debate.⁶²

1. Feasibility

¶⁴⁴ The feasibility argument is well expressed by cyber-libertarians Johnson and Post: “The rise of an electronic medium that disregards geographical boundaries throws the law into disarray by creating entirely new phenomena that need to become the subject of clear legal rules but that cannot be governed, satisfactorily, by any current territorially based sovereign.”⁶³ As to the alternatives of the current law,⁶⁴ Barlow, Johnson, and Post argue mainly for a self-governance regime in which the users make the rules.⁶⁵ Cairncross,⁶⁶ Reidenberg,⁶⁷ and Byasse⁶⁸ call for taking the global features of the Internet more seriously and emphasize the need for international cooperation and governance using different methods such as “Universal Rules”⁶⁹ or “Network Governance.”⁷⁰

¶⁴⁵ In contrast, cyber-skeptics argue that cyberspace is not different from any other

⁶² It is not my aim in this article to evaluate the different arguments and views on Internet regulation. My purpose is limited to incorporating this debate into the debate on e-commerce taxation.

⁶³ Johnson & Post, *supra* note 17, at 1375. See also Heather McGregor, *The Internet and Public International Law: Law on a Boundless Frontier: The Internet and International Law*, 88 KY. L.J. 967 (1999); Joanna Zakalik, *Law Without Borders in Cyberspace*, 43 WAYNE L. REV. 101 (1996).

⁶⁴ See David G. Post, *Governing Cyberspace*, 43 WAYNE L. REV. 155 (1996).

⁶⁵ Johnson & Post, *supra* note 17.

⁶⁶ FRANCES CAIRNCROSS, *THE DEATH OF DISTANCE: HOW THE COMMUNICATIONS REVOLUTION WILL CHANGE OUR LIVES* (2001).

⁶⁷ Joel R. Reidenberg, *Governing Networks and Rule-Making in Cyberspace*, 45 EMORY L.J. 911, 914 (1996).

⁶⁸ William S. Byasse, *Jurisdiction of Cyberspace: Applying Real World Precedent to the Virtual Community*, 30 WAKE FOREST L. REV. 197 (1995).

⁶⁹ CAIRNCROSS, *supra* note 66.

⁷⁰ Reidenberg, *supra* note 67.

complex, transnational transaction that the current law handles with ease.⁷¹ The leading cyber-skeptic, Jack Goldsmith, argues that cyber-libertarians, or “Regulation Skeptics” as he calls them, make three basic errors. First, they “overstate the differences between cyberspace transactions and other transnational transactions.”⁷² Second, they “do not attend to the distinction between default laws and mandatory laws,”⁷³ so they mistakenly argue for self-governance even for mandatory laws. Third, they “underestimate the potential of traditional legal tools and technology to resolve the multi-jurisdictional regulatory problems implicated by cyberspace.”⁷⁴ For all these reasons, Goldsmith rejects the self-governance regime, tells the story of its death, and calls for applying the current law to cyberspace.⁷⁵

¶46 These arguments have direct implications for e-commerce taxation. Given that the bordered international tax regime and borderless e-commerce will create conflicts, cyber-libertarians suggest the current tax regime cannot tax e-commerce. Applying their arguments will lead to a call for a new international tax regime to cope with e-commerce taxation challenges. In the tax arena, however, it is not reasonable to call for tax laws made by the users, but it is possible to call for “global tax rules” on cross-border e-commerce. A global tax model will overcome the differences between the current international tax regime and e-commerce, but the main difficulty is to gain international consensus around such a revolutionary model. A supranational tax regime on e-commerce is possible and need not be rejected at first glance.⁷⁶ I have developed a “Global Electronic Commerce Tax Model” elsewhere and have argued that international consensus can be obtained for the model.⁷⁷ I will leave the argument for a global tax model for a future opportunity, as my concentration in this article is different.

¶47 Accepting cyber-skeptics’ views and arguments will lead to the conclusion that the current international tax regime can cope with e-commerce taxation challenges. In their view, the challenges of e-commerce taxation are not that different from the challenges of applying the existing international tax regime to complex transnational transactions. Their views and arguments can be used to support the application of the current international tax regime to cross-border e-commerce income.

¶48 These implications enrich our tax debate on e-commerce taxation. They give us new and interesting perspectives to cope with the tax challenges. They make the tax debate more interesting and open to the general legal community. They will lead to a

⁷¹ Goldsmith, *Against Cyberanarchy*, *supra* note 52; Goldsmith, *The Internet and the Abiding Significance of Territorial Sovereignty*, *supra* note 52; Allan R. Stein, *The Unexceptional Problem of Jurisdiction in Cyberspace*, 32 INT’L L. 1167 (1998); Wu, *supra* note 52.

⁷² Goldsmith, *Against Cyberanarchy*, *supra* note 52, at 1200.

⁷³ *Id.*

⁷⁴ *Id.* at 1200-01.

⁷⁵ JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET: ILLUSIONS OF A BORDERLESS WORLD (2006).

⁷⁶ See Paul Berman, *The Globalization of Jurisdiction*, 151 U. PA. L. REV. 311 (2002); Ronald Paris, *The Globalization of Taxation? Electronic Commerce and the Transformation of the State*, 47 INT’L STUD. Q. 153 (2003).

⁷⁷ Rifat Azam, *Hamesoy Habenleumie Shell Hasahar Haelectroni* [“International Taxation of Electronic Commerce”] (2006) (Doctoral Thesis, The Hebrew University of Jerusalem).

better understanding of the tax challenges and better designing of tax models and policies to cope with the challenges. The difficulties in applying a self-governance regime in tax law and the arguments of cyber-skeptics support the existing state of art that applies the current international tax regime to e-commerce income.

2. Legitimacy

¶ 49 The legitimacy argument is one of the basic arguments of cyber-libertarians. They argue that it is not legitimate to apply the current law to cyberspace,⁷⁸ because such application contradicts two basic values of liberal theory. First, it contradicts the principle of “the consent of the governed” because users do not consent to the authority of the state over their online activities. Achieving “liberal perfection” mandates self-regulation of the Internet by the users themselves. According to cyber-libertarians, in a self-governance regime, the people of cyberspace participate directly in the process of decision making in the new “Town Hall,” which serves liberty better than the current second best representative democracy. They argue that self-governance better advances liberty because it gives the users the possibility to exit from a space with rules the users do not accept. Second, applying the current law on cyberspace contradicts the principle of “community autonomy” because cyberspace users constitute a unique community that has a right of autonomy. Respecting cyber-society autonomy mandates giving users the authority to set the rules within their communities by themselves.

¶ 50 John Perry Barlow, in his fascinating “Declaration of the Independence of Cyberspace,” expressed the legitimacy argument in these clear words:

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear.

Governments derive their just powers from the consent of the governed. You have neither solicited nor received ours. We did not invite you. You do not know us, nor do you know our world. Cyberspace does not lie within your borders. Do not think that you can build it, as though it were a public construction project. You cannot. It is an act of nature and it grows itself through our collective actions.

⁷⁸ See Johnson & Post, *supra* note 17, at 1375.

. . . We are forming our own Social Contract. This governance will arise according to the conditions of our world, not yours. Our world is different.⁷⁹

¶ 51 Professor Neil Netanel made a counterargument that defends the legitimacy of applying the current law to cyberspace.⁸⁰ He argued that cyber-libertarians overestimate the contribution of the Internet to direct participation of the people in expressing “the voice of the people” to advance democracy and liberty. This is because the people’s access to the Internet is limited, their incentive to participate in the voting process is limited, the information that they have to make an informed decision is limited, and the possibilities for “electronic town manipulation” are wide.⁸¹ He added that representative government may reflect popular will better than direct electronic voting on single issues. This is because it gives the people the opportunity to express their views on multiple issues at the same time and to express their priorities among the issues.⁸² Furthermore, Netanel argued that direct online voting may cause abuses to minorities’ rights because it lacks the constitutional balances inherent in representative democracy.⁸³ Finally, with regard to the argument that users can exit from a space when they do not accept its rules in a self-governance regime, he asserted that this is totally unrealistic because users do not really read and understand the rules of each space in cyberspace. In his view, there is no real market or choice of rules in cyberspace.⁸⁴ As to the second dimension of the cyber-libertarians’ argument, regarding “community autonomy,” Netanel concluded that it leads to giving cyber-society as much autonomy as any other society in the real world but not more.⁸⁵

¶ 52 These interesting arguments concerning the legitimacy of applying the current law to cyberspace have direct and important implications for the debate on international taxation of e-commerce.⁸⁶ The taxation authority of the state is in the heart of the social contract. Taxation constitutes one central brick in the building of the state and its authorities. Therefore, accepting the cyber-libertarians’ argument on the illegitimacy of the state to regulate cyberspace will certainly lead to the argument that the state has no authority to tax e-commerce transactions. Levying taxes on e-commerce without the “consent of the governed” will be considered illiberal. It will contradict the fundamental principle that there can be “no taxation without representation.”

¶ 53 However, no special social contract was made in cyberspace and legal institutions have not developed there. In the existing circumstances, there is no way to achieve clear consent of the governed and respect cyberspace community autonomy in designing the

⁷⁹ John Perry Barlow, A Declaration of the Independence of Cyberspace (Feb. 8, 1996), <http://www.ibiblio.org/netchange/hotstuff/barlow.html>.

⁸⁰ Neil W. Netanel, *Cyberspace Self-Governance: A Skeptical View From Liberal Democratic Theory*, 88 CAL. L. REV. 395 (2000).

⁸¹ *Id.* at 417-19.

⁸² *Id.* at 419.

⁸³ *Id.* at 421-22.

⁸⁴ *Id.* at 433-46.

⁸⁵ *Id.* at 446-51. See also Stein, *supra* note 71, at 1172.

⁸⁶ See also Goldsmith, *Against Cyberanarchy*, *supra* note 52, at 1201, 1239; Goldsmith, *The Internet and the Abiding Significance of Territorial Sovereignty*, *supra* note 52.

tax regime on e-commerce. In such a vacuum, the absence of the state will not advance liberty. To the contrary, the absence of the state and its tax authority will advance anarchy.

¶ 54 In the end, it seems that these far-reaching outcomes will remain in theoretical debate only and will have no practical consequences. States will not release their tax authority so easily. The theoretical debate on the legitimacy of the state to tax e-commerce will raise very interesting questions. But the bottom line is that the cyber-skeptics' arguments and the states' "natural tendency" to keep their tax authority will support the legitimacy of the states to tax e-commerce.

3. Cyberspace as a Place

¶ 55 Johnson and Post argued that cyberspace is a place of its own that should have its own set of distinct legal rules.⁸⁷ According to their argument, Internet users' words and understanding while navigating the Internet suggest that they consider cyberspace a place. The legislators and the courts consider cyberspace a place in their dealing with cyberspace law issues. The borders between this place and the real world are sharp and clear. In their view, such an approach will cope properly with most of cyberspace's jurisdictional challenges.⁸⁸

¶ 56 Adopting this view leads to the argument that e-commerce transactions take place on the Internet as a unique place.⁸⁹ Therefore, the source of e-commerce income is the Internet for purposes of the territorial jurisdiction question.⁹⁰ The tax implications of this argument are far reaching. It means that there is no source for e-commerce income outside the Internet and that the territorial tax jurisdiction on e-commerce should not be given to any territorial country. It means that the OECD source rules for e-commerce and any other source rules are fundamentally wrong.

¶ 57 On the other side, Mark Lemley argued that users, legislators, and courts refer to cyberspace as a place only as a metaphor to help them compare the new virtual world to the familiar real world in order to understand the new world and cope with its challenges. Therefore, the comparison should be carefully limited. For legal purposes, Lemley suggests we consider the similarities and differences between cyberspace and real space when dealing with cyberspace issues.⁹¹

¶ 58 Accepting this view in the tax arena means that in coping with e-commerce taxation challenges, we might use the metaphor of cyberspace as a place and compare the virtual world and the real world to reach an outcome, but we should also see the similarities and differences between e-commerce and traditional commerce. We should

⁸⁷ Johnson, *supra* note 17.

⁸⁸ *Id.* at 1378.

⁸⁹ This is true especially regarding intangible e-commerce transactions and e-commerce services transactions.

⁹⁰ This might also be the answer given by Dan Hunter, but he argues that this does not lead to the normative conclusion that there should be a unique legal regime to cyberspace. Dan Hunter, *Cyberspace as Place and the Tragedy of the Digital Anticommons*, 91 CAL. L. REV. 439 (2003).

⁹¹ Mark Lemley, *Place and Cyberspace*, 91 CAL. L. REV. 521 (2003).

also remember that the metaphor is only an analytical tool, not a binding legal rule, and it cannot lead to definite legal results. It cannot and should not substitute for normative thinking to build an appropriate regime for taxing e-commerce income fairly and efficiently. According to this view, in designing a tax regime for e-commerce income, the main questions are still whether the regime is fair, efficient, and administrable.

¶ 59 Between these bookends, Orin Kerr argued that a distinction should be made between internal and external perspectives on cyberspace.⁹² The internal perspective is the perspective of those who look to cyberspace from the inside. The external perspective is the perspective of those who look to cyberspace from the outside. From an internal perspective, cyberspace is a place of its own. From an external perspective, cyberspace is present in multiple physical locations in the real world. Therefore, according to Kerr, the relevant question is not whether cyberspace is a place but what is the right perspective on cyberspace for legal matters, internal or external.

¶ 60 This framing of the issue contributes to the tax debate on e-commerce taxation. It can help explain the OECD approach toward e-commerce taxation. The OECD approach views e-commerce from an external perspective. From this external perspective, the OECD approach sees servers as important components of cyberspace and gives e-commerce a legal meaning for tax purposes. But taxpayers who argue for nontaxation of e-commerce view cyberspace from an internal perspective, arguing that it is not present in any country to have tax jurisdiction, but it is present on the Internet as a place of its own. To find the right path between these two views, the critical question becomes, what is the right perspective on e-commerce for tax purposes? This question should be answered according to the subjective and objective purpose of the international tax regime.

¶ 61 As noted above, the debate on cyberspace as a place touches the main difficulty of taxing e-commerce income: the difficulty of territory. It gives important insight as to the source of e-commerce income. However, the different views on cyberspace as a place lead to different tax consequences. As long as there is no definite conclusion or general consensus on the issue of cyberspace as a place, there will be no definite tax conclusion as a result of incorporating this argument. Nonetheless, the different views add a lot of interest to the tax debate and can be used to support different tax outcomes.

4. Externality and Efficiency

¶ 62 Cyber-libertarians argue that permitting cyberspace regulation by each state has externalities on other states because cyberspace activity usually affects several countries. Any cyberspace legal rule by one country spills over into other countries. Therefore, cyber-libertarians conclude that cyberspace should not be regulated by countries but by a self-governance regime that could overcome the externality problem.⁹³ In addition, they argue that cyberspace-regulation challenges open the door for regulatory competition among the countries to offer more a convenient legal framework for businesses leading to

⁹² Orin Kerr, *The Problem of Perspective in Internet Law*, 91 GEO. L.J. 357 (2003).

⁹³ David Johnson & David Post, *The New "Civic Virtue" of the Internet*, in THE EMERGING INTERNET 23 (1998).

underregulation of cyberspace and legal abuses and manipulation. In their view, a self-regulation regime overcomes these competition difficulties.⁹⁴ They further argue that a self-regulation regime achieves economic efficiency because it creates more congruence between the rule makers and the rule takers and limits the spillover effects of cyberspace regulation.⁹⁵

¶ 63 Cyber-skeptics reject these arguments. Goldsmith argued that the externalities of cyberspace regulation do not exceed the externalities inherent in any regulation of transnational transactions. In his view, a regulatory regime should reduce externalities, but it is not possible to totally eliminate them. According to Goldsmith, the self-regulatory regime itself has externalities because regulating cyberspace by the users has effects on the world outside the Internet.⁹⁶ Mark Lemley added that self-governance is not more efficient, because it divides the Internet into sub-Internets to achieve congruence and because it reduces efficiency in that a main value of the Internet is that it is one large network.⁹⁷

¶ 64 In the field of cross-border e-commerce taxation, the externality effect is also clear. The tax laws on cross-border e-commerce of one country will affect other countries involved in the transaction. Tax competition among countries over e-commerce taxation is similarly clear. The OECD discussions on international taxation of e-commerce reveal the conflicted interests of the countries and their competition over the tax pie. But the solution might not be a self-regulatory regime for e-commerce taxation; such a solution is totally illogical in the field of tax law. The solution should instead be international cooperation to reduce externalities and enhance economic efficiency. Given the externality effect of e-commerce taxation, more international cooperation is needed to reduce these externalities. Given the global feature of e-commerce, no one country has the ability to tax it efficiently, and more international consensus is needed to tax e-commerce income. This solution is well based in tax literature, but cyberspace law literature can aid in supporting this solution.⁹⁸

⁹⁴ See Michael Froomkin, *The Internet as a Source of Regulation Arbitrage*, in BORDERS IN CYBERSPACE 129 (B. Kahin & Charles Nesson eds., 1997); Dan Burk, *Virtual Exit in the Global Information Economy*, 73 CHI.-KENT L. REV. 943, 961-72 (1998).

⁹⁵ David Johnson & David Post, *Towards a New Theory of Decentralized Decision Making in Complex Systems*, 73 CHI.-KENT L. REV. 1055 (1998).

⁹⁶ Goldsmith, *The Internet and the Abiding Significance of Territorial Sovereignty*, *supra* note 71, at 487.

⁹⁷ Mark Lemley, *The Law and Economics of Internet Norms*, 73 CHI.-KENT L. REV. 1257 (1998).

⁹⁸ Just as incorporating cyberspace law into tax law supports different views and adds a lot to the debate, considering tax law while debating Internet regulation will add to the discussion. Cyber-libertarians have to overcome the difficulty of the self-governance regime in tax issues. If their regime does not work in tax law, criminal law, and other fields, this weakens their arguments. Cyber-skeptics could use tax law as an example of the problems of the self-governance regime. The integration of the fields contributes to both, but here, I concentrate on the contributions of incorporating cyberspace law to tax law.

B. The Positive Law

¶ 65 In real life, challenges cannot wait until the end of the normative debate. The Internet developed rapidly, the challenges became urgent, and the positive law has had to cope with the challenges and create solutions. At the end of the day, the self-governance regime was not accepted. There is no special legal regime for the Internet alone. At the same time, there is no total application of the current law to the Internet. Current laws are being applied to cyberspace but must be adapted to meet the unique features of cyberspace.⁹⁹ When there was a need to make entirely new legislation to cope with cyberspace challenges, such legislation was enacted carefully. The law of cyberspace is emerging in an evolutionary manner rather than a revolutionary one as I will show below.¹⁰⁰ I take judicial jurisdiction, criminal law, and copyright law as examples to support my arguments and present several points. No additional meaning should be given to the choice of these examples, and it is obvious that a variety of other examples could be given. It is also clear that the comparison should always be done carefully by considering the similarities and differences between the fields.

1. Judicial Jurisdiction in Cyberspace

¶ 66 International law divides judicial jurisdiction among the countries of the world according to two leading principles: the territorial principle, which gives judicial jurisdiction to the country that has territorial connection to the matter or to the parties, and the personal principle, which gives jurisdiction to the country that has connection to the parties of the issue. Besides these two principles, the effect theory was developed to give any country jurisdiction over acts or persons that affect its territory or people. Similar principles apply in American law to divide the jurisdiction among the different states of the country. A state generally has jurisdiction when it has “minimum contacts” with the matter or the parties.¹⁰¹ These principles face challenges in cyberspace because it is very difficult to make the required connection between cyberspace activity and any one jurisdiction. The challenges are very similar to the challenges that face the international tax regime in taxing cross border e-commerce income.

¶ 67 The judicial jurisdictional challenges on the international level have been addressed by a few leading cases.¹⁰² The first and best known is the *Yahoo!* case.¹⁰³ In this case, a French court exercised jurisdiction over the American corporation Yahoo!

⁹⁹ A “translation” process, in the words of Lessig, *supra* note 56, at 111-21.

¹⁰⁰ See JANE RADIN ET AL., CASES AND MATERIALS, INTERNET COMMERCE: THE EMERGING LEGAL FRAMEWORK (2d ed. 2006).

¹⁰¹ See *World Wide Volkswagen Corp. v. Woodson*, 444 U.S. 286 (1980); *International Shoe Co. v. Washington*, 326 U.S. 310 (1945).

¹⁰² See Stephan Wilske & Teresa Schiller, *International Jurisdiction in Cyberspace: Which States May Regulate the Internet?*, 50 FED. COMM. L. J. 117, 147-70 (1997).

¹⁰³ UEJF et LICRA v. Yahoo! Inc., Tribunal de grande instance [T.G.I.] [“Ordinary Court of Original Jurisdiction”] Paris, May 22, 2000, available at <http://www.lapres.net/ya2011.html>. For an English translation of the *Yahoo!* Case, see <http://www.juriscom.net/txt/juriscom.net/txt/jurisfr/cti/yauctions20000522.htm>. For a discussion of this case, see Andreas Manolopoulos, *Raising Cyber-Borders: The Interaction Between Law and Technology*, 11 INT’L J.L. & INFO. TECH. 40-58 (2003).

Inc. in an action brought to the court by French NGOs versus Yahoo! Inc. and Yahoo! France, a French subsidiary, to prevent the access of French users to Nazi materials. In compliance with French law, the court ordered Yahoo! to “take all measures to dissuade and make impossible any access via Yahoo.com to the auction service for Nazi objects and to any other site or service that may be constructed as constituting an apology for Nazism or contesting the reality of Nazi crimes.” The court rejected Yahoo!’s argument that it lacked jurisdiction. The court ruled that jurisdiction was proper under French law because French people have access to materials at Yahoo.com that were not permitted in France.¹⁰⁴

¶ 68 The jurisdictional challenges within the United States have been addressed in many cases.¹⁰⁵ The case law does not reflect one clear and stable approach but rather something similar to a pendulum swinging between two end points. The first point is broad jurisdiction that arises whenever a Web site has any effect. The second point is narrow jurisdiction that requires physical presence as a condition to jurisdiction. Between these two end points, there are several midpoints that give basis to jurisdiction based on different degrees of Web interactivity.¹⁰⁶ The well-known *Zippo* case reflects this middle path.¹⁰⁷ The court ruled that “the likelihood that personal jurisdiction can be constitutionally exercised is directly proportionate to the nature and quality of commercial activity that an entity conducts over the Internet.... The exercise of jurisdiction is determined by examining the level of interactivity and commercial nature of the exchange of information that occurs on the Web site.”¹⁰⁸

¶ 69 It is important to notice that no special judicial jurisdictional rules were enacted to handle cyberspace challenges. The current judicial jurisdictional framework was applied almost directly to cyberspace. But the courts have had to cope with the mounting challenges generated by the rough application of the current framework to cyberspace

¹⁰⁴ *Id.* See also *Dow Jones & Co., Inc. v. Gutnick*, (2002) 210 C.L.R. 575.

¹⁰⁵ See *Mink v. AAAA Development*, 190 F.3d 333 (5th Cir. 1999); *Cybersell, Inc. v. Cybersell, Inc.*, 130 F.3d 414 (9th Cir. 1997); *People Solutions, Inc. v. People Solutions, Inc.*, No. CIV.A.399-CV-2339-L, 2000 WL 1030619 (N.D. Tex. July 25, 2000); *Winfield Collection, Ltd. v. McCauley*, 105 F. Supp. 2d 746 (E.D. Mich. 2000); *Euromarket Designs, Inc. v. Crate & Barrel Ltd.*, 96 F. Supp. 2d 824 (N.D. Ill. 2000); *Nissan Motor Co. v. Nissan Computer Corp.*, 89 F. Supp. 2d 1154 (C.D. Cal. 2000); *GTE New Media Services, Inc. v. Ameritech Corp.*, 44 F. Supp. 2d 313 (D. D.C. 1999); *Desktop Technologies, Inc. v. Colorworks Reproduction & Design, Inc.*, No. CIV.A.98-5029, 1999 WL 98572 (E.D. Pa. Feb. 25, 1999); *Millennium Enterprise, Inc. v. Millennium Music*, 33 F. Supp. 2d 907 (D. Or. 1999); *Smith v. Hobby Lobby Stores, Inc.*, 968 F. Supp. 1356 (W.D. Ark. 1997); *Hearst Corp. v. Goldberger*, No. 96 Civ. 3620, 1997 WL 97097 (S.D.N.Y. Feb. 26, 1997); *Maritz, Inc. v. Cybergold, Inc.*, 947 F. Supp. 1328 (E.D. Mo. 1996); *McDonough v. Fallon McElligott, Inc.*, 40 U.S.P.Q. (BNA) 1826 (S.D. Cal. 1996); *Insert Systems, Inc. v. Instruction Set, Inc.*, 937 F. Supp. 161 (D. Conn. 1996); *Blakey v. Continental Airlines, Inc.*, 751 A.2d 538 (N.J. 2000).

¹⁰⁶ See Titi Nguyen, *A Survey of Personal Jurisdiction Based on Internet Activity: A Return to Tradition*, 19 BERKELEY TECH. L.J. 519, 542 (2004); David G. Post, *Personal Jurisdiction on the Internet: A Survey of Cases*, CYBERSPACE LAW INSTITUTE, June 1998, <http://www.cli.org/jurisdictioncases.htm>; Michael Geist, *Is There a There There? Toward Greater Certainty for Internet Jurisdiction*; Andrew E. Costa, *Minimum Contacts in Cyberspace: A Taxonomy of the Case Law*, 35 HOUS. L. REV. 453 (1998).

¹⁰⁷ *Zippo Manufacturing Co. v. Zippo Dot Com, Inc.*, 952 F. Supp. 1119 (W.D. Pa. 1997).

¹⁰⁸ *Id.* at 1124.

activity. It has not been an easy mission for the courts, or one that every court identically addressed. However, it seems that courts are reaching some kind of common and stable attitude. Generally speaking, the courts' approaches to coping with cyberspace jurisdictional challenges are satisfying.¹⁰⁹

2. Criminal Law in Cyberspace

¶70 Criminal laws refer to territory in three main ways: defining the judicial jurisdiction, defining the crime itself, and defining defenses to a crime. In the age of cyberspace, crimes are being committed on the Internet—fraud and child pornography being well-known examples. The process of locating these crimes in a particular territory involves challenges similar to the challenges of judicial jurisdiction and e-commerce taxation. In addition to classical crimes taking place on the Internet, new crimes are being committed where the Internet is the object of the crime, such as spreading computer viruses. These new crimes create additional difficulties for the criminal law regime.¹¹⁰

¶71 Criminal law is coping with these challenges. For pre-Internet crimes committed on the Internet, the general approach is to apply the current criminal law to these crimes, while courts and legislatures make relevant interpretations and adaptations if needed.¹¹¹ This is the approach of the U.S. Department of Justice.¹¹² Scholars support this approach on positive and normative levels.¹¹³ As to new Internet and computer crimes, the approach is to create new legislation to handle these crimes. The Computer Fraud and Abuse Act (1986) is one of the leading examples of such legislation.¹¹⁴

¶72 Criminal law is developing gradually to cope with cyber-crimes, and the methods of adjustment involve the courts and legislatures. Courts interpret and adapt the current law to cyber-crimes, while legislatures define new laws and crimes when required. It is important to notice the intervention of the legislatures in handling the particularly difficult challenges and new crimes. When the current law was unable to handle a challenge, a new law was enacted. This is a good lesson to learn for dealing with e-commerce taxation challenges. In dealing with e-commerce taxation challenges, we have to distinguish between the different challenges and consider their nature and difficulty. When the challenge is fundamental, we need to consider intervention by new legislation

¹⁰⁹ See Sarah K. Jezairian, *Lost in the Virtual Mall: Is Traditional Personal Jurisdiction Analysis Applicable to E-Commerce Cases?*, 42 ARIZ. L. REV. 965 (2000).

¹¹⁰ See Neal Kumar Katyal, *Criminal Law in Cyberspace*, 149 U. PA. L. REV. 1003 (2001).

¹¹¹ See, e.g., Communications Decency Act, 47 U.S.C. § 230 (1996); Child Online Protection Act, 47 U.S.C. § 231 (1998); Children's Internet Protection Act, 47 U.S.C. § 254 (2000).

¹¹² U.S. DEP'T OF JUSTICE, *THE ELECTRONIC FRONTIER: THE CHALLENGE OF UNLAWFUL CONDUCT INVOLVING THE USE OF INTERNET* 11 (2000).

¹¹³ See Michael O'Neil, *Old Crimes in New Bottles: Sanctioning Cybercrime*, 9 GEO. MASON L. REV. 237 (2000).

¹¹⁴ 10 U.S.C. § 1030. See Douglas H. Hancock, *To What Extent Should Computer Related Crimes Be the Subject of Specific Legislative Attention?* 12 ALB. L.J. SCI. & TECH. 97 (2001); Heather Jacobson & Rebecca Green, *Computer Crimes*, 39 AM. CRIM. L. REV. 273 (2002); Frank P. Andreano, *The Evolution of Federal Computer Crime Policy: The Ad Hoc Approach to an Ever-Changing Problem*, 27 AM. J. CRIM. L. 81 (1999); Reid Skibell, *Cybercrimes & Misdemeanors: A Reevaluation of the Computer Fraud and Abuse Act*, 18 BERKELEY TECH. L.J. 909 (2003).

to cope with it.

3. Copyright Law in Cyberspace

¶ 73 Copyright law faces enormous difficulties in the digital age. The digitization of information makes the transfer of information very cheap, easy, virtual, and global. This change touched the roots of copyright law. The enforcement of copyright law in cyberspace has become increasingly difficult, and these difficulties have been debated intensively in the past decade. For the purposes of this article, I would like to emphasize a couple points on the positive level of the debate that have direct implications at the tax field. First, courts are taking an important role in developing copyright law to cope with cyberspace challenges. The case law on copyright issues in cyberspace is very rich. For example, in the *MP3.Com* case, the court ruled that MP3.Com infringed copyrights by copying records into its computer servers and replaying the records through the Internet for its subscribers.¹¹⁵ The court rejected MP3.Com's claim of "fair use." In the *Napster* case, the court ruled that Napster infringed copyrights with its peer-to-peer activity.¹¹⁶ The court again rejected the defense of fair use.¹¹⁷

¶ 74 Second, a general legal framework was introduced at the international level by the World Intellectual Property Organization (WIPO).¹¹⁸ This framework was implemented by the signatory countries that enacted new pieces of legislation according to the principles of the framework in order to cope with difficult and new challenges of copyright in cyberspace. The Digital Millennium Copyright Act (1998) is the corresponding American legislation.¹¹⁹ Europe enacted a special directive,¹²⁰ and other countries enacted their own similar legislation following the WIPO framework.¹²¹ This mixed international and national tool to cope with copyright law in cyberspace is an additional lesson to study when addressing the challenges of international taxation of e-commerce. We should consider such dual tools at the national and the international levels in taxing e-commerce income. An international framework is needed and must be designed for taxing cross-border e-commerce income. I propose the *Integrative Adaptation Model* as the basis for an international framework for taxing e-commerce

¹¹⁵ *UMG Recording, Inc. v. MP3.Com, Inc.*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000).

¹¹⁶ *A&M Records Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001). Peer-to-peer networks permit each user to share the music saved on his or her computer with other users connected to the network.

¹¹⁷ *Id.*

¹¹⁸ See MIHALY FICSOR, *THE LAW OF COPYRIGHT AND THE INTERNET: THE 1996 WIPO TREATIES, THEIR INTERPRETATION AND IMPLEMENTATION* (2002); JOEL REINBOTHE & SILKE LEWINSKI, *THE WIPO TREATIES 1996* (2001).

¹¹⁹ *Id.* 17 U.S.C. § 512

¹²⁰ Council Directive 2001/29/EC, art. 5(1), 2001 O.J. (L 167/10), available at http://eur-lex.europa.eu/comm/competition/state_aid/others/business/rapportaidesciscales_en.pdf.

¹²¹ See Foundation for Information Policy Research, *Implementing the European Union Copyright Directive*, <http://www.fipr.org/copyright/guide/eucd-guide.pdf> (last visited July 18, 2008); Australia, Copyright Amendment (Digital Agenda) Act 2000, No. 110,2000, available at http://www.wilmerhale.com/files/upload/australia_digital_agenda.pdf; Aashit Shah, *UK's Implementation of the Anti-Circumvention Provisions of the EU Copyright Directive: An Analysis*, 2004 DUKE L. & TECH. REV. 3; Michael D. Birnhack, *Global Copyright, Local Speech*, 24 CARDOZO ARTS & ENT. L.J. 491 (2006).

income using the insights and experiences of cyberspace law.

V. THE INTEGRATIVE ADAPTATION MODEL

¶ 75 The *Integrative Adaptation Model* calls for four layers of adaptation in the current international tax regime to address e-commerce taxation challenges. First, the regime should develop income-classification rules and residency rules by case law. Second, it should introduce new source rules based on the location of the parties to the transaction. Third, it should use technology to enforce tax laws. Fourth, it should gain international consensus through international treaties. An international treaty that includes these different layers of the model is the first stage in the practical application of the model.

¶ 76 The *Integrative Adaptation Model* follows the basic approach of the positive law of cyberspace in different fields by applying the current law to cyberspace. Therefore, the starting point is to apply the current international tax regime to cross-border e-commerce income. Such an application has several advantages. First, the regime has maintained an international consensus for many years. The *Integrative Adaptation Model* takes advantage of this consensus and updates it, rather than starting the international negotiation process from scratch. It maintains the aspects of the regime that have worked well for many years and that are well known in the business and the legal communities. A known law is, generally, better than an unknown law.

¶ 77 Second, the legal regime is a developing construction that has evolved over a long time. The *Integrative Adaptation Model* follows the wisdom of evolution, adding a few new bricks to cope with e-commerce taxation challenges but essentially leaving the building intact. This sort of bricklaying has worked quite well in other fields of law, and there is no reason to believe that it will not work in the tax field. What the tax field needs is the brick of adaptation, which constitutes the first main feature of the *Integrative Adaptation Model*. The model is also integrative in the sense that the adaptations are being made in accordance with successful adaptations in other fields. The *Integrative Adaptation Model* relies on the adaptation made in different fields to cope with e-commerce and apply them in the field of taxation.

¶ 78 The *Integrative Adaptation Model* distinguishes among the different challenges and derives the solutions from the nature and difficulty of the challenge that it addresses. I would like to emphasize again that the challenges have common features, but the nature and the degree of the challenges vary. Accordingly, the adaptations also vary in the nature and degree of intervention and change to the current regime. As in other fields of cyberspace law, sometimes case-law development is sufficient to cope with the challenges, but sometimes more intervention is required and a new law should be enacted. The other fields teach us about the content of the adaptation that e-commerce taxation requires. In my view, the adaptation should be integrative in the sense that it should follow successful adaptation of the law in different fields. Adaptation of the international tax regime should be in harmony with adaptation of other fields because law is one harmonic composition. I will expand now on each of the four layers of the model.

A. Developing Income-Classification and Residency Rules by Case Law

¶ 79 Income-classification challenges and residency challenges do not touch the core and logic of income-classification rules and residency rules. The rules are still good for e-commerce, and the challenges are not that different from applying the rules to complex transactions or facts.¹²² Therefore, the best way to handle these challenges is by developing the rules through case law. Courts have the ability and experience to develop legal rules in these circumstances. Courts have successfully played a similar role in other fields of cyberspace law.¹²³ Courts can successfully develop classification rules to address e-commerce transactions. Courts can also develop residency rules to capture e-commerce corporations in the correct jurisdiction. Judicial development of these rules will be in harmony with the development of other concepts in the law because the same courts are interpreting and adapting all the concepts. Judicial adaptation fits these challenges because courts can be flexible and adjust for the continuously changing and developing e-commerce transactions.

¶ 80 The *Integrative Adaptation Model* prefers judicial adaptation over legislating new classification rules because it is almost impossible to design legislation to fit the wide range of current and potential transactions that cannot be anticipated or reasonably described in legal terms. The OECD has tried to make such legislation by describing a large number of categories of transactions, but it seems that this experiment failed. The endless possibilities of e-commerce transactions are impossible to anticipate or describe. The OECD legislation is so long, complex, and incomplete that it cannot be used.¹²⁴ A similar thing happened to software legislation that tried to categorize software transactions based on certain general characteristics.

¶ 81 The *Integrative Adaptation Model* prefers developing income-classification rules by case law over repealing the categories and applying one source rule for all income. Professor Avi-Yonah proposed the latter scheme, but repealing the categories creates different law for e-commerce income and non-e-commerce income, in contradiction to the neutrality principle.¹²⁵ As long as it is appropriate to realize inter-individual equity between e-commerce taxpayers and non-e-commerce taxpayers, we should not repeal the different categories of e-commerce income.

¶ 82 However, the main difficulties of case-law development are its uncertainty and the possible contradictions between the judgments given by different courts within one country or between countries. This difficulty is inherent in case-law development. More coordination is needed to overcome this difficulty. More respect for the judgments of other courts will help decrease contradictions between judgments. Furthermore, courts should interpret the international tax regime of e-commerce objectively to serve the rule of law rather than the interests of their countries. Therefore, we should not expect more contradiction than normal in case-law development.

¹²² See *supra* Part I(A).

¹²³ See *supra* Part III(B).

¹²⁴ See *supra* Part II(A).

¹²⁵ See *supra* Part II(B).

¶ 83 Taking it all together, in my view, the advantages of developing income-classification rules and residency rules by case law outweigh the disadvantages. Therefore, the *Integrative Adaptation Model* calls for case-law development of income-classification rules and residency rules to cope with e-commerce challenges.

B. Introducing New Source Rules Based on the Location of the Parties to the Transaction and the Physical Income-Production Components

¶ 84 E-commerce deeply challenges the source rules and the permanent-establishment rule. E-commerce ignores the basic territorial connections that form the basic premise of these rules. The logic and concepts of the rules lose their relevance in the e-commerce sphere.¹²⁶ Therefore, the adaptation should be deeper; much more intervention and change is required. In other fields of law, we noticed that a considerable change was sometimes required to cope with cyberspace challenges, and the law was changed accordingly. For example, new cyber-crime legislation and new copyright legislation were enacted.¹²⁷ New source rules should be enacted to tax e-commerce income in general and to tax e-commerce business income in particular.

¶ 85 The new source rules should overcome the territoriality difficulty of nonterritorial e-commerce. They should minimize the need to look for the place of e-commerce itself. The source rules should focus more on the physical components of e-commerce. The *Integrative Adaptation Model* proposes to enact source rules that are based on the location of the parties to the transaction and the location of other physical components of the income-production process.

¶ 86 The parties to the transaction, personnel, and corporations are located somewhere in the physical world. The parties are the central component in the income-production process, and they contribute a lot in the process. On the seller's side is the Web site that generates the income and the seller who is the subject of the income tax on e-commerce. Human beings stand behind the Web site as owners, employees, programmers, and others. They are located somewhere in the physical world, and they take a central part in producing the income. For example, with respect to e-commerce in services, such as medical or legal services, there is a professional human being who stands behind the Web site and gives the service through the Internet. When selling software by download from a Web site, there are human beings who developed the software, who uploaded the software to the site, and who maintain and update the site. Therefore, it is justified and feasible to base the source rules on the location of these human beings on the side of the seller. At the same time, the buyer's side also contributes to the production of the income; the income could not be produced without this consumption. On this side, persons or corporations that purchase a product or service in e-commerce are located somewhere in the physical world, and their countries should and could receive part of the e-commerce, income-tax pie.

¶ 87 In addition to the sellers and buyers, other physical facilities or components might

¹²⁶ See *supra* Part I(A).

¹²⁷ See *supra* Part III(B).

take part in producing e-commerce income. In such a case, the location of these physical factors should and could receive part of the tax pie. The source rules in the *Integrative Adaptation Model* should refer to all these justified and feasible locations and give them tax jurisdiction over their shares of the income production. The treaty that codifies the model should define generally these physical components and the share of each in the tax pie according to the outcomes of the international negotiation process.

¶ 88 A similar approach is proposed concerning the source rule for e-commerce business income. The permanent-establishment principle should be replaced by a rule that relies on the location of the physical components of the transaction, including persons and facilities. The challenges of the permanent establishment are very deep. The OECD proposal to consider the server as a permanent establishment did not succeed in coping with these challenges. Deeper change and intervention are required. A new source rule that relies on the location of physical components will overcome the territorial difficulty at the root of the challenges.

¶ 89 According to the proposed source rules, it is not the location of the e-commerce that determines its source but the location of all the mentioned physical factors in the income-producing process that determines the source of the income. Because the location of the e-commerce itself is difficult to determine, the *Integrative Adaptation Model* relies on other locations—the locations of all the physical components involved in the process of producing the income. I must stress that these components are not completely predefined. They change from transaction to transaction in response to the relevant physical components of the transaction. To be clear, the model does not propose formula taxation but a set of principles and a pool of components that need to be considered to tax e-commerce fairly and to distribute the tax pie in a manner that realizes inter-individual equity. The model does not set the exact rules but gives the direction of thinking and negotiating.

¶ 90 The proposed direction in the design of new source rules for e-commerce income, including business income, is more appropriate than the proposal of the OECD to consider the server as a permanent establishment as long as it performs essential activity. The proposed direction is much more justified because the contribution of human beings to the production of income is more important and less malleable than is the contribution of the server. The location of the server itself does not mean the server's country contributed to producing the income, and this location can be very easily manipulated. In addition, the proposed direction is much more feasible because it looks to the location of human beings who are less mobile and less easily manipulated than the location of the server. My argument targets the direction of the required source rules not their details. Countries should negotiate the details among themselves, keeping in line with the proposed direction.

C. Using Technology to Apply the Tax Regime

¶ 91 Code really is law, as cyberspace law literature teaches us.¹²⁸ Technology can be

¹²⁸ See *supra* Part III.

used as a source for solving challenges as well as making them. It can be used to enable the application of the international tax regime to e-commerce. The *Integrative Adaptation Model* proposes to use technology to target and address the sources of e-commerce taxation challenges. The first source of the challenges is the borderless feature of the Internet and e-commerce. However, this architecture is not inherent to the Internet; it can be changed. At the very least, technology can be used to make borders in the Internet for tax purposes only. Technology can be used to specify the geographical location of the parties to an e-commerce transaction.¹²⁹ This sort of locating technology is developing because the advertising market demands it. Advertisements target consumers according to their locations and preferences to sell them products that fit these preferences. Kindergarten advertisements, for example, target families in the area of the kindergarten.

¶ 92 The second source of the challenges is the virtual feature of e-commerce. The virtual feature of e-commerce leaves no signs of the e-commerce transaction outside the Internet, especially in transactions involving intangibles and services, thereby making the application of the current tax regime on e-commerce much more difficult. However, this virtual feature might also be changed or overcome by technology. Technology can track the existence and details of an e-commerce transaction and reveal these details to the tax authorities. Regulations can mandate the inclusion in all e-commerce of tax-revealing technologies in the navigating software and tools. Such regulation and use of technology will help in taxing e-commerce income.

¶ 93 The third source of the challenges is the anonymity of e-commerce. This anonymity, too, can be weakened through use of technology that reveals the details of the parties, such as location, name, credit card or bank information, and so on. Laws can require the use of these technologies to facilitate the taxation of e-commerce.

¶ 94 However, the use and imposition of these technologies has a price. It is the price of the Internet architecture that we would like to build. It is the price of the freedom that people have on the Internet. It is the price of state intervention to limit people's liberty on the Internet. The question, therefore, is whether it is too high a price. It is a good and difficult question, articulating the main choice that we have to make and the real challenge that we have to face as a liberal society. In my view, the price is too high if the intervention is disproportionate to the public gains from the intervention. The use of these technologies should therefore be limited according to the proportionality principle.

D. Gaining International Consensus Through International Treaties

¶ 95 International consensus is a must in any international tax regime. The *Integrative Adaptation Model* should create such consensus. The first step is to open a process of negotiation to discuss the division of the tax pie of e-commerce between countries. The pie should be divided between the country of the producer and the country of the consumer. These countries contribute to the production of the income and have a justified right to share the tax pie. It is not easy to determine the share of each country, just as it was not easy in the 1920s when the international tax regime was first developing. But a

¹²⁹ There are several technologies for locating users. One of them depends on the IP address.

process of negotiation and compromise is required to update the tax regime. The OECD started a process of negotiation in its huge project on e-commerce taxation. But the countries participating in this process are limited. The negotiation should include the largest possible number of countries. As to the content and direction of the negotiation, it should be directed toward the principles mentioned above, which differ from the OECD response. It should give tax jurisdiction on e-commerce to the producer country as well as the consumer country through a method of withholding or other technical methods.

¶96 The expected outcome of the negotiation should be an international treaty to reflect the compromise and the details of the regime that realizes the principles mentioned above. An international treaty is one leading tool to frame international consensus and law and is the main tool used today to cope with cyberspace challenges. It should be a very central tool in the field of international taxation of e-commerce, as it has been for a long time in the field of international taxation. This treaty comprises the fourth and last layer in the *Integrative Adaptation Model* for taxing international e-commerce income. To be clear, the treaty is an essential part in constituting the *Integrative Adaptation Model*. The exact content of the treaty will be designed by the countries themselves, but the *Integrative Adaptation Model* sets the roadmap of the negotiation.

¶97 The *Integrative Adaptation Model* creates a roadmap that is able to tax international e-commerce income effectively. The model handles each of the feasibility challenges according to its source and nature and tries to give the right treatment accordingly. It gives the right treatment to income-classification challenges and residency rules by targeting the wide and changing nature of these challenges. The model targets source-rule challenges appropriately by overcoming the main difficulty of territoriality. The model makes use of technology, which has enormous potential in solving most of the challenges. The *Integrative Adaptation Model* realizes inter-individual equality because it maintains similar tax treatment of e-commerce income and non e-commerce income. The model realizes inter-nation equity by dividing the tax pie fairly after a process of negotiation and consent between countries. The model also aims to achieve economic efficiency. Finally, the model has the potential to gain international consensus and be widely accepted because it builds on the current international tax regime and the current consensus but updates it gradually in a continuing process of negotiation and development within the general framework and accepted normative basis and principles.

VI. CONCLUSION

¶98 The article ends here, but I hope it starts a new debate on international taxation of e-commerce as an integral part of cyberspace law—a debate that discusses e-commerce taxation challenges from wider and deeper perspectives. I call for a debate that is open to listen to new voices and to learn from other experiences. I argue for a debate that will interest the general legal and business professionals. Such a debate might start the return of tax law to its home discipline, the law.

¶99 The integrative debate I am calling for will lead to better understanding of and coping with e-commerce taxation challenges and to better proposals for taxing international e-commerce income. My *Integrative Adaptation Model* is one possible

model. The four layers of the model—case-law development of income-classification and residency rules, new source rules based on the parties' and the physical components' location, the use of technology to apply the law, and international treaty to reflect the international consensus and frame the law—comprise one comprehensive thought for taxing international e-commerce income.