Digital Commons at St. Mary's University

Faculty Articles

School of Law Faculty Scholarship

Winter 2019

# #PersonalJurisdiction: A New Age of Internet Contacts

Zoe Niesel
*St. Mary's University School of Law*, zniesel@stmarytx.edu

Follow this and additional works at: https://commons.stmarytx.edu/facarticles

Part of the Internet Law Commons, and the Jurisdiction Commons

## Recommended Citation

Zoe Niesel, #PersonalJurisdiction: A New Age of Internet Contacts, 94 Ind. L.J. 103 (2019).

This Article is brought to you for free and open access by the School of Law Faculty Scholarship at Digital Commons at St. Mary's University. It has been accepted for inclusion in Faculty Articles by an authorized administrator of Digital Commons at St. Mary's University. For more information, please contact sfowler@stmarytx.edu, egoode@stmarytx.edu.

# #PERSONALJURISDICTION: A NEW AGE OF INTERNET CONTACTS

ZOE NIESEL*

*No other issue has proved more challenging in the sphere of personal jurisdiction than the internet. In addition to refusing to respect territorial boundaries, the internet allows users to access, change, create, and manage content in ways that are not present in physical space. Further, the rise of social media and other more interactive technologies, such as bots and cookies, make determining a user's minimum contacts with a forum more challenging than ever. The time has come to acknowledge that the internet has minimum contacts with every jurisdiction.*

*Current approaches used when personal jurisdiction and the internet collide are straining under technological developments. The premiere approach to internet jurisdiction is the so-called "*Zippo *test," which bases personal jurisdiction on whether a website is "interactive." The* Zippo *approach has left the case law inconsistent and does not account for recent innovations, such as social media, targeted advertising, artificial intelligence, and bots. This Article proposes a shift in the manner in which courts should think about personal jurisdiction and website interactivity. Specifically, this Article proposes that the time has come to embrace a revised analysis that incorporates traditional fairness factors with the defendant's implicit acknowledgement that the internet is targeting a national forum.*

*The analytical framework proposed by this Article seeks to remove inconsistent applications of an outdated* Zippo *test. However, it also attempts to be proactive. The internet is moving to become even more customized, ubiquitous, and self-aware than ever before. A new way to examine internet contacts is thus needed to account for changing technologies to ensure fairness and predictability.*

INTRODUCTION ........ 104
I. THE QUESTION OF MINIMUM CONTACTS ........ 105
  A. MINIMUM CONTACTS AND GENERAL JURISDICTION ........ 107
  B. MINIMUM CONTACTS AND SPECIFIC JURISDICTION ........ 110
II. MINIMUM CONTACTS AND INTERNET JURISDICTION ........ 115
  A. THE RISE OF THE ZIPPO TEST ........ 116
  B. PROBLEMS WITH ZIPPO ........ 119
  C. RETURNING TO A TRADITIONAL APPROACH TO MINIMUM CONTACTS ........ 125
III. MINIMUM CONTACTS AND THE CHANGING INTERNET ........ 126
  A. WEB 1.0 AND WEB 2.0 ........ 127
  B. WEB 3.0 AND WEB 4.0 ........ 136
IV. A MOVE AWAY FROM PREDICTABILITY: EMBRACING THE INTERNET'S REALITY ........ 138
CONCLUSION ........ 143

---

* Zoe Niesel is an assistant professor at St. Mary's University School of Law. She previously served as a visiting assistant professor at Wake Forest University School of Law.

## INTRODUCTION

Modern notions of personal jurisdiction in the United States are largely based on the question of contacts.[1] Such focus is the product of nearly sixty years of Supreme Court doctrine that has seen a transition of personal jurisdiction from a theory based around territorial power to one that is focused on the due process rights of the defendant.[2] This underlying purpose attempts to ensure that the critical question is one of fundamental fairness.

"Enter the Internet,"[3] a global network of computers that has come to influence all aspects of American life. The internet has challenged traditional notions of personal jurisdiction since its inception, with early cases struggling in how to apply the concept of minimum contacts with the forum through an online medium.[4] Difficulties in applying personal jurisdiction are manifest—the internet does not respect territorial boundaries, is accessible anytime and anyplace, and allows users from all parts of the globe to access and contribute.[5] These aspects do not fall neatly into the traditional jurisprudence on personal jurisdiction, although courts have attempted to classify internet technology such that simple lines can be drawn around internet contacts.[6] However, these frameworks are largely based on technology from the 1990s and do not account for the rise of new web platforms and applications such as social media, targeted advertising, artificial intelligence, and bots, among other things.

This Article explores the complicated relationship between minimum contacts and the modern internet. Part I traces the development of modern personal jurisdiction analyses in the areas of both specific and general jurisdiction. Interesting in this historical overview is the increased reliance on predictability, even as courts have recognized that advanced technologies and infrastructure have made the maintenance of lawsuits infinitely easier than in the days before *International Shoe*.[7] Part II then explores the intersection between personal jurisdiction and the internet as well as the rise of the so-called *Zippo* "interactivity" test for jurisdiction in cases involving websites. Although *Zippo* has represented the cornerstone of internet-

---

1. Charles W. "Rocky" Rhodes, *Clarifying General Jurisdiction*, 34 SETON HALL L. REV. 807, 812–13 (2004). A contacts-based analysis arose from the Supreme Court's decision in *International Shoe*, which articulated specific and general jurisdiction as separate bases for *in personam* jurisdiction. *Id.*

2. *See* Ins. Corp. of Ir. v. Compagnie des Bauxities de Guinee, 456 U.S. 694, 702 (1982) ("The personal jurisdiction requirement recognizes and protects an individual liberty interest. It represents a restriction on judicial power not as a matter of sovereignty, but as a matter of individual liberty.").

3. Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1123 (W.D. Pa. 1997); *see also* Panavision Int'l., Ltd. P'ship. v. Toeppen, 938 F. Supp. 616, 618–19 (C.D. Cal. 1996) (providing a discussion of domain name disputes and personal jurisdiction issues upon the advent of the internet).

4. *See infra* Part II.

5. Dig. Equip. Corp. v. Altavista Tech., 960 F. Supp. 456, 462 (D. Mass. 1997) ("[N]ot only is there perhaps 'no there there,' the 'there' is *everywhere* where there is Internet access.") (emphasis in original).

6. *See, e.g.*, Zippo, 952 F. Supp. at 1124.

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

based jurisdiction since its publication in 1997, there are several problems with the test, including incorrect applications in the area of general jurisdiction and inconsistent applications when websites contain advertisements, contact information, or other possible interactive features.

Part III examines the changing nature of the modern internet and the move from Web 1.0 to Web 2.0.[8] This change has brought with it increased interactivity in online experiences, including the rise of social media. These changes have made it difficult to continue to apply the *Zippo* analysis as it currently exists. Accordingly, Part IV of this Article proposes a shift in the manner in which courts should think about personal jurisdiction and website interactivity. Specifically, this Article proposes that courts should move away from interactivity-based analyses to a more holistic analysis that examines the defendant's expectations based on the increased global presence of the internet and traditional notions of fairness.

The analytical framework proposed by this Article seeks to do two things. First, the framework eliminates inconsistent applications of the *Zippo* test. An examination of the case law reveals that websites with many of the same features are now being classified differently in various jurisdictions. Second, the framework attempts to lay a sustainable groundwork that can withstand future technological innovations. It is without question that the internet has changed substantially since the time of *Zippo* in 1997. However, the future holds even greater changes for the way in which users communicate online and receive information. Addressing these changes now will lay a sustainable groundwork for the near future, when the web will become more semantic, more personal, and even more ubiquitous.

## I. THE QUESTION OF MINIMUM CONTACTS

Personal jurisdiction allows a court to exercise power over the person of the defendant and thus allows the court to enter a binding judgment against that defendant.[9] American conceptions of personal jurisdiction were traditionally based on the idea of territorial power and the sovereignty of state borders.[10] The importance of territorial power can be seen in one of the earliest and most recognizable personal jurisdiction cases, *Pennoyer v. Neff*.[11] In *Pennoyer*, the court examined contours of state sovereignty to determine that jurisdiction could be exercised in one of three scenarios: (1) if service of process was completed in the state, (2) if an individual had his or her domicile within the state, or (3) if the defendant consented to jurisdiction in the state.[12]

---

8. For definitions of these terms, see *infra* Section III.A.

9. Amanda Reid, *Operationalizing the Law of Jurisdiction: Where in the World Can I Be Sued for Operating a World Wide Web Page?*, 8 COMM. L. & POL'Y 227, 228 (2003).

10. *See generally* Albert A. Ehrenzweig, *The Transient Rule of Personal Jurisdiction: The 'Power' Myth and Forum Conveniens*, 65 YALE L.J. 289 (1956) (summarizing the traditional understanding of personal jurisdiction); Philip B. Kurland, *The Supreme Court, the Due Process Clause and the In Personam Jurisdiction of State Courts: From* Pennoyer *to* Denckla*: A Review*, 25 U. CHI. L. REV. 569, 569–74 (1958).

11. 95 U.S. 714 (1877).

12. *Id.* at 733–36.

The simplicity of the *Pennoyer* approach, and its devotion to concepts of territorial power, was ill-suited to developments in national commerce, such as the increased transmission of business across state lines and the rise of modern corporate forms. Modern corporations challenged the idea that physical presence should control personal jurisdiction; after all, corporations operate across state lines, despite being incorporated elsewhere.[13]

An early precursor to the modern minimum contacts analysis—and Band-Aid on the problems created by *Pennoyer*—involved courts assessing whether an entity was "doing business" in the state.[14] The "doing business" analysis was an attempt to bootstrap in-state activities into the equivalent of a physical presence that was limited to the state. Cases identified a multitude of factors, such as the presence of offices, employees, or even transactions in the jurisdiction, to determine if a corporation was in fact doing business in the state.[15] Eventually modern business practices and interstate communication led to the need to move away from *Pennoyer* and the "doing business" model.[16]

The move away from *Pennoyer* was accomplished in *International Shoe Co. v. Washington*,[17] which first provided an analysis concerned with the conduct and contacts of the defendant in the forum state. In looking to traditional notions of due process and considerations of fairness to the defendant, the *International Shoe* Court proposed a method of determining personal jurisdiction which would examine: (1) whether the individual or corporate defendant had sufficient contacts with the forum and (2) whether an exercise of jurisdiction would offend "traditional notions of fair play and substantial justice."[18] The court distinguished between instances in which the defendant's contacts gave rise to the claim and instances in which the defendant had such meaningful contacts with the state that it would be just to force the defendant to appear and defend a claim that arose anywhere.[19]

The minimum contacts inquiry created in *International Shoe* encompasses two separate jurisdictional theories—the theory of dispute-blind, or general, jurisdiction and the theory of dispute-specific, or specific, jurisdiction.[20] Specific jurisdiction looks to determine whether there are minimum contacts with the forum state and that the claim at issue arises from those contacts. Additionally, the application of specific

---

13. *See generally* William F. Cahill, *Jurisdiction over Foreign Corporations and Individuals Who Carry on Business Within the Territory*, 30 HARV. L. REV. 676 (1917); Kurland, *supra* note 10, at 577–88.

14. *See, e.g.*, Vencedora Oceanica Navigacion, S.A. v. Compagnie Nationale Algerienne de Navigation, 730 F.2d 195, 201 (5th Cir. 1984).

15. *See, e.g.*, Peoples Tobacco Co. v. Am. Tobacco Co., 246 U.S. 79 (1918); Phila. & Reading Ry. Co. v. McKibbin, 243 U.S. 264 (1917); Int'l Harvester Co. v. Kentucky, 234 U.S. 579 (1914); St. Louis Sw. Ry. Co. v. Alexander, 227 U.S. 218 (1912); Green v. Chi. Burlington & Quincy Ry. Co., 205 U.S. 530 (1907).

16. *See* Kurland, *supra* note 10, at 577–86.

17. 326 U.S. 310, 316 (1945).

18. *Id.* at 316 (quoting Milliken v. Meyer, 311 U.S. 457, 463 (1940)).

19. *Id.* at 317.

20. Arthur T. von Mehren & Donald T. Trautman, *Jurisdiction to Adjudicate: A Suggested Analysis*, 79 HARV. L. REV. 1121, 1136 (1966).

jurisdiction must be reasonable and fair such that the application of due process is not violated by the forum's exercise of power over the defendant.[21]

In contrast, general jurisdiction examines whether the defendant's contacts in the forum are so significant that the defendant should be subject to jurisdiction in the forum regardless of where the claim arose.[22] If general jurisdiction is satisfied, a court may exercise power over a defendant as to any lawsuit, even if its underlying activities were wholly outside the forum.[23]

### *A. Minimum Contacts and General Jurisdiction*

Historically, the question of what constituted general jurisdiction was tied to the question of whether "continuous corporate operations within a state were thought so substantial and of such a nature as to justify suit . . . on causes of action arising from dealings entirely distinct from those activities."[24] This concept was illustrated in *Perkins v. Benguet Consolidated Mining Co.*,[25] in which the president and principal stockholder of a Philippine mining company ceased operations of the corporation during World War II and returned to his home in Ohio.[26] In Ohio, the president opened an office and two bank accounts for the mining company, paid salaries and other expenses, and held directors' meetings.[27]

Plaintiff sued the company in Ohio for dividends and damages based on the company's failure to issue certificates for shares of stock that she claimed to own.[28] The Supreme Court found general jurisdiction because of the president's "continuous and systematic supervision of the necessarily limited wartime activities of the company."[29] This "continuous and systematic" language became the cornerstone of a general jurisdiction analysis for over sixty years.[30]

The "continuous and systematic" language appeared again in *Helicopteros Nacionales de Colombia, S.A. v. Hall*.[31] Helicopteros Nacionales de Colombia ("Helicol"), a Colombian company, was sued in Texas state court by representatives

---

21. *Int'l Shoe*, 326 U.S. at 316.
22. *Id.* at 317–18.
23. *See id.*; *see also* Bell Paper Box, Inc. v. U.S. Kids, Inc., 22 F.3d 816, 819 (8th Cir. 1994) (engaging in a distinction between the parameters of specific jurisdiction and the parameters of general jurisdiction).
24. *Int'l Shoe*, 326 U.S. at 318.
25. 342 U.S. 437 (1952).
26. *Id.* at 447.
27. *Id.* at 448.
28. *Id.* at 438–39.
29. *Id.* at 446, 448.
30. Gorman v. Ameritrade Holding Corp., 293 F.3d 506, 510 (D.C. Cir. 2002) (stating the standard as "general jurisdiction over a foreign corporation is . . . permissible if the defendant's business contacts with the forum district are 'continuous and systematic'"); Grand Entm't Grp., Ltd. v. Star Media Sales, Inc., 988 F.2d 476, 481 n.3 (3d Cir. 1993) ("General jurisdiction exists where the defendant 'has maintained "continuous and substantial" forum affiliations.'"); Zoe Niesel, *Daimler and the Jurisdictional Triskelion*, 82 TENN. L. REV. 833, 848 (2015); Danielle Tarin & Christopher Macchiaroli, *Refining the Due-Process Contours of General Jurisdiction over Foreign Corporations*, 11 J. INT'L BUS. & L. 49, 61 (2012).
31. 466 U.S. 408, 416 (1984).

of four American citizens killed after a Helicol helicopter crashed in Peru.[32] To justify the existence of general jurisdiction in the forum, the plaintiffs pointed to Helicol's contacts in the forum which included helicopter purchases, employee trainings, and $5 million in payments drawn on a Texas bank.[33] The Court determined that these activities were not "the kind of *continuous and systematic general business contacts*" that could justify an exercise of dispute-blind jurisdiction.[34]

The end points of analysis fixed by *Perkins* and *Helicopteros* proved less than useful as lower courts divided on the exact quality and quantity of contacts that could support an exercise of general jurisdiction.[35] Further, the "continuous and systematic contacts" language that supported general jurisdiction was the subject of considerable criticism from scholars and the international community as it led to disparate results and significant uncertainty for businesses attempting to determine whether they may be subject to the exercise of general jurisdiction in any particular forum.[36]

Against this background, the Court issued a series of cases that further clarified the role and application of general jurisdiction and provided what might have been considered a more easily applied test.[37] In *Goodyear Dunlop Tires Operations, S.A. v. Brown*,[38] the Court examined a case that arose when two American teenagers were killed in a bus accident in France after competing in an international soccer tournament.[39] The parents of the victims sued for damages in North Carolina, alleging that a defect in the bus's tires was the cause of the accident. Defendants in the suit were Goodyear Dunlop Tires France SA and Goodyear Luxembourg Tires SA (together, "Goodyear foreign subsidiaries"),[40] both of which claimed that a North Carolina court could not exercise personal jurisdiction over them as they had no offices, operations, or ongoing business in North Carolina.[41] As part of the larger Goodyear distribution network, tires manufactured by the Goodyear foreign subsidiaries had in fact reached North Carolina, but the Court found that participation in this type of distribution scheme did not create general jurisdiction based on "continuous and systematic contacts."[42] Instead, the Court made an additional qualification to the "continuous and systematic contacts" standard by holding that

---

32. *Id.* at 410, 412.

33. *Id.* at 410–11.

34. *Id.* at 416 (emphasis added).

35. Mary Twitchell, *Why We Keep Doing Business with Doing-Business Jurisdiction*, 2001 U. CHI. LEGAL F. 171, 184–85 (2001).

36. *See* Arthur T. von Mehren & Donald T. Trautman, *Jurisdiction to Adjudicate: A Suggested Analysis*, 79 HARV. L. REV. 1121, 1136 (1966).

37. Daimler AG v. Bauman, 134 S. Ct. 746 (2014); Goodyear Dunlop Tires Operations, S.A. v. Brown, 564 U.S. 915 (2011).

38. 564 U.S. 915 (2011).

39. *Id.* at 918.

40. *Id.*

41. *Id.*

42. *Id.* at 920, 922.

> 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.[43]

In 2014, the Court further clarified the "at home" language through the adoption of a more bright-line test for general jurisdiction in *Daimler AG v. Bauman*.[44] The *Daimler* plaintiffs were former employees and relatives of former employees of Mercedes-Benz Argentina, a wholly-owned subsidiary of DaimlerChrysler Aktiengesellschaft ("Daimler"), a German company. Plaintiffs claimed that from 1976 to 1983 Mercedes-Benz Argentina collaborated with Argentina's state police to kidnap, torture, and kill workers as part of Argentina's "Dirty War."[45] Plaintiffs filed their suit against Daimler in California, attempting to hold Daimler liable for the actions of its Argentinian subsidiary.[46] Plaintiffs based general jurisdiction in California on the presence of Mercedes-Benz USA, another Daimler subsidiary, in California.[47] Mercedes-Benz USA had multiple contacts with California—it had a regional office, vehicle preparation center, and classic car center, and California accounted for 2.4% of Daimler's total worldwide sales.[48]

In examining the jurisdictional question raised in *Daimler*, the Court noted that the "continuous and systematic" language was not enough to support a finding of general jurisdiction and that contacts must be such that the defendant could be said to be "at home" in the forum state.[49] In defining the "at home" standard, the Court noted the paradigmatic bases for general jurisdiction would be the state of incorporation and principal place of business.[50] Because Daimler's principal place of business and place of incorporation were located outside of California, neither paradigmatic base was present on the facts of the case.[51]

The *Daimler* opinion did not foreclose the possibility of some type of continuous contacts-style analysis for general jurisdiction.[52] Indeed, the Court specifically noted that in an "exceptional case," à la *Perkins*, contacts could be "so substantial and of such a nature as to render the corporation at home in that State."[53] Thus, while *Daimler* establishes that a corporation is certainly at home where it is incorporated or its principal place of business is located, some exceptional level of contacts may still justify an exercise of general jurisdiction in a particular forum.[54]

---

43. *Id.* at 919 (emphasis added).
44. 134 S. Ct. 746 (2014).
45. *Id.* at 748.
46. *Id.* at 751.
47. *Id.*
48. *Id.* at 752.
49. *Id.* at 751.
50. *Id.* at 760.
51. *Id.* at 761.
52. *See id.*
53. *Id.* at 761 n.19.
54. *Id.*

### *B. Minimum Contacts and Specific Jurisdiction*

Cases involving internet contacts are largely based on the question of whether specific jurisdiction is satisfied.[55] Specific jurisdiction involves the questions of whether the defendant's contacts with the forum gave rise to the claim at hand and whether certain reasonableness factors are satisfied.[56] The preeminent case on the matter is still *International Shoe*, which first established that courts would have specific jurisdiction when the defendant has minimum contacts with the forum state, and application of jurisdiction would not offend "traditional notions of fair play and substantial justice."[57]

The question of what, exactly, satisfies the standard of "minimum contacts" remains unclear. In *International Shoe*, the question was easily answered—the defendant, a Delaware corporation with a principal place of business in Missouri, solicited orders from customers in Washington State through door-to-door salesman and permanent display rooms located in the state.[58] Further, the defendant was generating a significant volume of sales of its product in the state.[59] The Court noted that while the "casual presence" of a corporate agent in the state and "isolated items of activities" would not subject a corporate defendant to specific jurisdiction in a forum, other acts, based on the "nature and quality and the circumstances of their commission," could render a defendant subject to suit in the forum if those actions gave rise to the liability sued on.[60] Important was the concept that the defendant had taken some act that purposefully availed "itself of the privilege of conducting activities within the forum" and had thus invoked the benefits and protections of the forum's laws.[61]

While *International Shoe* proved easily managed, significant questions about the application of specific jurisdiction arose as the economy continued to emphasize interstate commerce. Indeed, the pre-*International Shoe* era had seen individuals and businesses that conducted activities almost entirely intrastate; in contrast, the post-*International Shoe* era saw both individuals and corporations that did significant activity across state lines, including selling and purchasing goods and services, advertising, maintaining additional physical infrastructure, and maintaining employees in multiple jurisdictions. These increases in interstate business and communication required a more expansive notion of personal jurisdiction and a clarification of the meaning of minimum contacts.

Additional Supreme Court cases have attempted to clarify the exact boundaries of the minimum contacts standard. In *McGee v. International Life Insurance Co.*,[62] the Court in 1957 recognized that developments in communication and transportation

---

55. *See* Ackourey v. Sonellas Custom Tailors, 573 F. App'x 208, 211 (3d Cir. 2014).

56. Goodyear Dunlop Tires Operations, S.A. v. Brown, 564 U.S. 915, 919 (2011).

57. Int'l Shoe Co. v. Wash., 326 U.S. 310, 316 (1945) (citing Milliken v. Meyer, 311 U.S. 457, 463 (1940) (noting that traditional notions of fair play and substantial justice are implicit in constitutional due process)).

58. *Id.* at 314–15.

59. *Id.*

60. *Id.* at 317–18.

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

62. 355 U.S. 220 (1957).

technology made it much easier for a defendant to be sued in a forum where it was engaging in some type of economic activity.[63] These modern developments apparently were such that the Court felt comfortable finding specific jurisdiction when the corporate defendant, an insurance company, had one single contact in the California forum.[64] Specifically, the defendant had delivered a single insurance contract to a California resident and had received premiums from the insured, sent from California, until the insured's death.[65]

The Court again took up the question of minimum contacts in 1980, when it decided *World-Wide Volkswagen Corp. v. Woodson*.[66] *Woodson* presents a more interesting question, as the defendant's contacts with the forum were more tangential. Specifically, the defendant, a vehicle retailer, had sold an Audi automobile to the Robinson family in Massena, New York.[67] The next year, the Robinson family initiated a cross-country move to Arizona, and, while passing through Oklahoma, sustained severe injuries when another vehicle struck their Audi in the rear.[68] The Robinsons brought a products liability action in Creek County, Oklahoma, claiming that their injuries were the result of defective placement of the Audi's fuel system and gas tank.[69]

In analyzing the question of personal jurisdiction over the New York vehicle retailer, the Court emphasized the dual nature of specific jurisdiction: first, to ensure that defendants are not required to litigate in inconvenient forums, and second, that states do not reach beyond limits established by "their status as coequal sovereigns in a federal system."[70] In assessing the question of minimum contacts, the Court was wholly unimpressed with any contacts the vehicle retailer had in Oklahoma, noting:

> Petitioners carry on no activity whatsoever in Oklahoma. They close no sales and perform no services there. They avail themselves of none of the privileges and benefits of Oklahoma law. They solicit no business there either through salespersons or through advertising reasonably calculated to reach the State. Nor does the record show that they regularly sell cars at wholesale or retail to Oklahoma customers or residents or that they indirectly, through others, serve or seek to serve the Oklahoma market. In short, respondents seek to base jurisdiction on one, isolated occurrence and whatever inferences can be drawn therefrom[.][71]

---

63. *Id.* at 222–23. The predictions in *McGee* seem particularly relevant today. *McGee* noted that "many commercial transactions touch two or more States and may involve parties separated by the full continent. With this increasing nationalization of commerce has come a great increase in the amount of business conducted by mail across state lines." *Id.* With the advent of the internet and smart phone, commercial transactions have only continued to touch multiple fora.

64. *Id.*

65. *Id.*

66. 444 U.S. 286 (1980).

67. *Id.* at 288.

68. *Id.*

69. *Id.*

70. *Id.* at 292.

71. *Id.* at 295.

The Court rejected the notion that a physical object could serve as the agent for service of process in a jurisdiction and that amenability to suit would travel wherever a chattel was taken by its purchaser.[72] As such, defendants should only be subject to jurisdiction where they "should reasonably anticipate being hauled into court."[73] Critical to the Court was the ability of a corporation to structure its conduct so that it could have some minimum assurance as to whether personal jurisdiction might arise.[74]

The Court further addressed the question of contacts directed towards a forum state in *Burger King Corp. v. Rudzewicz*.[75] In *Burger King*, the defendants opened a restaurant franchise in Drayton Plains, Michigan, with the franchise contract stating that the laws of Florida, the location of Burger King Corporation headquarters, would govern.[76] The defendants' franchise suffered poor sales, and Burger King attempted to close the Michigan location after the defendants failed to make monthly payments to the headquarters.[77] Burger King brought an action against the defendants in the United States District Court for the Southern District of Florida, alleging that the defendants had breached their franchise obligations and were tortiously infringing trademarks and serve marks through their continued operation of a Burger King restaurant.[78] Defendants alleged a lack of personal jurisdiction by the Florida court, arguing that they were Michigan residents and that their dispute with Burger King Corporation did not arise out of defendants' contacts with Florida.[79]

In deciding *Burger King*, the Court continued to note that a forum can legitimately exercise specific jurisdiction over a defendant who "purposefully directs" activities at forum residents.[80] The reasoning was two-fold. First, the Court noted that a state generally has "manifest interest" in redressing injuries that are inflicted on state citizens by out-of-state actors.[81] Additionally, drawing on shades of *International Shoe*, the Court again noted that, when a defendant has voluntarily received the benefit and protection of the forum's laws, it is only fair for that defendant to be subject to personal jurisdiction in the state.[82] To determine if the defendants could have reasonably anticipated being hauled into court in the forum, the Court examined whether there was some act by which the defendant "purposefully avails itself of the privilege of conducting activities within the forum State, thus invoking the benefits and protections of its laws."[83] The inquiry was, therefore, whether the defendants

72. *Id.* at 295–96.
73. *Id.* at 297.
74. *Id.*
75. 471 U.S. 462, 465–66 (1985).
76. *Id.*
77. *Id.* at 468.
78. *Id.* at 468–69.
79. *Id.* at 469.
80. *Id.* at 473 (quoting Keeton v. Hustler Magazine, Inc., 465 U.S. 770, 774 (1984)).
81. *Id.* (quoting McGee v. Int'l Life Ins. Co., 355 U.S. 220, 222–23 (1957)).
82. *Id.* at 474 ("[T]he Due Process Clause may not readily be wielded as a territorial shield to avoid interstate obligations that have been voluntarily assumed.").
83. *Id.* at 475 ("This 'purposeful availment' requirement ensures that a defendant will not be haled into a jurisdiction solely as a result of 'random,' 'fortuitous,' or 'attenuated' contacts . . . or of the 'unilateral activity of another party or a third person . . . .'" (citations omitted)).

deliberately engaged in significant activities or voluntarily created continuing obligations between themselves and the residents of the forum state.[84]

The interesting aspect of *Burger King* is that the defendants had almost no physical contact with the Florida forum, besides attending one brief training class in Miami on the part of one of the defendants.[85] The Court noted that "territorial presence" was often a contributing factor in the discussion of personal jurisdiction, especially because it reinforced notions of reasonable foreseeability, but that modern commercial life often obviated the need for physical presence because of increased commercial activity conducted across state lines by wire and mail.[86] Thus, the critical factor was purposeful direction of commercial activity, not physical presence.[87]

*Burger King* also reinforced "notions of fair play and substantial justice"[88] by applying the reasonableness factors first articulated in *Woodson*. In addition to minimum contacts, courts should also consider "the burden on the defendant," "the forum State's interest in adjudicating the dispute," "the plaintiff's interest in obtaining convenient and effective relief," "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."[89] Such factors serve as a "double check" to either establish reasonable jurisdiction upon a lesser showing of contacts or to defeat jurisdiction when a defendant purposefully directs his activities at the forum state but can present other factors that would make the application of jurisdiction unreasonable.[90]

On the facts of *Burger King* itself, the Court determined that the defendants had indeed derived substantial benefits from their franchise agreement with Burger King Corporation in Florida and that the language of the franchise agreement produced a long-term series of exacting regulations directed from the Florida headquarters.[91] This type of relationship justified finding specific jurisdiction over the defendant based on their continuing and wide-reaching contacts with Burger King Corporation.[92]

While *Burger King* addresses the question of "purposeful availment" or "purposeful direction" based on the defendant's activities that are directed towards the forum state, the jurisdictional theory articulated in *Asahi Metal Industry Co. v. Superior Court of California*[93] applies when the defendant's products reach the

---

84. *Id.* at 475–76.
85. *Id.* at 479 & n.22.
86. *Id.* at 476.
87. *Id.*; *see also* Keeton v. Hustler Magazine, Inc., 465 U. S. 770, 774–77 (1984); Hanson v. Denckla, 357 U.S. 235, 250–51 (1958); McGee v. Int'l Life Ins. Co., 355 U.S. 220, 222–23 (1957).
88. *Burger King Corp.*, 471 U.S. at 476–77 (quoting Int'l Shoe Co. v. Wash., 326 U.S. 310, 320 (1945)).
89. *Id.* at 477 (quoting World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 292 (1980)).
90. *See id.*
91. *Id.* at 479–80.
92. *Id.*
93. 480 U.S. 102 (1987).

forum state in what has been called the "stream of commerce."[94] The theory of stream of commerce assesses personal jurisdiction by questioning whether the target corporation delivered "its products into the *stream of commerce* with the expectation that they will be purchased by consumers in the forum State."[95]

The facts of *Asahi* are straightforward. Asahi Metal Industry Co., Ltd. ("Asahi"), a Japanese corporation, manufactured tire valve assemblies and then sold those assemblies to Cheng Shin Rubber Industrial Co., Ltd. ("Cheng Shin"), a Taiwanese corporation that used Asahi's valve assemblies in tire tubes that were eventually sold in the United States.[96] The plaintiff filed a products liability action against Cheng Shin in California after his Honda motorcycle collided with a tractor, claiming that components of the tire, including the tire tube, were defective.[97] Cheng Shin filed a cross-claim for indemnification against Asahi, which had manufactured the tube valve assembly present in the plaintiff's tire.[98] Asahi contested personal jurisdiction on the grounds that there were not sufficient contacts on its part in the California forum.[99]

In deciding *Asahi*, a plurality of the justices relied on *Burger King* and the notion that the "'substantial connection' between the defendant and the forum State necessary for a finding of minimum contacts must come about by *an action of the defendant purposefully directed toward the forum State*."[100] The plurality opinion, authored by Justice O'Connor, found "[t]he placement of a product into the stream of commerce, without more, is not an act of the defendant purposefully directed toward the forum State."[101] Justice O'Connor identified a number of ways in which a defendant could engage in "more" conduct that would lead to purposeful availment—the defendant could design the product for market in the forum, advertise in the forum, have a mechanism for advising customers in the forum, or mark the product through a distributor serving as a sales agent in the forum.[102] Because no such additional actions were identified on the facts of the case, an exercise of personal jurisdiction by California would be inappropriate.[103]

In contrast, Justice Brennan authored an opinion suggesting that placing a product into the stream of commerce with awareness that the final product is being marketed in the forum state is sufficient for purposeful availment.[104] Justice Brennan reasoned that

> [t]he stream of commerce refers not to unpredictable currents or eddies, but to the regular and anticipated flow of products from manufacture to

---

94. *Id.* at 112.
95. *Id.* at 109 (quoting World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 297–98 (1980)) (emphasis added).
96. *Id.* at 106.
97. *Id.* at 105–06.
98. *Id.* at 106.
99. *Id.*
100. *Id.* at 112 (emphasis in original) (citations omitted).
101. *Id.*
102. *Id.*
103. *See id.*
104. *See id.* at 116 (Brennan, J., concurring).

> distribution to retail sale. 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. Nor will the litigation present a burden for which there is no corresponding benefit. A defendant who has placed goods in the stream of commerce benefits economically from the retail sale of the final product in the forum State, and indirectly benefits from the State's laws that regulate and facilitate commercial activity.[105]

The split in *Asahi* created ambiguity for the circuit courts, which were left to guess which opinion to adopt. Ultimately, a significant number chose to follow the approach adopted by Justice O'Connor, but others ignored *Asahi* in favor of earlier precedent such as *Woodson* and *Burger King*.[106]

The development of the minimum contacts analysis from *International Shoe* to *Asahi* shows some attempt at guidance in the area of specific personal jurisdiction, although perhaps unsuccessfully.[107] Such cases have traditionally emphasized growth in transportation and communication logistics as driving forces in the flexibility of a minimum contacts analysis. However, such "advances" in these cases focus on wire and mail, not the type of global electronic communication that is possible due to the internet.

## II. MINIMUM CONTACTS AND INTERNET JURISDICTION

At the heart of jurisprudence on the topic of minimum contacts is the concern about the defendant's ability to structure its contacts as to reasonably anticipate suit in the forum. This concern is brought into focus when assessing tests for personal jurisdiction involving internet contacts. Particularly troubling here is the lack of guidance from the Supreme Court itself. In the absence of such guidance, several approaches have developed in the lower courts to account for the increased significance of internet activities, but the most prominent of these tests is the so-called "*Zippo* test."[108]

---

105. *Id.* at 117.

106. *Compare* Holland Am. Line Inc. v. Wärtsilä N. Am., Inc., 485 F.3d 450, 459 (9th Cir. 2007), *with* Seiferth v. Helicopteros Atuneros, Inc., 472 F.3d 266, 273 (5th Cir. 2006).

107. *See, e.g.*, Kevin C. McMunigal, *Desert, Utility, and Minimum Contacts: Toward a Mixed Theory of Personal Jurisdiction*, 108 YALE L.J. 189, 189 (1998) (citing cases criticizing the minimum contacts test and noting that "[a]mbiguity and incoherence have plagued the minimum contacts test for the more than five decades during which it has served as a cornerstone of the Supreme Court's personal jurisdiction doctrine.").

108. The most prominent of the lower court tests is *Zippo*. However, the *Zippo* test built on a history of other lower court opinions that had taken up the question of personal jurisdiction and internet contacts. For example, in *Maritz, Inc. v. Cybergold, Inc.*, 947 F. Supp. 1328 (E.D. Mo. 1996), the defendant's website served as a promotional tool to advertise its new internet service and encouraged users to add their addresses to a mailing list to receive updates. *Id.* at 1330. The court based an exercise of personal jurisdiction on the website's "active solicitations" and "promotional activities." *Id.* at 1332–33 ("Although CyberGold characterizes its activity as merely maintaining a 'passive website,' its intent is to reach all internet users, regardless of geographic location."). A more aggressive pre-*Zippo* exercise of

### A. The Rise of the Zippo Test

The *Zippo* test, a product of a 1997 decision by the United States District Court for the Western District of Pennsylvania, has remained the most prominent of the lower court approaches to internet-based minimum contracts.[109] *Zippo* involved a California corporation, Dot Com, that operated an internet news website and had obtained the exclusive right to use the domain names "Zippo.com,"[110] "Zippo.net," and "Zipponews.com."[111] The plaintiff, the Pennsylvania manufacturer of Zippo brand lighters, sued for a number of claims, including trademark dilution and infringement.[112]

The minimum contacts question in *Zippo* revolved heavily around the question of how, exactly, the California-based Dot Com was or was not contacting the Pennsylvania forum.[113] Dot Com's internet news website contained advertisements and an application for its news service, which provided three levels of membership.[114] Each level of service provided additional access to a greater number of internet newsgroups.[115] An online subscriber filled out an application present on Dot Com's website and then made payment over the internet or telephone.[116] The application was processed and the subscriber received a password that enabled her to view or download newsgroup messages that were stored on a California server.[117]

Dot Com's contacts with Pennsylvania appeared to be the same type of garden-variety contacts that any website might have with a forum. All of Dot Com's infrastructure was in California, including its offices, employees, and internet servers.[118] Any contact with Pennsylvania was entirely online; specifically, Dot Com's information was available to Pennsylvania via its website, and two percent of

---

personal jurisdiction occurred in *Inset Systems, Inc. v. Instruction Set, Inc.*, 937 F. Supp. 161 (D. Conn. 1996). In that case, the defendant's contacts with the forum involved posting a website that was available to approximately 10,000 forum residents. The court based jurisdiction on the fact that on the internet, "unlike television and radio advertising, the advertisement is available continuously to any Internet user." *Id.* at 165.

Unlike *Inset*, *Bensusan Restaurant Corp. v. King*, 937 F. Supp. 295 (S.D.N.Y. 1996), more thoroughly examined the question of interactivity in making a personal jurisdiction determination. The website at issue in *Bensusan* contained general information about the defendant's business and a calendar of events. *Id.* at 297. A user could not purchase anything from the website and had to call or travel to the business's location to transact any business. *Id.* The court found that the website's passive nature did not create purposeful availment necessary for minimum contacts. *See id.* at 300–01.

109. Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119 (W.D. Pa. 1997).

110. The current holder of the "Zippo.com" domain name appears to be the manufacturer of Zippo Lighters.

111. *Id.* at 1121.

112. *Id.*

113. *See id.*

114. *Id.*

115. *Id.*

116. *Id.*

117. *Id.*

118. *Id.*

its subscribers were Pennsylvania residents who had filled out Dot Com's online application to receive its news subscription.[119]

In deciding the question of minimum contacts, the *Zippo* court turned its attention to the principle articulated in *Burger King*—that jurisdiction could not be avoided because "the defendant did not *physically* enter the forum state."[120] The court found that different results should not be achieved when a corporation reached beyond its boundaries to conduct business, even if that contact occurred through the internet.[121]

The test adopted by the *Zippo* court is deceptively simple. In establishing a "sliding scale" test, the court attempted to tie the nature and quality of commercial activity to the likelihood of personal jurisdiction existing in the forum.[122] The court noted that such a test was consistent with "well developed personal jurisdiction principles," referring perhaps to the principle of foreseeability for the corporate defendant.[123]

The *Zippo* sliding scale test contains three touchpoints of analysis. First, there are situations where the defendant is said to clearly be doing business over the internet.[124] Such examples include where the defendant is entering into contracts with residents of a foreign jurisdiction that involve intentional and repeated transmission of files over the internet.[125] The "middle ground" is occupied by situations where an internet user can exchange information with the host.[126] In these interactive website scenarios, jurisdiction is determined by examining "the level of interactivity and commercial nature of the exchange of information that occurs on the Web site."[127] Finally, the easiest cases are those in which there is a passive website involved.[128] These passive websites involve situations where the web host has done little more than make information available to the user, and thus personal jurisdiction does not exist.[129]

In examining the facts of the underlying case, the *Zippo* court determined that personal jurisdiction over Dot Com was proper in Pennsylvania based on the exchange of information occurring over the internet.[130] Specifically, the court pointed to the fact that Dot Com was accepting applications from Pennsylvania residents over the internet and was then assigning and sending those residents passwords that were used to download and access Dot Com's news service.[131] This activity was deemed to be an interactive type of experience, and thus led to the conclusion that personal jurisdiction in the Pennsylvania forum was appropriate.[132]

---

119. *Id.*
120. *Id.* at 1123 (emphasis in original) (quoting Burger King v. Rudzewicz, 471 U.S. 462, 476 (1985)).
121. *Id.* at 1124.
122. *Id.*
123. *Id.*
124. *Id.*
125. *Id.*
126. *Id.*
127. *Id.*
128. *See id.*
129. *Id.*
130. *Id.* at 1126.
131. *Id.*
132. *Id.*

The impact of *Zippo* on jurisdictional jurisprudence is significant. The Third Circuit, Fifth Circuit, and Ninth Circuit have recognized the *Zippo* case as a "seminal authority regarding personal jurisdiction based upon the operation of an internet web site."[133] The Fourth Circuit, Sixth Circuit, and Eighth Circuit have chosen to adopt the *Zippo* test as a factor to define "purposeful availment" in the minimum contacts analysis.[134] Further, even circuits that have not expressly adopted *Zippo* still use its interactivity analysis to determine minimum contacts.[135]

In sum, the *Zippo* test has been largely adopted in some form or mode by the circuit courts in assessing internet-related personal jurisdiction.[136] The reason is

---

133. Toys "R" Us, Inc. v. Step Two, S.A., 318 F.3d 446, 452 (3d Cir. 2003); *see also* Mink v. AAAA Dev. LLC, 190 F.3d 333, 336 (5th Cir. 1999) ("The *Zippo* decision categorized Internet use into a spectrum of three areas. At one end of the spectrum, there are situations where a defendant clearly does business over the Internet by entering into contracts with residents of other states which 'involve the knowing and repeated transmission of computer files over the Internet. . . .' In this situation, personal jurisdiction is proper."); Cybersell, Inc. v. Cybersell, Inc., 130 F.3d 414, 419 (9th Cir. 1997) ("In sum, the common thread, well stated by the district court in *Zippo*, is 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.'").

134. *See* Lakin v. Prudential Sec., Inc., 348 F.3d 704, 711 (8th Cir. 2003) (holding that the "determination of whether it is 'interactive,' 'does business,' or is merely 'passive' is an important factor in our analysis. However, we have long held that the 'nature and quality' of contacts is only one factor to consider."); ALS Scan, Inc. v. Dig. Serv. Consultants, Inc., 293 F.3d 707, 714 (4th Cir. 2002) ("[A]dopting and adapting the *Zippo* model, we conclude that a State may, consistent with due process, exercise judicial power over a person outside of the State when that person (1) directs electronic activity into the State, (2) with the manifested intent of engaging in business or other interactions within the State, and (3) that activity creates, in a person within the State, a potential cause of action cognizable in the State's courts."); Neogen Corp. v. Neo Gen Screening, Inc., 282 F.3d 883, 890 (6th Cir. 2002) ("The level of contact with a state that occurs simply from the fact of a website's availability on the Internet is therefore an 'attenuated' contact that falls short of purposeful availment.").

135. These circuits do not expressly adopt *Zippo* but do use some form of a sliding scale approach that assesses the distinction between active, passive, and interactive websites. *See* McBee v. Delica Co., 417 F.3d 107, 124 (1st Cir. 2005) ("[T]he mere existence of a website that is visible in a forum and that gives information about a company and its products is not enough, by itself, to subject a defendant to personal jurisdiction in that forum. . . . Something more is necessary, such as interactive features which allow the successful online ordering of the defendant's products."); Jennings v. AC Hydraulic A/S, 383 F.3d 546, 549–50 (7th Cir. 2004) ("Premising personal jurisdiction on the maintenance of a website, without requiring some level of 'interactivity' between the defendant and consumers in the forum state, would create almost universal personal jurisdiction because of the virtually unlimited accessibility of websites across the country"). In 1999, in *Soma Medical International v. Standard Chartered Bank*, 196 F.3d 1292, 1296 (10th Cir. 1999), the Tenth Circuit used the distinction between active, passive and interactive websites to assess general jurisdiction in a case involving. In 2011, the Tenth Circuit suggested that *Zippo* was more of a "heuristic adjunct to, rather than a substitute for, traditional jurisdictional analysis." Shrader v. Biddinger, 633 F.3d 1235, 1242 (10th Cir. 2011).

136. *See Toys "R" Us*, 318 F.3d at 452 ("The opinion in *Zippo* . . . has become a seminal authority regarding personal jurisdiction based upon the operation of an Internet web site."); *ALS Scan*, 293 F.3d at 713; *Soma*, 196 F.3d at 1297; *Mink*, 190 F.3d at 336; *Cybersell*, 130

simple—the *Zippo* test presents a simplified test that seems, on its face, to make the question of internet jurisdiction simple for litigants and courts alike.[137] One simply needs to classify the interactivity of the website, which should then lead to a simple conclusion on whether minimum contacts are satisfied.

### *B. Problems with* Zippo

In application, the *Zippo* test has proven less "bright-line" than might be anticipated.[138] A number of problems have arisen under the *Zippo* test, including confusion about the doctrine's scope, problems with application, and a failure to change with the technological landscape. First, some courts misinterpreted the *Zippo* test's scope by finding that the test applies in the realm of general jurisdiction, not specific jurisdiction.[139] Pre-*Daimler* and the adoption of the "at home" test for general jurisdiction, courts largely followed *Zippo* to find the existence of "continuous and systematic" contacts.

For example, in *Gator.com Corp. v. L.L. Bean, Inc.*,[140] the Ninth Circuit examined a case in which Gator.com Corp. ("Gator") sought a declaratory judgment stating that its software, which created pop-up windows when customers visited L.L. Bean's website, did not violate any L.L. Bean trademark or constitute unfair trade or sales practice. Gator's software analyzed a user's Uniform Resource Locator ("URL") to recognize that a user was visiting the L.L. Bean website, and would then display a pop-up window offering a coupon for a competitor.[141] L.L. Bean sent Gator a cease and desist letter requesting that Gator stop the use of these pop-ups on the L.L. Bean website, and Gator in turn filed an action in the District Court for the Northern District of California.[142] L.L. Bean contested personal jurisdiction.[143]

L.L. Bean's contacts with California were typical of a company engaging in e-commerce. L.L. Bean did not have agents in California and did not pay California taxes, although it did approximately six percent of its total sales in California through

---

F.3d at 418; *see generally* Reid, *supra* note 9, at 240 (noting common use of *Zippo* but that courts citing *Zippo* seem to generally reject personal jurisdiction).

137. *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, 1149 (2005). (noting that *Zippo*'s popularity is part of a "zealous and understandable quest to adopt a single standard for all Internet jurisdiction issues" and that courts have "improvidently chosen to apply a unitary test based on *Zippo* to all Internet jurisdiction issues").

138. Reid, *supra* note 9, at 261; Richard A. Bales & Suzanne Van Wert, *Internet Website Jurisdiction*, 20 J. MARSHALL J. COMPUTER & INFO. L. 21, 22–23 (2001).

139. The circuits have been split on whether *Zippo* applies to general jurisdiction. Some courts, although pre-*Daimler*, have applied *Zippo* to general jurisdiction cases. *See* Gator.com Corp. v. L.L. Bean, Inc., 341 F.3d 1072, 1079 (9th Cir. 2003) (applying *Zippo* in the context of general jurisdiction); Gorman v. Ameritrade Holding Corp., 293 F.3d 506, 513 (D.C. Cir. 2002) (utilizing the *Zippo* test for general jurisdiction); *Soma*, 196 F.3d at 1296–97 (same). Other courts have been more critical. *See, e.g.*, Revell v. Lidov, 317 F.3d 467, 471 (5th Cir. 2002) (the *Zippo* sliding scale "is not well adapted to the general jurisdiction inquiry").

140. 341 F.3d 1072, 1078 (9th Cir. 2003), *reh'g en banc*, 398 F.3d 1125 (9th Cir. 2005).

141. *Id.* at 1075.

142. *Id.*

143. *Id.*

its catalog, phone ordering system, and website.[144] Further, L.L. Bean engaged in email solicitation to California residents, maintained online accounts for California residents, interacted with California residents through online customer service representatives, and mailed catalogs and packages to California residents.[145]

The Ninth Circuit found that these facts were sufficient to confer general jurisdiction under a continuous and systematic contacts analysis.[146] Using the sliding-scale test articulated in *Zippo* and adopted by the Ninth Circuit, the court found that an online store can be the "functional equivalent" of a brick-and-mortar operation, and that L.L. Bean's website was highly interactive and very extensive, with millions of dollars in sales driven by targeted efforts to capture the California market.[147] The high volume of sales, combined with the interactive nature of the website, were sufficient to find the type of continuous and substantial contacts in the forum that would establish general jurisdiction.[148]

In the era of "continuous and systematic" contacts, other circuits also found the existence of general jurisdiction based on internet presence. In *Gorman v. Ameritrade Holding Corp.*, the District of Columbia Circuit found general jurisdiction when the defendant operated a website that allowed users to open an account and use that account to buy and sell securities.[149] The D.C. Circuit later, however, found that mere accessibility of a website did not meet the continuous and systematic contacts standard for general jurisdiction.[150] Similarly, in *Soma Medical International v. Standard Chartered Bank*,[151] the Tenth Circuit applied the *Zippo* test to find a lack of personal jurisdiction over the defendant in Utah when the website at issue was a passive website that simply made information available to the user, thus failing the "continuous and systematic" contacts analysis.[152]

---

144. *Id.* at 1074.

145. *Id.*

146. *See id.* at 1079–80.

147. *Id.* at 1079.

148. *Id.* at 1079–80.

149. Gorman v. Ameritrade Holding Corp., 293 F.3d 506, 512–13 (D.C. Cir. 2002) (citing Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1124 (W.D. Pa. 1997)).

150. FC Inv. Grp. LC v. IFX Mkts., Ltd., 529 F.3d 1087, 1092 (D.C. Cir. 2008) (stating mere accessibility of a website does not meet the minimum contacts for general jurisdiction).

151. 196 F.3d 1292 (10th Cir. 1999).

152. *Id.* at 1296. Other courts rejected the *Zippo* test in the context of general jurisdiction. *See* Revell v. Lidov, 317 F.3d 467, 471 (5th Cir. 2002) (noting that the *Zippo* sliding scale "is not well adapted to the general jurisdiction inquiry"); Bell v. Imperial Palace Hotel/Casino, Inc., 200 F. Supp. 2d 1082, 1091 (E.D. Mo. 2001) (noting that while the "sliding scale suggested by the court in *Zippo* may be a relevant factor in assessing general jurisdiction, it is not alone determinative").

The problems with *Zippo* in the context of general jurisdiction are precisely the problems that arise from a broad application of general jurisdiction using continuous and systematic contacts. In the age of continuous and systematic contacts, the use of broad jurisdictional power and inconsistent outcomes under this theory was widely criticized. *See* Patrick J. Borchers, *The Problem with General Jurisdiction*, 2001 U. CHI. LEGAL F. 119, 137 (2001); Glenn George, *In Search of General Jurisdiction*, 64 TUL. L. REV. 1097, 1129 (1990); Charles W. Rhodes, *Clarifying General Jurisdiction*, 34 SETON HALL L. REV. 807, 811 (2004); Mary Twitchell, *The Myth of General Jurisdiction*, 101 HARV. L. REV. 610, 676 (1988). Under

Even with the more straightforward "at home" standard for general jurisdiction, courts have continued to struggle with the application of the *Zippo* test and internet contacts. Some lower courts have appeared to correctly apply the at home standard and limited general jurisdiction in internet cases to fora where the defendant is incorporated or has its principal place of business. In *Higgins v. Kentucky Sports Radio LLC*,[153] the District Court for the District of Nebraska determined that, in a case involving internet contacts, general jurisdiction would not be appropriate as none of the defendants had their principal place of business or state of incorporation in Nebraska.[154] Additionally, maintaining a radio show that was downloadable by Nebraska residents did not meet the type of *Perkins*-level exception for constant and pervasive contacts identified in *Daimler*.[155]

In contrast, the District Court for the Northern District of Iowa in *BVS, Inc. v. RHUB Communications, Inc.*[156] applied *Zippo* in the context of the "at home" test and found that general jurisdiction was not satisfied when the defendant maintained a passive website that required customers to contact the defendant at its offices in California directly in order to purchase products or services. Even in a post-*Daimler* world, it appears courts are continuing to analyze continuous and systematic contacts for general jurisdiction using the *Zippo* test.

In addition, the *Zippo* test has proved confusing even in the specific jurisdiction context and has led to inconsistent applications in terms of an interactivity analysis.[157] Even in what should be an area of relatively simple application, the so-called "passive website," courts have divided over what features make a website

---

*Zippo*, continuous and systematic contracts would mean that the operation of a website in the forum could lead to overbroad application of general jurisdiction, or underinclusive application, because "repeated contacts with the forum residents by a foreign defendant may not constitute the requisite substantial, continuous and systematic contacts required for a finding of general jurisdiction." Rexam Airspray, Inc. v. Arminak, 471 F. Supp. 2d 1292, 1301 (S.D. Fla. 2007) (quoting Baker v. Carnival Corp., No. 06-21527-CIV-HUCK, 2006 WL 3360418, at *4 (S.D. Fla. Nov. 20, 2006)). *Compare* Case v. Cullum & Maxey Camping Ctr. Inc., No. 8:15-CV-588-T-24TBM, 2015 WL 4936314, at *7 (M.D. Fla. Aug. 18, 2015) (considering whether interactive website provided substantial, continuous, and systematic contacts), *with* TruePosition, Inc. v. LM Ericsson Tel. Co., 844 F. Supp. 2d 571, 592 (E.D. Pa. 2012) ("To hold that the possibility of ordering products from a website establishes general jurisdiction would effectively hold that any corporation with such a website is subject to general jurisdiction in every state."), Wilson v. RIU Hotels & Resorts, No. 10–7144, 2011 WL 3241386, at *8 (E.D. Pa. July 29, 2011) ("Maintenance of a website which allows users to reserve accommodations at Defendant's resorts does not demonstrate that [defendant] has systematic and continuous contact with Pennsylvania."), *and* Millennium Enter. v. Millennium Music, 33 F. Supp. 2d 907, 910 (D. Or. 1999) (holding that to "hold that the mere existence of an internet website establishes general jurisdiction would render any individual or entity that created such a web site subject to personal jurisdiction in every state").

153. No. 8:17CV367, 2018 WL 318460, at *4 (D. Neb. Jan. 5, 2018).

154. *Id.*

155. *Id.*

156. No. C16-0065-LTS, 2017 WL 487029, at *5 (N.D. Iowa Feb. 6, 2017).

157. *See, e.g.*, Thomas A. Dickerson, Cheryl E. Chambers & Jeffrey A. Cohen, *Personal Jurisdiction and the Marketing of Goods and Services on the Internet*, 41 HOFSTRA L. REV. 31, 40 (2012).

passive. Some courts found that the simple ability to gather information from a website was insufficient to confer specific jurisdiction. In *GTE New Media Services, Inc. v. BellSouth Corp.*,[158] the D.C. Circuit examined a case in which District of Columbia residents were able to access the Yellow Pages online in order to find contact information for individuals.[159] The court determined that this was a "passive" website under the *Zippo* test, as the activity was the same as accessing a physical phonebook and that the consumer was not paying to use the search tool.[160] Other courts have noted that a lack of commercial activity was the touchtone of the analysis; as such, websites that required a consumer to take additional steps, such as mailing in an order form, to complete a purchase would be on the passive end of the *Zippo* spectrum.[161]

The *BellSouth Corp.* court's reasoning for denying jurisdiction for an informational website was based on a fear that "mere accessibility" of a defendant's website could be the basis for necessary "minimum contacts" with the forum.[162] According to the court, this theory of personal jurisdiction in internet-related cases could lead to the exercise of personal jurisdiction over any website operator anywhere in the country.[163] In such a scenario, there would no longer be the necessary "degree of predictability to the legal system that allows potential defendants to structure their primary conduct with some minimum assurance as to where that conduct will and will not render them liable to suit."[164] However, other courts considering passive websites were less concerned about the problem identified in *BellSouth Corp.* Some courts found that placing internet advertisements that were available in the forum was sufficient to lead to an exercise of specific jurisdiction.[165]

---

158. 199 F.3d 1343 (D.C. Cir. 2000).

159. *Id.* at 1350.

160. *Id.*; *see also* Johnson v. Arden, 614 F.3d 785, 796 (8th Cir. 2010) (no personal jurisdiction based on internet message board because it "merely makes information available to other people"); *In re* Ski Train Fire in Kaprun, Austria on November 11, 2000, 343 F. Supp. 2d 208 (S.D.N.Y. 2004) (website allowing a user to search a database did not create minimum contacts with the forum).

161. *Compare* ESAB Grp., Inc. v. Centricut, LLC, 34 F. Supp. 2d 323, 327, 333–34 (D.S.C. 1999) (website providing information about products but requiring a consumer to call a toll-free telephone number before placing an order was insufficient to confer jurisdiction) *and* Rosenberg v. PK Graphics, No. 03 Civ. 6655(NRB), 2004 WL 1057621 (S.D.N.Y. May 10, 2004), *with* A Corp. v. All Am. Plumbing, Inc., 812 F.3d 54, 61 (1st Cir. 2016) (finding no purposeful availment when there was no method for ordering goods and serves through the website and only passive advertising of defendant's contact information), Smith v. Basin Park Hotel, Inc., 178 F. Supp. 2d 1225, 1235 (N.D. Okla. 2001) (no personal jurisdiction when there was no evidence of any commercial activity on the website in question), *and* Am. Network, Inc. v. Access Am./Connect Atlanta, Inc., 975 F. Supp. 494, 499–501 (S.D.N.Y. 1997) (personal jurisdiction in the forum when website allowed consumer to enter into a contract with the business).

162. *BellSouth Corp.*, 199 F.3d at 1350 ("We do not believe that the advent of advanced technology, say, as with the Internet, should vitiate long-held and inviolate principles of federal court jurisdiction").

163. *Id.*

164. *Id.* (quoting World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 297 (1980)).

165. *See, e.g.*, Inset Sys., Inc. v. Instruction Set, Inc., 937 F. Supp. 161, 164 (D. Conn.

These courts reasoned that although the purpose of these advertisements was informational, and thus might be considered passive, the ease of accessibility still involved targeting the forum state.[166]

In the realm of interactive or active websites, there was additional confusion. The infusion of a "doing business" or "transactional" aspect into the *Zippo* test created several divergent positions. It seems clear that most courts considered an exchange of money over the internet, or even the solicitation of money over the internet, to confer personal jurisdiction in the forum.[167] These courts largely found personal jurisdiction even when sales in the forum state are low.[168] For example, some district courts looked to whether consumers in the forum could make a purchase through the defendant's website, even if consumers had not, or only infrequently, done so.[169] Thus, it is unclear whether the mere opportunity to purchase is sufficient.[170]

---

1996) (finding internet advertisements available in the forum was of sufficient repetitive nature of satisfy Connecticut long arm statute as such advertisements can be accessed over and over again). *But see* Sweetgreen, Inc. v. Sweet Leaf, Inc., 882 F. Supp. 2d 1, 5 (D.D.C. 2012) (determining that passive websites and Facebook/Twitter accounts are more like a broad national advertising campaign than a website engaging in e-commerce); Yokoyama, *supra* note 137, at 1161–62 ("Website advertising should not be confused with what is being advertised, and the mere fact that the advertising may be viewed in a particular forum should not suffice to establish purposeful availment.").

166. *See, e.g.*, Bochan v. La Fontaine, 68 F. Supp. 2d 692, 701 (E.D. Va. 1999). *But see* A Corp. v. All Am. Plumbing, Inc., 812 F.3d 54, 61 (1st Cir. 2016) (uttering passive sharing of business' information and lack of purchasing option meant no purposeful availment); Lifestyle Lift Holding, Inc. v. Prendiville, 768 F. Supp. 2d 929, 935–36 (E.D. Mich. 2011) (emphasizing low interactivity when defendant advertised business online); Drake v. Ocwen Fin. Corp., No. 09-C-6114, 2010 WL 1910337, at *5–6 (N.D. Ill. May 6, 2010) (website that rerouted a consumer to a subsidiary to complete purchases did not create purposeful availment).

167. *See* Heroes, Inc. v. Heroes Found., 958 F. Supp. 1, 5 (D.D.C. 1996) (observing "defendant's home page explicitly solicits contributions"); *see also* Smarter Every Day, LLC v. Nunez, No. 2:15-CV-01358-RDP, 2017 WL 1247500, at *3–4 (N.D. Ala. Apr. 5, 2017) (noting "[m]any courts have found that a defendant purposefully availed itself in a forum through Internet-based contacts . . . where the defendant's website functioned "as the defendant's storefront in the forum"; holding a website that did not allow a consumer to place orders or conduct business with the defendant did not create minimum contacts with the forum) (internal quotations omitted); Zing Bros., LLC v. Bevstar, LLC, No. 2:11–cv–00337 DN, 2011 WL 4901321, *3 (D. Utah Oct. 14, 2011); Wound Care Educ. Inst. v. Thomas, No. 7 C 6505, 2008 WL 2446686, at *3 (N.D. Ill. June 17, 2008).

168. *See* Young Again Products, Inc. v. Acord, 307 F. Supp. 2d 713, 717–18 (D. Md. 2004) (testifying 0.02% of sales from Maryland online users still sufficient for personal jurisdiction).

169. *See, e.g.*, Key Components, Inc. v. Braille, LLC, No. 3:09-CV-322, 2010 WL 2506670, at *4 (E.D. Tenn. June 16, 2010).

170. Zing Bros., LLC v. Bevstar, LLC, No. 2:11-CV-00337 DN, 2011 WL 4901321, at *3 (D. Utah Oct. 14, 2011) (finding personal jurisdiction when "[t]he Website allows a user to view product descriptions, add items to an online cart, checkout online by providing credit card and shipping information, and create a login and password"); Food Sciences Corp. v. Nagler, No. 9-1798 (JBS), 2010 WL 1186203, at *3–4 (D.N.J. Mar. 22, 2010) (low sales in forum still created personal jurisdiction). *But see* QSR Automations, Inc. v. KRS Corp., No. 3:09CV-242-S, 2010 WL 1416700, at *3 (W.D. Ky. Mar. 31, 2010); Millennium Enters., Inc. v. Millennium Music LP, 33 F. Supp. 2d 907, 921 (D. Or. 1999) (stating no personal

More muddle occurs where the website does not allow a consumer to make purchases but is still considered an interactive website. For example, in *VP Intellectual Properties, LLC v. IMTEC Corp.*,[171] the website at issue did not have the capacity for a consumer to order products online.[172] It did, however, provide product information and allow users to send emails to customer support and fill out a form to order a catalogue.[173] The court determined that this was not a sufficient level of interactivity to justify an exercise of personal jurisdiction.[174] In contrast, the website in *Multi–Tech Systems, Inc. v. Vocaltec Communications, Inc.* contained product information and allowed consumers to contact technical support, but did constitute minimum contacts with the forum.[175]

Courts consistently split over whether the ability to contact the business or its representatives through the website is sufficient to confer personal jurisdiction.[176] For example, a number of cases have found that the ability to contact company representatives through a website suggests the existence of personal jurisdiction. In *Zamora Radio, LLC v. Last.fm LTD*, the defendant's website favored an exercise of personal jurisdiction when it had a feedback form, allowed users to sign up for a newsletter, and could create music channels.[177] Even though the website did not require users to pay for services, minimum contacts were created through the site's other interactive features.[178] In contrast, in *NeoMedia Technologies, Inc. v. AirClic, Inc.*, the website advertised products and allowed users to submit contact information to the business.[179] The court reasoned that the lack of "online commercial interactions" did not rise to the level of minimum contacts.[180] The District of Columbia Circuit noted in 1998 that a website that provided contact to the defendant through a direct email link was "the epitome of web site interactivity."[181]

---

jurisdiction even though website user purchased compact discs, joined a discount club, and requested franchising information).

171. No. CIV A 99-3136, 1999 WL 1125204, at *1 (D.N.J. Dec. 9, 1999).

172. *Id.* at *4.

173. *Id.*

174. *Id.* at *6.

175. 122 F. Supp. 2d 1046, 1050–51 n.6 (D. Minn. 2000); *see also* Blumenthal v. Drudge, 992 F. Supp. 44, 56 (D.D.C. 1998) (website that provided email contact and allowed an exchange of information between the browser's computer and the defendant's host computer was an interactive website).

176. In *Maritz, Inc. v. Cybergold, Inc.*, the court determined a website soliciting users to sign up for its service created minimum contacts when the website transmitted advertising information, allowed users to contact the business, and sign up for services (but not pay). 947 F. Supp. 1328, 1333 (E.D. Mo. 1996).

177. Zamora Radio, LLC v. Last.fm Ltd., No. 09-20940-CIV, 2011 WL 2580401, at *5 (S.D. Fla. June 28, 2011).

178. *Id.*; *see also* Roblor Mktg. Grp. Inc., v. GPS Indus., Inc., 645 F. Supp. 2d 1130, 1148–1152 (S.D. Fla. 2009) (emphasizing downloadable content and newsletter meant website interactivity was low).

179. No. 04 C 566, 2004 WL 848181, at *4 (N.D. Ill. Apr. 16, 2004).

180. *Id.* ("In itself, AirClic's website . . . does not allow for online commercial transactions but provides for the exchange of information . . . .").

181. Blumenthal v. Drudge, 992 F. Supp. 44, 56 (D.D.C. 1998).

The basic problem with the *Zippo* test is that its facial ease of application does not comport with how the technology it is attempting to classify actually operates. Courts are left to parcel out the "interactivity" of the website without understanding the background, application, and technological impact of those features. This is particularly problematic considering the growth of the internet in daily life, the increase in interactive features, and the creation of background processes that force interactivity into every web-based exchange.

### *C. Returning to a Traditional Approach to Minimum Contacts*

In the mess of post-*Zippo* cases,[182] some courts rejected the *Zippo* test and returned to traditional notions of personal jurisdiction.[183] In *Best Van Lines, Inc. v. Walker,* the Second Circuit noted that the *Zippo* sliding scale "does not amount to a separate framework for analyzing internet-based jurisdiction" and that "traditional statutory and constitutional principles remain the touchstone of the inquiry."[184] In *Walker*, the defendant operated the website MovingScam.com from his home in Iowa.[185] The purpose of the website was to provide consumers comments about various moving services. In a section entitled "Editor's Comments," the defendant made specific comments about the plaintiff's moving service, which the defendant claimed did not carry cargo insurance and lacked legal authority to operate as an interstate moving service.[186] The plaintiff sued for defamation in New York, and the defendant claimed a lack of personal jurisdiction in the forum.[187]

The Second Circuit noted that it was willing to consider the *Zippo* test a useful framing tool for jurisdictional questions, but it did not replace traditional personal jurisdiction analyses. Thus, although the court was willing to use the *Zippo* test, and indeed did do so in assessing whether the website was interactive in accepting donations for its operations, it did not see this use as a replacement for traditional notions of due process.[188]

Other courts have fallen into similar reasoning. In *uBID, Inc. v. GoDaddy Group, Inc.*, the Seventh Circuit rejected the notion that the interactivity of a website is dispositive of the sufficiency of contacts.[189] The Seventh Circuit preferred instead to look to a more traditional analysis of the "nature, quality, and quantity of the contacts,

---

182. *E.g.*, Triple Up Ltd. v. Youku Tudou Inc., 235 F. Supp. 3d 15, 23 (D.D.C. 2017) ("[T]he relationship between a defendant's online activity and its amenability to suit in a foreign jurisdiction often remains ill-defined.") (internal quotation omitted).

183. *See* C. Douglas Floyd & Shima Baradaran-Robison, *Toward a Unified Test of Personal Jurisdiction in an Era of Widely Diffused Wrongs: The Relevance of Purpose and Effects*, 81 IND. L.J. 601, 657–58 (2006) (arguing that "a unique test of personal jurisdiction should not be adopted for cases involving wrongs committed by means of the Internet").

184. 490 F.3d 239, 252 (2d Cir. 2007).

185. *Id.* at 241.

186. *Id.*

187. *Id.*

188. *Id.* at 251–52.

189. 623 F.3d 421, 431 n.3 (7th Cir. 2010) ("When a plaintiff alleges that some of the defendant's contacts occurred through a website, the interactivity of that website is relevant to, but not dispositive of, the sufficiency of those contacts.").

as well as their relation to the forum state."[190] Scholars have also articulated a preference for a return to more traditional notions of minimum contacts and due process. Professor Spencer argues that the level of interactivity is not of paramount significance in the jurisdictional question and that courts should return to a more traditional analysis.[191] The critical components of that traditional analysis should focus on whether the defendant "(1) purposefully directs activity into the state via virtual networks; (2) that activity gives rise to, in a person within the State, a potential cause of action cognizable in the State's courts; and (3) the assertion of jurisdiction is constitutionally reasonable."[192] The proposed advantages of this approach include divorcing the outcome from certain technological constructs and providing increased flexibility and fairness.[193]

## III. MINIMUM CONTACTS AND THE CHANGING INTERNET

The *Zippo* test is ultimately problematic because it is the product of an internet that no longer exists.[194] The language in *Zippo* shows just how dated the concepts that guided that decision have become. Specifically, *Zippo* identified the internet as a "global super-network of over 15,000 computer networks used by over 30 million individuals, corporations, organizations, and educational institutions worldwide."[195] Further, *Zippo* noted that:

> In recent years, businesses have begun to use the Internet to provide information and products to consumers and other businesses. The Internet makes it possible to conduct business throughout the world entirely from a desktop. With this global revolution looming on the horizon, the development of the law concerning the permissible scope of

---

190. *Id.* at 431; *see also* Illinois v. Hemi Grp., LLC, 622 F.3d 754, 759 (7th Cir. 2010) ("[W]e think that the traditional due process inquiry described earlier is not so difficult to apply to cases involving Internet contacts that courts need some sort of easier-to-apply categorical test."). For instance, the Seventh Circuit has "expressly declined" to make *Zippo* controlling and held that the minimum contacts analysis should be performed "without resorting" to *Zippo* at all. *See Hemi Grp.*, 622 F.3d at 758–59.

191. A. Benjamin Spencer, *Jurisdiction and the Internet: Returning to Traditional Principles to Analyze Network-Mediated Contacts*, 2006 U. ILL. L. REV. 71, 86–103 ("The difficulty here is that the interactivity of a Web site actually bears no relationship to whether the defendant has purposefully availed itself of the forum state, particularly once the presumption of aimlessness is discarded. Rather, the conduct relevant to a purposeful availment analysis is that which gives rise to the cause of action.").

192. *Id.* at 109.

193. *Id.* at 112.

194. CIVIX–DDI LLC v. Microsoft Corp., No. 99-B-172, 1999 WL 1020248, at *2 (D. Colo. Oct. 1, 1999) ("The Internet may represent the latest and greatest challenge to questions of personal jurisdiction.").

195. Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1123 (W.D. Pa. 1997) (internal quotations omitted) (quoting Panavision Int'l, L.P. v. Toeppen, 938 F. Supp. 616, 618 (C.D. Cal. 1996)).

> personal jurisdiction based on Internet use is in its infant stages. The cases are scant.[196]

The sheer increase in the size, usage, and technological developments that *Zippo* identified cannot be overstated. In 1995, less than 1% of the world's population had internet access; today, approximately 40% of the global population has internet access.[197] Further, the monopoly of desktop computers has ended, with more people accessing the internet on a mobile device than a desktop computer.[198] E-commerce has grown significantly, with sales reaching $5.076 trillion in 2017.[199] Further, 52% of all web traffic is now from an automated source, such as scrapers, spammers, and bots.[200] These changes will become increasingly problematic to the *Zippo* analysis as technology only further develops.

### *A. Web 1.0 and Web 2.0*

The era of *Zippo* is over, as the web has developed from a mostly passive experience to one that allows content creation by the ordinary user and increased connections between users, platforms, and experiences. The evolution of the web has been marked with increased user interactivity and, even more concerning, a move towards background processes that create interactivity and user-provider relationships with relatively little action on the part of the user. The evolution of the internet from the earliest days of Web 1.0, to the burgeoning of Web 3.0, and eventually Web 4.0, shows how blurred the lines of interactivity have and will become.

A brief history of the internet may be helpful. The modern internet is an outgrowth of the Advanced Research Projects Agency Network (ARPANET), which was ultimately a series of computers networked together that could communicate in the event of a nuclear attack.[201] The only groups with access to this early internet were

---

196. *Id.* at 1123–24 (citation omitted). The cases are certainly not scant anymore—*Zippo* has been cited 1298 times. Forty-seven of those cites have been federal circuit court opinions.

197. Wesley Steverson, *Appreciating the Growth of the Internet*, UWG ONLINE (July 23, 2014), https://wp.westga.edu/uwgonline/2014/07/23/appreciating-the-growth-of-the-internet [https://perma.cc/9LHP-2VZW]; *The Rather Petite Internet of 1995*, PINGDOM: TECH MUSINGS (Mar. 31, 2011, 2:33 PM), https://royal.pingdom.com/2011/03/31/internet-1995 [https://perma.cc/T3GE-2XTH] ("[In 2011] there [were] almost 2 billion Internet users worldwide. In 2000, there were 361 million worldwide. But go back even farther in time and you'll find out that back in 1995, the Internet had a worldwide user base of less than 40 million.").

198. Stefany Zaroban, *U.S. E-commerce Sales Grow 16.0% in 2017*, DIGITAL COMMERCE 360 (Feb. 16, 2018), https://www.digitalcommerce360.com/article/us-ecommerce-sales [https://perma.cc/UCN7-KA4R].

199. *Id.*

200. Adrienne LaFrance, *The Internet Is Mostly Bots*, ATLANTIC (Jan. 31, 2017), https://www.theatlantic.com/technology/archive/2017/01/bots-bots-bots/515043 [https://perma.cc/XV6H-ARMJ].

201. Barry M. Leiner, Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G. Roberts & Stephen Wolff, *Brief History of the Internet*, INTERNET SOCIETY 2–3 n.5 (1997), https://www.internetsociety.org/wp-content/uploads

academic and research organizations working with the Department of Defense.[202] On January 1, 1983, ARPANET converted to a new communications protocol, the Transfer Control Protocol/Internetwork Protocol (TCP/IP), that allowed the networked computers to communicate via a universal language—this is considered the official birth of the internet.[203] The Department of Defense ultimately separated the military network and assigned a set for public research, the National Science Foundation Network (NSFNET). NSFNET grew to link five major national computing centers.[204] In 1989, the hypertext transfer protocol (http) was developed, a technology that allowed computer platforms to access the same web pages. The next major development came in 1993, when the Mosaic web browser was able to show images, text, and other interface norms on webpages.

The internet itself is really a massive networking infrastructure that allows computers to share information globally. The web, on the other hand, is the term to describe how information is accessed over the internet. The first iteration of the internet, now called Web 1.0, can be thought of as the "Read Only" web.[205] The term Web 1.0 was first articulated in 1989, at the time of the rise of the http revolution. The webpages present in this generation of the internet were mainly informational and allowed businesses or individuals to establish a passive online presence.[206] Scholars describe the main goal of Web 1.0 as to publish and make available information to consumers and begin bypassing traditional brick-and-mortar operations by introducing the shopping cart and the ability to purchase goods online in catalog format.[207] To contextualize Web 1.0 in the *Zippo* framework, most websites were passive informational. Some websites were interactive, but only because they allowed a customer to purchase from an online store.[208]

The *Zippo* test worked well in the age of Web 1.0, a time in which the internet was largely a vehicle to passively receive information (i.e., search for information and read it).[209] Most of the web was "Read Only," meaning that users had the ability to access webpages for information, but largely could not provide any increased interaction.[210] The height of interactivity in the Web 1.0 era was the advent of online purchasing.[211] The *Zippo* test would classify such purchasing as a highly interactive experience; indeed, a number of cases have found personal jurisdiction when

---

/2017/09/ISOC-History-of-the-Internet_1997.pdf [https://perma.cc/R7CS-BKBA]; *A Brief History of the Internet*, ONLINE LIBRARY LEARNING CENTER, https://www.usg.edu/galileo/skills/unit07/internet07_02.phtml [https://perma.cc/T8PE-H8M4].

202. *A Brief History of the Internet*, *supra* note 201.

203. *Id.*

204. Leiner et al., *supra* note 201, at 11.

205. Manishkumar R. Solanki & Abhijit Dongaonkar, *A Journey of Human Comfort: Web 1.0 to Web 4.0*, INT'L J. RES. & SCI. INNOVATION, Sept. 2016, at 75.

206. *Id.*

207. *Id.*

208. *Id.*

209. *See, e.g.*, Hearst Corp. v. Goldberger, No. 96 Civ. 3620 (PKL)(AJP), 1997 WL 97097, at *15 (S.D.N.Y. Feb. 26, 1997) (examining a passive website which only provided information about the defendant's services).

210. Solanki & Dongaonkar, *supra* note 205, at 75 ("The main goal of [Web 1.0] websites was to publish the information for anyone at any time and establish an online presence.").

211. *Id.*

consumers were able to complete purchases over the internet in the jurisdiction. Cases from 1997 to 1999 show that websites that allowed consumers to make purchases in the forum, and when consumers did in fact make those purchases, were sufficient for a showing of specific personal jurisdiction.[212] During the same time period, websites that were informational only, or for which no forum resident had made a purchase, largely did not confer a basis for specific personal jurisdiction under *Zippo*.[213]

The next generation of the internet, Web 2.0, was articulated in 2004 and is hallmarked by the move towards social media and user-created content.[214] Specifically, Web 2.0 is the era of user comments, blogs, hosted services, and other increased interactivity between users and content creators.[215] The names associated with Web 2.0 are the major players of social media and mass participation, including Facebook, Twitter, Wikipedia, and YouTube. Web 2.0 highlights participatory and collaborative exchanges that create a "people-centric" web, a web which the user is engaging in a "bi-directional" experience that focuses on user-to-user interactions and exchange.[216] To say that the backbone of Web 2.0 is increased interactivity is an understatement. Virtually all websites in the Web 2.0 era allow user interactivity, whether it is the ability to provide comments, "re-tweet" or "share" webpage information, or connect with users from across the globe in ways that were not possible in the 1990s.[217]

Courts have continued to apply the *Zippo* test in the era of Web 2.0, but with significant discrepancy. The main bone of contention appears to be the question of whether the interactivity of the website or social media platform is tied to commercial activity. This discrepancy is easily seen when posts are made to social media pages, such as Facebook, Instagram, or Twitter. In *Binion v. O'Neal*,[218] the plaintiff, who suffered from a genetic condition, brought suit for invasion of privacy against professional basketball player Shaquille O'Neal after O'Neal utilized a photograph of the plaintiff on O'Neal's Instagram and Twitter account.[219] O'Neal had obtained the photograph from the plaintiff's own public Instagram account, an online platform that allows social media users to share photos with either the public or a select group

---

212. *See* Stomp, Inc. v. NeatO, LLC, 61 F. Supp. 2d 1074, 1078 & n.7 (C.D. Cal. 1999) (finding that a website functioned as a "virtual store" where "[c]onsumers [could] view descriptions, prices, and pictures of various products [and could] add items to their 'virtual shopping cart' and 'check out' by providing credit card and shipping information"); Millennium Enters. v. Millennium Music, L.P., 33 F. Supp. 2d 907, 920–21 (D. Or. 1999); Blumenthal v. Drudge, 992 F. Supp. 44, 56–58 (D.D.C. 1998); Park Inns Int'l, Inc. v. Pac. Plaza Hotels, Inc., 5 F. Supp. 2d 762, 764–66 (D. Ariz. 1998).

213. *See supra* Section II.B.

214. "Web 2.0 is also called the wisdom Web, people-centric Web, participative Web, and read-write Web." Solanki & Dongaonkar, *supra* note 205, at 75.

215. *Id.*

216. Nupur Choudhury, *World Wide Web and Its Journey from Web 1.0 to Web 4.0*, 5 INT'L J. COMPUTER SCI. & INFO. TECH. 8096, 8097 (2014).

217. *Id.*

218. 95 F. Supp. 3d 1055 (E.D. Mich. 2015).

219. *Id.* at 1058.

of friends.[220] At the time of the suit, the plaintiff was a Michigan resident, and O'Neal was a resident of Florida and Massachusetts.[221]

After O'Neal contested personal jurisdiction, the court followed circuit precedent, stating that "social media websites 'do not lend themselves' to the *Zippo* test because the defendants do not own or operate the websites but are merely a visitor or an account holder; in addition, the websites are generally not used primarily to conduct business."[222] The court noted that although social media postings were "slightly more interactive" because of the ability to make posts, share, or comment (all hallmarks of Web 2.0 platforms), the platform lacked a commercial nature.[223] Accordingly, O'Neal's posts were little more than the posting of information on social media websites, which became accessible to users in Michigan and elsewhere.[224] Thus, because O'Neal did not own or operate the website, and the postings were not intended to conduct business, personal jurisdiction based on *Zippo* would be inappropriate.[225]

Similar results have been reached in other cases. These cases examine Web 2.0 platforms such as Facebook and determine that under the *Zippo* sliding scale test, such websites are largely passive.[226] The reasoning in these cases is based on the fact that a user who posts information to Facebook is only sharing information and that such interactions are only "minimally interactive."[227] These courts are not impressed by bidirectional features, such as the ability to "like" or comment on a post.[228] Instead, courts largely focus on the fact that social media sites, such as Facebook, YouTube, and Twitter, are not owned or operated by the posters and that these websites are not being used to conduct business.[229] Particularly noteworthy is the

---

220. *Id.*; *see also What Is Instagram?*, INSTAGRAM, https://help.instagram.com/424737657584573 [https://perma.cc/EM26-R8GP] (On Instagram, users "can upload photos or videos to our service and share them with their followers or with a select group of friends.").

221. *Binion*, 95 F. Supp. 3d at 1058.

222. *Id.* at 1060 (quoting Hyperbaric Options, LLC v. Oxy-Health, LLC, No. 12-12020, 2013 WL 5449959, at *6 (E.D. Mich. Sept. 30, 2013)).

223. *Id.* (quoting Thomas v. Barrett, No. 1:12-cv-00074, 2012 WL 2952188, at *4 (W.D. Mich. July 19, 2012)).

224. *Id.*

225. *See id.*

226. *See id.*

227. *Id.* ("The websites are not owned or operated by O'Neal, were minimally interactive, and the postings were not intended to conduct business.").

228. *See* Lewis v. Loftin, No. 16-2726-dkv, 2017 WL 5505341, at *6 (W.D. Tenn. Mar. 15, 2017); *Thomas*, 2012 WL 2952188, at *3 ("The opportunity to comment on, 'like,' or 'share' Facebook posts does very little to move Defendants' page farther up the continuum from passive to interactive.").

229. Bell v. Moawad Grp., LLC, No. 1:17-CV-00073-SS, 2017 WL 2704319, *13–14 (W.D. Tex. Apr. 11, 2017) ("In the relatively new context of social media, courts have applied the *Zippo* test to determine that social media accounts generally do not support personal jurisdiction because—unlike the traditional 'active' websites—they are not used to transact business (e.g., place orders, shipping, etc.) or target a specific forum."); Sec. Alarm Fin. Enters, L.P. v. Nebel, 200 F. Supp. 3d 976, 985 (N.D. Cal. 2016) (applying *Zippo* test to hold that defendant's "infringe[ment] upon SAFE's trademarks by continuing to market herself on social media, including Faceb ook and Instagram, using SAFE's trademarks" was insufficient

absence of traditional markers of transactional conduct—individuals largely do not place orders on social media platforms or exchange payment information.[230]

One possible explanation for the failure of some courts to find that Facebook, Instagram, or Twitter posts constitute participating in an "interactive" website is the rise of an alternative test to assess internet torts. These courts hold that *Zippo* applies when a defendant is operating a website, and an alternative "effects" test, articulated by the Supreme Court in *Calder v. Jones*,[231] applies when the defendant has disseminated or published information.[232] Numerous courts have eschewed the *Zippo* test in favor of the *Calder* effects test when examining defamatory postings made on social media.[233]

The *Calder* test is the product of a 1984 Supreme Court opinion in which Shirley Jones, a professional entertainer, claimed that she had been libeled in an article that had been written and edited in Florida.[234] The article at issue was published in the National Enquirer, a magazine published by National Enquirer, Inc., a Florida corporation with its principal place of business in Florida.[235] Jones brought suit against the defendants, the president of National Enquirer, Inc., and a reporter, in California, her state of residence.[236]

In examining personal jurisdiction over the defendants in California, the Court noted that the story published in the National Enquirer concerned activities of a California resident in California and that the article was drawn from California sources.[237] Additionally, the "brunt of the harm" suffered was in California, as Jones's emotional distress and injury to her reputation was suffered in California.[238] Accordingly, personal jurisdiction was appropriate in California based on the effects of the Floridian defendants' conduct in California.[239]

---

to support personal jurisdiction); Pathfinder Software, LLC v. Core Cashless, LLC, 127 F. Supp. 3d 531, 543 (M.D.N.C. 2015) (determining that the defendant's Facebook and Twitter pages do not support an exercise of personal jurisdiction in North Carolina); Hyperbaric Options, LLC v. Oxy-Health, LLC, No. 12-12020, 2013 WL 5449959, at *6 (E.D. Mich. Sept. 30, 2013); JibJab Media Inc. v. White Castle Mgmt., No. CV12-04178 MMM (JEMx), 2013 WL 12123696, at *5 (C.D. Cal. May 14, 2013) (noting the "interactivity of White Castle's Facebook and Twitter pages is, moreover, insufficient in and of itself to support a finding of purposeful direction").

230. *Bell*, 2017 WL 2704319, at *4.

231. 465 U.S. 783 (1984).

232. *See* Cadle Co. v. Schlichtmann, 123 F. App'x 675, 677–79 (6th Cir. 2005) (noting to determine specific personal jurisdiction, *Zippo* applies when a defendant operates a website and *Calder* applies when a defendant has published or disseminated information); Lifestyle Lift Holding Co. v. Prendiville, 768 F. Supp. 2d 929, 934–35 (E.D. Mich. 2011) (examining difference between *Zippo* and *Calder* tests).

233. *See Schlichtmann*, 123 F. App'x at 677–79; *Lifestyle Lift Holding*, 768 F. Supp. 2d at 934–35.

234. *Calder*, 465 U.S. at 785.

235. *Id.*

236. *Id.*

237. *Id.*

238. *Id.* at 789.

239. *See id.* at 789–91.

In applying the *Calder* effects test in internet cases, courts examine the effects that the online conduct had in the forum state.[240] Under *Calder*, "personal jurisdiction exists where an individual purposefully directs activities toward the forum state with the intent to cause harm there."[241] Some courts have held that the effects test is more appropriate in cases involving defamatory statements that have been posted by a user on social media.[242] For example, in *Steele v. Burek*,[243] the court rejected the use of the *Zippo* test in a case involving allegedly defamatory social media posts on Facebook and online efforts to seed negative online reviews of the plaintiff's book.[244] The defendants, in posting on Facebook and organizing online groups on Facebook, did not maintain a website, "interactive or otherwise," such that *Zippo* should be applied.[245] The court instead applied the *Calder* effects test and determined that the effects of the defendants' action were primarily felt outside the forum.[246]

The distinction between *Zippo* and *Calder* in the internet space is thin and does not comport with current practice. To courts that draw a distinction, the *Zippo* sliding scale test applies when a defendant actually operates a website.[247] This suggests that the defendant has to actually "own" or "host" the website in order for *Zippo* to apply. In contrast, other online activity that is conducted on websites not actually hosted by the defendant, such as social media sites, donation sites, or online bulletin boards, is subject to *Calder* because the defendant is only publishing or disseminating information.[248] This is a distinction that no longer has a difference. Traditional

---

240. *See id.* at 789, 791 (uttering defendants' actions were "expressly aimed" at the forum state and were "calculated to cause injury to the respondent" in the forum state); *see also* Revell v. Lidov, 317 F.3d 467, 470 (5th Cir. 2002) (stating at one end of the sliding scale are cases where internet site owners "engage in repeated online contacts with forum residents over the internet," which may be sufficient to establish personal jurisdiction); Hawbecker v. Hall, 88 F. Supp. 3d 723, 729 (W.D. Tex. 2015) (looking at Facebook pages and messages and determining "Hall expressly aimed online contacts to Texas residents and intended the focal point and brunt of her posts and interactions to be felt by Hawbecker in Texas"); McVea v. Crisp, No. SA-07-CA-353-XR, 2007 WL 4205648 at *2 (W.D. Tex. Nov. 5, 2007) (finding a defendant's allegedly defamatory comments on a website invoked the court's jurisdiction when the defendant expressly aimed his comments at Texas, as he knew the comments about the research and work of two individuals would inflict the brunt of their harm in Texas).

241. Scotts Co. v. Aventis S.A., 145 F. App'x 109, 113 (6th Cir. 2005).

242. *See, e.g.*, Farquharson v. Metz, No. 13-10200GAO, 2013 WL 3968018, at *2 (D. Mass. July 30, 2013) (applying *Calder* effects test to case involving allegedly defamatory statements posted on Facebook).

243. No. 14-11969, 2014 WL 6612386 (E.D. Mich. Nov. 20, 2014).

244. *Id.* at *8–9.

245. *Id.* at *9.

246. In cases discussing the issue of personal jurisdiction in relation to internet activity, the Sixth Circuit has developed two distinct tests. The *Zippo* sliding scale analysis applies when a defendant operates a website, while *Calder* applies when a defendant has only published or disseminated information. Cadle Co. v. Schlichtmann, 123 F. App'x 675, 677–79 (6th Cir. 2005); Sanders v. Sennholz, No. 17-10578, 2017 WL 3215207, at *4 (E.D. Mich. July 28, 2017).

247. *See Schlichtmann*, 123 F. App'x at 677–79.

248. *Sanders*, 2017 WL 3215207, at *4. ("The only website that Defendants are alleged to

notions about web activity are fading—the web is becoming more interactive than ever before. First, standard storefront sites, those that mirror a defendant's traditional brick-and-mortar operations, now have a number of social media features on them, including the ability to "like," "comment," or "tweet" content. Thus, sites are purposefully integrating non-hosted features into their sites to meet the expectations of site visitors.

Further, businesses are also using social media to drive product recognition, increase traffic to their websites, and even sell products or run promotions. The idea that Facebook or Instagram should be subject to a different test for minimum contacts because the defendant does not "own" Facebook or Instagram is outdated. These are platforms available for public use, which content creators are using to meet their own commercial, or noncommercial, needs.

*Zippo* is also a poor fit in Web 2.0 social media because social media websites provide an entirely different type of "interactive" experience than what was envisioned in 1997 when *Zippo* was decided. In *Kindig It Design, Inc. v. Creative Controls, Inc.*,[249] the court noted that

> [W]ith the invention of social media, many individuals, to say nothing of organizations, maintain an interactive website. In a matter of minutes, an individual can create a Facebook account and upload content to his or her own "Facebook page." That page may allow all other Facebook users to interact with it. It is difficult to envision a website that is more interactive than the average Facebook page. Indeed, a principal purpose of social media is to facilitate interactions between users.[250]

Other courts have picked up on the changed meaning of interactivity in the new frontier of the internet. In *Revell v. Lidov*,[251] the Fifth Circuit examined a personal jurisdiction case in which an online bulletin board (another feature of the Web 2.0 increased user experience) was determined to be an interactive website when it was operated by the Columbia University School of Journalism and allowed users to post their own works and read works posted by others.[252] The defendant posted an allegedly defamatory article to the bulletin board and was sued by the plaintiff in Texas.[253] The Fifth Circuit noted that because individuals could send information to the bulletin board to be posted and participate in an open forum, the site was interactive.[254]

---

operate is *Revote2017,* and therefore this is the only website that will be analyzed under the *Zippo* analysis, and the activity on social media networks and *GoFundMe,* which must be analyzed under the *Calder* effects test.").

249. 157 F. Supp. 3d 1167 (D. Utah 2016).

250. *Id.* at 1174–75.

251. 317 F.3d 467 (5th Cir. 2002).

252. *Id.* at 472.

253. *Id.*

254. *Id.* (relying on the fact that "individuals *send* information ,to be posted, and *receive* information that others have posted") (emphasis in original). The court contrasted the situation at hand to a situation in which a website only provided email address and other contact information. *Id.* (citing Mink v. AAAA Dev. LLC, 190 F.3d 333, 336–37 (5th Cir. 1999)).

A similar result was reached with respect to Facebook in *Hawbecker*, which found that postings on Facebook by the defendants made the contacts with the forum "interactive in nature."[255] These findings are likely based on the premise that users of Facebook, Twitter, and Instagram use the pages to share, like, and create comments on commercial or noncommercial materials posted by defendants, thus heightening interactivity.[256]

An additional consideration in conducting an interactivity analysis is that the number of background processes, such as bots and cookies, mean that any website can be actively interfacing with the user while that user views what might be categorized as a passive website.[257] Bots and cookies provide behind the scenes processes that make the internet experience even more interactive and connected.[258]

Bots are software that perform automated tasks via the internet, and they can be set for a wide variety of purposes—both good and bad.[259] Bad bots can be used to launch Distributed Denial of Service (DDoS) attacks, extract user data, send spam messages, and install hacking tools.[260] Good, or more productive, bots can be those

---

255. Hawbecker v. Hall, 88 F. Supp. 3d 723, 729 (W.D. Tex. 2015); *see also* First Aid Cellular LLC v. We Fix It Cellular Repair, No. 8:14CV253, 2014 WL 5590815, at *4 (D. Neb. Nov. 3, 2014) ("[T]he uncontroverted evidence shows We Fix It's website and Facebook page are at least slightly interactive.").

256. Kindig It Design, Inc. v. Creative Controls, Inc., 157 F. Supp. 3d 1167, 1174–75 (D. Utah 2016) (recognizing increased changes in the internet and website operation).

257. *See id.*; *see also* LaFrance, *supra* note 200 ("Most website visitors aren't humans, but are instead bots—or, programs built to do automated tasks. They are the worker bees of the internet, and also the henchmen. Some bots help refresh your Facebook feed or figure out how to rank Google search results; other bots impersonate humans and carry out devastating . . . attacks.").

258. *See Kindig It Design*, 157 F. Supp. 3d at 1174–75 (D. Utah 2016) ("Even a website that appears 'passive' in nature may actually be interacting with the user's data and custom-tailoring the content based on the user's identity, demographics, browsing history, and personal preferences.").

259. Igal Zeifman, *Bot Traffic Report 2016*, IMPERVA INCAPSULA (Jan. 24, 2017), https://www.incapsula.com/blog/bot-traffic-report-2016.html [https://perma.cc/GB62-E6D6].

260. *See* Taylor Hatmaker, *Special Counsel Robert Mueller Indicts Russian Bot Farm for Election Meddling*, TECH CRUNCH (Feb. 16, 2018), https://techcrunch.com/2018/02/16/mueller-indictment-internet-research-agency-russia [https://perma.cc/W8HB-U3Q4]; Jon Swaine, *Twitter Admits Far More Russian Bots Posted on Election than It Had Disclosed*, GUARDIAN (Jan. 19, 2017, 7:46 AM), https://www.theguardian.com/technology/2018/jan/19/twitter-admits-far-more-russian-bots-posted-on-election-than-it-had-disclosed [https://perma.cc/X5VQ-GBT3]. One example of a malicious bot that Americans often hear about are "Twitter bots" that attempt to impersonate real humans to manipulate Twitter feeds or spread fake news. As reported by numerous news outlets, and mentioned in the ongoing special counsel investigation, malicious bots were used by Russian government backed "trolls" to reach millions of Americans via Twitter and Facebook to spread fake news stories during the most recent presidential election.

A recent news story estimated that more than 50,000 Twitter accounts were linked to Russian bots that were used to amplify false narratives during the presidential election. According to congressional testimony from leading social media companies, "Russian bots retweeted Donald Trump nearly half a million times in the final weeks of the 2016 campaign, and more than 60,000 Americans RSVP'd for Facebook events created by Kremlin-linked

that, for example, crawl the internet to enhance Google search results or promote sales for goods and services online.[261] Good bots perform the tedious and repetitive tasks that keep the internet well-organized and responsive.[262] They can be generally categorized into four groups: (1) "feed fetchers" that carry internet content to other mobile and web applications; (2) "search engine bots" that index websites on the internet to enhance search results and create page rankings; (3) "commercial crawlers" that extract data for digital marketing; and (4) "monitoring bots" that monitor website availability and performance.[263]

From a personal jurisdiction standpoint, bots are particularly challenging.[264] Bots, by their very nature, conduct activities on the internet without human intervention. They are capable of conducting transactions, placing advertisements, and providing information in "chat" format.[265] An individual or organization that releases a bot onto the internet has not targeted any specific forum and indeed may not even know in which fora its bot is operating.[266] It is difficult to use traditional notions of personal jurisdiction, such as purposeful direction or *Zippo*'s interactivity test, in such situations.

Interactivity in the era of Web 2.0 is also complicated by the use of cookies on most websites. Cookies are data that is sent from a website's host server and then stored on the user's computer.[267] This stored data then communicates with the server to share information about user preferences, registration information, and site access

---

trolls . . . ." Jason Silverstein, *Russian Bots Retweeted Trump 500,000 Times at End of 2016 Campaign, Created Fake Facebook Events Seen by Thousands*, NEWSWEEK (Jan. 31, 2017, 8:49 AM), http://www.newsweek.com/russian-bots-facebook-twitter-trump-2016-campaign-793122 [https://perma.cc/8GHB-LD34]. Even now, Russian bots continue to spread fake news in the wake of various major news stories. *See* Erin Griffith, *Pro-Gun Russian Bots Flood Twitter After Parkland Shooting*, WIRED (Feb. 15, 2018, 2:00 PM), https://www.wired.com/story/pro-gun-russian-bots-flood-twitter-after-parkland-shooting [https://perma.cc/AX8E-B24Y]; Aarti Shahani, *Russian Bots Are Spreading False Information After the Florida Shooting*, NPR (Feb. 20, 2018, 4:38 PM), https://www.npr.org/2018/02/20/587375771/russian-bots-are-spreading-false-information-after-the-florida-shooting [https://perma.cc/4Q8Z-AGGM].

261. *See* Zeifman, *supra* note 259.

262. *See id.*

263. *Id.* For a detailed listing of some of the most active bots on the internet, see Dan Breslaw & Igal Zeifman, *A Closer Look at the Most Active Good Bots*, IMPERVA INCAPSULA (Feb. 8, 2017), https://www.incapsula.com/blog/most-active-good-bots.html [https://perma.cc/MUL9-EAYB].

264. *See* Denis T. Rice, *Jurisdiction in Cyberspace: Which Law and Forum Apply to Securities Transactions on the Internet?*, 21 U. PA. J. INT'L ECON. L. 585, 598 (2000).

265. *See id.*

266. *See id.* at 646 ("For a purchaser, seller, or an investor to engage in the use of bots and other non-geographically grounded intermediaries is somewhat like sending a note in a bottle out to sea: it becomes harder to argue that the note writer's home jurisdiction should control in preference to the residence of whoever picks up the note or the place where it is picked up.").

267. Rick Handel, *A Conceptual Analysis of Nexus in State and Local Taxation*, 67 TAX L. 623, 707 n.536 (2014); *HTTP Cookies*, MICROSOFT (May 30, 2018), https://docs.microsoft.com/en-us/windows/desktop/wininet/http-cookies [https://perma.cc/UU6V-PWTV].

that helps advertisers control the type of content a user is seeing online through advertisements and banners.[268]

When a cookie is stored on a user's computer, the information gathered by the cookie is stored as a name-value pair.[269] Most sites will store at least a user ID on a user's machine (i.e., a unique ID assigned by the site to that particular user).[270]

Other sites may store more information, such as an ID for each time the user returns to the website or the time each viewing session started.[271] A website can then retrieve this information from the cookie file, although it cannot access any other information from the user's computer.[272] The website host will then use that information to do a number of activities, including determining how many people are visiting its site, allowing customization so that a site looks different to each visitor, or calling up items the user has added to an online shopping cart.[273]

The widespread use of cookies should make even the most passive website under the *Zippo* test active. The district court in *Blumenthal* recognized that the "constant exchange of information and direct communication . . . with [the] host's computer . . . is the epitome of website interactivity."[274] Cookies provide that very epitome of exchange, as well as a level of customization that might look like targeting the forum. For example, cookies allow websites to display the weather in the user's local jurisdiction, welcome returning users back to a site, and customize other viewing options, such as layout and color. These exchanges can create a personal viewing experience for the user that is specifically targeted to that user (in their own forum). Such an experience eviscerates traditional conceptions of site passivity that were articulated in *Zippo*.

### *B. Web 3.0 and Web 4.0*

The reality is that the internet is no longer the same animal that it was when *Zippo* was decided in 1997. Despite this transformation, the personal jurisdiction landscape has remained relatively unchanged, and the problem of basing internet jurisdiction on "interactivity" is coming into sharper focus. Websites themselves are now more pervasive, with over 330.6 million domain names existing in 2017.[275] Further, even basic websites support features such as sharing content, contacting company representatives, sending messages, receiving notifications, or posting comments.[276]

---

268. *HTTP Cookies*, *supra* note 267.

269. *Id.*

270. Marshall Brain, *How Internet Cookies Work*, HOWSTUFFWORKS (Apr. 26, 2000), https://computer.howstuffworks.com/cookie1.htm [https://perma.cc/D4YN-98PX].

271. *Id.*

272. *Id.*

273. *Id.*

274. Blumenthal v. Drudge, 992 F. Supp. 44, 56 (D.D.C. 1998).

275. *Internet Grows to 330.6 Million Domain Name Registrations in the First Quarter of 2017*, BUSINESSWIRE (July 18, 2017, 4:39 PM), https://www.businesswire.com/news/home/20170718006399/en/Internet-Grows-330.6-Million-Domain-Registrations-Quarter [https://perma.cc/KS83-D2ZQ].

276. *See* Kindig It Design, Inc. v. Creative Controls, Inc., 157 F. Supp. 3d 1167, 1174–75 (D. Utah 2016) (noting that the "level of interactivity on even the most basic Facebook page

The development of Web 2.0, 3.0, and maybe even 4.0, make the landscape constantly shifting and difficult to pin down.

Beyond Web 2.0, it seems even more clear that an analysis of interactivity will continue to degrade. In 2006, John Markoff of the *New York Times* first articulated that a new generation of the internet was imminent—Web 3.0. While Web 2.0 was focused on social networking, collaboration, and sharing, Web 3.0 will focus on back-end improvements to make the internet more singular and connected.[277]

In the personal jurisdiction space, certain Web 3.0 developments will prove particularly challenging. The goal of Web 3.0 applications is immersion with an ecosystem that understands itself and is able to freely correct and publish information through the use of artificial intelligence.[278] Additionally, users will be able to publish their own content and services by interacting with applications built by companies and other users.[279] Interesting here is the idea that the web may transition into various virtual worlds with 3D portals and avatar representation.[280]

Two things will likely characterize the transition to Web 3.0: semantic markup and web service.[281] First, semantic markup will provide context and intelligence to human-machine interactions.[282] The term "semantic markup" refers to the communication gap that currently exists between users and web applications.[283] At this time, web applications are unable to understand the content of human language or searches and thus are limited in determining what is relevant to a user and what is not.[284] Developments in semantic markup should be such that they will allow applications to assign context, and additional relevance, to data.[285]

Additionally, web service will be preeminent in the age of Web 3.0.[286] Web service software systems will support "computer-to-computer interaction over the internet."[287] This direct communication of application to application will allow broader searches for information, and, when combined with semantic markup, allow

---

arguably exceeds that of even the most interactive website in 1997 when *Zippo* was decided").

277. Umesha Naik & D. Shivalingaiah, Comparative Study of Web 1.0, Web 2.0 and Web 3.0 (March 2009) (unpublished conference paper), https://www.researchgate.net/publication/264845599_Comparative_Study_of_Web_10_Web_20_and_Web_30 [https://perma.cc/T3P3-Z7FL].

278. *See id.*

279. *Id.*

280. *Id.*

281. *Web 1.0 vs Web 2.0 vs Web 3.0 vs Web 4.0 vs Web 5.0 – A Bird's Eye on the Evolution and Definition*, FLAT WORLD BUS., https://flatworldbusiness.wordpress.com/flat-education/previously/web-1-0-vs-web-2-0-vs-web-3-0-a-bird-eye-on-the-definition [https://perma.cc/TZ9Z-RHEZ].

282. *Id.*

283. *Id.*

284. *Id.*

285. *Id.* For example, "if someone is searching for the flight timings of a particular country, a semantic search will return flight times to this country as well as the details of the weather conditions at the time of visit, maps, city guides, and the other useful information such as hotel, restaurant and car reservations." Solanki & Dongaonkar, *supra* note 205, at 76.

286. *See Web 1.0 vs Web 2.0 vs Web 3.0 vs Web 4.0 vs Web 5.0*, *supra* note 281.

287. *Id.*

for more contextual and personalized searching of the internet.[288] This increased personalization and customization will prove challenging because all users interacting with a website may be personally targeted in their unique jurisdiction.

Beyond Web 3.0, the concept of a Web 4.0 is being explored. Web 4.0 would comprise of a truly semantic web in which human-machine interactions would be in symbiosis.[289] The technology of Web 4.0 would represent artificial intelligence equivalent to a human brain.[290] All interactions on the web between users and computing technologies would be highly intelligent and would include better natural language processing.[291] A key part of Web 4.0 is a movement that is already being experienced at early levels through the transition of operating systems to the cloud and data accessibility across multiple platforms.[292]

The challenges of personal jurisdiction for Web 3.0, and certainly Web 4.0, are apparent. First, the move to a semantic web will blur the line between content creators and content viewers. Web 3.0 will be "executable," and data will be displayed in an extremely customized and personalized way.[293] Such technologies will wholly eliminate the concept of interactivity that was expressed in *Zippo*. *Zippo* relied on the technological model of Web 1.0, where content providers set up informational websites, advertisements, or the virtual equivalent of brick-and-mortar stores. In contrast, a move to the semantic web will increase the use of artificial intelligences to share, customize, and allow users to interact with data. If *Zippo* is failing in the Web 2.0 era, it certainly cannot survive a transition to Web 3.0.

## IV. A Move Away from Predictability: Embracing the Internet's Reality

A number of scholars have already proposed various approaches to the "*Zippo* problem."[294] These proposals range from abandonment to modification, and all have their merits. However, with the advanced stage of Web 2.0, and a likely move to Web 3.0 in the coming years, it seems time to yet again suggest a new method of handling cases that involve the intersection of personal jurisdiction and the internet.

While *Zippo* has had problems with new technologies, changing landscapes, and inconsistent applications, the heart of its difficulties are more fundamental. Specifically, from *International Shoe*, to *Burger King* and *Asahi*, and to *Goodyear* and *Daimler*, the theme has been to "give[] a degree of predictability to the legal system that allows potential defendants to structure their primary conduct with some minimum assurance as to where that conduct will and will not render them liable to suit."[295] Courts have modeled this predictability concern within the liberty interests of the Due Process Clause in order to prevent a defendant from "being subject to the

---

288. *Id.*; Choudhury, *supra* note 216, at 8098–99.

289. Solanki & Dongaonkar, *supra* note 205, at 77.

290. *Id.*

291. *Id.*

292. *Id.*

293. Choudhury, *supra* note 216, at 8097.

294. *See* Yokoyama, *supra* note 137 (collecting criticisms from various scholars).

295. Burger King v. Rudzewicz, 471 U.S. 462, 471–72 (1985) (quoting World-Wide Volkswagen v. Woodson, 444 U.S. 286, 297 (1980)).

binding judgments of a forum with which he has established no 'meaningful contacts, ties, or relations.'"[296]

The concept of predictability has given rise to the "purposeful availment" or "purposeful direction" components of the minimum contacts analysis. Courts examine whether the defendant engaged in conduct in the forum that created contacts that were not random or fortuitous, such that the defendant could reasonably anticipate being hauled into the forum to defend a lawsuit. These considerations are, of course, strictly based on the defendant's conduct and the defendant's ability to see what consequences his actions may have in the forum.

To more accurately represent modern technologies of the Web 2.0 age, a change is needed in the personal jurisdiction analysis. Specifically, this change should be flexible enough to embrace the fact that the internet is now almost entirely interactive and that placing websites into discrete categories is no longer representative of the type of common technology that people and business are using.

First, there should be a decreased emphasis on any remaining aspects of territorial sovereignty. Territorial sovereignty was poor fit leading up to *International Shoe* in 1945, and it remains an outdated concept now. The reality is that technology is more connective than ever. With the advent of bots, online marketing, and online purchasing, businesses no longer confine themselves to doing business in a certain state, or even country. Web 3.0 and Web 4.0 technologies are likely to make the web even more globally connected. Indeed, Web 3.0 or 4.0 technologies could remove ownership over content entirely and instead create a singular, holistic worldwide platform.[297]

Second, in lieu of the *Zippo* test, courts should assess internet websites and activities in relationship to personal jurisdiction by examining whether there was a "directed online" connection to the forum and the matter in dispute. This real connection is a lessened showing than what is currently required by the purposeful availment or purposeful direction analysis conducted by lower courts. The reason for this change is simple—the type of purposeful availment analyses currently utilized by courts applying *Zippo*, or traditional notions of personal jurisdiction, try too hard to translate concepts over the internet into physical equivalents, which is not always possible.

The purposeful availment problem can be easily seen in the context of bots or artificial intelligence technologies. As noted above, bots are applications that run automatic tasks on the internet. These applications have the ability to interact in an increasingly complex number of ways with humans. For example, chat bots are programmed to understand natural human language and to provide appropriate responses and solutions while mimicking natural human conversation.[298] Chat bots can be targeted to a variety of use cases including customer support, online sales, technical support, and virtual assistants.[299]

---

296. *Id.* (quoting Int'l Shoe Co. v. Washington, 326 U.S. 310, 319 (1945)).

297. Choudhury, *supra* note 216, at 8098–99.

298. *See* Khari Johnson, *Facebook Messenger Hits 100,000 Bots*, VENTURE BEAT (Apr. 18, 2017, 11:59 AM), https://venturebeat.com/2017/04/18/facebook-messenger-hits-100000-bots [https://perma.cc/7P7E-AX33].

299. *See, e.g.*, Vishnu Elupula, *How Do Chatbots Work? An Overview of the Architecture of a Chatbot*, BIG DATA MADE SIMPLE (Aug. 9, 2018), https://bigdata-madesimple.com

These bots are often integrated into various online messenger platforms including Facebook Messenger, which has over 100,000 bots operating on the platform.[300] Facebook users can ask weather bots for a local weather report, use travel bots to recommend flights, ask news bots for the latest headlines, and make purchases with sales bots or ask product questions.[301]

Many companies have found great success using chat bots to increase customer engagement, drive sales leads, and develop market trend research.[302] "Research from Forrester showed 5% of companies worldwide said they were using chatbots regularly in 2016; 20% were piloting them; and 32% were planning to use or test them in 2017."[303]

Social media data, browser cookies, purchase history, and data collected by a variety of other sources, including bots, are used by advertisers to deliver targeted advertising to consumers online. Marketers have used the massive amount of consumer data available online to create highly targeted advertising that appears to consumers when they visit a site. Facebook touts its ability to precisely target audiences that are relevant to the advertising.[304]

The *Zippo* test is obsolete in the context of these modern iterations of the internet—determining interactivity by a bare transmission of computer files from a defendant's hosted website does not recognize that websites (and thus people) now communicate through social media, chatbots, targeted advertisements based on cookies, and location-based web targeting. Further, in 2019, individuals now understand that their online activities are public, available across the globe, and can be shared, retweeted, or posted onto other platforms by bots or other internet users. Finally, commercial activity is no longer a gold standard. Online content can be published to websites hosted by companies, or it can be published to third-party social media platforms. The distinction is irrelevant, as in both instances the content creator is targeting a national audience.

Thus, this Article proposes that the only requirement of a "directed online connection" is that the defendant has conducted internet activity that could reach the forum under operating procedures established by the defendant. Essentially, internet-based activities that do not limit the geographic scope should serve as sole notice that the defendant could be hauled into a distant forum arising out of activities in the forum. In an age of increased global communication, maintaining ties to traditional

---

/how-do-chatbots-work-an-overview-of-the-architecture-of-a-chatbot/ [https://perma.cc/796Z-K74S]; Somen Mondal, *Why People Are Saying 'Thank You' to Chatbots*, ENTREPRENEUR (Nov. 1, 2018), https://www.entrepreneur.com/article/322096 [https://perma.cc/9XJA-2PVC].

300. *Id.*

301. 1-800-Flowers lets customers order via Facebook Messenger. Thus, even though 1-800-Flowers does not own or host Facebook, it is still driving activity through use of Facebook's platform and bot activity. Adrianne Pasquarelli & Jessica Wohl, *Why Marketers Are Betting on Bots*, ADAGE (July 17, 2017), http://adage.com/article/digital/marketers-betting-bots/309767 [https://perma.cc/WQY8-U99V].

302. *Id.*

303. *Id.*

304. *Choose Your Audience*, FACEBOOK, https://www.facebook.com/business/products/ads/ad-targeting [https://perma.cc/M42E-APUU].

exercises of personal jurisdiction seems unwise. Businesses and individuals have the power to structure their behavior to avoid internet activities or to utilize forum selection clauses on transactions over the internet.[305]

Other nations' courts have already realized the importance of flexibility in approaches to personal jurisdiction with the changes modern technology has brought to the internet. For example, the Canadian Supreme Court in *Hunt v. T&N* recognized a need for "greater comity in our modern era when international transactions involve a constant flow of products, wealth and people across the globe."[306] That court cautioned against any "mechanical" counting of contacts in lieu of a more reasoned approach that in some cases might be geography neutral.[307] An example of this approach can be seen in *Alteen v. Informix Corp.*,[308] in which an American company was sued in Newfoundland.[309] Canadian plaintiffs had purchased shares of the American defendant over the internet.[310] Plaintiffs later sued, claiming that the defendant had issued false and misleading statements in press releases concerning its product and its earnings expectations for the first quarter of 1997.[311] The defendant contested jurisdiction, arguing that it had never issued any public statements to the Canadian press, it did not solicit the plaintiffs' investment, and never made statements or communicated with the plaintiffs.[312]

The Newfoundland Supreme Court rejected the defendant's argument, stating that when defendants communicated their financial performance "through internationally accessible mediums," they had sufficient notice that there could be legal action against them in Newfoundland.[313] The court specifically pointed to the accessibility of the defendants' financial information over the internet.[314]

Other Canadian cases have taken similar views on the internet—essentially, conduct on the internet provides sufficient notice that a defendant could be called to

---

305. Forum selection clauses may be a good risk mitigation strategy, but they have their own risks. In *Jerez v. JD Closeouts, LLC*, the court determined that burying forum selection clauses on a website by including one link on the "About Us" page was not enough to create a forum selection clause that was part of the parties' bargain. 943 N.Y.S.2d 392, 394–95 (Dist. Ct. 2012) The court noted that "e-commerce merchants cannot blithely assume that the inclusion of sale terms, listed somewhere on a hyperlinked page on its website, will be deemed part of any contract of sale." *Id.* at 398. Generally, a forum selection clause for online transactions will be valid, as long as the "e-commerce merchant can condition its sales upon a mandatory forum selection provision through various means, including an exchange of e-mails, a click-through agreement, or other circumstances allowing for the 'incorporation by reference' of conspicuous 'terms of sale.'" *Id.* at 394. "As a consequence, as long as the forum selected by the buyer is a proper one under established rules of 'long arm jurisdiction,' the action will not be dismissed simply because the 'terms of sale' listed on the seller's website purportedly limit the buyer's remedies to a lawsuit in a different forum." *Id.*

306. [1993] S.C.R. 289, 292 (Can.).

307. *Id.* at 326.

308. [1998], 164 Nfld & P.E.I.R. 301 (Can. Nfld.).

309. *Id.*

310. *Id.*

311. *Id.*

312. *Id.*

313. *Id.*

314. *Id.*

litigate in a distant forum.[315] To Americans this idea might seem shocking, but the reality is that defendants are reaping tremendous benefits from global internet technology and a global market, and thus must bear some of the risk. In the next decade, online sales could reach one-third or more of all consumer expenditures with e-commerce sales growing at an annual rate of seventeen percent.[316] Further, it is not just large businesses that are benefitting from the internet through traditional online stores. Small and large businesses alike now use Web 2.0 platforms like Facebook, Twitter, and YouTube to reach large audiences and drive traffic for their brands.[317] A distinction between hosting and posting for websites seems particularly tortured against this backdrop.

In addition to assessing a real connection, courts should still take into the account the fairness factors that have been long identified as critical to the personal jurisdiction analysis. Specifically, courts should consider "the burden on the defendant," "the forum State's interest in adjudicating the dispute," "the plaintiff's interest in obtaining convenient and effective relief," "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."[318] The purpose of these fairness factors is simple—if the "directed online" test allows a heightened level of minimum contacts in internet contacts, then the fairness factors have an increased role in ensuring the requirements of due process.

In applying the fairness factors to cases involving internet contacts, a few important considerations should be noted. First, the convenience of the plaintiff should be fully considered. In internet cases, the plaintiff has the internet to access products, services, or other activities in the comfort of their own forum. For an individual plaintiff, this convenience is the product of a defendant that is taking advantage of technology to boost sales, exposure, and contact. It is the defendant that has reached out through what it knows to be a globally accessible technology, and it is the defendant who may choose to stop doing so if it does not want to take on the risk of litigation or to customize its online operations to avoid the target forum. Further, convenience to the defendant should serve as a check against possible jurisdictional abuse.

---

315. Arlan Gates, *Canadian Law on Jurisdiction in Cyberspace*, CHI.-KENT C. LAW: INTERNET JURISDICTION (1999), http://www.kentlaw.edu/cyberlaw/docs/rfc/canadaview.html [https://perma.cc/4L3H-GRYV].

316. Laura Cole, *The Rise and Rise of e-Commerce: Statistics, Trends and How Your Business Can Capitalize*, BUSINESS 2 COMMUNITY (Feb. 17, 2016), https://www.business2community.com/ecommerce/rise-rise-e-commerce-statistics-trends-business-can-capitalize-01456979 [https://perma.cc/6BG3-XNSB].

317. *See, e.g.*, Wu He, Shenghua Zha & Ling Li, *Social Media Competitive Analysis and Text Mining: A Case Study*, 33 INT'L J. INFO. MGMT. 464 (2013). The European Commission also recognizes this approach, stating that a company that directs its activities to another country in a matter of consumer contracts can be sued in that country. Regulation 1215/2012, of the European Parliament and of the Council of 12 December 2012 on Jurisdiction and the Recognition and Enforcement of Judgments in Civil and Commercial Matters, 2012 O.J. (L 351) 1, 9.

318. Burger King v. Rudzewicz, 471 U.S. 462, 477 (1985) (quoting World-Wide Volkswagen Corp. v. Woodson, 444 U.S. 286, 292 (1980)).

In sum, the approach outlined above seeks to avoid arbitrary distinctions drawn based on web activities. An example of the efficacy of this approach can be seen by looking to recent cases that are forced to consider the intersection of website activity and social media. For example, in *Nutramarks, Inc. v. Life Basics, LLC*, the defendant operated a website in which it marketed iced tea beverages.[319] A consumer or retailer could not directly purchase the iced tea beverages online, making the site a "middle ground" under the *Zippo* test.[320] In addition, the defendant operated a Facebook account, YouTube account, Instagram account, and Twitter page to drive business to its website and crowdfunding page.[321]

In examining whether the defendant could be subject to jurisdiction in Utah, the court rejected jurisdiction on grounds that third parties hosted the additional web activity and users from Utah could interact across all platforms.[322] This reasoning is arbitrary. The defendant, a company, was taking full advantage of multiple online platforms that were accessible in Utah. Indeed, Utah was specifically listed in the dropdown list on the crowdfunding website.[323] Even though no Utah residents had in fact contributed, this does not mean that the defendant failed to have minimum contacts with Utah. The defendant took advantage of several nationally accessible web platforms to drive business, marketing, and interest. To say that it did not make minimum contacts is outdated.[324] The defendant's choice to use interactive and nationally accessible platforms should serve as a real connection to the Utah forum.

## CONCLUSION

The post-*Zippo* world is a new frontier. The internet remains one of the fastest growing parts of modern life, with more than four billion people now using the internet worldwide.[325] While assessing the interactivity of websites may have worked well during Web 1.0 (or the "Read Only" web), Web 2.0, 3.0, and 4.0 promise increased interactivity, increased customization, and more blurred lines with regards to minimum contacts.

---

319. No. 2:15-CV-00571-DN, 2017 WL 2178422, at *1 (D. Utah May 17, 2017).

320. *Id.* at *4 (quoting Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1124 (W.D. Pa. 1997)).

321. *Id.*

322. *Id.* at *6.

323. *Id.* at *5.

324. *See* Caspers Ice Cream, Inc. v. Fatboy Cookie Co., No. 1:12-CV-133, 2013 WL 2367976, at *4 (D. Utah May 29, 2013). *Caspers* dealt with the question of general jurisdiction in Utah when the defendant operated a website and social media presence that was accessible in Utah. *Id.* at *3. The court relied on similar reasoning as *Nutramarks*. Even though the website and social media postings were all fully accessible from Utah and the company was clearly courting a national audience, the court rejected jurisdiction. *Id.*

In a specific jurisdiction analysis, such reasoning is flawed. However, it is correct that general jurisdiction cannot rest on web presence after *Daimler*, as general jurisdiction is limited to place of business or state of incorporation, absent truly extraordinary circumstances.

325. Simon Kemp, *Digital in 2018: World's Internet Users Pass the 4 Billion Mark*, WE ARE SOCIAL (Jan. 30, 2018), https://wearesocial.com/blog/2018/01/global-digital-report-2018 [https://perma.cc/R4EW-2KRP].

The major problems with *Zippo* continue to be inconsistent applications of its interactivity test as well as confusion regarding how, exactly, social media should play into the interactivity equation. These issues will only become more prominent in coming years.

To resolve this challenge, a bright-line rule can be utilized. Instead of a tortured interpretation of purposeful availment, minimum contacts through website activity should be achieved when a defendant utilizes the internet knowing that the information could reach the forum state. The remaining aspects of the specific jurisdiction analysis—the requirement that the contact give rise to the claim and the application of reasonableness factors—remain untouched and provide a sufficient check on excessive exercises of jurisdiction. Such an approach should provide clarity, and certainty, as web platforms continue to develop.