Traditional Notions of Fair Play and Substantial Justice in the Age of Internet Interconnectivity: How Masking an IP Address Could Constitute Purposeful Availment

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Personal jurisdiction has been a time-honored judicial concept since the 1800s. The Supreme Court has considered the ramifications of personal jurisdiction and its application in various factual scenarios over the years, often leading to plurality opinions where the Justices disagreed on the reasoning behind the judgements. The confusion resulting from this lack of consensus over the doctrine's application has been further compounded by advances in technology. Technology has enabled people to connect in new ways and the Court has struggled to reconcile this with the traditional minimum contacts analysis it first employed in International Shoe v. Washington.

Virtual Private Networks and proxies facilitate internet connections to servers located outside internet users' home states. Some internet users rely on these technologies to specifically target a geographic area to obtain access to geographically restricted content. Others do not intentionally target a location, but only have a general awareness of their connection. Still others have no knowledge of the ultimate location of their IP address. By accessing servers outside their home state, these internet users could be establishing connections that give rise to the exercise of personal jurisdiction. This Article argues that the proper way to address this challenge is to continue to adapt the traditional personal jurisdiction analysis of International Shoe, with a focus on the intentionality of the user to avail themselves of a particular forum.

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INTRODUCTION

The top-rated television shows are illegally downloaded millions of times each week.¹ Game of Thrones, for example, is illegally downloaded more often than it is watched on cable.² Pirating this type of content from websites like The Pirate Bay³ is illegal, which leads many users to take steps to mask their identities using methods like Virtual Private Networks (VPNs).⁴ VPNs allow internet users to hide online activity from internet service providers (ISPs) by connecting the users to a remote server.⁵ Advertisers on The Pirate Bay encourage users to connect to VPNs by flashing advertisements on the website's homepage, recommending that users connect through a VPN before downloading torrents from the site.⁶ While use of this type of technology creates no legal issues in and of itself,

N.Y. TIMES (April 5, 2017),

¹ See Nick Bilton, Internet Pirates Will Always Win, N.Y. TIMES (Aug. 4, 2012), http://www.nytimes.com/2012/08/05/sunday-review/internet-pirates-willalwavs-win.html.

 $^{^{2}}$ See id.

³ See generally Michael D. Smith & Rahul Telang, Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Internet Piracy, 33 MIS QUARTERLY 321, 327 (2009) ("Piratebay and Mininova . . . were among the most popular BitTorrent tracker sites during our study period."); Bilton, supra note 1 ("[T]he Pirate Bay[] [is] probably the largest and most famous BitTorrent piracy site on the Web.").

⁴ Cf. Anyone know a good vPN? (Oct. 16, 2017,), REDDIT, https://www.reddit.com/r/thepiratebay/comments/76rpgv/anyone know a good vpn/. The website Reddit.com has a subreddit devoted to the Pirate Bay where users inquire about VPN services for downloading and streaming torrents. See id. ⁵ See Brian X. Chen, For Internet Privacy, VPNs Are an Imperfect Shield,

https://www.nytimes.com/2017/04/05/technology/personaltech/vpn-internetsecurity.html? r=0.

⁶ See Georgina Jones, Best VPN for The Pirate Bay to Torrent Safe in 2019, ADDICTIVETIPS (Apr. 9, 2018), https://www.addictivetips.com/vpn/pirate-bayvpn/ ("If you are going to use sites like the Pirate Bay to find torrents, then it's extremely important that you protect yourself from legal issues by using a VPN."). For a discussion of the "torrenting" process, see Carmen Carmack, How HOWSTUFFWORKS, **BitTorrent** Works, https://computer.howstuffworks.com/bittorrent.htm (last visited Jan. 27, 2018). "Torrenting" is a popular form of peer-to-peer file sharing in which a single user downloads multiple pieces of a single file from several users simultaneously. Id. Large files can take a long time to download, but by torrenting and downloading from multiple sources this time can be minimized. Id. The act of torrenting itself is not illegal; however, using a BitTorrent client (a software that enables a computer to download files from multiple sources) to download copyrighted material is illegal. Id. See also Lada A. Adamic & Bernardo A. Huberman, Zipf's Law and the Internet, 3 GLOTTOMETRICS, 143, 148 (2002) ("[C]urrent peer-topeer networks tend to be decentralized. That is, nodes connect directly to one another rather than to a central server.").

any illegal activity remains illegal if it is committed using a VPN or a proxy.⁷ In this context, the issue then arises whether an internet user following The Pirate Bay's advice would be subject to personal jurisdiction in the forum state housing the recommended VPN or proxy that the user accessed to disguise his or her IP address.⁸ If connecting to a server through a VPN or proxy is sufficient to establish personal jurisdiction, then internet users doing so for the purpose of illegally downloading copyrighted material could be sued where the remote server is located rather than in their home state. This, in turn, raises questions of due process.

An exercise of personal jurisdiction comports with due process when it is consistent with "traditional notions of fair play and substantial justice,"⁹ which require the defendant to have minimum contacts with the forum state.¹⁰ When a defendant purposefully avails itself of the privilege of conducting activities in the forum state, thereby invoking the benefits and protections of its laws, that defendant establishes the necessary contacts.¹¹ However, what constitutes "traditional notions of fair play and substantial justice" has not remained static over time.¹²

Pennoyer v. Neff, the seminal case in establishing whether a court has jurisdiction over a particular defendant based on his or her activities,¹³ was based entirely on physical presence within a jurisdiction.¹⁴ In 1945, in *International Shoe v. Washington*, the analysis underwent a major change with the advent of corporations capable of doing business internationally, which necessitated a

⁷ See Sam Cook, Is a VPN Illegal or Legal? Is a VPN Safe to Use? What You Need to Know, COMPARITECH (April 13, 2007), https://www.comparitech.com/blog/vpn-privacy/vpn-safe-legal-or-illegal/

^{(&}quot;While the use of a VPN is perfectly legal, any illegal activity carried out online will remain illegal regardless of whether you use a VPN or not."). ⁸ See infra Part IV.

⁹ Int'l Shoe Co. v. Washington, 326 U.S. 310, 316 (1945).

¹⁰ See *id*. ("[D]ue process requires only that in order to subject a defendant to a judgment in personam, if he be not present within the territory of the forum, he have certain minimum contacts with it such that the maintenance of the suit does not offend traditional notions of fair play and substantial justice.") (internal quotations omitted).

¹¹ See Hanson v. Denckla, 357 U.S. 235, 253 (1958).

¹² See Int'l Shoe, 326 U.S. at 316; *infra* Part II; Allan Erbsen, *Impersonal Jurisdiction*, 60 EMORY L. J. 1, 3 (2010) (discussing the "enormous practical consequences" of personal jurisdiction).

¹³ See Pennoyer v. Neff, 95 U.S. 714 (1877).

¹⁴ See *id.* at 724 ("Where a party is within a territory, he may justly be subjected to its process, and bound personally by the judgment pronounced on such process against him.").

reconsideration of jurisdictional requirements.¹⁵ That change led the Supreme Court to rule that physical presence in a jurisdiction was not always required after all.¹⁶

After the adjustments made to the personal jurisdiction analysis in *International Shoe*, questions began to arise about the extent to which a defendant could be subject to suit in a jurisdiction without having a physical presence in that jurisdiction.¹⁷ The advent of the internet further compounded these uncertainties by enabling instantaneous interstate connection without physical presence.¹⁸ Some early courts responded by treating personal jurisdiction in cases involving the internet with a new, internet-specific analysis;¹⁹ however, the modern trend has been a return to traditional personal jurisdiction analyses of the purposeful availment test.²⁰

¹⁵ See Int'l Shoe, 326 U.S. at 316 ("[D]ue process requires only that in order to subject a defendant to a judgment in personam, if he be not present within the territory of the forum, he have certain minimum contacts with it such that the maintenance of the suit does not offend 'traditional notions of fair play and substantial justice.").

¹⁶ See id. at 319 ("[T]o the extent that a corporation exercises the privilege of conducting activities within a state, it enjoys the benefits and protection of the laws of that state. The exercise of that privilege may give rise to obligations; and, so far as those obligations arise out of or are connected with the activities within the state, a procedure which requires the corporation to respond to a suit brought to enforce them can, in most instances, hardly be said to be undue.").

¹⁷ See, e.g., Asahi Metal Indus. v. Superior Court of Cal., Solano City, 480 U.S. 102, 105 (1987).

¹⁸ See, e.g., Inset Systems, Inc. v. Instruction Set, Inc., 937 F. Supp. 161, 162 (D. Conn. 1996); Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1124 (W.D. Pa. 1975).

¹⁹ See, e.g., Zippo Mfg. Co., 952 F. Supp. at 1124 ("Nevertheless, our review of the available cases and materials reveals that the likelihood that personal jurisdiction can be constitutionally exercised is directly proportionate to the nature and quality of commercial activity that an entity conducts over the Internet."); Daniel Steuer, *The Shoe Fits and the Lighter is Out of Gas: The Continuing Utility of* International Shoe *and the Misuse and Ineffectiveness of* Zippo, 74 U. COLO. L. REV 319, 336 (2003) ("[The Zippo Court] began by noting that . . . the need for the expansion of jurisdiction has increased as technology has expanded the range of commercial activities.").

²⁰ See, e.g., Kindig It Design, Inc. v. Creative Controls, Inc., 157 F. Supp. 3d 1167, 1174 (D. Utah 2016) ("The Zippo test effectively removes geographical limitations on personal jurisdiction over entities that have interactive websites. And because the number of entities that have interactive websites continues to grow exponentially, application of the Zippo framework would essentially eliminate the traditional geographic limitations on personal jurisdiction."). See also Susan Nauss Exon, A New Shoe is Needed to Walk through Cyberspace Jurisdiction, 11 ALB. L.J. SCI. & TECH. 1, 22 (2000) ("The existence of a Web site, whether passive or interactive, does not rise to the requisite level of conduct.").

Even if courts rely on traditional concepts of personal jurisdiction, there is no denying that the internet complicates the analysis.²¹ Through technology like VPNs and proxies, internet users can access servers that are physically located elsewhere.²² The question then arises, if a user knowingly engages in wrongful conduct over the internet when connected to a server physically located elsewhere, does that constitute purposeful availment of the forum where the server is located?²³ If the answer to this question is yes, then internet users making connections through VPNs and proxies run the risk of having to defend themselves in jurisdictions far from home. Allowing courts to assert personal jurisdiction based on VPN and proxy connections could be an effective deterrent to illegal downloading, but such an exercise of jurisdiction may strain the boundaries of due process.

Courts use the personal jurisdiction analysis to determine whether the exercise of jurisdiction over a particular defendant is consistent with due process. Personal jurisdiction evaluations take place with every case that comes before a court, and as a result, the analysis has been forced to adapt to constantly changing technology.²⁴ The nuances of this analysis have been continuously evaluated and reevaluated by the Supreme Court.²⁵ This Note does not advocate for a new standard of personal jurisdiction for analyzing cases that involve internet conduct using VPNs or proxies, but it does suggest that "traditional notions" of fair play and substantial justice might

²¹ See Stephanie Minnock, Comment, Should Copyright Laws Be Able to Keep Up with Online Piracy? 12 COLO. TECH. L.J. 523, 524, 530, 532 (2014) (discussing how the internet provides access to websites worldwide and how copyright infringement can be facilitated by encrypted pathways like Virtual Private Networks, which make a user's IP address appear to come from where the "end server" is based rather than where the user is physically located); see also Susan Jezewski Evans, *Civil Procedure*, 1997 DET. C.L. REV. 323, 335 ("New innovations in technology often create novel issues that require modern courts to apply established principles in new contexts.").

²² See Jeff Tyson & Stephanie Crawford, *How VPNs Work*, HOWSTUFFWORKS, http://computer.howstuffworks.com/vpn.htm. *See also* Cook, *supra* note 7 ("[T]he remote server you're connected to may be accessing the internet through a different ISP than your own.").

 $^{^{23}}$ Cf. Calder v. Jones, 465 U.S. 783, 789-90 (1984) (holding that intentionally targeting a state with a libelous article constituted purposeful availment because the defendants knew the article would harm the plaintiff in the forum state).

²⁴ See, e.g., Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1123 (W.D. Pa. 1975). The court in this case noted "[t]he Internet makes it possible to conduct business throughout the world entirely from a desktop," and the fact that courts are going to have to begin considering the impact that pervasive internet use will have on the application of personal jurisdiction standards. *Id.* at 1123-24. ²⁵ See generally Bristol-Meyers Squibb v. Superior Court, 137 S. Ct. 1773 (2017).

not be all that traditional after all.²⁶ There are a handful of foundational personal jurisdiction cases, but the Supreme Court's frequent reconsideration of the personal jurisdiction standard has dramatically expanded its application,²⁷ and the future may require further modernization or interpretation of the standard as society and technology continue to develop.²⁸

In Part I, this Note provides background information on the methods by which an internet user can disguise an IP address by connecting to servers in other geographic locations.²⁹ Part II discusses traditional notions of personal jurisdiction and how they have evolved over time to facilitate due process in an increasingly mobile and technological society.³⁰ Part III then gives an overview of responses courts have taken to integrate the advent of the internet age into the personal jurisdiction analysis.³¹ With that background established, the Note turns in Part IV to a discussion of whether an internet user purposefully avails himself or herself of the privilege of conducting activities in a forum, thus invoking the benefits and protections of that forum's laws, by virtue of connecting to a server in that forum and knowingly engaging in wrongful activities.³² This Note ultimately argues that courts can apply previously established standards for ensuring due process through personal jurisdiction to cases involving the use of geolocation-evading technology. The crux of the analysis becomes the intentionality with which an internet user selects a server when using a VPN or proxy. Focusing on the intentionality of the users' actions is supported by traditional case law's focus on the foreseeability that a defendant's actions would result in the defendant being subject to suit in that jurisdiction.³³ An emphasis on intentionality also helps reduce

²⁶ Cf. Int'l Shoe, 326 U.S. at 316.

²⁷ See infra Section II.A.2.

²⁸ See infra Part IV. Part IV discusses the applicable precedent, as well as difficulties that may arise in exercising that jurisdiction.

²⁹ See infra Part I. Section I.A outlines a general background on the way the internet functions, and Sections I.B and I.C discuss VPNs and proxies, respectively.

³⁰ See infra Part II. Part II gives a thorough overview of the seminal Supreme Court cases dealing with personal jurisdiction.

³¹ See infra Part III. The Supreme Court has not addressed the influence of the internet on personal jurisdiction cases, but Part III discusses the range of responses United States district courts and circuit courts of appeals have taken from the 1990s through the present.

³² See infra Part IV. This part will consider the ramifications of different ways internet users can connect through VPNs and proxies.

³³ See infra Section IV.C. See generally World-Wide Volkswagen v. Woodson, 444 U.S. 286 (1980); Calder v. Jones, 465 U.S. 783, 789 (1984).

potential due process concerns. Adapting the already established precedent to cases involving modern technology ensures that the standards for satisfying due process are both predictable and flexible.

I. INTERNET GEOLOCATION AND THE EFFECTS OF LOCATION-MASKING TECHNOLOGY

The goal of internet geolocation technology is to determine the physical location of internet users and the devices that they use to access the internet.³⁴ Geolocation can identify the location of a user's IP address,³⁵ which is a unique identifier for a particular device.³⁶ There are several different methods by which geolocation can identify the location of a user or a user's IP address.³⁷ These methods are divided into three general categories: self-reporting methods, IP geolocation, and time-and-distance-based methods.³⁸ Self-reporting simply requests that the user report his or her own information,³⁹ IP geolocation considers the IP address that is provided when the user accesses content,⁴⁰ and the time-and-distance methods attempt to locate users based on how long it takes for the host to respond to an electronic signal from the website operator.⁴¹

In spite of the many methods for identifying the location of an internet user or an IP address, there are ways for users to circumvent geolocation techniques and disguise their whereabouts.⁴² Although

³⁷ See Muir, supra note 34, at 3.

³⁴ See James A. Muir & Paul C. Van Oorschot, *Internet Geolocation: Evasion and Counterevasion*, 42 ACM COMPUTING SURVEYS 1 (2009).

³⁵ Id. at 2.

³⁶ See Stephanie Crawford, *What Is an IP Address?*, HOWSTUFFWORKS, http://computer.howstuffworks.com/internet/basics/question549.htm. Every device connected to the internet has a distinct IP address that enables it to communicate with other devices also connected to the internet. *Id.*

³⁸ See Jerusha Burnett, Geographically Restricted Streaming Content and Evasion of Geolocation: The Applicability of the Copyright Anticircumvention Rules, 19 MICH. TELECOMM. TECH. L. REV. 461, 465-470 (2013).

³⁹ See Muir, supra note 34, at 8.

⁴⁰ *Id.* at 4. There are several ways to access user reported data such as a "WHOIS" lookup by IP address, autonomous system, or domain name, or a location contained within the domain name of a host website. *Id.* at 4-7.

⁴¹ *Id.* at 7. For example, some country code domains (such as .au for Australia) require registrants have a connection to the country in which they are registering. *Id.*

⁴² *Id.* at 11 (discussing how a user familiar with geolocation can "misdirect a locator to a false location conclusion"). *See also* Burnett, *supra* note 38, at 470

the process of disguising an IP address through location-masking techniques is not itself illegal, the process can be, and often is, used to conduct illegal activity.⁴³ Two common mechanisms that internet users employ to disguise their locations and the locations of their IP addresses are VPNs and proxies.⁴⁴

A. IP Addresses and Accessing the Internet Without the Aid of Location-Masking Technology

The internet is a constantly growing hierarchy of networks.⁴⁵ An internet service provider (ISP) issues IP addresses, identifiers similar to telephone numbers, to the devices on its network. That ISP is then connected to a larger network, which connects to an even larger network, and so on up the chain.⁴⁶ In order to communicate, the various networks rely on routers, backbones, and Network Access Points (NAPs).⁴⁷ The routers direct information from one computer to another,⁴⁸ the backbones connect the smaller

^{(&}quot;[U]sers may . . . take steps to intentionally disguise or alter their IP address to avoid detection.").

⁴³ See Muir supra note 34, at 2 (discussing how geolocation evasion can be used to circumvent privacy protections or hide illegal activity).

⁴⁴ See infra Sections IV.B and IV.C. See also How do you hide your IP address?, HOWSTUFFWORKS, https://computer.howstuffworks.com/internet/basics/hide-ip-address.htm.

⁴⁵ See Jeff Tyson, *How Internet Infrastructure Works*, HOWSTUFFWORKS, https://computer.howstuffworks.com/internet/basics/internet-infrastructure1.htm ("The Internet is simply a network of networks."). *See also* M. Handley, *Why the Internet Only Just Works*, 3 BT TECH. J. 119, 121 (2006) (discussing the exponential growth of the internet).

⁴⁶ See Tyson, supra note 45 ("When you connect to your ISP, you become part of their network. The ISP may then connect to a larger network and become part of their network."). See also Adamic, supra note 6, at 147 ("The Internet is comprised of networks on many levels.").

⁴⁷ See Tyson, supra note 45 ("All of these networks rely on NAPs, backbones and routers to talk to each other."). Occasionally, with larger companies there will also be a Point of Presence (POP) that connects multiple regions to one another. *Id.* See also Dorothy Glancy, At the Intersection of Visible and Invisible Worlds: United States Privacy Law and the Internet, 16 COMPUTER HIGH TECH. L. J. 357, 358 (2000) ("[T]he Internet is an interconnection of digital networks that operates in multiple ways to communicate data and other information worldwide.").

⁴⁸ See Tyson, *supra* note 45 ("The routers determine where to send information from one computer to another.").

networks together, 49 and the NAPs are the connection points for the various backbones.⁵⁰

Generally, every internet machine can be classified as either a server or a client.⁵¹ Servers process requests and deliver data between computers on the same local network or over the internet,⁵² and the machines that access those servers are the clients.⁵³ Clients connect to a server with a particular intent and will want to connect to a specific type of software server running on the server at large.⁵⁴ In order for servers to direct the data and requests users route through them to their intended recipients, every machine has a unique IP address – an indicator that allows servers to locate individual devices connected to the internet.⁵⁵ While much online activity is essentially conducted in space, there is always a preliminary connection to a server with a physical location, and all information that can be found online is hosted by a server.⁵⁶

⁴⁹ See *id*. (discussing the makeup of an internet backbone and the way that the "high-capacity" backbones developed by companies enable everyone on the internet to communicate between different networks).

⁵⁰ See id. ("Today there are many companies that operate their own high-capacity backbones, and all of them interconnect at various NAPs around the world.").

⁵¹ See id. (discussing the classifications of "servers" and "clients").

⁵² See Bradley Mitchell, Servers are the Heart of the Internet, LIFEWIRE (Oct. 22, 2018), https://www.lifewire.com/servers-in-computer-networking-817380. Most servers enable internet access, but others can do things as basic as storing files or sending emails. See id.

⁵³ See Zhuoqin Morley Mao et. al., *A Precise and Efficient Evaluation of the Proximity Between Web Clients and Their Local DNS Servers,* Proceedings of the 2002 USENIX Annual Technical Conference, at 1 (2002) (describing the relationship between servers and clients). *See also* Brain, *supra* note 57.

⁵⁴ See Brain, supra note 57 ("A server machine may provide one or more services on the internet. . . . Clients that come to a server machine do so with a specific intent, so clients direct their requests to a specific software server running on the overall server machine.").

⁵⁵ See id. ("To keep all of these machines straight, each machine on the Internet is assigned a unique address called an IP address.").

⁵⁶ See, e.g., Where in the World Does the Internet Live?, WHOISHOSTINGTHIS (Dec. 6, 2013) https://www.whoishostingthis.com/blog/2013/12/06/internet-infographic/ ("[D]espite it's ephemeral nature, the Internet does indeed have a physical home . . . [s]pread across almost 75 million interconnected servers.").



Figure 1: The hierarchy of internet networks.⁵⁷

IP addresses act similarly to telephone numbers by allowing devices to communicate with one another within a network.⁵⁸ In order to do so, each device must have a different identifier.⁵⁹ To communicate, a sending device must know the identification of the destination before it transmits data, and the IP address serves as that identifier.⁶⁰ Website domain names, like www.google.com, have become a short hand for IP addresses.⁶¹ When an internet user types a domain name into an internet browser, the computer will use a domain name system (DNS) server, like a phonebook for IP addresses, to find the corresponding IP address and navigate to the website.⁶²

B. Using a Virtual Private Network to Evade Geolocation

VPNs were first developed to allow employees to connect to a company's server without having to be physically present at work, but they have become increasingly popular for everyday use.⁶³ A

⁵⁷ Marshall Brain, *How Web Servers Work*, HOWSTUFFWORKS, https://computer.howstuffworks.com/web-server3.htm.

⁵⁸ See Andrew Froehlich, *IP Addresses, Subnet Masks, and Default Gateways,* NETWORKCOMPUTING (April 12, 2017, 7:30 AM), https://www.networkcomputing.com/network-security/ip-addresses-subnetmasks-and-default-gateways/1835691346 ("An IP address is similar to the unique telephone number on your home phone or mobile device.").

⁵⁹ *See id.* ("Every device connected to a network must have a unique IP address to differentiate it from the others.").

⁶⁰ See id. ([F]or a device to communicate with another, the sending device must know the location of the destination before it can begin transmitting data.").

⁶¹ See Tim Fisher, What is an IP Address?, LIFEWIRE (Sept. 5, 2018), https://www.lifewire.com/what-is-an-ip-address-2625920.

⁶² See id.

⁶³ See Cook supra note 7 ("VPNs have been around for decades. Long the mainstay for banks and large corporations to help connect employees spread out

VPN acts as tunnel allowing for remote access to a server that is physically located somewhere else.⁶⁴ Most operating systems include software that is capable of connecting to VPNs, although some will require the user to download and install an application.⁶⁵

The location masking capabilities of VPNs can allow internet users to access content that is geographically restricted.⁶⁶ Netflix, for example, is not available in every country;⁶⁷ however, internet users in a country without Netflix could use a VPN to connect to a local server and make their IP addresses appear to originate from a country that does offer Netflix.⁶⁸ Sports content is also frequently geographically restricted.⁶⁹ NBA League Pass, for example, will "black out" access to local teams' games,⁷⁰ and NHL Center Ice

across the country."); Allen S. Hammond, *Private Networks, Public Speech: Constitutional Speech Dimensions of Access to Private Networks*, 55 U. PITT. L. REV. 1085, 1087 (1994) ("It is estimated that as much as a third of the nation's total yearly telecommunications investment is channeled into private networks, virtual private networks and related hybrid services."). See also Virtual Private Networking: An Overview, MICROSOFT TECHNET (Sept. 4, 2001), https://technet.microsoft.com/en-us/library/bb742566.aspx.

⁶⁴ See Cook supra note 22 ("Virtual private networks are essentially private tunnels between your computer and a server located somewhere else."); see also Hammond, supra note 63, at 1097 ("[V]irtual Private Networks (VPNs)[] offer their customers access to reserved private line capacity VPN is essentially a long-distance service in the United States.").

⁶⁵ See Jeff Tyson & Stephanie Crawford, *How VPNs Work*, HOWSTUFFWORKS, http://computer.howstuffworks.com/vpn.htm.

⁶⁶ Quentin Hardy, *VPNs Dissolve National Boundaries Online, for Work and Movie-Watching*, N.Y. TIMES (Feb. 8, 2015, 5:30 AM), https://bits.blogs.nytimes.com/2015/02/08/in-ways-legal-and-illegal-vpn-technology-is-erasing-international-borders.

⁶⁷ See Brian Stelter, *Countries Where Netflix Is Now Available*, CNN (Jan 6, 2016, 4:45 PM), http://money.cnn.com/2016/01/06/media/netflix-global-launch-countries/index.html.

⁶⁸ See id. (Discussing how New Zealand citizens could get U.S. IP addresses through VPNs to watch Netflix prior to Netflix's availability in New Zealand). However, recently, Netflix has begun to block the access of IP addresses that connect to its website through a VPN. *See* Chen, *supra* note 5 ("Netflix often blocks [VPNs] to keep people from streaming content that is not licensed for their regions.").

⁶⁹ See Quentin Hardy, VPNs Dissolve National Boundaries Online, for Work and Movie-Watching, N.Y. TIMES (Feb. 8, 2015, 5:30 AM), https://bits.blogs.nytimes.com/2015/02/08/in-ways-legal-and-illegal-vpn-

technology-is-erasing-international-borders/ (discussing how VPNs allow for access to "movie, television and sports videos that collectively would probably be impossible to obtain").

⁷⁰ See NBA League Pass Blackout Information, NBA.COM, http://www.nba.com/leaguepass/ ("Blackout restrictions exist because local and national content providers have certain exclusive rights to televise live content...

includes similar restrictions.⁷¹ It is the connection to a server in the target area that allows the internet user to circumvent the geographical restrictions.⁷²

A VPN allows an internet user to hide browsing activity from an ISP.⁷³ When a user connects to a VPN server, all content that the user accesses after connecting to the VPN is encrypted and routed through the VPN connection rather than through the user's ISP.⁷⁴ This means that the ISP would see only the user's connection to the VPN and not any subsequent connections to other websites.⁷⁵ In addition to masking internet activity, VPNs can also make it seem as though an IP address is originating from a different geographic location.⁷⁶

Although VPNs do enable users to mask IP addresses, the internet users' connections to the VPNs are not always as anonymous as they may advertise.⁷⁷ In reality, users accessing the internet through

^{. .} Blackouts are specific to your current location [d] etermined by the IP address associated with your internet connection.").

⁷¹See NHL.tv and NHL Premium Blackout Detector, NHL.COM, https://www.nhl.com/info/nhltv-blackout-detector ("Games broadcast on local and national television in your area are subject to blackouts.").

⁷² See Chris Hoffman, *How to Access Region-Restricted Websites from Anywhere on Earth*, How-To GEEK (Aug. 2, 2016, 8:56 PM), https://www.howtogeek.com/210614/how-to-access-region-restricted-websites-from-anywhere-on-earth/ ("[I]f you wanted to access US-based services, you'd need a server based in the US.").

⁷³ See Chen, supra note 5.

⁷⁴ *Id.* ("VPNs help cloak your browsing information from your internet provider."). *See also* Ellie Shahin, *Is Wifi Worth It: The Hidden Dangers of Public Wifi*, 25 CATH. U. J. L. & TECH. 205, 225 (2017) ("A virtual private network ensures a secure connection, which directs all network traffic... through a secure virtual tunnel between the host device (client) and the virtual private network provider's servers.") (quoting *What is a Virtual Private Network (VPN)?*, HOTSPOTSHIELD, https://www.hotspotshield.com/learn/what-is-a-vpn/); Vasile Perta et al., *A Glance through the VPN Looking Glass: IPv6 Leakage and DNS Hijacking in Commercial VPN Clients*, PROCEEDINGS ON PRIVACY ENHANCING TECHNOLOGIES 77, 80 (2015) (describing how traffic that passes through a VPN's virtual interface is encrypted).

⁷⁵ See Chen, supra note 5 ("[A]II . . . web traffic passes through the VPN provider's internet connection. So . . . your internet provider . . . would [only] see . . . the VPN server's IP address connected to the VPN service.").

⁷⁶ *Id.* ("VPNs also have the ability to make it appear as though your device is connecting from different locations [If you] want to stream content that is only viewable in France, you could connect to a VPN server whose IP address is in France.").

⁷⁷ See Perta, supra note 74, at 79 ([T]he most commonly advertised features [are] 'Access to restricted content' and 'Anonymity.''').

VPNs may not be that difficult to trace.⁷⁸ While the users' IP addresses may not be visible to the websites they access through a VPN, they are not hidden from the VPN itself.⁷⁹ Therefore users have to trust that their VPN service provider will not disclose their identity to third parties either voluntarily or compulsively.⁸⁰

A simple Google search for "best VPN service" brings up over three million results.⁸¹ Several different websites claim to have tested multiple VPN services and have created lists detailing the attributes and shortcomings of different VPN providers.⁸² Most of the providers charge for their services, but some offer free versions of their software.⁸³ Some of the websites even note what type of users each site is best suited to support.⁸⁴ For example, some consider IPVanish VPN and NordVPN to be best for general users, while KeepSolid VPN Unlimited is better for frequent travelers, TorGuard VPN for BitTorrent Users, and Hide My Ass VPN is ideal for "security novices."⁸⁵

C. Using a Proxy to Evade Geolocation

A proxy server allows an individual IP address to connect to a server without doing so directly; instead of a direct connection, the user connects through the proxy server which in turn connects with the end server.⁸⁶ The proxy acts as a middleman between the user's individual computer and the internet, meaning that the user's IP

⁷⁸ See *id.* (discussing the limited amount of anonymity commercial VPN services are capable of providing).

⁷⁹ See id. ("[I]t is clear that users are not anonymous [to] their VPN service provider.").

⁸⁰ See *id.* (indicating that VPN providers could use user information for malicious purposes or could be compelled to disclose information by subpoena). See also Shahin, *supra* note 74, at 226 ("[I]n order to receive the highest level of security users must seek additional protection, which may . . . be difficult for those who are less than tech savvy.").

⁸¹ Google Search Results for "Best VPN Service," GOOGLE, http://google.com (results obtained by typing "Best VPN Service" into the provided search bar).

⁸² See, e.g., Max Eddy, *The Best VPN Services of 2017*, PC MAG (Oct. 16, 2017, 9:06 AM), https://www.pcmag.com/article2/0,2817,2403388,00.asp; David Gewirtz, *The Best VPN services of 2017*, CNET (Sept. 6, 2017, 6:19 AM), https://www.cnet.com/best-vpn-services-directory/; Paul Gil, *The Best VPN Service Providers of 2017*, LIFEWIRE (Oct. 11, 2017), https://www.lifewire.com/best-vpn-service-providers-4061659.

⁸³ See generally supra note 82 (detailing a list of such service providers and indicating which are free and which charge for their VPN services).

⁸⁴ See Eddy, supra note 82.

⁸⁵ See id.

⁸⁶ See How do you hide your IP address?, HOWSTUFFWORKS, https://computer.howstuffworks.com/internet/basics/hide-ip-address.htm.

address is hidden from any websites to which the user connects after connecting to the proxy server.⁸⁷ Similar to a VPN, a proxy server makes it appear as though the user is accessing the internet from wherever the proxy server is located rather than from where the user is located.⁸⁸

Unlike a VPN, a proxy server does not go beyond masking an IP address to encrypt the traffic between the user's computer and the proxy server.⁸⁹ Also unlike a VPN, a proxy server only works for one application at a time rather than for an entire internet connection.⁹⁰ Proxy servers are available in two primary formats: HTTP and SOCKS.⁹¹ HTTP proxy servers are specifically for web browsing and for any searches or online traffic will be routed through the proxy server.⁹² SOCKS servers are not limited to web traffic and can be used for activities beyond browsing the internet, such as downloading content.⁹³

There are proxy servers available online that can be accessed for free,⁹⁴ but many of these are slow and impractical.⁹⁵ Proxies require users to separately connect each individual application on a computer to the proxy server, compared to VPNs, which cover all applications through a single connection.⁹⁶ There are some

⁸⁷ Douglas Crawford, *The Ultimate Proxy Server Guide & How It Differs From a VPN*, BESTVPN.COM (June 24, 2018), https://www.bestvpn.com/proxy-server/.

⁸⁸ See id. ("You will appear to access the internet from wherever the proxy server is physically located.").

⁸⁹ See Jason Fitzpatrick, *What's the Difference Between a VPN and a Proxy?*, How-To GEEK (July 25, 2016, 6:47 PM), https://www.howtogeek.com/247190/whats-the-difference-between-a-vpn-anda-proxy/ ("Proxy servers *only* hide your IP address They don't encrypt your traffic between your computer and the proxy server, . . . [or] strip away identifying information from your transmissions.") (emphasis in original).

⁹⁰ See *id.* This means that each webpage connection would have to be individually routed through a proxy server to mask an IP address rather than masking all online activities at once. *Id.* ("[P]roxy server connections are configured on an application-by-application basis, not computer-wide This is great if you just want a single application to connect to the proxy . . . but not so great if you wish to redirect your entire internet connection.").

⁹¹ See Crawford, supra note 87; Fitzpatrick, supra note 89.

⁹² See Fitzpatrick, supra note 89.

 ⁹³ See id. ("The SOCKS proxy system is a useful extension of the HTTP proxy system in that SOCKS is indifferent to the type of traffic that passes through it.").
 ⁹⁴ See, e.g., PROXY4FREE, http://www.proxy4free.com/ (last visited Feb. 12, 2018). Proxy4free.com offers a large selection of proxy servers sorted by recentness, "top rated," country of origin, and speed.

⁹⁵ See Fitzpatrick, supra note 89 ("[T]he Internet is awash with thousands of free proxy servers, [but] they are almost universally flaky with poor uptime.").
⁹⁶ See id.

commercial proxy servers, but proxies have generally fallen out of favor with the rise in popularity of VPNs.⁹⁷ VPNs also offer a more secure connection, which has given rise to their increased popularity.⁹⁸

II. THE DEVELOPMENT OF THE TRADITIONAL PERSONAL JURISDICTION ANALYSIS

Personal jurisdiction can be satisfied in a number of ways, the most complicated of which is through minimum contacts that the defendant establishes with the forum state.⁹⁹ The ability of a state to exercise personal jurisdiction over a nonresident defendant is limited by the Due Process Clause of the Fourteenth Amendment.¹⁰⁰ When a court rules that a state does not have personal jurisdiction over a defendant because that defendant lacks sufficient minimum contacts, the court is effectively saying that to exercise such jurisdiction would be a violation of due process.¹⁰¹ Minimum contacts with the forum state was not initially a part of the personal jurisdiction analysis,¹⁰² but following the Supreme Court's decision in International Shoe v. Washington, it has become a widely accepted, but heavily debated precedent.¹⁰³ What constitutes minimum contacts under the umbrella of due process has been subject to a variety of challenges, many of which have been addressed by the Supreme Court but to less than satisfactory results.¹⁰⁴

⁹⁷ See id. ("[T]here are stand-alone commercial services . . . [but] the proxy has largely fallen out of favor as more and more people opt to use superior VPN solutions.").

⁹⁸ See id.

⁹⁹ See Int'l Shoe, 326 U.S. at 316.

¹⁰⁰ See U.S. CONST. amend. XIV, § 1; Kulko v. Superior Court, 436 U.S. 84, 91 (1978).

¹⁰¹ See Martin H. Redish, *Due Process, Federalism, and Personal Jurisdiction: A Theoretical Evaluation*, 75 Nw. U. L. REV. 1112, 1113 (1981).

¹⁰² See generally Pennoyer, 95 U.S. at 714 (containing no discussion of minimum contacts).

¹⁰³ See Int'l Shoe, 326 U.S. at 319 ("[T]o the extent that a corporation exercises the privilege of conducting activities within a state, it enjoys the benefits and protection of the laws of that state. The exercise of that privilege may give rise to obligations; and, so far as those obligations arise out of or are connected with the activities within the state, a procedure which requires the corporation to respond to a suit brought to enforce them can, in most instances, hardly be said to be undue.").

¹⁰⁴ See generally Asahi, 480 U.S. at 102; J. McIntyre Mach., Ltd. v. Nicastro, 564 U.S. 873 (2011) (both discussing minimum contacts through the "stream of commerce.").

A. The Beginnings and the Basics

The Supreme Court has long recognized personal jurisdiction's constitutional roots in the Due Process Clause of the Fourteenth Amendment.¹⁰⁵ However, the traditional personal jurisdiction analysis is entirely a creature of case law.¹⁰⁶ The Constitution itself only guarantees that no state shall "deprive any person of life, liberty, or property, *without due process of law*;" it was courts who interpreted this clause to place limits on the ability of states to subject non-resident defendants to their judgments.¹⁰⁷

1. The Due Process Clause

The Due Process Clause of the Fourteenth Amendment reflects a fundamental desire for fairness.¹⁰⁸ In order to promote fairness and prevent injustice to private parties in the context of litigation, the Constitution places limits on states' authority to hear cases.¹⁰⁹ The roots of the due process analysis in the context of personal jurisdiction can therefore be found in the concept of state sovereignty.¹¹⁰

While the Supreme Court has never clearly delineated the relationship between state sovereignty and the Due Process Clause as they relate personal jurisdiction, it seems to boil down to the reasonableness of a state imposing the burden of litigation on a noncitizen.¹¹¹ States have the inherent ability to exercise authority over

¹⁰⁵ See, e.g., Pennoyer, 95 U.S. at 732-33; *Int'l Shoe*, 326 U.S. at 316; Shaffer v. Heitner, 433 U.S. 186, 198-200 (1977).

¹⁰⁶ See infra Section II.A.2 (discussing the development of personal jurisdiction case law).

¹⁰⁷ U.S. CONST. amend. XIV, § 1. See also Shaffer, 433 U.S. at 198-200.

¹⁰⁸ See Frederic L. Kirgis, Jr., *The Roles of Due Process and Full Faith and Credit in Choice of Law*, 62 CORNELL L. REV. 94, 95 (1976).

¹⁰⁹ See Redish, supra note 101, at 1114 ("[L]imitations on state authority are imposed in the name of the [Due Process C]lause regardless of whether private parties—the ultimate beneficiaries of these protections—are in danger of suffering real injustice.").

¹¹⁰ See Lea Brilmayer, *How Contacts Count: Due Process Limitations on State Court Jurisdiction*, 1980 SUP. CT. REV. 77, 84 (1980).

¹¹¹ See id. at 85 ("[T]he sovereignty concept inherent in the Due Process Clause is not the reasonableness of the burden [on the defendant] but the reasonableness of the particular State's imposing it."). However, there are some scholars who do not believe the Due Process Clause is an appropriate source of authority for limiting state sovereignty through personal jurisdiction requirements. For a discussion of these arguments, see, e.g., Robert E. Pfeffer, *A 21st Century Approach to Personal Jurisdiction*, 13 U.N.H.L. Rev. 65 (2015); Allan R. Stein,

their own citizens, and any citizens who wish to challenge this authority have a venue in which to do so—the state political process.¹¹² Alternatively, non-citizens do not have this same avenue of recourse, and as a result states need additional justification for the imposition of the burden of litigation on a non-citizen.¹¹³ The Supreme Court's frequent references to a non-citizen defendant's minimum contacts that invoke the benefits and protections of state laws reflect this dynamic.¹¹⁴ A defendant with minimum contacts has conducted itself in such a way that it has benefitted from state law in ways typically available only to citizens and therefore should also be subject to those same laws.

2. Case Law

Any discussion of personal jurisdiction case law must begin with the Supreme Court's decision in *Pennoyer v. Neff.*¹¹⁵ This 1877 case initially established that personal jurisdiction could be exercised over a defendant only if the defendant was physically present in the forum state.¹¹⁶ This was a very rigid standard that was effective at a time when nationwide travel was uncommon, and a plaintiff could reasonably expect that a defendant against whom he had a claim would remain within a single state.¹¹⁷

As society progressed, the rule in *Pennoyer* gave way to a new rule established in *International Shoe v. Washington.*¹¹⁸ *International Shoe* recognized the need for a standard consistent with a society in which corporations often operated across state lines, making it

Personal Jurisdiction and the Internet: Seeing Due Process Through the Lens of Regulatory Precision, 98 NW. U.L. REV. 411 (2004); Redish, supra note 101.

¹¹² See Brilmayer, supra note 110, at 85 ("The proper response of a citizen or resident who objects is to invoke the State's political processes, the classic remedy where the State imposes burdens on its own members.").

¹¹³ See id. at 85-86.

¹¹⁴ See, e.g., Hanson, 357 U.S. at 253.

¹¹⁵ 95 U.S. at 724. *Pennoyer* held that there were two ways to acquire jurisdiction over a defendant: "first, as against the person of the defendant by the service of process; or, secondly, by a procedure against the property of the defendant within the jurisdiction of the court." *Id.*

¹¹⁶ See id. at 722 ("[E]very State possesses exclusive jurisdiction and sovereignty over persons and property within its territory.").

¹¹⁷ See Dennis T. Yokoyama, You Can't Always Use the Zippo Code: The Fallacy of a Uniform Theory of Internet Personal Jurisdiction, 54 DEPAUL L. REV. 1147, 1151 (2005) (referring to Pennoyer as a "wooden doctrine"); *id.* at 1151 n.18 (citing Hanson, 357 U.S. at 251) (comparing Pennoyer's "rigid" rule with the more "flexible" rule found in Int'l Shoe).

¹¹⁸ See Int'l Shoe, 326 U.S. at 319 (holding that corporations with minimum contacts in a state should be subject to personal jurisdiction in that state).

difficult for courts to apply the presence requirement found in *Pennoyer*.¹¹⁹ The Court reasoned that what really mattered to the *Pennoyer* Court when it placed so much emphasis on "presence" was that presence was symbolic of activities in a forum that would satisfy due process.¹²⁰ Due process would thus be satisfied when a corporation's contacts with a state rose to a level that would make it reasonable to require it to defend a suit in that forum.¹²¹

In expanding the scope of personal jurisdiction, the Supreme Court reasoned that jurisdiction under this new test would be definitively established when a corporation's activities in a state were "continuous and systematic," and those same activities gave rise to the suit.¹²² It also acknowledged that there had been instances where a corporation's continuous and systematic activities in a state were "so substantial" that they justified suit in that state even when they did not give rise to the cause of action.¹²³ These descriptions have since developed into the concepts of "specific"¹²⁴ and "general" jurisdiction.¹²⁵ For both types of jurisdiction, the ultimate question for determining whether a defendant has formed a contact with a state is whether the defendant has "purposefully avail[ed] itself of the privilege of conducting activities within the forum State, thus invoking the benefits and protections of its laws."¹²⁶

Specific and general jurisdiction are both based on a defendant's contacts with the forum state, but the type of contacts and the amount required are very different.¹²⁷ Specific jurisdiction focuses

¹¹⁹ See McGee, 355 U.S. at 222 ("Looking back over this long history of litigation a trend is clearly discernible toward expanding the permissible scope of state jurisdiction over foreign corporations and other nonresidents. In part this is attributable to the fundamental transformation of our national economy over the years.").

¹²⁰ *Int'l Shoe*, 326 U.S. at 316-17 (citing Hutchinson v. Chase & Gilbert 45 F.2d 139, 141 (2d Cir. 1930)) (indicating that "presence" only required activities "sufficient to satisfy the demands of due process").

¹²¹ See id. at 317.

¹²² Id.

¹²³ See id. at 318.

¹²⁴ See Daimler AG v. Bauman, 571 U.S. 117, 126-27 (2014) (discussing cases where a defendant's activities gave rise to the suit).

¹²⁵ See Goodyear Dunlop Tires v. Brown, 564 U.S. 915, 919 (2011) (discussing cases where jurisdiction is based on continuous and systematic contacts with the forum state).

¹²⁶ Hanson, 357 U.S. at 253 (citing Int'l Shoe, 326 U.S. at 319).

¹²⁷ See Lea Brilmayer et. al., *A General Look at General Jurisdiction*, 66 TEX. L. REV. 721, 735-36 (1988) ("The type of jurisdiction being asserted sets the quantum of contacts required; a single activity may suffice to establish specific

on the relationship between the defendant's contacts and the cause of action, asking whether those contacts, minimal as they may be, gave rise to the action.¹²⁸ Alternatively, for general jurisdiction the defendant's contacts with the forum state must be "so continuous and systematic" that the defendant is essentially at home in the jurisdiction.¹²⁹ The heightened requirement for general jurisdiction contacts is imposed because those contacts are unrelated to the suit.¹³⁰

International Shoe is still the foundation of personal jurisdiction analyses in the present day with its focus on minimum contacts that comport with "traditional notions of fair play and substantial justice."¹³¹ The Supreme Court has considered personal jurisdiction in many cases following its decision in *International Shoe*.¹³² However, these decisions have complicated the analysis, and many have resulted in uncertain plurality opinions.¹³³

jurisdiction, whereas general jurisdiction requires proof of continuous and systematic activities.").

¹²⁸ See Daimler, 571 U.S. at 126 ("The first category [of personal jurisdiction] is represented by . . . case[s] in which the in-state activities of the corporate defendant 'ha[d] not only been continuous and systematic, but also g[a]ve rise to the liabilities sued on."") (citing *Int'l Shoe*, 326 U.S. at 319).

¹²⁹ See Goodyear, 564 U.S. at 919 ("A court may assert general jurisdiction over foreign (sister-state or foreign-country) corporations to hear any and all claims against them when their affiliations with the State are so continuous and systematic as to render them essentially at home in the forum State.") (citing *Int'l Shoe*, 326 U.S. at 317); *Daimler*, 571 U.S. at 127.

¹³⁰ See Brilmayer, supra note 127, at 736 ("When defendants have engaged in forum activities that are related to the controversy . . . plaintiffs usually seek specific jurisdiction. In contrast, when plaintiffs seek general jurisdiction, they may allege as a basis for jurisdiction activities unrelated to the dispute.").

¹³¹ Int'l Shoe, 326 U.S. at 316 (quoting Milliken v. Meyer, 311 U.S. 457, 463 (1940)). See also Bernadette Bollas Genetin, *The Supreme Court's New Approach to Personal Jurisdiction*, 68 SMU L. REV. 107, 118 (2015) ("International Shoe has been construed to mark a doctrinal shift from the state territorial power analysis of Pennoyer v. Neff to an analysis based on reasonableness, thus ushering in the modern era of personal jurisdiction analysis under the Due Process Clause.").

¹³² See, e.g., Hanson, 357 U.S. at 235; World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286 (1980); Calder v. Jones, 465 U.S. 783 (1984); Asahi, 480 U.S. at 102; J. McIntyre Mach., Ltd. v. Nicastro, 564 U.S. 873 (2011); Daimler, 571 U.S. at 117; Bristol-Myers Squibb Co. v. Superior Court, 137 S. Ct. 1773 (2017).

¹³³ See, e.g., Asahi, 480 U.S. at 102; Nicastro, 564 U.S. at 876.

B. The Scope Expands with Diverging Opinions

The Supreme Court has expounded on its decision in *International Shoe* with its more recent decisions in *Hanson v. Denkla, World-Wide Volkswagen v. Woodson, Calder v. Jones, Asahi v. Superior Court*, and *J. McIntyre Machinery v. Nicastro*.¹³⁴ These decisions considered the boundaries of personal jurisdiction through some of the more novel allegations of minimum contacts.¹³⁵ The Court handed down many of these decisions against the backdrop of advancing technology that enabled parties to allege minimum contacts under more tenuous circumstances.¹³⁶

The expansion of the analysis began in 1958 with the Supreme Court's decision in *Hanson v. Denckla*.¹³⁷ In this case, the Court focused its analysis on whether the defendant purposefully availed itself of the forum by initiating contact with the forum state.¹³⁸ At issue in *Hanson* was the status of a trust established in Delaware with a Delaware bank serving as trustee after the donor moved to Florida where her will was later probated upon her death.¹³⁹ The Supreme Court ruled that neither Florida's authority over the probate of the will or the decedent's domicile in the state gave Florida jurisdiction over the Delaware trust.¹⁴⁰ Citing the territorial limitations on the power of states, the Court ruled that the Florida court did not have jurisdiction over the trust because the Delaware trust company had no contacts with Florida.¹⁴¹ The Court's finding—that the decedent's unilateral decision to move to Florida could not constitute purposeful availment of the forum state on the

¹³⁷ 357 U.S. 235.

¹⁴⁰ Id.

¹³⁴ See Hanson, 357 U.S. at 235; Calder, 465 U.S. at 783; Asahi, 480 U.S. at 102; World-Wide Volkswagen, 444 U.S. at 286; Nicastro, 564 U.S. at 873.

¹³⁵ See, e.g., Calder, 465 U.S. at 789-90 (discussing intentional wrongdoing targeted at a jurisdiction as a basis for personal jurisdiction).

¹³⁶ See, e.g., Asahi, 480 U.S. at 105 ("This case presents the question whether the mere awareness on the part of a foreign defendant that the components it manufactured . . . would reach the forum state in the stream of commerce constitutes 'minimum contacts."")

¹³⁸ See Richard D. Freer, *Personal Jurisdiction in the Twenty-First Century: The Ironic Legacy of Justice Brennan*, 63 S.C. L. REV. 551, 562 (2012) (discussing the impact of the Court's focus on defendant-initiated contact in *Hanson* on later cases).

¹³⁹ Hanson, 357 U.S. at 238-40.

¹⁴¹ *Id.* at 251 ("[The] restrictions [on personal jurisdiction] are more than a guarantee of immunity from inconvenient or distant litigation. They are a consequence of territorial limitations on the power of the respective States.").

part of the trust—would serve as the foundation for several future decisions.¹⁴²

Following Hanson, the Supreme Court's decision in World-Wide Volkswagen v. Woodson first introduced into the personal jurisdiction analysis the concepts of stream of commerce and foreseeability.¹⁴³ The primary issue in the case was whether the plaintiff's decision to drive a vehicle through Oklahoma established minimum contacts with Oklahoma on the part of the regional distributor who sold the vehicle.144 The Court rejected the foreseeability that the newly purchased vehicle could end up in Oklahoma as the sole basis for exercising personal jurisdiction¹⁴⁵ and stated that, for jurisdiction to be based on a defendant's product, the defendant must have taken affirmative efforts to serve the forum state in particular.¹⁴⁶ The Court's discussion of foreseeability was somewhat circular; however, it was clear that the foreseeability relevant to personal jurisdiction was not the foreseeability of a product ending up in the forum state, but whether it was foreseeable that the defendant would be subject to litigation in the forum.¹⁴⁷

 $^{^{142}}$ Cf. id. at 253 ("The unilateral activity of those who claim some relationship with a nonresident defendant cannot satisfy the requirement of contact with the forum State.").

¹⁴³ See World-Wide Volkswagen, 444 U.S. at 295-96, 297-98. World-Wide Volkswagen involved a family who had purchased a new car while in New York and drove it on a move to Arizona. *Id.* at 288. While in Oklahoma, another car struck the car's rear bumper causing a fire that severely burned the family. *Id.* The family brought suit against several parties, including the regional distributer of the vehicle, World-Wide Volkswagen Corp. in Oklahoma. *Id.* There was no evidence in the record that World-Wide Volkswagen had done any business in Oklahoma, shipped or sold any products there, had an agent there, or directed any advertisements at Oklahoma specifically. *Id.* at 289.

¹⁴⁴ See id. at 295 ("[R]espondents seek to base jurisdiction on one, isolated occurrence and whatever inferences can be drawn therefrom."); Robert E. Pfeffer, *A 21st Century Approach to Personal Jurisdiction*, 13 U.N.H.L. REV. 65, 82 (2015) ("The Court then had to face an additional issue: how to evaluate contacts when the defendant's product, rather than the defendant itself, had contact with the state.").

¹⁴⁵ See Pfeffer, supra note 144, at 82 ("The Court rejected the plaintiff's argument that because the car's mobility made it foreseeable for the car to end up in Oklahoma, that jurisdiction would be valid there.").

¹⁴⁶ See World-Wide Volkswagen, 444 U.S. at 297 ("Hence if the sale of a product of a manufacturer or distributor such as Audi or Volkswagen is not simply an isolated occurrence, but arises from the efforts of the manufacturer or distributor to serve, directly or indirectly, the market for its product in other States, it is not unreasonable to subject it to suit in one of those States if its allegedly defective merchandise has there been the source of the injury to its owner or to others.").

¹⁴⁷ See *id.*; Pfeffer, *supra* note 144, at 82 ("[W]hat mattered was whether the defendant's contacts (via a product or otherwise) made it foreseeable that the defendant would be subject to jurisdiction in the forum.").

With this case, the purposeful availment analysis under *Hanson* then became a combination of the defendant's contacts with the forum state and foreseeability of whether the defendant would be subject to litigation in that state.¹⁴⁸

While engaged in a discussion of protecting against inconvenient litigation as a matter of reasonableness or fairness, the Court identified several factors that could be considered to determine whether maintenance of a suit was reasonable and fair.¹⁴⁹ The factors the Court identified as relevant to the analysis were: (1) the burden on the defendant, (2) the interests of the forum state, (3) the plaintiff's interest in obtaining relief, (4) the interstate judicial system's interest in obtaining the most efficient resolution of controversies, and (5) the shared interest of the several states in furthering fundamental substantive social policies.¹⁵⁰

Calder v. Jones, decided four years after *World-Wide Volkswagen*, was an important decision by the Supreme Court in defining the scope of specific jurisdiction.¹⁵¹ The defendant published an allegedly libelous story in a California magazine centered on the California-based plaintiff and her California-based entertainment career.¹⁵² Although the defendant argued that he should not be subject to personal jurisdiction in California because he was a Florida resident, the Court disagreed, emphasizing that both the focal point of the story and the location where the plaintiff suffered the harm were California.¹⁵³ The Court distinguished this case from one of untargeted negligence, saying instead that the defendant's

¹⁵² See id. at 788.

¹⁴⁸ See Pfeffer, supra note 144, at 82-83.

¹⁴⁹ See World-Wide Volkswagen, 444 U.S. at 292.

¹⁵⁰ See *id*.; Pfeffer, *supra* note 144, at 81 ("Now, with *World-Wide*, contacts and fairness both mattered.").

¹⁵¹ See Calder v. Jones, 465 U.S. 783 (1984). The plaintiff, Jones, brought a claim against the defendant in California for an allegedly libelous article he published about her in a magazine with wide circulation in California. *Id.* at 784. The plaintiff both lived and worked in California at the time of publication. *Id.* at 785. The magazine was a Florida corporation with its headquarters also located in Florida. *Id.* However, the magazine sold approximately 600,000 copies of its magazine in California, out of five million total. *Id.* The defendant, Calder, an employee of the magazine, was a resident of Florida who had previously traveled to California only twice on two occasions unrelated to the publication of the article. *Id.*

¹⁵³ See id. at 788-89 ("The article was drawn from California sources, and the brunt of the harm, in terms both of respondent's emotional distress and the injury to her professional reputation, was suffered in California.").

actions were directed at California.¹⁵⁴ Further, the Court noted that the defendant knew the plaintiff would feel the harm in California.¹⁵⁵ The core of the Court's reasoning in finding personal jurisdiction satisfied for the Florida-based defendant was that the defendant purposefully directed the harm at California—where the defendant knew the plaintiff would experience the most harm.¹⁵⁶ Although the court does not specifically use the term "foreseeability" in its analysis, the discussion of the defendant's targeting of the forum embodies similar principles. It was because of the defendant's targeted attacks that the court reasoned he could "reasonably anticipate being haled into court" in California.¹⁵⁷

Since *Calder*'s targeted effects test, the Supreme Court has struggled to determine what constitutes "purposeful availment" for specific jurisdiction, often coming to a consensus only on whether specific jurisdiction is satisfied, while disagreeing on the analysis.¹⁵⁸ In *Asahi*, the Court discussed whether placing a product into a "stream of commerce" was sufficient to open up a plaintiff to personal jurisdiction in the forum of the product's destination.¹⁵⁹ It was in *World-Wide Volkswagen* that the Court first mentioned the "stream of commerce" approach that caused so much trouble in *Asahi*.¹⁶⁰ In *Asahi*,¹⁶¹ Justice O'Connor acknowledged the varying

¹⁵⁴ See id. at 789 ("[Defendant is] not charged with mere untargeted negligence. Rather, [his] intentional, and allegedly tortious, actions were expressly aimed at California.").

¹⁵⁵ See id. at 789-90 (discussing the fact that the defendant "knew" the plaintiff would feel the injury the most in California where she lived and worked and where so many copies of the magazine circulated).

¹⁵⁶ *Id.* at 790 ("In this case, petitioners are primary participants in an alleged wrongdoing intentionally directed at a California resident, and jurisdiction over them is proper on that basis.").

¹⁵⁷ Id.

¹⁵⁸ See, e.g., Asahi, 480 U.S. at 102.

¹⁵⁹ Asahi, 480 U.S. at 105 ("This case presents the question whether the mere awareness on the part of a foreign defendant that the components it manufactured ... would reach the forum state in the stream of commerce constitutes 'minimum contacts.") (citing *Int'l Shoe*, 326 U.S. at 316).

¹⁶⁰ *World-Wide Volkswagen*, 444 U.S. at 297-98 ("The forum State does not exceed its powers under the Due Process Clause if it asserts personal jurisdiction over a corporation that delivers its products into the stream of commerce with the expectation that they will be purchased by consumers in the forum State.").

¹⁶¹See Asahi, 480 U.S. at 105. Asahi involved a foreign defendant who manufactured its products outside the United States and shipped them to the United States for sale through a distributor. *Id.* The issue at stake was whether the "mere awareness" of the defendant that its products would reach the forum state through the stream of commerce would constitute minimum contracts consistent with traditional notions of fair play and substantial justice when the products were manufactured, sold, and delivered outside the United States. *Id.*

interpretations that had abounded in the lower courts since *World-Wide Volkswagen*¹⁶² and attempted to clarify by explaining that placing a product in the stream of commerce alone would not qualify as conduct purposefully directed toward the forum state.¹⁶³ Additional evidence of intent to serve the forum was required.¹⁶⁴

In his concurring opinion, Justice Brennan disagreed with Justice O'Connor that Asahi had not purposefully availed itself of California.¹⁶⁵ Justice Brennan reasoned that no additional evidence was necessary beyond a showing that the defendant was aware that the stream of commerce could take its product to the forum state.¹⁶⁶ Justice Brennan distinguished this case from *World-Wide Volkswagen* by noting the difference between a consumer transporting a product that has already been purchased to the forum state directly.¹⁶⁷ Justice Brennan found minimum contacts and purposeful availment satisfied by Asahi's sales to a manufacturer that it knew

¹⁶² See id. at 110-11 (discussing that some lower courts interpreted the Due Process Clause, in light of *World-Wide Volkswagen*, to allow personal jurisdiction to be based on "no more than the defendant's act of placing the product in the stream of commerce," and that other courts have required the "action of the defendant to be more purposefully directed at the forum State than the mere act of placing a product in the stream of commerce.").

¹⁶³ See id. at 112.

¹⁶⁴ See id. ("The placement of a product into the stream of commerce, without more, is not an act of the defendant purposefully directed toward the forum State."); Matthew R. Huppert, *Commercial Purpose as Constitutional Purpose: Reevaluating* Asahi *through the Lens of International Patent Litigation*, 111 COLUM. L. REV. 624, 639 (2011) ("To meet the due process threshold, Justice O'Connor concluded that more persuasive evidence of the manufacturer's intent to serve the forum state would be required.").

¹⁶⁵ See Asahi, 480 U.S. at 116 (Brennan, J., concurring) ("I do not agree with the . . . conclusion that Asahi did not 'purposely avail itself of the California market.") (internal citations omitted); Shane Yeargan, 90 WASH. U. L. REV. 543, 543 (2012) ("Justice Brennan[] suggested that foreseeability of a product causing injury in the forum is sufficient to create the necessary minimum contacts to support personal jurisdiction. . . . Justice O'Connor does not recognize minimum contacts unless there is some conduct by the defendant—in addition to placing the product in the stream of commerce—that is directed specifically at the forum.").
¹⁶⁶ See Asahi, 480 U.S. at 117 (Brennan, J., concurring). His decision was based on what he believed was the predictable nature of the stream of commerce and the ability to reasonably anticipate where a product would ultimately be marketed.

¹⁶⁷ See id. at 120 ("The Court in *World-Wide Volkswagen* thus took great care to distinguish 'between a case involving goods which reach a distant state through a chain of distribution and a case involving goods which reach the same State because a consumer took them there."") (quoting *World-Wide Volkswagen*, 444 U.S. at 306-07 (Brennan, J., dissenting)).

made regular, subsequent sales to California.¹⁶⁸ However, Justice Brennan did agree with the Court's ultimate conclusion that allowing California to exercise personal jurisdiction over Asahi would not be in keeping with traditional notions of fair play and substantial justice.¹⁶⁹

In *Asahi*, the Court also applied the fairness factors that it had previously applied in *World-Wide Volkswagen*.¹⁷⁰ This fairness analysis was derived from language in *International Shoe* that suggested a court would need to weigh the inconveniences that a defendant could suffer, were the trial to take place away from its home.¹⁷¹ The balancing of these factors was used by the Court as a secondary consideration after analyzing the defendant's contacts with the forum state.¹⁷² However, in applying these factors, the Court did not succinctly articulate the weight that should be afforded to each individual factor, which has made the test difficult to apply.¹⁷³ Additionally, the Court's application of the factors to

¹⁶⁸ See id. at 121 ("I cannot join the determination . . . that Asahi's regular and extensive sales of component parts to a manufacturer it knew was making regular sales of the final product in California is insufficient to establish minimum contacts with California."); see also Yeargan, supra note 165, at 548 ("For Justice Brennan, placing a product in the stream of commerce with the knowledge that it will be sold in the forum constitutes purposeful availment sufficient to create minimum contacts.").

¹⁶⁹ See id. at 116 ("I do agree, however, with the Court's conclusion . . . that the exercise of personal jurisdiction over Asahi in this case would not comport with 'fair play and substantial justice.") (quoting *Int'l Shoe*, 326 U.S. at 320).

¹⁷⁰ See Asahi, 480 U.S. at 113 ("We have previously explained that the determination of the reasonableness of the exercise of jurisdiction in each case will depend on an evaluation of several factors. A court must consider the burden on the defendant, the interests of the forum State, and the plaintiff's interest in obtaining relief. It must also weigh in its determination "the interstate judicial system's interest in obtaining the most efficient resolution of controversies; and the shared interest of the several States in furthering fundamental substantive social policies." (quoting World-Wide Volkswagen, 444 U.S. at 292)); Richard D. Freer, Personal Jurisdiction in the Twenty-First Century: The Ironic Legacy of Justice Brennan, 63 S.C.L. Rev. 551, 576 ("[E]ight Justices, including O'Connor and Brennan, ultimately agreed in Asahi that California lacked jurisdiction based upon consideration of the fairness factors. This is the only case in which the Court has rejected jurisdiction on that basis.").

¹⁷¹ See Int'l Shoe, 326 U.S. at 317; Freer, supra note 170, at 554.

¹⁷² See Pfeffer, supra note 144, at 81 ("The Court separated the personal jurisdiction analysis into two prongs, with one prong corresponding to interstate federalism, and the other to fairness.").

¹⁷³ See Robert J. Condlin, "Defendant Veto" or "Totality of the Circumstances"? It's Time for the Supreme Court to Straighten Out the Personal Jurisdiction Standard Once Again, 54 CATH. U. L. REV. 53, 78 (2004) ("The Court's description of these factors was more of a laundry list than an algorithm, in the

dismiss *Asahi* has had minimal precedential value because the only remaining claim in the case was between two foreign companies.¹⁷⁴ Although the decision to apply the fairness factors in *Asahi* was 8-0,¹⁷⁵ it is unclear whether the factors alone would defeat jurisdiction over a domestic defendant.¹⁷⁶

The Court reconsidered the murkiness that *Asahi* created in *J. McIntyre Machinery, Ltd. v. Nicastro*¹⁷⁷ in 2011.¹⁷⁸ *Nicastro* came before the Court on appeal from the Supreme Court of New Jersey, which invoked the stream of commerce doctrine in arriving at its decision that J. McIntyre was subject to personal jurisdiction in New Jersey as long as it knew that its distribution system could result in its products being sold anywhere in the United States.¹⁷⁹ Justice Kennedy, in his lead decision, found this result untenable with due process.¹⁸⁰ Justice Kennedy did not believe that, simply by placing its products in the "stream of commerce," J. McIntyre had

sense that it did not say how much of one type of consideration it would take to outweigh how much of another.").

¹⁷⁴ See Freer, supra note 170, at 576 ("The sole remaining claim in the case was between a Taiwanese company and a Japanese company.")

¹⁷⁵ See Pfeffer, supra note 144, at 100 ("A second aspect of Asahi was a majority opinion (8-0) [where] the Court concluded that even if minimum contacts existed in this case, it would be unreasonable to allow California to exercise jurisdiction.").

¹⁷⁶ See *id.* ("Because of the unusual facts and the international wrinkle, it is not clear that *Asahi* gives much, if any, solace to a defendant trying to defeat jurisdiction in the domestic context.").

¹⁷⁷ See Nicastro, 564 U.S. at 873. The defendant, Nicastro, brought a productsliability suit after injuring his hand while using a machine manufactured by J. McIntyre Machinery. *Id.* at 878. The injury occurred in New Jersey, but the machine was manufactured by the plaintiff in England, J. McIntyre's state of incorporation. *Id.* The plaintiff had never marketed goods in New Jersey nor shipped goods there directly, shipping its goods instead to an independent distributor. *Id.*

¹⁷⁸ See id. at 877 ("The rules and standards for determining when a State does or does not have jurisdiction over an absent party have been unclear because of decades-old questions left open in *Asahi*."); Todd David Peterson, *The Timing of Minimum Contacts After* Goodyear and McIntyre, 80 GEO. WASH. L. REV. 202, 224 (2011) ("Unfortunately, *McIntyre* not only fails to resolve the debate about the meaning of *Asahi* and the viability of a stream-of-commerce argument, it arguably will create further confusion among the already befuddled lower courts.").

¹⁷⁹ See *id.* (citing Nicastro v. McIntyre Mach. Am., Ltd., 987 A.2d 575, 591-92 (2010)). In its decision, the Supreme Court of New Jersey reasoned that McIntyre "kn[e]w or reasonably should [have] know[n] that its products [were] distributed through a nationwide distribution system that might lead to those products being sold in any of the fifty states." *Nicastro*, 987 A.2d at 591-92.

¹⁸⁰ See Nicastro, 564 U.S. at 877-78.

purposefully availed itself of the forum state thereby invoking its personal jurisdiction.¹⁸¹

The Supreme Court acknowledged that a defendant's placement of goods into the stream of commerce with the "expectation" that they will be purchased by consumers of a particular state could be sufficient to show purposeful availment. However, simply predicting that goods will reach a forum state would not be sufficient because the defendant would not have indicated a clear intent to accept the authority of the jurisdiction.¹⁸² In this case, rather than directing advertising and sales specifically at New Jersey, making it foreseeable that defects in the product could subject the company to suit there, J. McIntyre had directed its advertising at the entire United States.¹⁸³ As a result of J. McIntyre's generalized advertisements, Justice Kennedy noted the possibility that a defendant could purposefully avail itself of the United States as a whole but not be subject to the jurisdiction of every individual state.¹⁸⁴

Ultimately, while any court may refer to "traditional notions of fair play and substantial justice," the personal jurisdiction analysis has become increasingly convoluted as society has become more interconnected, and those "traditional notions" have been subjected to varying interpretations.¹⁸⁵ What is clear is that, in order to satisfy personal jurisdiction, and therefore due process, a defendant needs to purposefully avail himself or herself of the jurisdiction in such a way that the defendant can reasonably expect to be haled into court there.

The internet has further complicated the analysis, and the Supreme Court has not stepped in to clarify.¹⁸⁶ The internet has made it

¹⁸¹ Id. at 877 (citing Hanson, 357 U.S. at 253).

¹⁸² See id. at 882; Henry S. Noyes, *The Persistent Problem of Purposeful Availment*, 45 CONN. L. REV. 41, 61 (2012) (discussing the "something more" requirement in *Asahi* as applied in *Nicastro*).

¹⁸³ See Nicastro, 564 U.S. at 886. The Court did leave open the possibility that J. McIntyre purposefully availed itself of either Ohio where its distributor was located or in Nevada where company executives regularly attended a convention. *Id.*

¹⁸⁴ See id. at 884 ("Because the United States is a distinct sovereign, a defendant may in principle be subject to the jurisdiction of the courts of the United States but not of any particular State."); Robert E. Pfeffer, *supra* note 144, at 117-18.

 ¹⁸⁵ See, e.g., Int'l Shoe, 326 U.S. at 316; Hanson, 357 U.S. at 259; World-Wide Volkswagen Corp., 444 U.S. at 292; Calder v. Jones, 465 U.S. 783, 788 (1984); Nicastro, 564 U.S. at 880 (2011); Daimler, 134 S. Ct. at 754; Bristol-Myers Squibb Co. v. Superior Court, 137 S. Ct. 1773, 1785 (2017).
 ¹⁸⁶ See infra Part III.

possible for people to influence activity across the country at the click of a button. Moreover, technology is constantly evolving far faster than the judicial system can adapt.¹⁸⁷ Much like the way the Supreme Court transitioned away from its first interpretation of personal jurisdiction requirements, lower courts have moved away from their first reactions to the advent of the internet in favor of adapting the traditional analyses.¹⁸⁸

III. JUDICIAL RESPONSES TO PERSONAL JURISDICTION IN THE INTERNET AGE

The advent of the internet initially caused confusion for courts when assessing whether a defendant was subject to personal jurisdiction in the forum state in question.¹⁸⁹ The question of jurisdiction over an entity based on its presence online first arose in the courts near the end of the 1990s.¹⁹⁰ Some of the first courts to address the issue insisted on developing internet-specific analyses.¹⁹¹ This was a time when the internet was unfamiliar, so it was found to be deserving of special treatment.¹⁹² Internet use in the 1990s was not as pervasive as it is today, a factor which led some courts to develop analyses that would not stand the test of time.¹⁹³ Since then, however, there has

¹⁸⁷ See Vivek Wadhwa, *Laws and Ethics Can't Keep Pace with Technology*, MIT TECH. REV. (Jul.–Aug. 2014) ("[R]egulatory gaps exist because laws have not kept up with advances in technology. These gaps are getting wider as technology advances ever more rapidly.").

¹⁸⁸ Compare Zippo Manufacturing Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119 (W.D. Pa. 1997) (reacting to the influence of the internet on personal jurisdiction) with Kindig It Design, Inc. v. Creative Controls, Inc., 157 F. Supp. 3d 1167, 1173-74 (D. Utah 2016) (abandoning the analysis seen in *Zippo* in favor of one that can be more readily applied to a wider variety of cases).

¹⁸⁹ This has been especially true in cases involving intellectual property. *See, e.g.,* Roberts-Gordon, LLC v. Superior Radiant Products, Ltd., 85 F. Supp. 2d 202, 207 (W.D.N.Y 2000); Julie A. Rajzer, *Misunderstanding the Internet: How Courts are Overprotecting Trademarks Used in Metatags*, 2001 L. Rev. M.S.U.-D.C.L 427, 453 (2001) (discussing a court's finding of personal jurisdiction in *Roberts-Gordon* over a company that used the plaintiff's trademark as metatags because the use was "directed to potential customers throughout North America, including New York" through the use of the internet).

¹⁹⁰ See, e.g., Inset Systems, Inc. v. Instruction Set, Inc., 937 F. Supp. 161, 164 (D. Conn. 1996); *Zippo*, 952 F. Supp. at 1123-24.

¹⁹¹ See, e.g., Inset, 937 F. Supp. at 161; Zippo, 952 F. Supp. at 1119.

¹⁹² See David Swetnam-Burland & Stacy Stitham, *Back to the Future: Revisiting* Zippo *in Light of Modern Concerns*, 29 J. MARSHALL J. COMPUTER & INFO. L. 231, 235 (2011) ("[Courts] struggled to wrestle with the application of traditional jurisdictional analysis to what seemed to be a revolutionary medium.").

¹⁹³ See generally id. (discussing how the Zippo test has fallen out of favor).

been a return to traditional personal jurisdiction standards and analyses and a rejection of internet-specific tests.¹⁹⁴

A. The Early Days of the Internet and Courts' Rush to Overhaul Personal Jurisdiction

One of the first courts to bend the customary rules of personal jurisdiction in considering whether a defendant's use of the internet was sufficient to establish minimum contacts with the forum state was the United States District Court for the District of Connecticut in *Inset Systems, Inc. v. Instruction Set, Inc.* in 1996.¹⁹⁵ In that case, the court exercised personal jurisdiction over the defendant, a Massachusetts based corporation, in Connecticut because it had directed advertisements via the internet to the entire United States.¹⁹⁶ The ultimate effect of this holding was that a defendant that advertised over the internet would be considered to have purposefully availed itself of each and every state.¹⁹⁷ With no relevant precedent involving internet use to which it could cite, the court relied primarily on cases involving circulations of print advertisements.¹⁹⁸ However, print advertisements circulate primarily in predesignated areas, unlike online advertisements,

¹⁹⁴ See, e.g., Kindig It Design, Inc. v. Creative Controls, Inc., 157 F. Supp. 3d 1167, 1173-74 (D. Utah 2016).

¹⁹⁵ See Inset, 937 F. Supp. at 162 (discussing personal jurisdiction as it related to the defendant's online advertising).

¹⁹⁶ See id. at 165. The plaintiff in *Inset* was a Connecticut corporation that developed computer software and the defendant was a Massachusetts corporation that provided computer technology and support worldwide. *Id.* at 162. The defendant did not have any employees or offices located in Connecticut, and did not regularly conduct business there. *Id.* at 162-63. The plaintiff was suing the defendant for trademark infringement in Connecticut, and based its personal jurisdiction justification solely on the defendant's online advertisements. *Id.* at 163, 165.

¹⁹⁷ See Veronica M. Sanchez, *Taking a Byte out of Minimum Contacts: A Reasonable Exercise of Personal Jurisdiction in Cyberspace Trademark Disputes*, 46 UCLA L. REV. 1671, 1703 (1999) ("[T]he Inset approach . . . would justify the exercise of jurisdiction by any court anywhere.").

¹⁹⁸ See Inset, 937 F. Supp. at 165 ("In Whelen Eng'g, the court concluded that because '[the defendant] readily supplied . . . customers with catalogs . . . having Connecticut circulation . . .' it purposefully availed itself of the privilege of doing business within the state and therefore, could reasonably be expected to be hailed into court.") (quoting Whelen Eng'g Co. v. Tomar Elecs., 672 F. Supp. 659, 664 (D. Conn. 1987)); Emily Ekland, *Scaling Back* Zippo: *The Downside to the* Zippo *Sliding Scale and Proposed Alternatives to its Uses*, 5 ALB. GOV'T L. REV. 380, 385 (2012) ("[T]he district court obligated a Massachusetts defendant to its forum because his internet 'contacts' were comparable to physical contacts such as soliciting patrons or sending catalogues into the state, either of which would satisfy due process principles in non-internet fact patterns.").

which are available to anyone with internet access.¹⁹⁹ In spite of this clear difference, the court still found that the ability of Connecticut citizens to access the advertisements online was sufficient to exercise personal jurisdiction.²⁰⁰

The United States District Court for the Western District of Pennsylvania opted to establish a new test for personal jurisdiction for claims involving the internet in *Zippo Manufacturing Co. v. Zippo Dot Com, Inc.*²⁰¹ There, the court ultimately found that the defendant was subject to personal jurisdiction in the forum state because it had directly entered into contracts with customers in that state; however, it hypothesized a "sliding scale" of personal jurisdiction that would depend on the commercial nature of the internet conduct.²⁰² As justification for developing a new analysis for claims involving internet use, the court cited *Hanson v. Denckla*, where the Supreme Court acknowledged that the increase in technology facilitating the flow of commerce would likely give rise to a parallel increase in the need for personal jurisdiction.²⁰³

In dicta, the *Zippo* court proposed its "sliding scale" test for future cases questioning personal jurisdiction based solely on commercial internet connections.²⁰⁴ At one end of the spectrum would be cases

²⁰² Zippo, 952 F. Supp. 1119 at 1124.

¹⁹⁹ See Sanchez, supra note 197, at 1703 ("The print media advertisement medium can be easily restricted or targeted by choosing in which publications to advertise, thereby limiting the ads to certain regions or consumers. By contrast, it is impractical and difficult to control the forums reached by the Internet.").

²⁰⁰ See Inset, 937 F. Supp. at 164 ("ISI has been continuously advertising over the Internet, which includes at least 10,000 access sites in Connecticut."); Sanchez, *supra* note 197, at 1702 ("In *Inset*, the court compared Internet advertisements with hard-copy advertisements, which courts have found sufficient for the exercise of jurisdiction in many cases, and concluded that 'advertising via the Internet is solicitation of a sufficient repetitive nature."") (quoting *Inset*, 937 F. Supp. at 164).

²⁰¹ 952 F. Supp. at 1119, 1124 (W.D. Pa. 1997). The plaintiff, Zippo Manufacturing, was a Pennsylvania corporation that made "Zippo" cigarette lighters. *Id.* at 1121. The suit was based on a trademark infringement claim for Dot Com's use of "Zippo" in its domain name. *Id.* The defendant, Zippo Dot Com, was a California corporation that operated an online news service. *Id.* Dot Com's contacts with Pennsylvania were facilitated almost entirely over the internet; it had no office or personnel located in Pennsylvania. *Id.* Dot Com advertised its news site over the internet, and had approximately 3,000 Pennsylvania subscribers that contracted with Dot Com to receive its news services. *Id.*

²⁰³ See id. at 1123 ("[I]n Hanson v. Denckla, the Supreme Court noted that '[a]s technological progress has increased the flow of commerce between States, the need for jurisdiction has undergone a similar increase."") (quoting Hanson v. Denckla, 357 U.S. 235, 250-51 (1958)).

²⁰⁴ See id. at 1124.

involving a defendant that was conducting business over the internet with residents of the forum state.²⁰⁵ At the opposite extreme would be cases where a defendant merely posted material online that was accessible to residents of the forum state.²⁰⁶ The middle ground is what made this case famous.²⁰⁷ Occupying this middle ground of the scale were interactive websites allowing for the exchange of information between residents of the forum state and the defendant operating the website.²⁰⁸ Though Zippo did not explicitly reject the district court's reasoning in *Inset*, it identified it as representing the "outer limits" of personal jurisdiction based solely on internet use.²⁰⁹ In a short discussion of cases that fall along the spectrum, the court identified several factors that could be considered to decide how to classify internet activity, including whether a defendant actively solicits customers,²¹⁰ whether the defendant responds to users who access the site,²¹¹ whether files are transmitted over the internet,²¹² and whether the users have the ability to contact the defendant through the site.²¹³

²⁰⁵ See id. ("If the defendant enters into contracts with residents of a foreign jurisdiction that involve the knowing and repeated transmission of computer files over the Internet, personal jurisdiction is proper.").

²⁰⁶ See id. ("A passive Web site that does little more than make information available to those who are interested in it is not grounds for the exercise [of] personal jurisdiction.").

²⁰⁷ See David M. Fritch, Beyond Zippo's "Sliding Scale"—The Third Circuit Clarifies Internet-Based Personal Jurisdiction Analysis, 49 VILL. L. REV. 931, 940 (2004).

²⁰⁸ See Zippo, 952 F. Supp. 1119 at 1124 ("In these cases, the exercise of jurisdiction is determined by examining the level of interactivity and commercial nature of the exchange of information that occurs on the Web site.").

²⁰⁹ See id. at 1125 ("Inset Systems, Inc. v. Instruction Set represents the outer limits of the exercise of personal jurisdiction based on the Internet.").

²¹⁰ See id. at 1124 (citing Maritz, Inc. v. Cybergold, Inc., 947 F. Supp. 1328 (E.D. Mo. 1996)); Sanchez, *supra* note 197, at 1690 (discussing solicitation as a factor supporting personal jurisdiction in *Maritz*).

²¹¹ See Fritch, *supra* note 207, at 1125.

²¹² See id. at 1124 (citing CompuServe, Inc. v. Patterson, 89 F.3d 1257 (6th Cir. 1996)); Evans, *supra* note 21, at 335-36 ("The Sixth Circuit, in *Compuserve, Inc. v. Patterson*, tackled an issue of first impression concerning the federal courts' jurisdictional powers over a party. Specifically, the court addressed whether an individual's business dealings, through computer access to another state via the Internet, constituted sufficient contact to support the exercise of personal jurisdiction over him. The court answered in the affirmative.").

²¹³ See Fritch, supra note 207, at 1125 (citing Bensusan Rest. Corp. v. King, 937
F. Supp. 295 (S.D.N.Y. 1996)).

B. The Rejection of Zippo and the Recent Return to Traditional Personal Jurisdiction Analyses

The *Zippo* sliding scale has been cited by a number of district courts.²¹⁴ However, in the wake of *Inset* and *Zippo*, there has been a movement away from an internet-specific personal jurisdiction analysis in favor of a return to traditional personal jurisdiction analyses.²¹⁵ The primary argument that supports rejecting *Zippo*'s sliding scale is that the vast majority of websites today fall within *Zippo*'s middle ground of interactivity.²¹⁶ As a result of society's continued technological advancement, the *Zippo* test today has essentially the same impact as *Inset*; it effectively removes all geographical limitations to personal jurisdiction simply by virtue of a website's existence.²¹⁷

The United States Court of Appeals for the Second Circuit rejected *Zippo*'s universal application to all cases involving the use of the internet in *Best Van Lines, Inc. v. Walker*.²¹⁸ It reasoned that the interactivity of a website should be used only to help determine whether a defendant conducts any business in the forum state in the context of purposeful availment.²¹⁹ Unlike the scale of interactivity

²¹⁴ See Westlaw Search Results for "Zippo Manufacturing Co. v. Zippo Dot Com, Inc." WESTLAW, https://1.next.westlaw.com (obtained by typing "Zippo Manufacturing Co. v. Zippo Dot Com, Inc." into the provided search bar, selecting the first result for Zippo Manufacturing Co. v. Zippo Dot Com, Inc. and selecting "Cases" from the dropdown menu under "Citing References"). Westlaw identifies 1,363 cases that cite to *Zippo* as of November 27, 2018. *Id*.

²¹⁵ See, e.g., Kindig It Design, Inc. v. Creative Controls, Inc., 157 F. Supp. 3d 1167, 1173-74 (D. Utah 2016).

²¹⁶ See id. at 1174 ("The ability to create and maintain an interactive website is no longer the sole domain of technologically sophisticated corporations. Virtually all websites . . . are now interactive in nature.").

²¹⁷ See *id.* at 1775 ("Given the exponential growth in the number of interactive websites, the *Zippo* approach -- which would remove personal jurisdiction's geographical limitations based on the mere existence of those websites -- is particularly troubling. And the problem would grow more acute every year as more individuals and businesses create interactive websites.").

²¹⁸ See 490 F.3d 239, 252 (2d Cir. 2007) ("[T]he Zippo sliding scale of interactivity... does not amount to a separate framework for analyzing internetbased jurisdiction.") (internal quotations omitted). This case centered on the defendant's, Walker's, operation of the website "MovingScam.Com." *Id.* at 241. The website consisted of consumer comments about household movers, most of which were derogatory. *Id.* Walker posted an allegedly defamatory comment about the plaintiff, Best Van Lines, claiming that they did not have authority from the Federal Motor Carrier Safety Administration, and did not have Cargo insurance. *Id.* Best Van Lines subsequently sued Walker for defamation. *Id.*

²¹⁹ See id. ("[A] website's interactivity may be useful . . . to decide whether the defendant transacts any business [in the forum state]—that is, whether the

the *Zippo* court devised, this method allowed the court to use the traditional cornerstone of personal jurisdiction—namely, purposeful availment—as its basis for the jurisdictional analysis, rather than relying solely on the presence of the website to make its determination.²²⁰ Instead of asking how interactive the website was, the Second Circuit asked whether that interconnectivity enabled the company to purposefully avail itself of the forum state.²²¹

The District of Utah went even further in distancing itself from *Zippo* in *Kindig It Design, Inc. v. Creative Controls, Inc.*²²² The *Kindig* court explained that the long-standing traditional tests were adequate for determining personal jurisdiction even in today's highly technical society.²²³ Courts had already adapted the traditional concepts to the introduction of a wide range of new technology, from the telegraph to the television.²²⁴ For example, in *Metropolitan Life Insurance Co. v. Robertson-Ceco Corp.* and *Michigan National Bank v. Quality Dineette, Inc.*, courts found mail-order services to be sufficiently continuous and systematic to establish personal jurisdiction.²²⁵ Similarly, courts in *Neal v.*

defendant, through the website, purposefully avail[ed] himself of the privilege of conducting activities within [the forum state], thus invoking the benefits and protections of its laws.") (internal quotations omitted).

²²⁰ See *id*. ("[T]he sliding scale . . . does not amount to a separate framework for analyzing internet-based jurisdiction . . . Instead, traditional statutory and constitutional principles remain the touchstone of the inquiry.") (internal quotations omitted).

²²¹ See id.

²²² See Kindig, 157 F. Supp. 3d at 1174 ("The lack of any specific instances of Creative Controls' physical or digital contacts with Utah demonstrates why the *Zippo* sliding scale should not replace traditional personal jurisdiction analysis."). *Kindig* centers on the plaintiff's, Kindig's, claims of copyright and patent infringement. *Id.* at 1170. The defendant, Creative Controls, was a Michigan corporation that had never established a place of business in Utah or conducted any business there. *Id.* Kindig asserted that personal jurisdiction over Creative Controls in Utah was proper based on the interactivity of Creative Controls' website which enabled consumers to place orders. *Id.* Kindig presented no evidence to show that Creative Controls' website specifically targeted Utah Customers. *Id.* at 1171.

²²³ See id. at 1176 ("The traditional tests for personal jurisdiction are readily applicable to internet-based conduct and are therefore controlling."); see also Ekland, *supra* note 198, at 395 (discussing the problems with the *Zippo* sliding scale and a preference for the "traditional minimum contacts test").

²²⁴ See Kindig, 157 F. Supp. 3d at 1175 ("The traditional tests are readily adaptable to the digital age, just as they were to technological advances like the telegraph, radio, television, and telephone.").

²²⁵ See Metropolitan Life Ins. Co. v. Robertson-Ceco Corp., 84 F.3d 560, 572 (2d Cir. 1996); Michigan Nat'l Bank v. Quality Dinette, Inc., 888 F.2d 462, 466 (6th Cir. 1989).

Janssen and Oriental Trading Co. v. Firetti found that making phone calls and sending faxes to a state could also be enough.²²⁶ The analogy that the *Kindig* court drew to the telephone is the most apt to explain why internet presence alone should be insufficient for personal jurisdiction; even if a company has a public phone number that can be dialed by anyone from any state, it is not necessarily subject to personal jurisdiction in every state as a matter of law.²²⁷ The question instead should always come back to whether the defendant established minimum contacts—the same question courts have been asking since International Shoe in 1945.²²⁸

Ultimately, *Zippo*'s sliding scale has not stood the test of time or the vast advances in internet technology.²²⁹ The scale itself has been rendered practically moot by the fact that the vast majority of internet sites today are interactive and fall into the murky area of *Zippo*'s middle ground.²³⁰ Additionally, even if a website is interactive, that should not be enough to subject a defendant to personal jurisdiction without a nexus between the interactivity and the cause of action.²³¹

IV. HOW THE PERSONAL JURISDICTION ANALYSIS SHOULD Adapt to Address Location-Masking Technology

The general consensus among courts may be that internet use does not require a distinct personal jurisdiction analysis and that traditional personal jurisdiction principles are preferred.²³² The fact remains, however, that traditional personal jurisdiction principles

²²⁶ See Neal v. Janssen, 270 F.3d 328, 332 (6th Cir. 2001); Oriental Trading Co. v. Firetti, 236 F.3d 938, 943 (8th Cir. 2001).

²²⁷ See Kindig, 157 F. Supp. 3d at 1175-76 ("Personal jurisdiction rising from telephonic contacts can only be based on *actual* phone calls. Similarly, personal jurisdiction arising from an interactive website should only be based on *actual* use of the site by forum residents."); Sanchez, *supra* note 197, at 1701-02 (discussing the telephone as an analogy for personal jurisdiction based on internet activity).

²²⁸ See Gorman v. Ameritrade Holding Corp., 293 F.3d 506, 510-11 (D.C. Cir. 2002) ("Cyberspace,' however, is not some mystical incantation capable of warding off the jurisdiction of courts built from bricks and mortar. Just as our traditional notions of personal jurisdiction have proven adaptable to other changes in the national economy, so too are they adaptable to the transformations wrought by the Internet.").

²²⁹ See Swetnam-Burland, *supra* note 192, at 237 ("[S]ince Zippo's issuance, the Internet has grown exponentially.").

²³⁰ See Sanchez, supra note 197 (discussing how Zippo's scale is problematic because all online activity is interactive).

²³¹ See Hy Cite Corp. v. Badbusinessbureau.com, LLC, 297 F. Supp. 2d 1154, 1160 (W.D. Wis. 2004); Swetnam-Burland, *supra* note 192, at 38.

²³² See, e.g., Kindig, 157 F. Supp. 3d at 1176; Ekland supra note 198, at 395.

are not without their uncertainties, particularly in the internet age.²³³ Even the Supreme Court has yet to reach a conclusive consensus for analyzing whether defendants who are not present in a forum have "purposefully avail[ed]"²³⁴ themselves of that forum.²³⁵ However, the universality of internet access need not change the analysis courts conduct to determine whether personal jurisdiction is satisfied, even if use of the internet could allow for defendants' purposeful availment of a greater number of forums.²³⁶ The use of geolocation masking software is one such method that the internet has made available to users to direct their activity at other states. There are some inherent challenges to implementing personal jurisdiction over internet users relying on masking software to disguise their internet activities, but these obstacles are not impossible to overcome and do not obviate the practicality of a method for knowing when jurisdiction is proper in such cases.²³⁷

A. The Analysis Based on the Current Personal Jurisdiction Precedent

There are different ways that an internet user could be aware of the location of the server through which the user connects when using either a VPN or a proxy service: (1) the user's VPN service could display the location information when establishing the connection,²³⁸ or (2) the user could intentionally select a particular jurisdiction for the purpose of viewing geographically restricted content.²³⁹ The most applicable traditional personal jurisdiction test for the first alternative would likely be found in *Nicastro*,²⁴⁰ while the second alternative is most analogous to *Calder*.²⁴¹ Such

²³³ Cf. generally World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286 (1980); Asahi Metal Indus. v. Superior Court, 480 U.S. 102 (1987); J. McIntyre Mach., Ltd. v. Nicastro, 564 U.S. 873 (2011).

²³⁴ Hanson v. Denckla, 357 U.S. 235, 253 (1958) (citing *Int'l Shoe*, 326 U.S. at 319).

²³⁵See generally Asahi, 480 U.S. at 102; *Nicastro*, 564 U.S. at 873 (decided by plurality).

²³⁶ See infra Part IV. Part IV discusses the application of past personal jurisdiction precedent to the use of VPNs and proxies.

²³⁷ See Burnett supra note 38, at 471 ("Even as geolocation tools become more accurate, users will continue to find ways to evade these measures.").

²³⁸ See, e.g., *HideMyAss Alternatives*, VPNTIPS (Sept. 26, 2014) https://vpntips.com/hidemyass-alternatives/ (suggesting prospective users ensure that a VPN has IP addresses in a desired region).

²³⁹ See Chen, supra note 5 (discussing how an internet user could use a VPN to connect to a server in France to access content that is geographically restricted to French IP addresses).

²⁴⁰ 564 U.S. at 873.

²⁴¹ 465 U.S. at 783.

distinctions can be drawn because there is a difference between a user's general awareness of the location of the server to which he or she is connecting and the intentional selection of a server located in a particular place.²⁴²

1. The Analysis Under Nicastro

Although *Nicastro* is perhaps most famous for its discussion of the stream-of-commerce theory of personal jurisdiction, its principles are still applicable to the use of location-masking software.²⁴³ In analyzing the applicability of the stream-of-commerce doctrine, the Supreme Court articulated principles also relevant to this discussion; for example, the Court noted that the focus of the analysis must be on a "defendant's actions, not . . . expectations," when determining whether personal jurisdiction is satisfied.²⁴⁴ This principle is consistent with Justice O'Connor's lead opinion in *Asahi*, in which she stated that the "substantial connection" required between the defendant and the forum state must result from the purposeful activity of the defendant.²⁴⁵ Also important is the notion that it is possible for a defendant to purposefully avail itself of the United States as a whole but not any particular state.²⁴⁶

In the case of an internet user accessing a VPN, he or she can do so with the *expectation* and awareness that the connection will be routed through some state in the United States but without intentionally taking the *action* of selecting any one state. The absence of the intentional act of selecting a particular state is what

²⁴² Compare Nicastro, 564 U.S. at 886, with Calder, 465 U.S. at 789.

²⁴³ See, e.g., Cody Jacobs, A Fork in the Stream: The Unjustified Failure of the Concurrence in J. McIntyre Machinery Ltd. v. Nicastro to Clarify the Stream of Commerce Doctrine, 12 DEPAUL BUS. & COMM. L.J. 171, 172 (2014) (discussing the fractured nature of the Supreme Court's discussion of the stream of commerce). For additional discussion of the application of Nicastro's stream-ofcommerce theory, see generally Elisabeth Beal, J. McIntyre Machinery, Ltd. v. Nicastro: The Stream-of-Commerce Theory of Personal Jurisdiction in a Globalized Economy, 66 U. MIAMI L. REV. 233 (2011); Kaitlyn Findley, Paddling Past Nicastro in the Stream of Commerce Doctrine: Interpreting Justice Breyer's Concurrence as Implicitly Inviting Lower Courts to Develop Alternative Jurisdictional Standards, 63 EMORY L.J. 695 (2014); Greg Saetrum, Righting the Ship: Implications of J. McIntyre v. Nicastro and How to Navigate the Stream of Commerce in Its Wake, 55 ARIZ. L. REV. 499 (2013).

²⁴⁴ See Nicastro, 564 U.S. at 883.

²⁴⁵ See Asahi, 480 U.S. at 112.

²⁴⁶ See Nicastro, 564 U.S. at 886 ("These facts may reveal an intent to serve the U.S. market, but they do not show that J. McIntyre purposefully availed itself of the New Jersey Market.").

would trigger the *Nicastro* analysis.²⁴⁷ Under *Nicastro*, it would not matter through which state the user expected his or her connection to be routed if there was no intentional selection of any particular state.²⁴⁸ If the user is simply expecting to be routed through somewhere rather than targeting a particular location, the user would trigger the second principle of *Nicastro* by purposefully availing himself or herself of the United States as a whole but not of any individual state.²⁴⁹

Nicastro suggests that a user who uses geolocation-evading techniques to connect to a server in a location other than his or her own would not be subject to personal jurisdiction in the forum where the server is located, provided that the user is unaware of which particular state is home to the server through which he or she has been routed.²⁵⁰ The important difference would be that, if the defendant is a domiciliary of the United States, a plaintiff would still have the option of bringing suit in the forum of the defendant's home state where the user would be subject to general personal jurisdiction.²⁵¹ This option was not available with the foreign defendant in *Nicastro*.²⁵²

2. The Analysis Under Calder

The principles from *Nicastro* would not apply to any user who intentionally selected a VPN or proxy because he or she knew it connected through a particular forum or who instructed such a

²⁴⁷ See Nicastro, 564 U.S. at 883; Noyes, supra note 182 at 61.

²⁴⁸ See Nicastro, 564 U.S. at 883.

²⁴⁹ See *id.* at 886. A user accessing a VPN or proxy server that selects a state at random is comparable to the defendant in *Nicastro* shipping its goods to the United States with the expectation that they will be distributed to any and all states, rather than any particular states. *Cf. id.*. *See also* Pfeffer, *supra* note 144, at 117-18.

²⁵⁰ See Nicastro, 564 U.S. at 884 ("Because the United States is a distinct sovereign, a defendant may in principle be subject to the jurisdiction of the courts of the United States but not of any particular State.").

²⁵¹ See Brilmayer, *supra* note 127, at 727 ("General jurisdiction rests upon a direct relationship between the defendant and the forum and does not differentiate between the various causes of action that the plaintiff may assert against the defendant."). Here, the internet user would be subject to general personal jurisdiction rather than specific personal jurisdiction because the location of the suit would be based on the user's connection to the state rather than the activities giving rise to the suit. *Id.*

²⁵² See Nicastro, 564 U.S. at 885 (discussing how the particular issue of the case is an exceptional one, and how a "domestic domiciliary" of the United States is subject to the general personal jurisdiction of the courts of his or her home state).

service to connect through a particular forum.²⁵³ Instead, this type of user would be analyzed using principles found in *Calder v. Jones*.²⁵⁴ The defendant in *Calder*, unlike the defendant in *Nicastro*, did intentionally direct his activities toward the forum state of California.²⁵⁵ An internet user intentionally selecting a forum through which to route his or her IP address is comparable to the defendant in *Calder* intentionally directing libelous statements at a California resident.²⁵⁶ The intentionality and targeted nature of the conduct is the important difference between *Calder* and *Nicastro*, and a similar difference is seen between internet users intentionally selecting forum states through VPNs and proxies and those who know they are being routed through a state, but they themselves did not select that state.²⁵⁷

The only thorn in applying the *Calder* analysis is the Supreme Court's focus on the location in which the plaintiff felt the harm that the defendant's libelous story caused.²⁵⁸ In cases that would involve VPNs and proxies, the type of conduct may not always involve a harm that is especially significant in the forum state.²⁵⁹ For example, illegally downloading copyrighted material while connected to a VPN in Michigan does not necessarily mean that the copyright owner would feel that harm in Michigan with any special gravity.²⁶⁰

Ultimately, the key question that a court must ask when determining whether a user accessing illegal content through a VPN or proxy

²⁵³ See id. at 886. Here, the user is doing more than simply expecting to connect through a state, instead they are intentionally acting so as to be routed through a particular state. This contrasts with the defendant in *Nicastro* who had no such intent.

²⁵⁴ See Calder v. Jones, 465 U.S. 783 (1984) (emphasizing the importance of the defendant targeting the forum jurisdiction).

²⁵⁵ See id. at 788 ("The allegedly libelous story concerned the California activities of a California resident. It impugned the professionalism of an entertainer whose television career was centered in California."); *contra Nicastro*, 564 U.S. at 886 ("[T]he defendant [did] not have a single contact with New Jersey short of the machine in question ending up in [that] state.") (internal quotations omitted).

²⁵⁶ See Calder, 465 U.S. at 789 ("[The defendant's] intentional, and allegedly tortious, actions were expressly aimed at California.").

²⁵⁷ See supra note 255 and accompanying text.

²⁵⁸ See Calder, 465 U.S. at 789 ("California is the focal point both of the story and of the harm suffered.").

 $^{^{259}}$ *Id.* (discussing the fact that the brunt of the plaintiff's harm was felt in California because she was a California resident and her career was in Hollywood).

²⁶⁰ See Minnock supra note 21 at 530; Calder, 465 U.S. at 789. Compare copyright infringement through illegal downloading to the intentional tort in Calder v. Jones where the plaintiff was impacted in the state where she both worked and resided.

server is whether the user was intentionally directing his or her activities at a server in a particular state.²⁶¹ The intentional choice to route an internet connection through a particular state could potentially satisfy the intentional conduct standards that are most clearly articulated in *Nicastro* and *Calder*.²⁶² As uncertain as personal jurisdiction precedent has become, such an intentional choice would seem to clearly indicate purposeful availment.²⁶³ On the other hand, a passive expectation of a connection anywhere rather than somewhere in particular would be akin to purposeful availment of the United States but not of any individual state.²⁶⁴

B. Application of the Fairness Factors

There is some uncertainty over whether the fairness factors discussed in *World-Wide Volkswagen* could be the sole obstacle to an exercise of personal jurisdiction; however, they are still a relevant consideration.²⁶⁵ Setting aside the fourth and fifth fairness factors (the interstate judicial system's interest in obtaining the most efficient resolution of controversies, and the shared interest of the several states in furthering fundamental substantive social policies) due to their nebulous nature and inconsistent application across the lower courts,²⁶⁶ the first three factors (the burden on the defendant,

²⁶¹ *Cf. Calder*, 465 U.S. at 789-90 (finding purposeful availment as a result of targeted activity and knowledge of the harm that would result from the activity).

²⁶² See J. McIntyre Mach. v. Nicastro, 564 U.S. 873 (2011) (holding that there was a lack of intentional conduct); *Calder*, 465 U.S. 783 (holding that there was intentional targeting of the forum); *supra* Part II (discussing the historical lead up to the decisions in both *Calder* and *Nicastro*).

²⁶³ Contra World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 297-98 (1980) (discussing how an unintentional tort provides no evidence of purposeful availment); Pfeffer, *supra* note 144, at 92 ("[In] unintentional tort cases like *World-Wide*... there is no evidence that the defendants purposefully availed themselves of the forum states privileges, the standard that the Court had emphasized in *World-Wide* and *Hanson*.").

²⁶⁴ See Nicastro, 564 U.S. at 886. A user accessing a VPN or proxy server that selects a state at random is comparable to the defendant in *Nicastro* shipping its goods to the United States with the expectation that they will be distributed to any and all states, rather than any particular states. *Id.*

²⁶⁵ See Freer, supra note 170 at 570-71 (noting that it should be "impossible to dismiss a case without at least glancing at the fairness factors" and that jurisdiction could be based on lesser contacts if the fairness factors weighed strongly in favor of exercising jurisdiction).

²⁶⁶ See, e.g., Condlin, *supra* note 173, at 82-83 (discussing the difficulty of applying the Supreme Court's "enigmatic reference . . . to the so-called shared interest of the several States in furthering fundamental substantive social policies."); *id.* at 90 (discussing how the final two factors identified in the *World-Wide Volkswagen* analysis could result in the authorization of jurisdiction when a defendant has no contacts with the forum state at all).

the interests of the forum state, and the plaintiff's interest in obtaining relief) weigh in favor of exercising jurisdiction over a defendant whose contacts with the forum state are based on VPN or proxy use.²⁶⁷ The burden on the defendant litigating outside his or her home state would be outweighed by the forum state's interest in the dispute and the plaintiff's interest in relief.²⁶⁸

There would undoubtedly be a burden on a defendant forced to litigate in a state other than his or her home state, but the inconvenience test is comparative, and the defendant's burden is not the end of the analysis.²⁶⁹ The state would have an interest in preventing attempts by internet users to circumvent detection when conducting illegal activity.²⁷⁰ For example, VPNs enable internet users to participate in peer-to-peer file sharing with a decreased likelihood of being held accountable for copyright infringement.²⁷¹ Allowing for a greater variety of forums in which a case could be brought could deter internet users from engaging in and facilitating illegal downloading.²⁷²

The plaintiff would also have an interest in obtaining relief.²⁷³ In the example of peer-to-peer file sharing, the owner of a copyright would have a considerable interest in preventing illegal downloading of its copyrighted material.²⁷⁴ While a single download might not cause a

²⁶⁷ See World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 292 (1980). The first three factors are: (1) the burden on the defendant, (2) the forum state's interest in a resolution to the issue, and (3) the plaintiff's interest in obtaining relief. *Id*.

²⁶⁸ See Condlin, supra note 173, at 77 (discussing the application of the balancing test in *World-Wide Volkswagen*).

²⁶⁹ See id. at 105 ("The Court's language -- that jurisdictional rules may not be employed to make litigation "'so gravely difficult and inconvenient' that a party unfairly is at a severe disadvantage' in comparison to his opponent" –seemed to state a comparative inconvenience test."); Pfeffer, *supra* note 144, at 75 (discussing the Court's consideration of the defendant's burden in *Hanson v. Denckla*, and the way that technology has made "defense of suit in a foreign tribunal less burdensome").

²⁷⁰ See Minnock, *supra* note 21, at 523 (identifying VPNs as a method that facilitates illegal downloading of copyrighted material and the limits of current federal long-arm statutes).

²⁷¹ See Chen, supra note 5.

²⁷² See Erbsen, supra note 12, at 33 n.135 ([A] state . . . may have additional interests in providing a forum . . . such as . . . removing barriers to litigation that might undermine deterrence. . . . ").

²⁷³ See World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 292 (1980) (citing Kulko v. California Superior Court, 436 U.S. 84, 92 (1978)).

²⁷⁴ See Minnock, supra note 21, at 528 (indicating that a lack of effective legal remedies for illegal downloading of copyrighted material could "stifle the public

copyright holder significant damage, the cumulative effect of thousands or millions of downloads could be extremely detrimental.²⁷⁵ This circles back to deterring future use of geolocation-evading technology to escape detection when conducting illegal online activities.²⁷⁶

Ultimately, the defendant's burden would be outweighed by the interests of the state and the plaintiff in obtaining relief and preventing the perpetuation of the activity.²⁷⁷ There is no concern that evidence or witnesses would be more readily accessible in the defendant's home state than in the state where the server is located, which would seem to give the defendant's burden less weight in the overall analysis.²⁷⁸ The evidence would likely be limited to the technological footprint of the defendant's connection to the VPN and subsequent downloads, and witnesses would be superfluous to establish this connection.²⁷⁹ Comparatively, while the defendant's burden is limited to his or her temporary relocation for the duration of the trial, the state's and plaintiff's interests are substantial and would thus support an exercise of personal jurisdiction.²⁸⁰

C. Emphasis on Foreseeability from Intentional Conduct

Foreseeability as a factor to be considered for personal jurisdiction through minimum contacts with the forum state was first discussed in *World-Wide Volkswagen*, where it was dismissed by the Supreme Court as individually insufficient to satisfy due process.²⁸¹

sharing of creative works") (citing Sony Corp. of Am. v. Universal Studios, Inc., 464 U.S. 417, 429 (1984)).

²⁷⁵ See generally Smith, supra note 3 (discussing the cumulative effect of pirated content).

²⁷⁶ See supra note 272 and accompanying text.

²⁷⁷ See World-Wide Volkswagen, 444 U.S. at 317 (holding that the balancing of interests and policy factors is relevant when contacts have been established).

²⁷⁸ See Pfeffer, *supra* note 144, at 79 (reporting the Court's analysis in *World-Wide Volkswagen* and its discussion of the weight of the physical location of the witnesses and evidence in that case).

²⁷⁹ *Cf. World-Wide Volkswagen*, 444 U.S. at 301 (Brennan, J., dissenting) (indicating that the analysis of the defendant's burden should include consideration of whether "there were a disproportionately large number of witnesses or amount of evidence that would have to be transported at the defendant's expense....").

²⁸⁰ See Pfeffer, *supra* note 144, at 80 ("[T]he Court said that the 'Burden on the defendant [is] always a primary concern,' which then can be considered in light of other factors.") (quoting *World-Wide Volkswagen*, 444 U.S. at 292).

²⁸¹ See World-Wide Volkswagen, 444 U.S. at 295 ("[F]oreseeability alone has never been a sufficient benchmark for personal jurisdiction under the Due Process Clause.").

However, the Court made it clear that foreseeability should not be disregarded entirely.²⁸² According to the Court, there were different types of foreseeability, one of which was a permissible factor for considering whether personal jurisdiction is satisfied.²⁸³ The problem with the foreseeability analysis of the dissent and the lower court in World-Wide Volkswagen was that the analysis incorrectly focused on whether a particular product would end up in a forum state instead of considering whether the defendant's conduct and connection with the state would make it reasonably foreseeable that he or she would be subject to suit there.²⁸⁴ Internet access through VPNs and proxy servers does not involve the placement of goods in the stream of commerce, and therefore, it is unlikely that a foreseeability analysis would be used inappropriately to assess the likelihood that a product will enter the forum rather than the likelihood the defendant would be subject to suit there, thus violating due process.²⁸⁵

Justice Brennan's interpretation of foreseeability's role in exercising personal jurisdiction from *Asahi* is particularly applicable to VPN connections.²⁸⁶ Justice Brennan distinguished *Asahi* from *World-Wide Volkswagen* on the basis of the direct connection between the defendant's product and the forum state.²⁸⁷ Unlike the defendant's car in *World-Wide Volkswagen*, it was not the actions of the plaintiff that caused the product in *Asahi* to enter the forum state.²⁸⁸ Instead,

²⁸² See id. at 297 ("That is not to say, of course, that foreseeability is wholly irrelevant.").

²⁸³ See id.

²⁸⁴ See id. ("[T]he foreseeability that is critical to due process analysis is no the mere likelihood that a product will find its way into the forum State. Rather, it is that the defendant's conduct and connection with the forum State are such that he should reasonably anticipate being haled into court there.").

²⁸⁵ See Murphy, supra note 243, at 268 ("Instead, 'the foreseeability . . . critical to due process analysis [is that the] defendant's conduct and connection with the forum' be such that the defendant should foresee being haled into court there.") (quoting *World-Wide Volkswagen*, 444 U.S. at 297)).

²⁸⁶ See Asahi Metal Indus. v. Superior Court, 480 U.S. 102, 117 (1987) (Brennan, J., concurring) (arguing that the defendant's use of the stream of commerce enabled it to reasonably anticipate that its product would be marketed in the forum state).

²⁸⁷ *Id.* at 117 ("As long as a participant in this process is aware that the final product is being marketed in the forum State, the possibility of a lawsuit there cannot come as a surprise.").

²⁸⁸ See World-Wide Volkswagen v. Woodson, 444 U.S. 286, 297-98 (1980) ("[I]f the *sale* of a product . . . is not simply an isolated occurrence, but arises from the efforts of the manufacturer or distributor to serve, *directly or indirectly*, the market for its product in other States, it is not unreasonable to subject it to suit in one of those States" (emphasis added)).

it was the defendant's placement of the product into the stream of commerce with the reasonable expectation that it would be marketed in the forum state.²⁸⁹ When an internet user intentionally connects to a VPN in a forum state, it goes beyond reasonable expectation to actual knowledge.²⁹⁰ Considering foreseeability through this lens of intentionality would also help to reduce possible due process concerns. A state would be more reasonable in imposing the burden of litigation on a non-citizen who accessed the forum through a VPN or proxy if that non-citizen intentionally selected—or "targeted," under *Calder*—that forum.²⁹¹

Foreseeability would be a particularly appropriate factor for cases involving VPNs or proxies, and it is one that would go hand in hand with a consideration of intentionality.²⁹² Any person familiar with the process of using a VPN or a proxy could use one in a way that involves intentionally targeting a forum, and the intentionality of this act would seem to be a permissible use of foreseeability under *World-Wide Volkswagen* and would involve the type of targeting seen in *Calder*.²⁹³

D. Potential Shortcomings of Personal Jurisdiction Based on Server Access

The primary problem that a plaintiff would face when seeking to bring suit against someone based on VPN or proxy access would be identifying the defendant.²⁹⁴ Whether a defendant is subject to personal jurisdiction based on where he or she connected to a physical server first depends on whether the defendant can be

²⁸⁹ See Asahi, 480 U.S. at 120 (Brennan, J., concurring) ("The Court in *World-Wide Volkswagen* thus took great care to distinguish 'between a case involving goods which reach a distant State through a chain of distribution and a case involving goods which reach the same State because a consumer . . . took them there.' The California Supreme Court took note of this distinction, and correctly concluded that our holding in *World-Wide Volkswagen* preserved the stream-of-commerce theory.")

²⁹⁰ See HideMyAss Alternatives, supra note 238 (indicating a VPN service that clearly identifies the state through which the service is connecting).

²⁹¹ See supra Section IV.A.1.

²⁹² See supra Section IV.A.

²⁹³ See World-Wide Volkswagen, 444 U.S. at 297. That permissible use being that the defendant's conduct and connection with the forum state would make it reasonable for a claim to be brought against him. *Id*.

²⁹⁴ See Burnett, supra note 38, at 472 ("Even as geolocation tools become more accurate, users will continue to find ways to evade these measures.").

identified in spite of any attempts to evade geolocation.²⁹⁵ For most users, however, this may be less of a problem than it appears. More advanced internet users may be able to mask their identity completely, but individuals using commercial VPN or proxy services may not be as insulated as they think.²⁹⁶ Often, a VPN or proxy alone is not sufficient to entirely mask an internet user's identity.²⁹⁷

Most VPNs and proxies advertise "anonymity" but with limited specifications.²⁹⁸ Less experienced users may take these claims at face value and believe their internet activities are completely protected when funneled through a VPN or proxy, but the reality is that they may be only slightly more difficult to identify than if they browsed the internet with no protection.²⁹⁹ Connections to VPNs are not hidden from ISPs; only the internet user's connections after routing through the VPN are masked. ³⁰⁰ Because connections to VPNs are visible to ISPs, it is still possible for an ISP to trace a connection back to the original IP address through its connection to a VPN. ³⁰¹ It is also worth noting that users' activity is not anonymous to the provider of the masking service.³⁰² There may be more complex methods of hiding an online presence, ³⁰³ but the most readily available commercial masking services are not as secure as they might purport to be.³⁰⁴ Most initial obstacles to identifying

²⁹⁵ See Muir, *supra* note 34, at 21 ([R]esearch suggests no evidence that any single known method for Internet geolocation . . . works for all IP addresses, for all software and network configurations, and against adversarial end-users.").

²⁹⁶ See Perta, supra note 74, at 77 ("[Commercial VPNs'] capability to preserve user privacy and anonymity has . . . raised some questions.").

²⁹⁷ See *id*. ("In reality, privacy and anonymity are features that are hard to obtain, requiring a careful mix of technologies and best practices."); *id*. at 78 ("VPNs were not originally intended to provide anonymity and/or privacy.").

²⁹⁸ *Id.* at 78 ("[T]he most commonly advertised features [are] 'Access to restricted content' and 'Anonymity.'").

²⁹⁹ See id. ("The anonymity claims . . . seem to be exceedingly vague, which is in contrast with the inherently limited anonymity these services are actually capable of providing.").

 $^{^{300}}$ *Id*.

³⁰¹ See Perta, supra note 74, at 79 ("[M]any VPN services . . . ask for the user's personal information . . . [and] a number of them admit they retain timestamps, the amount of data transmitted, and the client IP address of each VPN connection.").

³⁰² See *id.* ("[U]sers are not anonymous from their VPN service provider, which must be blindly trusted to not be malicious, and to not disclose the user traffic to third parties (*e.g.* through subpoena).").

³⁰³ *Id.* Tor is one such method that does not require personal information to download, and it prevents any individual entity from monitoring web traffic "at both ends of a circuit." *Id.*

³⁰⁴ See generally id.

internet users created by geolocation masking technology should be relatively simple to overcome and would not be a complete barrier to the exercise of personal jurisdiction.³⁰⁵

Ultimately, the primary question should be whether an internet user makes an intentional decision to connect through a VPN to a server located in a particular state, thus invoking an analysis under *Calder v. Jones.*³⁰⁶ The proper application of a foreseeability standard suggested by the Court in *World-Wide Volkswagen* and discussed by Justice Brennan in *Asahi* compliments the *Calder* targeting analysis by reemphasizing that a user should reasonably anticipate being haled into court in a targeted state.³⁰⁷ A user connecting to a VPN in this method would purposefully avail himself or herself of the privilege of conducting activities within the forum state because the connection would allow access to geographically restricted content. In contrast, users who do not know through which state their connections are being routed would not be purposefully availing themselves and therefore would not have the requisite minimum contacts to justify an exercise of personal jurisdiction.

CONCLUSION

Traditional notions of personal jurisdiction remain preferable to internet-specific tests, but the traditional concepts will continue to be challenged by new technology.³⁰⁸ In cases where personal jurisdiction is purportedly based on an internet user's connection to a server physically located in the forum, the analysis must focus on whether the user intentionally connected to that particular forum to determine whether the user purposefully availed himself or herself of the forum in question.³⁰⁹ In addition to satisfying minimum contacts, a scenario involving intentional targeting would tip the scales of the *World-Wide Volkswagen* fairness factors in favor of exercising personal jurisdiction.³¹⁰ Alternatively, merely connecting

³⁰⁵ See id. at 77 (noting the limited ability of commercial VPNs to fully protect users' identities).

³⁰⁶ See Calder v. Jones, 465 U.S. 783, 789 (1984) (discussing the way the defendant specifically targeted California).

³⁰⁷ See World Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 296 (1980); Asahi Metal Indus. v. Superior Court, 480 U.S. 102, 117 (1987) (Brennan, J., concurring).

³⁰⁸ See Evans, *supra* note 21, at 335 (discussing how courts have to apply modern legal principles in new contexts in response to changing technology); *see also* Swetnam-Burland, *supra* note 192, at 235 (indicating that courts have struggled to apply traditional personal jurisdiction principles to a "revolutionary medium"). ³⁰⁹ See Calder, 465 U.S. at 789-90.

³¹⁰ World-Wide Volkswagen, 444 U.S. at 292.

to a VPN and knowing that the VPN will connect to a server somewhere in the United States would likely be insufficient under *Nicastro*; a user could not reasonably anticipate being haled into court in the jurisdiction of the server if unaware of the server's location.³¹¹ VPNs may advertise anonymity, but any internet users connecting through a VPN to conduct illegal activity should be aware that they may be establishing contacts that could allow for the exercise of personal jurisdiction consistent with traditional notions of fair play and substantial justice.³¹²

At the present rate of technological advancement, the judicial system is bound to continue encountering new types of interstate contacts that do not involve the defendant crossing any borders. Past attempts at tests dedicated to a specific type of contact, such as the opinions found in *Zippo* and *CompuServe*, have resulted in the exercise of jurisdiction that would not satisfy traditional notions of fair play and substantial justice.³¹³ Rather than creating a new test for each type of contact that will quickly become outdated and irrelevant, the most logical solution is for courts to be able to apply flexibly the same principles they have always applied. By focusing on the foreseeability of litigation through the intentionality of internet users' conduct, the traditional tests remain relevant and courts can continue to rely on them as technology continues to develop.

³¹¹ See J. McIntyre Mach., Ltd. v. Nicastro, 564 U.S. 873, 886 (2011).

³¹² See Int'l Shoe Co. v. Washington, 326 U.S. 310, 316 (1945).

³¹³ See Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119 (W.D. Pa 1975); CompuServe, Inc. v. Patterson, 89 F.3d 1257 (6th Cir. 1996). The *CompuServe* test was over-inclusive from the outset, while the *Zippo* test became equally over-inclusive as technology developed.