The Income of the Twenty-First Century: Online Advertising as a Case Study for the Implications of Technology for Source-Based Taxation

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I. INTRODUCTION

Throughout history, traditional trade and commerce, whether by land, sea, or air, were always performed in a very physical manner and thus subject to constraints and barriers imposed by both natural and man-made borders and jurisdictional lines. The computer and Internet revolutions, however, created a new medium for trade and commerce—the virtual marketplace. This unique platform for engaging in trade and commerce created new opportunities for value and profit generation in novel ways not previously available. One of these Internet-based revenue

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generators was online advertising. With growing worldwide accessibility to the Internet, double-digit growth rates, and stronger-than-ever financial reports from the major players in the market (Google, Facebook, and the like), online advertising is expected to be a key player in the twenty-first-century global economy. The unique characteristics of this new type of economic activity challenge the traditional boundaries faced in generating income from cross-border transactions, which for centuries have defined and limited the world of commerce. Online advertising, in contrast, is completely unbounded by any physical or jurisdictional borders, and it is generated in a multiparty transaction in which the active revenue-generating party (the end-user who views the advertisement or acts upon it) is neither the payee nor the payor. When this type of activity takes place in a multijurisdiction context (whether at the international or interstate level), it gives rise to interesting questions regarding the tax implications of the income it generates. The source of this income, its character, its effect on the U.S. domestic tax system, and its impact on the complex web of bilateral tax treaties are only some of the issues that merit serious discussion. This Article will attempt to introduce the reader to the unique characteristics of income from online advertising and present some of the interesting implications it has for taxation.

II. A TECHNOLOGICAL REVOLUTION

There is no doubt that the invention of the computer was one of the most significant events in the twentieth century, giving birth to profound economic and social changes across the globe. Ever since its invention in the mid-1930s, the computer (and later on, the Internet) radically revolutionized practically all aspects of human life—both personal and business-related. Some of the most prominent changes occurred in the fields of trade and commerce, which comprehend the ways in which people sell and exchange goods and products as well as provide services to one another.[1]

People have been engaging in trade since the dawn of man. Archeological excavations have shown that humans have been trading with each other since the prehistoric era.[2] Recorded written history includes evidence of advanced commerce and trade practices since the

1. The lexical definition of the term "commerce" is "the exchange of goods and services, esp. on a large scale involving transportation between cities, states, and nations." BLACK'S LAW DICTIONARY 304 (9th ed. 2009). "Trade" is defined as "the business of buying and selling or bartering goods or services." *Id.* at 1629.

2. *See* CLIVE DAY, A HISTORY OF COMMERCE 9 (1907).

days of the Egyptian and Babylonian empires.[3] Later on, it was the Phoenicians and the Greeks who developed new commerce and trade practices in the Middle East and Mediterranean,[4] and it was the *Pax Romana*—the peace that the Roman Empire managed to sustain for centuries—that allowed modern commerce to develop in previously unheard-of ways.[5] In the Middle Ages, trade was centered in the town markets and guilds and was eventually followed by the evolution of maritime commerce, led by the Scandinavian people of the North.[6] The development of maritime commerce eventually led to the incorporation of (some say) the first multinational corporations[7]—the Dutch West India Company,[8] the British East India Company, and the like—which reigned the seas during what is considered in international commerce the golden age of sail. From that point on, expansion of international commerce and trade into all outskirts of the globe was swift, aided by such inventions as the steam locomotive, the aircraft, and the internal-combustion engine.

Despite the fast-evolving history of commerce and its incredible contribution to the growth and progress of human society, all past revolutionary trade and commerce empires have had one very important characteristic in common: they were all "playing" on the same field. Whether by land, sea, or air, the sphere in which people engaged in trade and commerce was always physical and material. It was very much like a game of "connect the dots"—exchanging one type of good for another required the parties either to meet in one location to make an exchange or to transport or ship the merchandise from one geographical location to another. The same applied to services, which had to be provided at the physical location of either the customer or the service provider.

Even the development of intangible property did not change the physical attribute of commerce. Designs, patents, trademarks, and copyrights are all associated with physical manifestations of ideas. The trade of intellectual property, made possible by the protection provided by intellectual property law,[9] has a distinct physical component—whether it be a copyrighted book, a patented invention, or a product bearing a

3. *See id.* at 10-11.
4. *See id.* at 11, 17-23.
5. *See id.* at 26.
6. *See id.* at 70.
7. *See* Subhabrata Bobby Banerjee, *Corporate Social Responsibility: The Good, the Bad and the Ugly*, 34 CRITICAL SOC. 51, 52 (2008).
8. *See* DAY, *supra* note 2, at 191.
9. The origin of intellectual property law dates back to the Republic of Venice in the fifteenth century. *See generally* Frank D. Prager, *A History of Intellectual Property from 1545 to 1787*, 26 J. PAT. OFF. SOC'Y 711 (1944).

commercial logo: the laws of intellectual property do not protect mere ideas, but rather their physical expression.[10]

Indeed, all traditional trade and commerce transactions, whether tangible or intangible, leave some kind of physical impression and are conducted in a very material manner. Absent any other development, this observation would have been redundant, self-explanatory, and even strange. Until not too long ago, this was a truism: there was no other way to perform trade or render services but in a physical manner. But then the invention of the computer[11] and telecommunication technologies started a snowball phenomenon, the results (or the continuing process) of which we are experiencing to this very day, that had a tremendous effect on the world of commerce.

Although the origins of the computer date all the way back to 1837, when Charles Babbage—the "father of the computer"[12]—invented the first programmable computer, it was the technological breakthroughs of the second half of the twentieth century that brought about the true revolution in the means employed for local and international trade and commerce.

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10. For example, copyright protection is granted only to "original works of authorship fixed in any tangible medium of expression." 17 U.S.C. § 102 (2012). Thus, one of the basic prerequisites for copyright protection is that the work be fixed in a tangible form. However, the ideas behind such copyrighted material are not protected. *See id.* § 102(b); *see also* Wickham v. Knoxville Int'l Energy Exposition, Inc., 739 F.2d 1094, 1097 (6th Cir. 1984) (citing Mazer v. Stein, 347 U.S. 201, 217 (1954) ("Ideas are not protected by copyright, only expressions of ideas.")); Baker v. Selden, 101 U.S. 99, 102-03 (1879). A similar analysis applies to patents—an invention is patentable only if it meets several requirements, two of which are commonly referred to as utility and enablement. *See* 35 U.S.C. §§ 101, 112 (2006). The utility requirement, which states that an invention must be "useful" to be patentable, was construed by the court as preventing mere ideas from being patented. *See In re* '318 Patent Infringement Litig., 583 F.3d 1317, 1324 (Fed. Cir. 2009). The enablement requirement provides that the patent must also include a description of the invention sufficient to enable a person skilled in the relevant art to *make* and *use* the invention. *See* 35 U.S.C. § 112. This requirement was part of the common law even before its codification in the U.S. Code. *See* Mowry v. Whitney, 81 U.S. 620, 644 (1871). Both requirements emphasize the physical dimension of a patent and the inability of patent law to protect mere ideas, good as they may be. The "earthly" nature of patents can also be learned from the committee reports that accompanied the enactment of the 1952 Patent Act (later revised), which indicate that Congress intended for this act to "include anything under the sun that is made by man." Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980) (citing S. REP. NO. 1979, at 5 (1952); H.R. REP. NO. 1923, at 6 (1952)).

11. Interestingly, starting in the mid-seventeenth century, the word "computer" was used to describe a person whose profession consisted of carrying out calculations. SHORTER OXFORD ENGLISH DICTIONARY—ON HISTORICAL PRINCIPLES 472 (6th ed. 2007). It was only in the 1940s that the word "computer" was first associated with the automatic calculating machine, which up until that time had been referred to as a "calculator." PAUL E. CERUZZI, HISTORY OF MODERN COMPUTING 1 (2d ed. 2003).

12. *See generally* DAN HALACY, CHARLES BABBAGE, FATHER OF THE COMPUTER (1970).

In the late 1960s, the Internet was born as part of a project funded by the United States Department of Defense.[13] In the 1970s, the integrated circuit and electronic mail joined the technological bustle.[14] In the 1980s, it was time for personal computers to make their debut, and in the 1990s, it was time for the World Wide Web and wireless networking.[15] This technological outburst, referred to by some as the computer revolution[16] or the Internet revolution,[17] created a global network of computers (and, later on, advanced mobile communication devices such as smart phones, tablet computers, etc.), which allows for instant connectivity, ignoring geographical barriers or distances that had previously served as impeding factors in any type of international transaction. In the precomputer and pre-Internet days, such physical barriers shaped human interactions and particularly influenced international commerce: selling products to customers across jurisdictional borders required complicated operations, as well as the use of middlemen and other intermediary techniques (such as the Letter of Credit),[18] in order to overcome both the physical barriers (such as payment and delivery across distances, time zone differences, and currency exchange rates) and their implications for international commerce. The computer revolution, followed by incredible developments in communication technologies, has created a new medium for trade and commerce that not only is more sophisticated in its advanced ability to bridge many existing interjurisdictional problems, but also represents a true revolution in the way that people trade with one another.

Today, the marketplace of the Middle Ages has been transformed into a virtual marketplace where merchants, retailers, and wholesalers alike gather to sell their products and services without ever leaving their home jurisdictions. This new virtual trading space has created the first

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13. KEVIN HILLSTROM, DEFINING MOMENTS: THE INTERNET REVOLUTION, at xiii, 135 (2005).

14. *Id.* at 40.

15. *Id.*

16. *See, e.g.*, DANIEL E. SICHEL, THE COMPUTER REVOLUTION: AN ECONOMIC PERSPECTIVE (1997).

17. *See, e.g.*, HILLSTROM, *supra* note 13.

18. It is believed that letters of credit were used by the first bankers of Genoa and Venice in the middle of the twelfth century, and there is also evidence pointing to use of letters of credit in the days of the Roman and Greek empires and as far back as in ancient Egypt. Rufus James Trimble, *The Law Merchant and the Letter of Credit*, 61 HARV. L. REV. 981, 982-85 (1948).

opportunity for the world of commerce to sever some of the earthly ties and constraints that had previously hindered its expansion.[19]

III. NEW SOURCES OF INCOME

This unique virtual platform for trade and commerce has also created new opportunities for generating value and profit in ways not previously available. Indeed, it is possible to identify a few different types of businesses that utilize, and eventually heavily rely on, the Internet and computer networks as their main revenue generators.

One of the flourishing industries that benefited most during the early days of computerization and the Internet was the software industry. A computer without software is like a book with no words; software is an essential part of what makes computers what they are, and without it, computers are little more than oddly shaped ornaments.[20] The effect of the computer revolution on the software industry was twofold. Obviously, the revolution itself could not have materialized without the development of new software that provided solutions to the market's demand for the new technology. But, more importantly for our discussion, the Internet provided software companies (and many other businesses for that matter) with a marketplace through which to offer their products for sale.[21] At first, the Internet was used as a mere showcase allowing software developers to present their new products, while the actual transactions were consummated in the "real world," either through direct purchase of the product at a local brick-and-mortar store or by mail or telephone order.[22] The products were then delivered to the customer via various magnetic media, some now obsolete, such as floppy discs and compact discs.[23] Later on, as computer networks expanded even further, the speed of data communication increased, and

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19. *See* Rolf T. Wigand, *Electronic Commerce: Definition, Theory and Context*, 13 INFO. SOC'Y 1, 3 (1997).

20. The Internal Revenue Code defines the term "computer software" as a "program designed to cause a computer to perform a desired function." I.R.C. § 197(e)(3)(B) (2006). The regulations promulgated under this section include a more extensive definition, under which computer software is "any program or routine (that is, any sequence of machine-readable code) that is designed to cause a computer to perform a desired function or set of functions, and the documentation required to describe and maintain that program or routine." Treas. Reg. § 197-2(c)(4)(iv) (2012). Treasury Regulations § 1.861-18, which govern the classification of software transactions for federal tax purposes, refer instead to the term "computer program," which is defined as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." *Id.* § 1.861-18(a)(3).

21. Wigand, *supra* note 19, at 1-3.

22. *Id.* at 1.

23. *Id.*

data-security technologies developed, the Internet went from being a mere display case to being a more comprehensive electronic platform through which commercial transactions could take place from start to finish.

A second line of business affected by the Internet revolution was that of electronic commerce (e-commerce) beyond the software industry. Though the term "electronic commerce"[24] has been in use since roughly 1994,[25] it has no standard universal definition.[26] Some sources interpret the term widely to encompass business transactions conducted via various electronic media such as the World Wide Web, electronic messaging, electronic mail, facsimile, etc.[27] Other sources employ a narrower definition that limits e-commerce to the buying and selling of goods and services on the Internet.[28] The myriad definitions of e-commerce (including institutional definitions that have themselves changed over time)[29] suggest that the term is still vague or "dynamic" at best.[30] Still, it is clear that the common denominator in all efforts to define the scope of e-commerce is that of trade in goods and the

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24. Going forward, I will refer to electronic commerce using the common abbreviation—e-commerce.

25. SUBHAJIT BASU, GLOBAL PERSPECTIVES ON E-COMMERCE TAXATION LAW 14 (2007). *But see* Wigand, *supra* note 19, at 1 (stating that the concept of e-commerce entered the business world in the 1970s). As will be described, the varying definitions of the term and its indefinite scope make it ambiguous.

26. DALE PINTO, E-COMMERCE AND SOURCE-BASED INCOME TAXATION 1 (2003).

27. *See, e.g.*, 41 U.S.C. § 2301 (2006) (including a definition of electronic commerce for purposes of the U.S. Federal Government Electronic Procurement Initiative); *see also* 12 C.F.R. § 609.925 (2013) (providing a definition for purposes of the banking title of the Code).

28. AUSTL. TAXATION OFFICE, TAX AND THE INTERNET: DISCUSSION REPORT OF THE AUSTRALIAN TAXATION OFFICE ELECTRONIC COMMERCE PROJECT TEAM ON THE CHALLENGES OF ELECTRONIC COMMERCE FOR TAX ADMINISTRATION 8 (1997), *available at* http://www.cse.buffalo.edu/DBGROUP/nov6_taxinte.pdf; *cf.* OFFICE OF TECH. & ELEC. COMMERCE, INT'L TRADE ADMIN., U.S. DEP'T OF COMMERCE, 2009 ELECTRONIC COMMERCE INDUSTRY ASSESSMENT 1 (2009), *available at* http://web.ita.doc.gov/ITI/itiHome.nsf/0657865ce57c168185256cdb007a1f3a/3771d41ba49c5cba852577440056dcd4?OpenDocument (defining e-commerce as the "goods and services sold online whether over open networks, such as the Internet, or over proprietary networks, such as electric data interchange (EDI)").

29. *Compare Glossary of Statistical Terms*, OECD.STAT EXTRACTS, http://stats.oecd.org/glossary/detail.asp?ID=4721 (last visited Oct. 2, 2013) (defining e-commerce as commercial transactions occurring over open networks, such as the Internet), *with* OECD, OECD SCIENCE, TECHNOLOGY AND INDUSTRY SCOREBOARD 2011, at 184 (2011), *available at* http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-industry-scoreboard-2011_sti_scoreboard-2011-en (providing an updated and much more detailed definition of the term in the OECD).

30. BASU, *supra* note 25, at 16.

provision of services over the Internet (including both business-to-business and business-to-customer transactions).[31]

The economic magnitude of e-commerce has grown exponentially over the years. In 1995, both Amazon.com, an online-only bookstore, and eBay, an online auction Web site, were launched.[32] In 1996, Dell, Inc., was the first computer manufacturer to reach a million dollars per day in online sales.[33] In 1998, Chinese investors launched what has become the largest online business-to-business trading platform (Alibaba.com),[34] and in 1998, PayPal, Inc., launched an e-commerce payment service.[35] In 2003, Amazon.com reported its first annual net profit with over $5 billion in sales,[36] and nine years later, Amazon.com reported annual sales of more than $61 billion.[37] These are not random events, but instead a reflection of a global phenomenon that has changed both the way people do business with each other and the way people consume products and services. The magnitude of e-commerce is reflected in the industry's key statistics: since the year 2000, the share of e-commerce as a percentage of total retail sales in the United States has increased eightfold.[38] This data also demonstrates the increasing popularity of e-commerce retail, with sales that have increased in the

31. BJÖRN WESTBERG, CROSS-BORDER TAXATION OF E-COMMERCE 6 (2002); OFFICE OF TECH. & ELEC. COMMERCE, *supra* note 28, at 1.

32. *Amazon Investor Relations: FAQs*, AMAZON, http://phx.corporate-ir.net/phoenix.zhtml?c=97664&p=irol-faq (last visited Oct. 2, 2013); *History*, EBAY, http://legacy.ebayinc.com/history (last visited Oct. 2, 2013).

33. *Winning World Wide and on the Web*, DELL, http://content.dell.com/us/en/corp/company-timeline-winning-on-the-worldwide-web.aspx (last visited Oct. 3, 2013).

34. *See* Linda Sau-ling Lai, *Chinese Entrepreneurship in the Internet Age: Lessons from Alibaba.com*, 48 WORLD ACAD. SCI. ENG'G & TECH. 405, 407 (2010), *available at* http://www.waset.org/journals/waset/v48/v48-79.pdf.

35. *See History of PayPal*, PAYPAL, https://www.paypal-media.com/history (last visited Oct. 3, 2013).

36. Amazon.com, Inc., Annual Report (Form 10-K) (Feb. 25, 2004), *available at* http://www.sec.gov/Archives/edgar/data/1109740/000095012404001024/k83729e10vkza.txt.

37. Amazon.com, Inc., Annual Report (Form 10-K) (Apr. 12, 2013), *available at* http://phx.corporate-ir.net/phoenix.zhtml?c=97664&p=irol-reportsAnnual.

38. In 1999, e-commerce sales accounted for 0.64% of total U.S. retail sales. Press Release, U.S. Department of Commerce News, Retail E-Commerce Sales for the Fourth Quarter 1999 Reach $5.3 Billion, Census Bureau Reports (Mar. 2, 2000), *available at* http://www2.census.gov/retail/releases/historical/ecomm/99q4.pdf. By the end of the third quarter of 2012, it has accounted for 5.2%. Press Release, U.S. Census Bureau News, Quarterly Retail E-Commerce Sales: 3rd Quarter 2012 (Nov. 16, 2012), http://www2.census.gov/retail/releases/historical/ecomm/12q3.pdf. While this still seems to be a low percentage of total retail sales, there are several categories of products that are predominantly e-commerce-based. Fifty percent of sales of personal computers and 15% of sales of electronics, books, and videos are conducted via e-commerce, and the percentages are increasing. Jeffrey Grau, *US Retail Ecommerce Forecast: Entering the Age of Omnichannel Retailing*, EMARKETER (2012), http://totalaccess.emarketer.com/Reports/Viewer.aspx?R=2000883 (login required to access).

third quarter of 2012 by more than 17% compared to the same quarter in 2011 (while total "conventional" retail sales increased by less than 5% during the same period).[39] Manufacturing and wholesale e-commerce activities were even more significant: the former accounted for 46.4% of all manufacturing shipments in 2010, and the latter, 24.6% of the total wholesale market sales that year.[40] These figures explain how it was possible for e-commerce to grow faster than the total of U.S. economic activity in 2010.[41] The picture that these numbers paint is clear: e-commerce is gradually becoming a significant factor in the world economy and turning into a major source of revenue for manufacturers, wholesalers, retailers, and service providers all over the world. With new computer and communications technologies emerging daily, and with Internet accessibility rising exponentially around the world,[42] the market share of e-commerce, as well as its contribution to overall economic growth, are only expected to rise.[43]

Though it is clear that the effects of e-commerce on the economic balance have been substantial, there is one other type of Internet-based revenue generator that has turned out to be a major player in the digital market: online advertising.[44] The expansion of Internet use around the world, increasing e-commerce activity, and the vast amount of information contained throughout the World Wide Web have given rise to a flourishing Internet-based advertising industry.[45] It can be seen all over the Internet: banner advertisements on news Web sites, text advertisements alongside search results, video commercials during Web broadcasts, and even advertisements embedded in computer games.

39. Press Release, U.S. Census Bureau News, *supra* note 38.

40. *E-Stats*, U.S. CENSUS BUREAU (May 10, 2012), http://www.census.gov/econ/estats/2010/2010reportfinal.pdf.

41. *Id.*

42. According to World Bank data, in the year 2011 alone there was an increase of 11% compared to the previous year in the number of Internet users around the world, continuing an eighteen-year streak of double-digit annual growth and closing a five-year annual average of more than 13%. Developing countries and low-income countries showed the highest rates of increase. *Internet Users (per 100 People)*, WORLD BANK http://data.worldbank.org/indicator/IT.NET.USER.P2 (last visited Oct. 2, 2013).

43. *See* Neil F. Doherty & Fiona Ellis-Chadwick, *Internet Retailing: The Past, the Present and the Future*, 38 INT'L. J. RETAIL & DISTRIB. MGMT. 943, 955 (2010).

44. The WTO is one of the only major institutions that include advertising of products within the definition of electronic commerce. According to its definition, electronic commerce is "[t]he production, advertising, sale and distribution of products via telecommunications networks." *Glossary Term: Electronic Commerce*, WTO, http://www.wto.org/english/thewto_e/glossary_e/electronic_commerce_e.htm (last visited Oct. 2, 2013). For purposes of this Article, I will distinguish "online" advertising from "e-commerce" based on the criteria and analysis presented herein.

45. *Internet Users (per 100 People)*, *supra* note 42.

Revenue from online advertising in the United States alone has totaled $36.6 billion in the year 2012,[46] and has increased by 16% during the first quarter of 2013 compared to the figures reported in the first quarter of 2012.[47]

These statistics represent a continuous double-digit yearly rise in Internet advertising revenue over the past decade (with the exceptions of the latest economic crisis and the dot-com bubble).[48] The global Internet advertising market displays similar results: in 2012, the worldwide online advertising revenue increased by 17.8% from the previous year (compared to only a 5.4% increase in the total worldwide advertising market's revenues that year).[49] This double-digit annual growth rate is expected to persist until 2016.[50]

IV. THE BASICS OF INTERNET-BASED ADVERTISING

The two leading types of Internet advertising are search ads and display ads.[51] Search ad advertising requires advertisers to bid on search keywords, ultimately placing their ad in a low or high position (depending on that bid) in the user's search results.[52] This specific type of advertising is the main source of income for companies like Google and Yahoo!, which rely heavily on income from advertising on their search engines.[53] Display ads, on the other hand, are usually in the form of banners, which advertisers pay to have posted on various Web pages.[54]

One interesting aspect of Internet-based advertising relates to the various pricing models that exist in the field. The classic model, which

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46. INTERACTIVE ADVER. BUREAU, IAB INTERNET ADVERTISING REVENUE REPORT: 2012 FULL YEAR RESULTS 4 (Apr. 2013), *available at* http://www.iab.net/media/file/IABInternet AdvertisingRevenueReportFY2012POSTED.pdf.

47. Press Release, Interactive Adver. Bureau, First Quarter 2013 Internet Ad Revenues Set New High, at $9.6 Billion (June 3, 2013), *available at* http://www.iab.net/about_the_iab/ recent_press_releases/press_release_archive/press_release/pr-060313.

48. INTERACTIVE ADVER. BUREAU, *supra* note 46, at 10.

49. Alison McCarthy, *Worldwide Ad Spending Forecast: Emerging Markets, Mobile Provide Opportunities for Growth*, EMARKETER (Jan. 2013), http://totalaccess.emarketer.com/ GetFile.aspx?type=re&code=emarketer_2001049 (subscription required).

50. *Id.* at 3.

51. Other types include classified ads, electronic mail advertisements, and referrals. OECD, OECD INFORMATION TECHNOLOGY OUTLOOK 2008, at 275 (2008), *available at* http:// www.oecd-ilibrary.org/docserver/download/9308041e.pdf?expires=1382041393&id=id&acc name=ocid45123324&checksum=A0A3063CF3CAFB870451B003426869E5. The word "ad" is a common abbreviation for the word advertisement, and it is used to describe online advertisements in particular. ALAN CHARLESWORTH, KEY CONCEPTS IN E-COMMERCE 3 (2007). In this Article, I will use the words "ad" and "advertisement" interchangeably.

52. OECD, *supra* note 51, at 278.

53. *Id.* at 274-75.

54. *Id.*

has been in use for many years, is the Cost-Per-Mille (CPM) (cost-per-thousand views or cost-per-impression).[55] According to this model, clients pay based on the degree of exposure that users have to their ads, and respectively, the online publisher (the owner of the Web site on which the ad is displayed) generates income every time a user views the ad.[56]

The other two prevailing pricing models are performance-based, which generally means that income is generated only when a user reacts to an advertisement with a measurable action.[57] The first, the Cost-Per-Click (CPC) method, generates income whenever a user clicks on the ad (as opposed to simply viewing it).[58] Under the second, the Cost-Per-Action (CPA) method, neither viewing nor clicking is sufficient. Instead, under the CPA model, income is generated only when the user takes an action that benefits the advertising client, such as purchasing a product, registering for a service, filling out a survey, clicking the "like" button on a Facebook page, etc.[59]

The market's preference with respect to usage of the different models is clear: in the year 2012, 66% of U.S. Internet advertising was performance-based (either CPC or CPA).[60] A quick look at the industry leaders' financial results indicates the same. For example, most of Google's income from AdWords (its auction-based advertising platform) is generated based on a Pay-Per-Click model.[61] The model is also implemented by Facebook and Bing Ads, Microsoft's advertising system.[62]

The latest development in the field of online advertising is known as "behaviorally targeted advertising."[63] As use of the Internet became more widespread and new technologies were developed, it became increasingly possible for Internet search engines and Web-site operators to track online user behavior, subsequently presenting users with "tailor-

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55. *Id.* at 275.
56. *Id.* at 103. The count is done by units of one thousand in order to simplify tracking and payments.
57. *Id.*
58. *Id.*
59. *Id.*
60. INTERACTIVE ADVER. BUREAU, *supra* note 46, at 18.
61. Google, Inc., Annual Report (Form 10-K) (Dec. 31, 2012), *available at* http://www.sec.gov/Archives/edgar/data/1288776/000119312513028362/d452134d10k.htm.
62. *See Campaign Cost & Budgeting*, FACEBOOK, http://www.facebook.com/help/318171828273417/ (last visited Oct. 2, 2013); *What Is Pay-Per-Click*, MICROSOFT.COM, http://advertise.bingads.microsoft.com/en-us/help-topic/how-to/moonshot_conc_whatisppc.htm/what-is-pay-per-click-ppc-advertising (last visited Nov. 12, 2013).
63. OECD, *supra* note 51, at 274.

made" advertisements in accordance with their specific interests and characteristics.[64] For example, based on previous usage records, a search engine can determine, with reasonable likelihood, that when a specific user is searching for the word "doors" he is looking for information on the 1960s American rock band, rather than for details on where to purchase a new door for his home. Consequently, the advertiser can present that user with a much more suitable ad, thus increasing the ad's effectiveness and the chances that the user will click on it or act upon it. This type of online advertising is already in use by the major players in the e-commerce market. Google introduced its behaviorally targeted ad program in early 2009,[65] and Facebook's business plan relies heavily on the value it creates for advertisers by allowing them to select relevant and focused audiences for their ads, based on Facebook users' personal information and specific interests.[66] While this type of advertising raises many concerns about user privacy,[67] it is nonetheless expected to become a leading trend in the online advertising market.[68]

As clearly demonstrated by the data presented above, as well as by the undeniably positive reputations and strong financial reporting of the market leaders, there is no question that online advertising will play a central role in the twenty-first-century global economy.

V. DISTINGUISHING ONLINE ADVERTISING

Online advertising has some unique characteristics that set it apart from both the software and e-commerce businesses, at least with respect to taxation. More specifically, three distinguishing factors stand out in such a comparison: (1) the effect of the income-generating activity on

64. *Id.*
65. Kurt Opsahl, *Google Begins Behavioral Targeting Ad Program*, ELECTRONIC FRONTIER FOUND. (Mar. 11, 2009), https://www.eff.org/deeplinks/2009/03/google-begins-behavioral-targeting-ad-program.
66. Facebook, Inc., Amendment No. 3 to Form S-1 Registration Statement (Mar. 27, 2013), *available at* http://www.sec.gov/Archives/edgar/data/1326801/000119312512134663/d287954ds1a.htm.
67. *See generally* Avi Goldfarb & Catherine Tucker, *Online Display Advertising: Targeting and Obtrusiveness*, 30 MARKETING SCI. 389 (2011); Bennet Kelley, *Privacy and Online Behavioral Advertising*, 11 J. INTERNET L. 24 (2007).
68. *See* David Hallerman, *Emarketer, Audience Ad Targeting: Data and Privacy Issues*, EMARKETER (2010), http://totalaccess.emarketer.com/GetFile.aspx?type=re&code=emarketer_2000636 (subscription required) (predicting that the double-digit growth rate of behaviorally targeted advertising spending in recent years is expected to continue well into 2014); *US Local Digital Ad Spending Share*, EMARKETER (2013), http://totalaccess.emarketer.com.proxy.lib.umich.edu/Chart.aspx?R=131337&dsNav=Ro:1,N:791 (indicating that in 2013, targeted display ads were estimated to be responsible for the largest portion of online advertising spending in the U.S. over other online advertising formats).

the physical world—what I call the "physical fingerprint," (2) the parties involved in the transaction, and (3) the revenue-generating factor. I shall discuss these factors one by one.

(1) *The physical fingerprint*: As mentioned, traditional means of trade and commerce have generally had a common denominator: they have all been bound by the physicality of our world. Trading in property or providing services, especially in the international context, traditionally required overcoming geographical borders and obstacles, as well as political and man-made barriers and jurisdictional lines. Internet-based activities defy this ancient axiom. In the modern software business, though the parties to a transaction often sit on opposite sides of the planet, as more and more software products become available for delivery in a digital format (i.e., "downloaded" software), the order, payment, and delivery of the product can all be processed online. The same applies to the online advertising business model: text ads and banners are nothing but a combination of data bits, usually automatically generated by complex algorithms that match an ad to the specific characteristics of a given user.[69] Income is generated by the click of a button, and in some cases even without a click (in CMP models).

E-commerce, in contrast, is by nature often still required to overcome physical barriers and constraints. When it comes to trade in tangible property, for example, even if purchase and payment are processed online, the seller will eventually have to physically deliver the goods to the customer.[70] The same applies to many types of services offered for purchase online, which are eventually also performed in a specific physical location.[71] While there are certain intangibles (such as a copyrighted digital photograph) and certain services (such as data processing) that might not leave any physical impression, trade of such goods constitutes only a minor part of overall e-commerce activity.[72]

One possible critique of this distinction may be that all forms of online activity require the physical use of computers by end-users as well as the physical presence of computer servers all over the world. The physical fingerprint characteristic is not, however, aimed at identifying meta-physical activities, but rather at pointing out those cross-

69. OECD, *supra* note 51, at 274.

70. *Id.* at 251.

71. There are types of services that can be provided from a distant location, especially of the advisory kind, such as legal and medical advice, business consulting, and the like, yet these usually also leave a "physical finger print" because they are not (yet) provided by automated machines, but rather by persons performing the service in a distant, yet very physical, location.

72. OECD, *supra* note 51, at 269. For example, in the film industry, digital download sales are much smaller than traditional DVD and other tangible film sales.

jurisdictional transactions that are more or less burdened by physical aspects of revenue generation. Further, the lack of a physical fingerprint is but one of several factors (described below), which, when combined, are used as a litmus test to identify those Internet-based revenue activities that have the most mobility, flexibility, speed, and automation. The activities identified thus have the most potential ultimately to be free of and unaffected by physical borders and jurisdictional confines altogether (and thus raise interesting tax-related issues), even if their underlying mechanics (servers and computers) remain physical in nature.

(2) *The parties to the transaction*: In the context of e-commerce, whether it is the sale of a software program, the sale of tangibles or intangibles, or the provision of services, a transaction in its classic form will include two parties: the seller/provider of the goods/services and the buyer/receiver of the goods/services.[73] Though there are also transactions that involve multiple parties, in most cases such transactions are comprised of a series of two-sided transactions (for example, a three-corner exchange transaction includes a sale of asset *X* from party *A* to party *B*, and a subsequent exchange of asset *X* for asset *Y* between parties *B* and *C*). In these classic cases, revenue is generated when one party to the transaction pays (or has a duty to pay) the other party for goods or services provided by the other party. With online advertising, that is not the case, as revenue is instead generated based on a triangular scheme, which involves the publisher, the advertiser, and the user. Such multiparty transactions cannot be broken down into two separate two-sided revenue-generating transactions because the third party (the user) cannot be seen as a party to a transaction with either the publisher or the advertising client. Going from two to three participants in any transaction will naturally create complexities that are nonexistent in a two-party interaction. When combining this feature with the aforementioned lack of a physical fingerprint, we start to get some sense of the tax difficulties and problems this type of activity might create.

(3) *The revenue-generating factor*: In the case of the software and e-commerce businesses, revenue is generated as a result of the sale of goods, the provision of a service, or the use of intellectual property (in the case of royalties); it is owed by the party that either received the property/service or made use of the asset. In other words, generally speaking, the acts of the party providing the goods/services are those that

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73. Not surprisingly, this type of "arm's-length transaction" is defined as "a transaction between *two* unrelated and unaffiliated parties; a transaction between *two* parties, however closely related." BLACK'S LAW DICTIONARY, *supra* note 1, at 1635 (emphasis added).

generate the revenue. It is then owed to the providing party by the receiving party.

This is not the case in the three-party model of online advertising. According to this model, one party (the publisher) provides end-users with (usually free) access to a virtual platform, which meets a certain need of the end-users (searching the Internet, creating social or professional connections, etc.).[74] The more popular that platform is, the more it attracts clients wishing to advertise, who in turn constitute the third flank of this triangular transaction. Unlike in the software and e-commerce contexts, the revenue here is not generated by the sale of a product or provision of a service by the payee (publisher) to the payor (advertiser). Revenue here is only created if and when the end-user, who is neither earning the revenue nor paying for it, has acted in a way that triggers the recognition of income (i.e., viewed a certain Web page, clicked on a sponsored ad, or otherwise acted upon an ad).[75]

VI. INTERIM SUMMARY

By this point, it is clear that with online advertising we face a new and unique revenue-generating model. The growing accessibility to the Internet around the world, the double-digit growth rate of online advertising's share of the global advertising market, and the increasingly strong financial reports of the major players in this market suggest that online advertising is merely in its infancy.[76] The unique characteristics of this new type of economic activity undermine the traditional boundaries imposed on cross-border income-generating transactions, which for centuries have served to define and limit the world of commerce. Online advertising is completely unbounded by any such physical or jurisdictional borders and further involves a multiparty transaction in which the active revenue-generating party is neither the payee nor the payor. When this type of activity takes place in a multijurisdictional context (be it at the international or domestic level), it gives rise to interesting questions regarding taxation of the income it generates. The source of such income, its character, its effect on the U.S. tax system, and

74. OECD, *supra* note 51, at 275.

75. *Id.*

76. *See, e.g.*, Jolie O'Dell, *Twitter's Revenue, Still in Its Infancy, Projected at $1B by 2016*, VENTUREBEAT (Oct. 4, 2011, 11:46 AM), http://venturebeat.com/2011/10/04/twitter-revenue-projection; Chris Dannen, *Why Social Networking Is Still in Its Infancy*, CBS NEWS (Nov. 22, 2010, 7:52 PM), http://www.cbsnews.com/8301-505124_162-42340694/why-social-networking-is-still-in-its-infancy; Michael J. Miller, *Google: Search Is Still in Its Infancy*, PCMAG.COM (July 23, 2010, 4:46 PM), http://forwardthinking.pcmag.com/internet/282534-google-search-is-still-in-its-infancy (last visited Oct. 2, 2013).

its impact on the complex web of bilateral tax treaties are only some of the issues that should be discussed with respect to income of this sort. Because the scope of this Article is limited, the following chapter will discuss only one of these questions—that of determining the source of the income for tax purposes.

VII. DETERMINING THE SOURCE OF INCOME

An important first step is to acknowledge that a discussion of the tax ramifications of income from online advertising, separate and distinct from the discussion of taxation of e-commerce or software activities, is in order. Income from online advertising bears unique characteristics that distinguish it from income that is derived from software activities or e-commerce, and this distinction itself merits a separate discussion. The software and e-commerce lines of business have received much attention from legislators, international financial institutions, academia, and practitioners alike. The discourse and writing surrounding these sources of income has been extensive.[77] In contrast, in-depth writing and analysis of the tax implications of income from online advertising (as an example of the challenges that local and international taxation will face as new twenty-first century forms of income gradually develop) has been sparse.[78] I believe this new source of income is only the first of many more unique sources that will emerge in the near future. Even today, we already engage in many activities, such as cloud computing,[79] space activities,[80] and other commerce that are conducted in borderless

77. *See* BASU, *supra* note 25 (on the tax implications of electronic commerce); PINTO, *supra* note 26; WESTBERG, *supra* note 31; Reuven S. Avi-Yonah, *International Taxation of Electronic Commerce*, 52 TAX L. REV. 507 (1997); Robert Wasserman, *International Tax Consequences of Electronic Commerce*, UCLA J.L. & TECH. (1998); William Lee Andrews III, *A Platform for International E-Commerce Tax Rules*, 12 J. INT'L TAX 44 (2001); Oleksandr Pastukhov, *International Taxation of Income Derived from Electronic Commerce: Current Problems and Possible Solutions*, 12 B.U. J. SCI. & TECH. L. 310 (2006); *see also* Jonathan Purcell, *Taxation of International Computer Software Transactions Under Regulation 1.861-18*, 22 HASTINGS COMM. & ENT. L.J. 325 (2000) (on the subject of taxation of software transactions); Michael J.A. Karlin & Bradley A. Smith, *On-Line Off Base: The Computer Program Final Regulations Miss an Opportunity*, 10 J. INT'L TAX'N 8 (1999) (discussing the taxation of software transactions).

78. The OECD, for example, mentions income from online advertising only in a minor, one-paragraph remark as part of its broader discussion of e-commerce characterization issues. 2 OECD, MODEL TAX CONVENTION ON INCOME AND ON CAPITAL, at R(18)-32 (2008).

79. *See* Borko Furht, *Cloud Computing Fundamentals*, *in* HANDBOOK OF CLOUD COMPUTING 3 (Borko Furht & Armando Escalante eds., 2010) (explaining cloud computing).

80. The Code already includes a source rule for income from space activity. The rule is actually a residency-based one. Under this rule, the income is sourced within or without the United States based on the residency of the person deriving it. I.R.C. § 863(d)(1) (2006). This is

environments. These activities, which were once considered science-fiction, now challenge the traditional rules and terminology of taxation. Because history has proven that technology tends to develop faster than the quickest legislator can enact, a serious in-depth discussion of the influence that futuristic activities might have on the U.S. and international tax regimes is imperative. As previously mentioned, this Article is limited in scope, and thus will address only the issue of source, out of many important questions on the matter.

Before delving into this question, however, it is first necessary to review some basic concepts related to source-based taxation and explain why the specific source of income is an important issue.

A. What Is Source-Based Taxation?

One of the basic foundations of taxation of cross-border transactions is the notion of "jurisdiction to tax." According to this principle, a country has a right, as a matter of customary international law,[81] to tax income that is economically related to it. Traditionally, the connection between the state and the income is based on one of two criteria: nationality or territoriality (i.e., location within territorial borders).[82] While nationality is usually referred to as citizenship, almost all of the countries in the world (with the exception of the United States) have adopted a wider definition of nationality for tax purposes, that of residency.[83] In accordance with this expanded definition, a relationship between the state and the income can be created even if the individual or entity producing the income is not a citizen of the state but merely resides in it.[84] These varying definitions have resulted in the development of two types of national tax regimes: territorial and residency-based.[85] These concepts originated in a report submitted to the League of Nations

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a nonsubstantive source rule, which demonstrates the lack of serious discussion with respect to the sourcing of borderless income. *Id.*

81. REUVEN S. AVI-YONAH, INTERNATIONAL TAX AS INTERNATIONAL LAW: AN ANALYSIS OF THE INTERNATIONAL TAX REGIME 22, 27 (2007).

82. *Id.* at 23.

83. *Id.*

84. An individual's residency is usually determined using an objective technical test (which measures the number of days during a given tax year during which that person was present in a given country), a subjective economic test (which attempts to locate the person's center of vital economic and social interests), or a combination of the two. *Id.*

85. *Id.* at 26.

in 1923 by a group of four economists,[86] laying out the foundation of modern international taxation.[87]

Under the territorial taxation system (also referred to as the source-based approach), a country imposes taxes on all economic activity that originates within its borders, regardless of whether it is generated by its residents or by nonresidents.[88] The 1923 Report on Double Taxation defined the "origin" of income as "the place where the wealth is produced, that is, to the community the economic life of which makes possible the yield or the acquisition of the wealth."[89]

Under a residency-based taxation system, a country only imposes taxes on income derived by its residents ("resident" as defined for tax purposes, which may vary from other nontax definitions of the term), without regard to whether or not the physical location of origin of the income is within the territorial borders of the country.[90] While the territorial system is applied by asking the question "[w]here is the yield physically or economically produced,"[91] the residency-based system is applied by asking "[w]here is the wealth spent or consumed or otherwise disposed of,"[92] i.e., of which country is the person consuming the income a resident?

Many countries have adopted a tax system that combines both territorial and residency principles. For example, the United States has adopted a residency-based principle with respect to income derived by its residents[93] and a territorial principle with respect to income derived by nonresidents. Accordingly, U.S. residents are taxed by the United States on income derived worldwide, while non-U.S. residents are taxed by the United States only on income derived from sources within the United States.[94] Other countries (including Canada, Japan, and the United Kingdom) have adopted a different mix of territorial and residency-based systems with respect to their residents.[95] Under such tax systems, certain

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86. LEAGUE OF NATIONS ECON. & FIN. COMM'N, REPORT ON DOUBLE TAXATION 22-26 (1923) [hereinafter 1923 REPORT ON DOUBLE TAXATION].

87. REUVEN S. AVI-YONAH, DIANE M. RING & YARIV BRAUNER, U.S. INTERNATIONAL TAXATION: CASES AND MATERIALS 2 (3d ed. 2011).

88. *Id.*; *see* AVI-YONAH, *supra* note 81, at 26.

89. 1923 REPORT ON DOUBLE TAXATION, *supra* note 86, at 23.

90. *Id.* at 25.

91. *Id.*

92. *Id.*

93. For purposes of simplification, the term "U.S. residents" in this Article refers to U.S. citizens, resident aliens, and domestic U.S. corporations, all of which are taxed as U.S. residents under the Code. *See* I.R.C. § 7701(a)(30), (b) (2006).

94. CHARLES H. GUSTAFSON, ROBERT J. PERONI & RICHARD CRAWFORD PUGH, TAXATION OF INTERNATIONAL TRANSACTIONS: MATERIALS, TEXT AND PROBLEMS 19-20 (4th ed. 2011).

95. *Id.*

types of income generated by a resident from foreign sources are exempt (based on the territorial principle), while other types of income, usually passive income, are taxed based on the residency principle.[96] Interestingly, there are currently two competing tax-reform proposals in the United States, both of which suggest, in one form or another, that principles of territoriality should be applied to U.S. residents as well.[97]

B. Why Does It Matter?

Why exactly do we need to define the source of any given income? What difference does it make to the taxation of international transactions? Understanding the basic operation of source-based taxation, the answer is almost self-explanatory. Once a country applies a source-based taxation system to either its residents or nonresidents (or both), it has to establish rules to determine when income is to be considered generated (or "sourced") within its territorial borders and subsequently taxed, and when it is not.

Theoretically speaking, if all countries in the world had adopted a completely residency-based taxation system that applied to residents and nonresidents alike, there would be no need for source rules, rendering the source question superfluous. In such a (highly unlikely) world, every country would tax its own residents on all of their income, regardless of the source of the income.[98] This position is advocated by some economists, who claim that pinpointing the exact source of income is impossible, because there is no universal definition that can locate the source of any given income.[99] According to such a position, most types of income have more than one source, and therefore attempting to attribute income to a single origin is both economically inappropriate and distorting.[100] Proponents of this position instead support the view

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96. *Id.*

97. *Compare* THE WHITE HOUSE & THE DEP'T OF THE TREASURY, THE PRESIDENT'S FRAMEWORK FOR BUSINESS TAX REFORM (Feb. 2012), *available at* http://www.treasury.gov/resource-center/tax-policy/Documents/The-Presidents-Framework-for-Business-Tax-Reform-02-22-2012.pdf, *with* COMM. ON WAYS AND MEANS, TECHNICAL EXPLANATION OF THE WAYS AND MEANS DISCUSSION DRAFT PROVISIONS TO ESTABLISH A PARTICIPATION EXEMPTION SYSTEM FOR THE TAXATION OF FOREIGN INCOME 3 (Oct. 26, 2011), *available at* http://waysandmeans.house.gov/uploadedfiles/final_te_--_ways_and_means_participation_exemption_discussion_draft.pdf.

98. This would require a different set of rules for determining residency, especially in the context of tax treaties, in order to prevent double taxation in the event that more than one country considers a given person to be a resident according to the domestic tax law of each of these countries. *See* AVI-YONAH, *supra* note 81, at 38.

99. *Id.*

100. This argument was purported by economists such as David Bradford. *See* DAVID F. BRADFORD, BLUEPRINTS FOR BASIC TAX REFORM 89-91 (1984).

presented above, stating that as a matter of international tax law, only residency-based taxation should be used.[101] However, the practical implementation of such a fundamental change in international tax policy is effectively impossible. First, it would require rare and unlikely global coordination (there is no motivation for one country to move to a residency-based taxation system for nonresidents if its own residents are still taxed by foreign countries that choose not to make the transition).[102] Second, as phrased so aptly by Louisiana Senator Russell B. Long, a basic tenet of tax politics is, "Don't tax you, don't tax me, tax that fellow behind the tree!"[103] Governments like to tax nonresidents because they are "easy prey"—they do not vote locally, and therefore they can easily be taxed without risking loss of electoral power.[104] Furthermore, for the taxation of nonresidents, governments need to have a source-based system of taxation in addition to developing rules for determining the source of income.

Delving into the Internal Revenue Code (Code), we can identify several explanations of the importance of source rules in the context of the U.S. tax regime.

1. *Foreign Residents*: The U.S. source rules play an important role in determining the applicability of the U.S. tax system to the income of foreign residents. Nonresident aliens,[105] foreign corporations, and certain types of trusts and estates ("foreign persons") are subject to U.S. taxation on the income they derive from U.S. sources and on certain foreign-source income that is effectively connected to a U.S. trade or business, but not on other types of foreign income.[106] Thus, the source rules play a significant role in determining how much income generated by foreign persons will be subject to U.S. taxation. Foreign persons' U.S.-sourced nonbusiness "fixed or determinable, annual or periodical" (FDAP) income, which is not effectively connected with a U.S. trade or

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101. *Id.*

102. This is a classic example of a game-theory coordination conundrum, in which all players can increase their benefit with a coordinated decision, but if such coordination is or seems impossible, each player will be reluctant to act alone, because the result of his lone action would do him more harm than good. *See* ROGER B. MYERSON, GAME THEORY: ANALYSIS OF CONFLICT (1991).

103. ROBERT MANN, LEGACY TO POWER: SENATOR RUSSELL LONG OF LOUISIANA 333 (2003).

104. *See* AVI-YONAH, *supra* note 81, at 39.

105. Generally speaking, the term "nonresident aliens" refers to individuals who are non-U.S. residents for U.S. federal tax purposes. *See* I.R.C. § 7701(b)(a)(B) (2006) (providing the exact definition).

106. *Id.* §§ 872(b), 882(a).

business, is subject (on a gross basis) to a 30% withholding.[107] This tax rate also applies to capital gains generated by certain foreign individuals from sources within the United States (but that is not effectively connected to a U.S. trade or business).[108] Additionally, foreign persons' U.S.-sourced income that is effectively connected to a U.S trade or business is subject, on a net basis, to U.S tax at the regular rates.[109] Lastly, foreign individuals and corporations are subject to a 4% tax on any gross transportation income derived from U.S. sources.[110] The above clearly demonstrates that source rules are necessary in order to determine the amount of a foreign person's taxable income in the United States.

2. *U.S. Residents*: Because the income of U.S. residents is subject to tax on a global basis, one would imagine that source rules would have no relevance to them. Not only is this conclusion incorrect, but the contrary is true: source rules play a vital role in determining some of the most important items on a U.S. resident's tax return. Because the United States taxes its residents' global income, double taxation is inevitable (their foreign income will likely be taxed by other sourced-based jurisdictions, as well). In order to mitigate this problem, the United States has adopted a foreign tax credit system.[111] To put it simply, because the subject is considered to be one of the more complex ones in the Code, the United States allows certain foreign taxes paid to be credited against U.S. tax liability.[112] However, this credit is not without its limitations.[113] Defining it broadly, the foreign tax credit amount is limited to the amount of U.S. taxes that would have been owed on the foreign-sourced income.[114] Because the foreign tax credit is used to offset U.S. tax liability, taxpayers have an incentive to classify their income as foreign-sourced, thus increasing their foreign tax credit allowance and further reducing their U.S. tax liability.[115] The source of the income plays

107. *Id.* §§ 871(a), 881.

108. *Id.* § 871(a)(2).

109. *Id.* §§ 8872, 882.

110. *Id.* § 887.

111. Another common method for resolving the double taxation problem is the exemption method. For a short description of both the credit and the exemption methods, see article 23 in the OECD Model Tax Convention and the accompanying commentary notes. 1 OECD, MODEL TAX CONVENTION ON INCOME AND ON CAPITAL, at C(23)-1 (2008).

112. I.R.C. § 901; *see also* AVI-YONAH ET AL., *supra* note 87, at 360 (providing a detailed explanation of the mechanics of the foreign tax credit system).

113. I.R.C. § 904.

114. JOEL D. KUNTZ & ROBERT J. PERONI, U.S. INTERNATIONAL TAXATION, at A2-7 (2005 as supplemented in 2011).

115. *See id.*

a major role in their tax planning considerations.[116] The sourcing of deductions shares the same importance, and U.S. taxpayers often make it their goal to have as many of their deductions sourced within the United States as possible in order not to reduce their foreign source credit allowance.

The second important aspect of source rules for U.S. residents has to do with the antideferral regime of Subpart F of the Code, under which certain U.S. shareholders of a controlled foreign corporation (CFC)[117] are required to include in their gross income their pro-rata share of the corporation's Subpart F income.[118] Subpart F income is a term of art, which, inter alia, specifically excludes income from sources within the United States that is effectively connected to the corporation's U.S. trade or business (with exceptions).[119] Accordingly, the source rules are an important tool in determining the Subpart F income of a CFC, as well.

Third, certain U.S. citizens or residents who live outside the United States are allowed to exclude from their gross income "foreign earned income" from personal services.[120] This exclusion is, however, limited to income from sources within the foreign country where the U.S. citizen resides.[121]

Fourth, because the source rules determine the amount of taxable income of foreign residents, they subsequently create a corresponding duty to withhold the taxes owed by such foreign residents. Sections 1141 and 1142 of the Code require the payor to withhold tax on income paid to nonresidents; however, this duty does not apply to foreign-source income.[122] A similar rule applies to partnerships, requiring withholding of taxes (at various rates) from a partnership's effectively connected income that is allocable to nonresidents.[123] Because the withholding agent is held liable for any tax he did not properly withhold (including interest and penalties),[124] it becomes clear why the source rules have a significant role in this respect as well.

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116. Nonresident aliens and foreign corporations can also make use of the foreign tax credit (with some necessary adjustments), but the allowed credit amount is also limited according to § 904. *See* I.R.C. § 906.

117. I.R.C. § 957(a).

118. *Id.* § 951(a).

119. *Id.*

120. *Id.* § 911(a).

121. *Id.* § 911(b). This exclusion is also limited to a current amount of $92,900 for taxable years beginning in 2011. Rev. Proc. 2010-40, I.R.B. 663.

122. I.R.C. §§ 1141-1142.

123. *Id.* § 1446.

124. *Id.* § 1461.

3. *U.S. Possessions*: The Code provides several tax breaks in connection with U.S. possessions. For example, § 931 provides that a bona fide resident of Guam, American Samoa, or the Northern Mariana Islands can exclude from gross income any income derived from sources within any of these U.S. possessions, including any income that is effectively connected to a trade or business conducted within any of these possessions.[125] Section 932 similarly provides special rules for taxing income that is derived from sources within the Virgin Islands.[126]

The preceding discussion clarifies (in a nutshell) that despite any economic criticism, source rules play an important role in the overall tax considerations of both U.S. residents and nonresidents alike. Furthermore, the current tax reform proposals (one by President Obama's administration and the other by Congressman Dave Camp, Chairman of the House Committee on Ways and Means)[127]—both of which, broadly stated, will significantly change the way the U.S. tax system treats foreign, active income of U.S. corporations—only further highlight the importance of source rules. This is because these proposals call for certain types of foreign-source income, which thus far have been "trapped" outside the United States, to be either tax-exempt (Camp proposal), and thus repatriated nearly tax free, or subject to a special minimum tax (Obama proposal).[128]

Finally, the importance of source rules is even more apparent when we expand our discussion beyond the context of the Code and to the international "playground" of foreign jurisdictions and tax treaties. Determinations of source of income under domestic law can differ from one country to another, resulting in either double taxation (when two jurisdictions consider the same income of the same taxpayer to be taxable, each according to their own domestic laws) or double nontaxation (when none of the relevant jurisdictions tax the income).[129] Countries attempt to mitigate the double taxation problem through the use of bilateral tax treaties, under which the source (and character) of the income has critical importance in allocation of the taxes between the two contracting states.

When applying these conclusions to our previous discussion on income from online advertising, it is evident that defining the source of such income is just as important as defining the source of any other type

125. *Id.* § 931.
126. *Id.* § 932.
127. *See* sources cited *supra* note 97.
128. *Id.*
129. 1923 REPORT ON DOUBLE TAXATION, *supra* note 86.

of income. However, the fact that this new type of income has no specific source rules in the Code, bears unique traits, and is characterized by global reach and an expanding market makes the discussion about the source of this income even more challenging and important. The notion that the income from online advertising is merely the first of many similar types of income to be developed in the future only strengthens this conclusion.

If we return to the plain numbers, we can better understand the consequences of allocating this income to one source or another. According to their own reporting, in 2012, Google and Facebook generated 53% and 49% of their income, respectively, from sources outside the United States.[130] However, the classification for U.S. versus non-U.S. revenue presented in their financial statements is not necessarily (and most likely is not) the same as their classification of the source of their income for tax purposes. Determining the appropriate source rule for income from online advertising can have a significant impact on both the tax bills of these two Internet giants and those of their competitors, as well as on the tax revenue of countries around the world (some of which are developing countries desperate for the opportunity to collect more taxes) whose residents "consume" the online advertising presented on the Web sites of Google, Facebook, and the like.

C. Determining the Source of Income from Online Advertising Under U.S. Tax Law

The process of determining the source of any income under U.S. tax law begins with the Code. Sections 861-865 of the Code enumerate different types of income and assign to each a specific source rule.[131] The list includes general categories of income such as dividends,[132] interest,[133] royalties,[134] personal services,[135] and capital gains.[136] The Code also

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130. In 2012, Google provided its services in more than fifty countries around the world. Google, Inc., *supra* note 61, at 9. 53% of its total revenue, 95% of which was from online advertising, was attributable, according to Google, to countries other than the United States. *Id.* at 10, 12. Google performs the geographical analysis according to the billing address of its customers. *Id.* at 34. Similarly, in the year 2012, 49% of Facebook's revenue was generated outside the U.S.—a number that represents an increase of 11% in the share of non-U.S. revenue compared to previous year. Facebook, Inc. Annual Report (Form 10-K) (Feb. 1, 2013), *available at* http://investor.fb.com/secfiling.cfm?filingID=1326801-13-3. Facebook preforms this analysis based on the location of the paying advertiser or developer. *Id.* at 40.

131. I.R.C. §§ 861-865.

132. *Id.* §§ 861(a)(2), 862(a)(2).

133. *Id.* §§ 861(a)(1), 862(a)(1).

134. *Id.* §§ 861(a)(4), 862(a)(4).

135. *Id.* §§ 861(a)(3), 862(a)(3).

includes more specific income categories such as from transportation,[137] from space or ocean activities,[138] from international communications,[139] from insurance underwriting,[140] and from Social Security benefits.[141] The source of income for any income type listed in those sections is determined based on its respective source rule.

It is important to note that the underlying concept of source rules is somewhat inconsistent because source rules apply two opposing principles. Certain types of income are dealt with under a substantive approach, which attempts to follow the economic source of the income.[142] This approach is applied to income from royalties, sourced according to the location of the use of the intangible;[143] gains from disposition of real property interests, sourced according to the location of the property;[144] and income from personal services, sourced according to the location in which the services are performed.[145] In these instances, the source rule attempts to identify and follow the location where the economic benefits are generated. To the contrary, other types of income are governed by a set of formal source rules, which disregard the true economic source of the income. An example of this is income from dividends, which is sourced according to the payor's place of incorporation,[146] which is easily subject to manipulation. Such a rule risks rendering arbitrary results, which may not correspond with the true economic source of the income. Under this rule, for example, dividends distributed by a foreign subsidiary to a U.S. person will be considered foreign-sourced even if the subsidiary's income was all U.S.-sourced.[147] Other formal source rules include the rules for interest income (also sourced according to the residency of the payor),[148] and capital gains (sourced according to the residency of the seller).[149] These formal rules are applied to specific

136. *Id.* § 865(a).
137. *Id.* § 863(c).
138. *Id.* § 863(d).
139. *Id.* § 863(e).
140. *Id.* §§ 861(a)(7), 862(a)(7).
141. *Id.* § 861(a)(8).
142. AVI-YONAH, *supra* note 81, at 43.
143. I.R.C. §§ 861(a)(4), 862(a)(4).
144. *Id.* §§ 861(a)(5), 862(a)(5).
145. *Id.* §§ 861(a)(3), 862(a)(3).
146. *Id.* §§ 861(a)(2), 862(a)(2).
147. Despite this seemingly arbitrary result, one possible justification may be that the corporation distributing the dividend derives its legal capacity from the jurisdiction in which it is incorporated, which makes that jurisdiction the true economic source of any income it generates. *See* KUNTZ & PERONI, *supra* note 114, at A2-42.
148. I.R.C. §§ 861(a)(1), 862(a)(1).
149. *Id.* § 865(a).

types of income, the economic sources of which are either so difficult to locate that doing so would create an unreasonable administrative burden, or easily manipulated by the taxpayer, such that attempts to locate the true economic source of the income would be a fruitless effort. In addition, formal source rules are also applied to certain types of income based on political agendas, or in some cases based on attempts by Congress to increase tax revenue.[150]

That being said, and as is clearly observable, the list of source rules in the Code is far from comprehensive. There are many types of income for which there is no specific source rule, such as income from gambling and cancellation of indebtedness, among others. How should we determine the source of income in the absence of a specific statutory rule? The typical technique embraced by the courts is to compare the income in question to other categories of income, choose the one whose characteristics most resemble it, and then apply the relevant source rule accordingly.[151] This was the method used in *Korfund v. Commissioner*,[152] where the court held that the source of a payment made in exchange for a covenant not to compete is the place where the competition would have taken place in the event of a breach of the covenant. One can easily imagine that such an imprecise method is bound to generate unsatisfactory results in some cases. However, in the absence of a single unified concept of source (as illustrated above by the two opposing principles underlying the various source rules), it is clearly difficult to analogize between different types of income.[153] One can also imagine that this method of sourcing could, in many cases, produce results that may be completely different than the ones that would have been reached under a sound economic analysis.

Despite this criticism, the analogy-drawing method is the law of the land, and as such it should be applied in the case of income from Internet advertising in order to determine the source of such income.

In the case of online advertising, there is no specific source rule established to yield a straightforward answer. However, one could argue that such income could be characterized, by analogy, as either income for the provision of services or as income from royalties. These two types of income seem, at least on a surface level, to be adequate approximations

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150. That is the case with respect to income from space or ocean activities, which is sourced based on the residency of the taxpayer, most likely because the majority of taxpayers engaged in space activities are U.S. corporations. *Id.* § 863(d).

151. Korfund Co. v. Comm'r, 1 T.C. 1180 (1943).

152. *Id.*

153. Lawrence Lokken, *What Is This Thing Called Source?*, 37 INT'L TAX J. 21, 22 (2011).

for the income from Internet advertising. It is appealing to think of online advertising as a service provided by the publisher, very much like other advertising media, or through a more technological lens, as royalty income generated from the use of the publisher's technology. Nevertheless, a more in-depth analysis, as provided below, will show that the characteristics of income from online advertising actually make it unsuitable to be categorized as either income from services or royalty income.

Can income from online advertising be characterized as income from the provision of services? Google, for example, sees itself primarily as a provider of search services, making its search capabilities (including specialized search services) available to anyone with an Internet connection.[154] Additionally, it also considers advertising to be one of its primary business focuses.[155] In my opinion, however, it is very difficult to characterize Google's income as being derived from the provision of either of these services. First, this should not be considered income from the provision of search services because the "customers" do not pay for the use of the search service—it is provided free of charge.[156] At the same time, Google's income cannot be considered to be derived from the provision of advertising services, because, as explained above, the party who generates the income is not the one for whom the service is rendered.[157]

Can income from online advertising be characterized as income from royalties? Answering this question requires a two-step inquiry. First, we need to establish what the exact definition of royalties is, and only then can we determine if the income at hand should indeed be considered a royalty. The difficulty lies in the fact that the term "royalty" has no precise definition, and courts have struggled to define its boundaries. In *Sierra Club Inc. v. Commissioner Internal Revenue Service* (involving the classification of the income of a tax-exempt organization), it was held that in the absence of a definition in a statue or

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154. *See* Google Inc., *supra* note 61, at 4.

155. *See id.* at 11.

156. This relationship is best described by a traditional advertising motto—"*if you're not paying for something, you're not the customer; you're the product being sold.*" *See* Jason Fitzpatrick, *If You're Not Paying for it, You're the Product*, LIFEHACKER (Nov. 23, 2010, 6:30 AM), http://
lifehacker.com/5697167/if-youre-not-paying-for-it-youre-the-product.

157. Though this distinction is not irrefutable, it nevertheless merits, at the very least, further study and inquiry, rather than immediate characterization of this type of income as income from services.

regulation we turn to the "ordinary, everyday senses" of the word.[158] Accordingly, the court, relying on the lexical definition of the word "royalty," held that the word refers to "a payment made to the owner of property for permitting another to use the property."[159] The court also referenced Revenue Ruling 81-178, in which the Internal Revenue Service's position was: "To be a royalty, a payment must relate to the use of a valuable right. Payments for the use of trademarks, trade names, service marks, or copyrights, whether or not payment is based on the use made of such property, are ordinarily classified as royalties for federal tax purposes."[160]

Despite the fact that traditional lists of types of property that can generate royalties do not include software rights, there is currently no doubt that software transactions are capable of generating royalty income. This can be deduced first from the regulations promulgated in 1998 for the specific purpose of providing classification rules for income from cross-border transactions involving software.[161] These regulations attempt to distinguish, generally speaking, between income from a sale or exchange and royalty income.[162] Second, under the U.S. tax treaty model, any consideration received in exchange for the use of software can be treated as a royalty[163] and is further specifically included in the definitions of royalty in some of the treaties to which the United States is a party.[164]

Now that we broadly understand the definition of royalty and that software is considered property capable of generating royalty income, we can try to determine whether or not income from online advertising can be characterized as royalty income. In my opinion, the answer is no, and it is so for two reasons. First, the scheme of an online advertising

158. Sierra Club Inc. v. Comm'r, 86 F.3d 1526, 1531 (9th Cir. 1996) (quoting Comm'r v. Soliman, 506 U.S. 168, 174 (1993)).

159. *Id.*

160. Rev. Rul. 81-178, 1981-2 C.B. 135, 136 (1981).

161. *See* T.D. 8785, 1998-2 C.B. 494.

162. Treas. Reg. § 1.861-18(a)(2) (2012).

163. *See United States Model Technical Explanation Accompanying the United States Model Income Tax Convention of November 15, 2006*, IRS.GOV 43 (2006), http://www.irs.gov/pub/irs-trty/temod006.pdf.

164. *See, e.g.*, Protocol Amending the Convention between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital, U.S.-Fr., Aug. 31, 1994, S. TREATY DOC. No. 111-4 (as amended by the protocol signed on Dec. 8, 2004); The Convention Between the Government of the United States of America and the Government of the Kingdom of Thailand for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, U.S.-Thai., art. 12(3)(a), Nov. 26, 1996, 1285 U.N.T.S 151.

transaction does not fit into the definition of royalty. In order to better explain this argument, consider the following fictional scenario. The U.S. Postal Service (USPS) starts offering a tailor-made advertising service. Using an elaborate database that records all types of letters and parcels received by the USPS's millions of customers, advertisers can send focused offers to relevant recipients based on their past mail deliveries. Every offer includes a unique code that, if used, generates income to the USPS for delivery of the advertisement. This would be an off-line version of the Google model discussed above. The end-users are offered a "free" service (a mailbox to which all of their mail is delivered free of charge), the data is then used as a basis for the tailoring of customized ads for each end-user, and only if such ads are acted upon by the end-user is income actually generated for the USPS. In this fictitious yet analogous example, can the USPS be described as receiving "a payment made to the owner of property for permitting another to use the property?"[165] Such a depiction seems to be far from fitting. Instead, income generated in such a way would most likely be considered income from services that the USPS offers to its customers. This example illustrates that while Google (and the like) allows its advertising clients access to its software systems, it does not similarly allow them to use its rights in the property. From the above example, it seems that consideration in exchange for online advertising should be characterized instead as income from the provision of services, yet this category has already been shown to be unsuitable as well, thus illustrating the complex difficulties with characterization of this type of income.

A second argument for why online advertising income should not be treated like royalty income has to do with the party generating the income. Even if we assume, for the sake of the argument, that the online publisher gives its clients permission to use its software property, the payments that the advertising clients make to the publisher are not made in consideration of that permission. The obligation to pay the publisher is generated as a result of an action taken by the end-user (such as viewing an ad or clicking on it) and not as a result of the advertiser's use of the publisher's software systems. If no single user views or clicks on the ad, there is no payment required from the advertiser, despite the fact that the advertiser did indeed use the publisher's software to incorporate its ad into the system. Thus, the payment is clearly not for the use of the advertising software itself and therefore cannot be considered a royalty.

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165. BLACK'S LAW DICTIONARY, *supra* note 1, at 1330-31 (6th ed. 1979); *see also id.* at 1445-46 (9th ed. 2009).

Furthermore, the payment is also not for the use of the search software by the end-user because that service is offered for free.

At this point in the analysis, despite the discrepancies between the characteristics of advertising income and those of income from services or royalties, operating under the customary analogy method, a court would likely have held that income from online advertising is indeed most aptly characterized as one of the two types of income, and would likely have applied the relevant source rule accordingly. However, using either classification—services or royalties—the applicable source rule would yield an outcome that is inconsistent with the economic reality of the relationship in such a way that it undermines the validity of the analogy method altogether. If this income is considered a royalty, its source is determined by the location of use of the property,[166] which in this case is the software that facilitates the online advertising. Consider the application of this rule with the following example: a U.S. advertiser uses Google's AdWords[167] interface to bid on search words that will be associated with the advertiser's ad, but the end-users who generate the income through their actual online activity are located in France. A simplistic application of the source rule would result in this income being considered U.S.-sourced. Thus, while the source rule for royalties is considered a substantive one (because it theoretically attempts to locate the true economic source of the income),[168] its application to this specific type of income might generate, as in many cases, the opposite result. This application would instead source the income to a jurisdiction other than the one in which its true economic source is located: that of the end-users (as at least one of a few source jurisdictions described below). We would get a similarly distorted result when applying the source rule for income from services, which would source the income to the jurisdiction in which the service was provided.[169] Again, if the payment made is for the advertising services, it is sourced to the jurisdiction of the publisher or the advertiser, depending on where the services are considered to be performed, rather than to the jurisdiction of the end-users where the income is generated.

In the final part of the analogizing process, it is helpful to look into source rules that apply to other types of income that bear some similarity to income from online advertising. In 1986, Congress added, inter alia, a

166. I.R.C. §§ 861(a)(4), 862(a)(4) (2006).

167. *Google AdWords*, GOOGLE, http://www.google.com/AdWords (last visited Nov. 15, 2013).

168. AVI-YONAH, *supra* note 81, at 43.

169. I.R.C. §§ 861(a)(3), 862(a)(3).

specific source rule for income from space and certain ocean activities.[170] One would hope that with respect to income from space activity, which is, like income from Internet advertising, earned in a domain that is without physical boundaries, Congress would adopt a substantial source rule that strives to allocate income according to its economic roots. The actual result, however, is disappointing. The general rule that Congress passed is that the source of such income is determined instead by the residency of the taxpayer.[171] This rule was obviously a result of the fact that most of the players in the space market are U.S. corporations, and setting the rule based on residency thus served as no more than an easy revenue-raiser, rather than an attempt to locate the true economic source of the income. Ten years later, a similar nonsubstantive residency-based rule was proposed by the United States Department of Treasury's discussion paper on the tax aspects of e-commerce (Treasury White Paper).[172] This proposal was most influenced, similarly, by the fact that the majority of companies that generate income via e-commerce activities are U.S. residents.[173] It is obvious that these rules were not enacted based on pure economic theory of source. Rather, they were influenced by policy considerations, mainly driven by the intent of the U.S. legislature to collect as much tax as possible from U.S. corporations operating in these lines of business (and its subsequent ability to do so because of the United States' current global dominance, as well as the absence of a unified international tax regime governing such questions).

The preceding discussion clarifies that, despite its significant effect on resulting tax liabilities, the characterization of income using the analogy method is not a simple task. Courts have been struggling with characterization issues for a long time,[174] and even the source rules for activities that bear some resemblance to online advertising leave us empty-handed with respect to any useful economic concepts or theories. It seems that analysis of the tax treatment of income from online advertising will not be comprehensive or adequate without a serious analysis of the character of the income and whether its characteristics are

170. *Id.* § 863(d).

171. *Id.*

172. OFFICE OF TAX POLICY, U.S. TREASURY DEP'T, SELECTED TAX POLICY IMPLICATIONS OF GLOBAL ELECTRONIC COMMERCE (1996), *available at* http://www.treasury.gov/resource-center/tax-policy/Documents/internet.pdf.

173. *Id.*

174. *See, e.g.*, Comm'r v. Wodehouse, 337 U.S. 369 (1949) (comparing royalty and capital gain income); Karrer v. United States, 152 F. Supp. 66 (Ct. Cl. 1957) (comparing royalty and services income); Boulez v. Comm'r, 83 T.C. 584 (1984) (comparing royalty and services income); Bank of Am. v. United States, 680 F.2d 142 (Ct. Cl. 1982) (comparing services and interest income); *see also* AVI-YONAH ET AL., *supra* note 87, at 40-74.

unique enough to justify its own distinct classification and unique source rule.

D. Proposed Solution for Sourcing Income from Online Advertising

1. What Is the Origin of the Income?

Because the existing source rules for similar types of income do not reveal any substantial underlying economic concepts, we have no choice but to start from scratch. Theoretically, the source rule for income from online advertising, as for any other type of income, should trace the economic origin of the income. The 1923 Report on Double Taxation defined the "origin" of income as "the place where the wealth is produced, that is . . . the community the economic life of which makes possible the yield or the acquisition of the wealth."[175] Which, then, are the communities whose economic lives make the income from Internet advertising possible? The cross-jurisdictional nature of this type of income necessarily results in a multijurisdictional answer to such a question.

The first contributing jurisdiction would be the country in which the publisher's physical means of production are located, i.e., the location of its computer technology and server farms that enable the provision of its services. The second jurisdiction is the one in which the publisher's employees work to maintain and provide the services. The third jurisdiction, unique to the online advertising context, is the one (or more) in which the end-users—the consumers of the advertising and the generators of the income—reside. The economic activity that takes place in each of these jurisdictions is a crucial component of the transaction, without which the publisher's income could not be generated. Thus, according to the definition of origin prescribed in the 1923 Report on Double Taxation, all three of these jurisdictions would constitute the origin of the income in question.[176] How, then, should the income, or any part of it, be sourced among these multiple jurisdictions? The appropriate standard for allocation should be based on the concept of

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175. 1923 REPORT ON DOUBLE TAXATION, *supra* note 86, at 23.

176. Another important jurisdiction is the one in which the initial research and development took place. However, thinking of this jurisdiction as an "origin" of the income seems a lenient interpretation of the definition of origin as expressed in the *1923 Report on Double Taxation*. *Id.* That being said, under the proposed solution, as described below, the costs of research and development should nevertheless be allocated to all of the jurisdictions that constitute an origin of the income, in proportion with the allocation of the income itself. A similar allocation-based concept is currently applied to allocation of "research and experimental expenses" under I.R.C. § 864(g).

economic presence, which in this case serves both as a justification and as a threshold for sourcing the income to a certain jurisdiction.

2. Economic Presence

The notion that the substantial presence of a resident of one jurisdiction in another jurisdiction can create a tax liability for that resident in the other jurisdiction is not new. It is the underlying concept behind the term permanent establishment (PE).[177] The notion of PE has been incorporated into tax-related documents since as early as the late nineteenth century.[178] Today, it is embedded in practically all bilateral tax treaties as a term that governs the right of each contracting state to tax the income of an enterprise that is a resident of the other contracting state in the event that the said enterprise has sufficient economic activity in the foreign jurisdiction to justify the imposition of the foreign tax. The basic concept behind this term is that of *situs*, or what is referred to in modern treaty language as a "fixed place of business."[179] The definition of a PE, which is very similar in all three of the common tax treaty models (the U.S., OECD, and U.N. models), includes a general nonexhaustive list of examples of types of activities that would give rise to PE classification, a list of exceptions, and provisions that discuss the possibility of creating a PE via an agent.[180] However, all of these "ingredients" that are included in the definition revolve around the physical presence requirement and leave little room for interpreting the term in a way that would allow it to be applied to a purely nonphysical economic activity.

With the concept of *situs* at the basis of the PE definition, once technology evolved and the Internet defied the traditional concepts and terminology of doing business, there arose a need to discuss the effects of such a change on the definition of PE. This was first done in 1996, when the U.S. Department of Treasury published the Treasury White Paper, which attempted to identify selected tax implications of electronic commerce.[181] The paper did not offer concrete answers regarding the various ways in which e-commerce can establish a PE or a "U.S. trade or business" (the Code's broader PE-equivalent, as described below), but merely focused on introducing the policy considerations and possible

177. ARVID A. SKAAR, PERMANENT ESTABLISHMENT: EROSION OF A TAX TREATY PRINCIPLE § 7.2 (1991).

178. *Id.*

179. BLACK'S LAW DICTIONARY, *supra* note 1, at 1513.

180. *See* OECD, *supra* note 51.

181. *See* OFFICE OF TAX POLICY, *supra* note 172.

outcomes.[182] It was only in the year 2000 that the impact of e-commerce on characterization as a PE received its first substantial treatment, when the OECD released a clarification on the application of the PE definition in the context of e-commerce (preceded by two draft papers in late 1999 and early 2000).[183] The clarification distinguished between the applicability of the PE definition to computer equipment and to Web sites.[184] The former is easily relocated and thus bears little risk of creating a PE for a taxpayer against his wishes. As to the latter, it was unanimously agreed by all the committee members that a Web site in itself does not constitute a PE.[185] Furthermore, they concluded that because a Web site is not a "person," it cannot be considered a dependent agent for PE creation purposes.[186] It was only a few years later that the OECD member countries agreed that a computer server is indeed capable of creating a PE if it constitutes a "fixed place" under the traditional PE definitions.[187]

The literature on this subject focuses mainly on the question of whether Web sites and servers can create a PE.[188] This is also the main issue discussed in the OECD commentary on the applicability of the PE definition to e-commerce activity.[189] However, there seems to be no in-depth discussion on the application of these rules to the special circumstances of online advertising or similar virtual activities.

The basic concept of a PE was developed to identify economic activity substantive enough to justify taxation at source. The Internet and e-commerce challenge the PE definition to the extreme. In the past, discourse on the subject was limited to the traditional terminology and underlying concepts of PE, such as "physical location" and "fixed place of business."[190] It is time, however, to change the basic terminology used to define a PE, which currently limits its application and thus requires

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182. *Id.*

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

184. *Id.*

185. *Id.*

186. *Id.*

187. OECD, MODEL TAX CONVENTION ON INCOME AND ON CAPITAL: CONDENSED VERSION 2010 (July 22, 2010), *available at* http://fiscus.fgov.be/interfafznl/fr/downloads/ocde_en.pdf.

188. *See, e.g.*, Randolph J. Buchanan, *The New-Millennium Dilemma: Does Reliance on the Use of Computer Servers and Websites in a Global Electronic Commerce Environment Necessitate a Revision to the Current Definition of a Permanent Establishment?*, 54 SMU L. REV. 2109 (2001).

189. MODEL TAX CONVENTION ON INCOME AND ON CAPITAL, *supra* note 111, at C(5)-23.

190. SKAAR, *supra* note 177.

either creative interpretation of the definition or endless "patch-work" of adding to and correcting the commentary to the OECD model (the most advanced of the three models with respect to this topic). Any such change will have to maintain the underlying concept of a PE, but at the same time expand its current, somewhat limited definition. Without change, it is doubtful that the current PE definition will be able to hold ground for long as new types of income and economic activities continue to challenge it. There is a limit to creative interpretation and adaptive commentary. At some point, the words of the authoritative text themselves must be amended in order for it to maintain validity, relevance, and coherency.

A similar yet somewhat less constrained analysis can be applied to the formation of a U.S. trade or business. As a much more lenient term,[191] "U.S. trade or business" can presumably sustain broader interpretations that may encompass online advertising activity. However, as the Code's equivalent to the PE definition, the central axis of the "U.S. trade or business" term is similarly the notion of physical presence.[192] As a result of this fundamental notion, any discussion of the possibility of e-commerce creating a U.S. trade or business has revolved mainly around the physical location issue. For example, the Treasury White Paper specifically mentions that while a foreign person engaging in cross-jurisdictional transactions with a U.S. resident in electronic commerce clearly has a trade or business, it is nevertheless questionable whether he has a trade or business or a permanent establishment *in the United States*.[193] The emphasis on the physical aspect of the business activity has also found its place in court holdings. This was the case in *Commissioner v. Piedras Negras Broadcasting Co.*, in which the Fifth Circuit held that a radio station that broadcasted from the Mexican town of Piedras Negras and that collected more than 95% of its revenue from U.S. advertisers in the neighboring town of Eagle Pass, Texas, did not have income from sources within the United States.[194] The irony is that this decision, published more than seventy years ago when the Internet and e-commerce were considered science fiction, is still good law to this very day.

The above discussion clearly demonstrates the deficiencies in both the PE and "U.S. trade or business" definitions with respect to new, futuristic types of income. While these definitions heavily rely on the

191. I.R.C. § 864(b) (2006).
192. *Id.*
193. *See* OFFICE OF TAX POLICY, *supra* note 172, at 25.
194. Comm'r v. Piedras Negras Broad. Co., 127 F.2d 260 (5th Cir. 1942).

physical aspects of economic activity, computers and the Internet have gradually taken the physical aspect of business out of the equation altogether. This discrepancy is eventually bound to render both the PE and U.S. trade or business definitions obsolete, unless they are changed and adapted to reflect modern commercial practices.[195]

It is clear that applying current rules and concepts to the activity of online advertising will not result in an economically reasonable outcome. Expanding the definitions of PE and U.S. trade or business to allow them also to encompass substantial economic activity, even if it does not have a physical presence, would be more suitable for, and more coherent with, sound tax policy regarding the taxation of multiparty cross-jurisdiction transactions, particularly those relating to income from online advertising.

The limited scope of this Article prohibits the inclusion of the extensive discussion required to define what "economic presence" is, what the threshold level of economic activity that triggers tax liability should be, and how it should modify the current definitions of PE and U.S. trade or business. That being said, in the context of online advertising, the publisher should be seen as having a taxable presence in all three jurisdictions (those in which the publisher's servers, employees, and end-users reside) based on a minimal threshold level of economic activity. Creating a tax presence based on location of employees and computer servers can be reasonably justified under current definitions (taking into account the current stance of the OECD regarding PE created by mere servers).[196] However, under the existing definition, an online publisher will not be recognized as having a PE in a given jurisdiction based solely on the fact that end-users, who are responsible for generating the income, are residents of that jurisdiction. Instead, the economic presence test is required in order to accomplish that goal. Under that test, if the end-users who viewed or acted upon any of the advertisements in a given jurisdiction constitute a significant enough percentage of the total end-users from all jurisdictions who did the same,

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195. There is yet another difficulty to overcome in defining PE—the dichotomy between bilateral tax treaties and the multilateral world of commerce, business, and, in this case, the business of online advertising as well. The basic governing concepts behind international tax and tax treaties were promulgated back in 1923 by the four economists who wrote the 1923 REPORT ON DOUBLE TAXATION, *supra* note 86. The pre-World-War-II business world, which served as a backdrop for the conception of these principles, is long gone. Nevertheless, the concepts drafted nearly ninety years ago still prevail. Using bilateral concepts, which are incorporated into most bilateral treaties, in order to tax multiparty cross-jurisdictional transactions is a recipe for trouble, which at the very least will likely cause incoherent and economically inappropriate tax outcomes.

196. *See* OECD, *supra* note 187.

and also represent a substantial, definitive number (so as not to be considered a de minimis amount), the publisher should be thought of as having a PE in that jurisdiction.[197]

Interestingly enough, the concept of economic presence is not completely new to tax discourse. The myriad of legal initiatives in various U.S. states aimed at imposing sales tax collection liability on remote vendors who do not have a physical presence in the state of sale (which was previously held unconstitutional)[198] have introduced the concept of "economic presence" and have much in common with cross-jurisdictional taxation of Internet advertising income.

Once we have concluded that the online publisher should be regarded as having a PE in all jurisdictions in which it has a significant economic presence, the subsequent question should be how to allocate the right to tax amongst the various jurisdictions. Although this, too, is a complicated issue that requires additional study, on a base level, it seems reasonable to allocate portions of the publisher's taxable income to the relevant jurisdictions based on their ratable share of contributions to the production of the income.[199] This concept would be easy to apply within the jurisdictions in which the publisher has a PE from the economic activity of end-users. Because user activity is monitored and recorded by the publisher (in order to collect income from its clients based on users' views of or actions upon the advertisements), the data it collects can easily be utilized to subsequently apportion the income from the various jurisdictions (in this respect, this is an administrative heaven). However, even the very first stage of such apportionment, when attempting to distribute amongst the three main jurisdictional categories in which the publisher has an economic presence (where his servers, employees, and end-users are located), is problematic. How much of the income should be attributed to the jurisdiction in which the publisher's employees reside? How much should be allocated to the jurisdictions in which it maintains its server farms and other technological equipment? Should the apportionment be based on costs or maybe another criterion? These

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197. This is a simplified description of the economic presence test as applied in the context of online advertising. A more thorough examination and study might suggest a multilayer test, under which income from specific advertisers would first be subjected to the test independently, prior to application of the test to the publisher's total income.

198. *See* Quill Corp. v. North Dakota, 504 U.S. 298 (1992).

199. On the concept of apportionment of income between jurisdictions, see § 863(b) of the Code (dealing with "[i]ncome partly from within and partly from without the United States"). I.R.C. § 863(b) (2006); *see also* Stemkowski v. Comm'r, 690 F.2d 40 (2d Cir. 1982) (attributing the income of a professional hockey player who provided services to his team partly to the United States and partly to Canada based on the relative time that he spent providing the services in each jurisdiction).

questions represent a few of the many challenges this model will have to overcome.

Two other challenges facing the model relate to collaboration and collection. First, in order for this model to work in the international arena, there has to be complete collaboration and unity between all jurisdictions. If some jurisdictions adopt the model while others do not (or alternatively adopt even a slightly different version of the model), there are bound to be discrepancies between the tax treatment each jurisdiction applies, which in turn could induce either double taxation or double nontaxation in many cases.[200] The second problem with this model is one of collection. T.S. Adams once wrote that the source jurisdiction has the advantage of taking the "first bite of the apple" because it has the first opportunity to collect taxes from sources within its jurisdiction.[201] This makes source-based taxation much more efficient than residency-based taxation because the source country presumably has the necessary information required to levy the tax.[202] This is not true in our case with online advertising income. First, a jurisdiction that is allowed to tax a portion of the income under this model may not necessarily have the information it needs to levy the tax in a manner accurate enough to prevent over or under taxation. The only jurisdiction that can easily obtain such information is the one in which the publisher resides. Second, while these jurisdictions may be considered the source of some of the income, unlike a traditional source jurisdiction, they have no actual access to the income itself. In many cases, this cost is paid to the publisher by the advertising client without the source jurisdictions having any ability to impose tax on it.

VIII. CONCLUSION

This Article is about traditional tax models and the definitions that are embedded in the law and in the discourse surrounding it, and their ability (or inability) to encompass income generated by new types of economic activity (as well as future ones) in a manner that maintains both their theoretical justification and their practical implementation. Modern technology provides opportunities for income generation in ways that were considered mere science fiction back in the days when the tax concepts governing our legal system were first conceived. Online

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200. For a good example of double taxation as a result of non-similar tax treatment by two jurisdictions, see *Boulez v. Commissioner*, 83 T.C. 584 (1984).

201. AVI-YONAH, *supra* note 81, at 12.

202. Reuven S. Avi-Yonah, *The Structure of International Taxation: A Proposal for Simplification*, 74 TEX. L. REV. 1301, 1336 (1995-96).

advertising is a prime example of such an economic activity. When conducted in a cross-jurisdictional environment (be it across oceans or across state lines), such multiparty transactions challenge current tax law to its extremities. Attempts to apply traditional tax analysis and terminology to this new type of income yield economically distorted results. This Article attempted to provide an overview of the unique characteristics of online advertising income, its influence on the determination of the source of income, its character, and its role in creating an economic presence in other jurisdictions. The ease with which such activity crosses jurisdictional lines, as well as its multiparty nature, make it clear that any attempt to provide viable and coherent rules for characterizing, sourcing, and apportioning the tax rights with respect to such income (and the like) will necessarily require a multinational solution, which the current collection of unrelated bilateral treaties cannot inherently provide.