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WHEN THE MOUNTAIN GOES TO MOHAMMED: THE INTERNET AND JUDICIAL DECISION-MAKING

Layne S. Keele*

INTRODUCTION

There was a time when, if a judge wanted to view the scene of an automobile accident at issue in a case, she had to physically travel to the site on an official court excursion known as a “view.”¹ Today, however, this judge need not even leave her chambers—a panoramic image of the accident scene is just a few mouse clicks away.² To paraphrase Francis Bacon, in the old days, the mountain could not go to Mohammed, so Mohammed went to the mountain.³ Thanks to the Internet, the mountain now travels to Mohammed.

Only half a century ago, the legal community could not have imagined the wealth of knowledge that would soon be available to jurists with just a few keyboard strokes. When a court needs help interpreting a contractual provision about “normal wear and tear,” Wikipedia offers the

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1. 22 CHARLES ALAN WRIGHT ET AL., *FEDERAL PRACTICE AND PROCEDURE* § 5176 (3d ed. 2012). Commentators described “views” with reference to Sir Francis Bacon. *See, e.g.*, 2 CHARLES T. MCCORMICK, *MCCORMICK ON EVIDENCE* § 219, at 26 (John W. Strong ed., 5th ed. 1999) (“The courts, like the prophet, have sensibly recognized that if a thing cannot be brought to the observer, the observer must go to the thing.”); Layne S. Keele, Note, *When Mohammed Goes to the Mountain: The Evidentiary Value of a View*, 80 IND. L. J. 1091, 1091 (2005).

2. Google Street View provides a street-level, 360-degree view of many locations. STREET VIEW, <https://maps.google.com/maps/views/streetview> (last visited Sept. 20, 2014).

3. *See* FRANCIS BACON, *THE MAJOR WORKS* 362 (Oxford World’s Classics ed. 2008) (“If the hill will not come to Mahomet, Mahomet will go to the hill.”). In modern texts, Bacon’s references to “Mahomet” and the “hill” are often changed to “Mohammed” and the “mountain.” *See, e.g.*, *United States v. Bishop*, 66 F.3d 569, 574 (3d Cir. 1995); *Manu Int’l, S.A. v. Avon Products, Inc.*, 641 F.2d 62, 66 (2d Cir. 1981); *McCammon v. United States*, 569 F. Supp. 2d 78, 81 (D.D.C. 2008) (quoting *Masat v. United States*, 745 F.2d 985, 988 (5th Cir. 1984)).

assistance of society's aggregated knowledge on the subject.⁴ A judge wanting to learn more about a litigant can easily turn to a search engine to uncover all kinds of information about that party.⁵ This burgeoning judicial access to online case-related information leaves our legal system to grapple with the question of what limits, if any, should circumscribe judicial Internet use. That is the issue explored in this Article.

The Internet permeates all aspects of society, including the legal system. Litigants, experts, attorneys, and judges all conduct online research. Judicial Internet research, however, remains controversial.⁶ While the controversy in part reflects a more general ongoing debate about judicial factual research,⁷ the recasting of this age-old debate in a new technological sphere has created some additional wrinkles. Judicial Internet use is irreversibly altering our legal system and judicial decision-making processes. Courts are more likely to rely on independently-located legislative facts, which raises issues for those who oppose the judicial use of legislative facts. It is also problematic for advocates of the adversarial system, because our adversarial system is diminished by judges' increasing departures from their traditional passive role of neutral decision-maker. Judicial Internet use has also contributed to a marked increase in judicial notice. In response, we would do well to recognize the limits of Internet research, including the limits on judges who wish to conduct Internet research.

Because judicial Internet use both offers significant benefits and poses substantial risks to our justice system, courts and commentators have displayed a remarkable ambivalence regarding the propriety of online research. Part I of this Article explores that ambivalence by examining conflicting judicial canons and court opinions addressing the issue.

Part II examines the benefits and drawbacks of judicial Internet research with respect to adjudicative facts.⁸ In particular, it elaborates on arguments offered by defenders of this kind of research, most notably Judge Richard A. Posner. Part II also highlights the dangers by showing

4. *See* *Rickher v. Home Depot, Inc.*, 535 F.3d 661, 666 (7th Cir. 2008).

5. *See* *N.Y.C. Med. & Neurodiagnostic, P.C. v. Republic Western Ins. Co.*, 774 N.Y.S.2d 916, 919 (N.Y. Civ. Ct. 2004).

6. RICHARD A. POSNER, *REFLECTIONS ON JUDGING* 134 (2013).

7. *Lillie v. United States*, 953 F.2d 1188, 1190–91 (10th Cir. 1992) (collecting cases in which appellate courts affirmed or reversed trial courts for conducting independent factual research).

8. Adjudicative facts are those facts specific to the case or the parties—the who, what, when, where, and why. *Qualley v. Clo-Tex Int'l, Inc.*, 212 F.3d 1123, 1128 (8th Cir. 2000).

that adjudicative fact research detracts from the reliability of our justice system and undermines due process of law.

Part III addresses judges' online research of legislative facts.⁹ It discusses the use of legislative facts by courts generally, and then considers the Internet's impact on courts' use of legislative facts. This Part also raises some of the unique risks attendant on Internet research of legislative facts.

Part IV describes some additional changes that have resulted from the new world of judicial fact research, including its impact on the adversary system and its role in the explosion of judicial notice. Finally, Part V offers some suggestions for minimizing risks associated with independent judicial online research by evaluating the purpose of the research and the authenticity and reliability of online information.

I. CURRENT AMBIVALENCE TOWARD JUDICIAL INTERNET FACT GATHERING

Legal theorists and practitioners have demonstrated uncertainty as to whether to embrace or shun independent judicial Internet research. This ambivalence is manifested in the many variations in states' model judicial codes with respect to independent judicial research, in the tentative way that many courts use and refer to Internet resources, and in the inconsistent results that courts have reached regarding judicial Internet use.

Rule 2.9(c) of the ABA's Model Judicial Code instructs that a "judge shall not investigate facts in a matter independently, and shall consider only the evidence presented and any facts that may properly be judicially noticed."¹⁰ The comments to the rule explain that the prohibition "extends to information available in all mediums, including electronic."¹¹ The implementation of this rule varies among the states, and some have taken liberties with the framework. Some omit this prohibition entirely,¹² or omit the comments about electronic mediums,¹³ while others circumscribe it more narrowly than the model rules. For example, Montana explicitly allows some courts to examine online criminal records, driving records, and court records.¹⁴ Oklahoma adds the caveat that, "[w]hile a

9. Legislative facts are more generally applicable and often policy-oriented facts. *Id.*

10. MODEL JUD. CODE R. 2.9(c) (2011).

11. *Id.* at cmt. 6.

12. *See, e.g.*, DEL. JUDGES' CODE OF JUD. CONDUCT R. 2.9 (2008).

13. *See, e.g.*, MO. CODE OF JUD. CONDUCT R. 2-2.9 (2013).

14. MONT. CODE OF JUD. CONDUCT R. 2.9(c) (2008).

judge shall not independently investigate facts in a case, and shall consider only the evidence presented, a judge may seek information of a general nature that does not bear on a disputed evidentiary fact or influence the judge's opinion of the substantive merits [of] a specific case."¹⁵ Similarly, Connecticut restricts only judges "serving as factfinders" from conducting independent research.¹⁶

The way judges handle the results of their research exemplifies another tell-tale sign of our legal system's uncertainty about Internet research. Many courts use Internet resources merely as alternate grounds to reinforce their conclusions,¹⁷ and they often relegate a discussion of their online activities to footnote status, perhaps driven by a concern about placing too much weight on information not in the appellate record.¹⁸ When extra-record Internet research is located in the main text of a court opinion, it is frequently contained in a string cite, backing up what could be found in more traditional legal sources.¹⁹

The Second Circuit's opinion in *United States v. Bari*²⁰ demonstrates the judiciary's reluctance to rely too heavily on Internet research. In *Bari*, the district court revoked Bari's supervised release after concluding that Bari robbed a bank while on release. The bank robber had worn a yellow rain hat, and authorities found a yellow hat in the garage of Bari's land-

15. OKLA. CODE OF JUD. CONDUCT R. 2.9(C) (2011).

16. CONN. CODE OF JUD. CONDUCT R. 2.9(c) (2011).

17. Ellie Margolis, *Surfin' Safari-Why Competent Lawyers Should Research on the Web*, 10 YALE J. L. & TECH. 82 (2007); see also Lee F. Peoples, *The Citation of Wikipedia in Judicial Opinions*, 12 YALE J. L. & TECH. 1, 27 (2010) ("The majority of citations to Wikipedia entries in cases were not significant to the case but were merely collateral references.").

18. See, e.g., *Shapiro v. Martenyi*, No. A133426, 2013 WL 681827, at *5 n.8 (Cal. App. Feb. 26, 2013) ("Also unexplained by appellant is what constituted his 'diligent search' for former notary Franco, a search which he asserts was fruitless. The lack of any such evidence is troubling because this court's use of simple Internet search engines discloses the apparent presence in several western states of people named 'Sharlene B. Franco.'"); *Phoenix-Dolezal v. Lili Ni*, No. 11 Civ. 3722, 2012 WL 121105, at *6 n.11 (S.D.N.Y. Jan. 17, 2012); *Jewish Sephardic Yellow Pages, Ltd. v. DAG Media, Inc.*, 478 F. Supp. 2d 340, 364 n. 36 (E.D.N.Y. 2007); *24 Hour Fitness USA, Inc. v. 24/7 Tribeca Fitness, LLC*, 277 F. Supp. 2d 356, 362 at n.2 (S.D.N.Y. 2003) (concluding that "fitness" is a descriptive term for trademark purposes, and inserting a footnote regarding the number of Google hits); *Dimmick v. Quigley*, No. C. 96-3987 SI, 1998 WL 34077216 (N.D. Cal. July 13, 1998) (resting its decision on an admission by the DMV regarding its policies toward license plates referring to diseases, but footnoting the results of its own Internet research in reference to these plates).

19. See, e.g., *Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1*, 551 U.S. 701, 821 (2007).

20. 599 F.3d 176 (2d Cir. 2010).

lord. The district court considered the hat “the strongest piece of evidence” after conducting “a Google search” to confirm that this particular kind of rain hat was not ubiquitous.²¹

On appeal, Bari complained that the district court’s Google search violated Rule 605, the judge-witness rule,²² but the government defended the district court’s actions as a proper exercise of judicial notice under Rule 201.²³ Because of the nature of probation revocation proceedings, the Second Circuit applied “relaxed evidentiary constraints,” in which the Rules of Evidence do not control, but “nevertheless provide some useful guidelines.”²⁴ The court observed that, twenty years ago, a judge in a case like this would have simply relied on unconfirmed judicial notice, because the costs of a judge confirming his intuition about the variety of rain hats available, such as travel to one or more department stores, were too great for such a slight benefit.²⁵ “Today, however, a judge need only take a few moments to confirm his intuition by conducting a basic search.”²⁶ Thus, with the decreased costs associated with confirming judicial intuition, “we would expect to see more judges doing just that.”²⁷ Despite the court’s broad reasoning, which seemed to portend a broad holding about judicial Internet use, the Second Circuit carefully restricted its holding to revocation hearings: “We will not consider it reversible error when a judge, during the course of a revocation hearing where only a relaxed form of Rule 201 applies, states that he confirmed his intuition on a ‘matter[] of common knowledge.’”²⁸

Given our legal system’s ambivalence toward judicial Internet searches, it is not surprising that courts have reached divergent conclusions about the propriety of these searches. For example, in *D.M. v. Department of Children & Family Services*,²⁹ the court of appeals found no error in the trial court’s independent location and use of a law review article and a website that simply collected the statutes of various states—this was permissible legal research—but the appellate court held that the

21. *Id.* at 178.

22. *See* FED. R. EVID. 605.

23. *Bari*, 599 F.3d at 178.

24. *Id.* at 179.

25. *Id.* at 180.

26. *Id.*

27. *Id.* at 181.

28. *Id.* (alteration in original). In *Kiniti-Wairimu v. Holder*, 312 F. App’x 907 (9th Cir. 2009), the Ninth Circuit held that an Immigration Judge violated the due process rights of an alien seeking the withholding of removal when the IJ conducted an Internet search for information about the alien’s grandmother.

29. 979 So. 2d 1007, 1010 (Fla. Dist. Ct. App. 2008), *reh’g en banc granted*, 2008 Fla. App. LEXIS 9415 (Fla. Dist. Ct. App. 2008).

trial court erred when it relied on “articles in Wikipedia, the British Medical Journal, and other medical or scientific treatises regarding a psychological issue in the case.”³⁰ Compare this case with *Jackson v. Pollion*,³¹ in which Judge Posner criticized a district judge for *not* independently reviewing medical literature in order to determine the severity of the plaintiff’s medical condition in a Section 1983 case.³²

Even within a single case, judges on a panel may disagree about the propriety of Internet use. For example, in *United States v. Harris*,³³ the majority criticized the dissent for relying on information gathered from the Internet. In that case, Harris had been the subject of a drug investigation. Police arranged for a third party to conduct a controlled drug purchase from Harris while wearing a wire. During the controlled buy, the third party referenced “18th Street,” which he later testified was a reference to the price (\$1,800) for two ounces of cocaine.³⁴ The majority noted that there was no “18th Street” in the city, because 18th Street had been changed a number of years earlier to “Dr. Martin Luther King, Jr. Drive.”³⁵ In dissent, Judge Wood argued that “in common parlance the old name has not died away,” citing briefs from another appeal, mapblast.com, and a local newspaper story that quoted a resident referring to “18th Street.”³⁶ The majority chastised the dissent for “resort[ing] to the unprecedented tactic of citing extrinsic materials gleaned from conflicting Internet websites,” and using materials that had not been submitted to the jury.³⁷

Our system’s ambivalence toward Internet research is part of a long-lived debate about the use of extrajudicial facts, and results from the convergence of several factors. One way to begin reducing some of the uncertainty regarding judicial Internet use is to recognize the Internet for what it is: not a source itself, but a system of interconnected networks allowing remote users to access electronic sources located on devices many miles away.³⁸ In this respect, we would do well to avoid overbroad, normative assertions about the use of online resources (for example, that the Internet “‘does not appear to be an acceptable provider’ of facts ap-

30. *Id.* at 1010. The court did not reverse the trial court’s decision, concluding that the error was harmless. *Id.*

31. 733 F.3d 786, 787 (7th Cir. 2013).

32. *Jackson v. Pollion* is further discussed *infra*, Part III.B.

33. 271 F.3d 690 (7th Cir. 2001).

34. *Id.* at 694.

35. *Id.* at 694–95.

36. *Id.* at 708 n.1 (Wood, J., dissenting).

37. *Id.* at 695–96.

38. See ENCYCLOPEDIA BRITANNICA ONLINE ACADEMIC EDITION <http://www.britannica.com/EBchecked/topic/291494/Internet> (last visited Feb. 4, 2014).

propriate for judicial notice”³⁹ or that “[i]t is generally proper to take judicial notice of articles and Web sites published on the Internet”⁴⁰). In Internet research, context and sources matter. When courts cite printed books, they do not refer to the source as “the library.” Instead, our concern is rightly the validity of the specific source used. By the same token, we must consider the propriety of Internet references by courts source by source rather than in the aggregate as the “Internet.”

The varying purposes of online research also contribute to our legal culture’s ambivalence. Research of a particular site may be proper for some purposes, improper for others, and debatable for still others. For example, we have no qualms about courts using online databases like Westlaw to research relevant case law or definitions of legal terms. But this does not mean that courts should conduct Westlaw research for the purpose of discovering prior unrelated cases in which a party was involved in order to cast doubt on a party’s credibility.⁴¹ Thus, the propriety of Internet research depends in part on the purpose behind the research.

The purpose of the research comes into play largely when discussing adjudicative and legislative facts. The distinction between adjudicative and legislative facts originated with Professor Kenneth Culp Davis’s seminal law review article about administrative law.⁴² Adjudicative facts are those “concerning the immediate parties—what the parties did, what the circumstances were, what the background conditions were.”⁴³ Legislative facts, in contrast, are “facts not about the specific events in the litigation, but about the general and not case-specific facts that are relevant in the law-interpreting and law-making functions of appellate courts.”⁴⁴ At the

39. David H. Tennant & Laurie M. Seal, *Judicial Ethics and the Internet: May Judges Search the Internet in Evaluating and Deciding a Case?*, 16 PROF. LAW. 2, 15 (2005).

40. *Patsy’s Italian Rest., Inc. v. Banas*, 575 F. Supp. 2d 427, 443 n.18 (E.D.N.Y. 2008).

41. *Vakas v. Barnhart*, 120 F. App’x 766, 770 n.2 (10th Cir. 2005) (“While we are not permitted to rely on extra-record facts and will not do so here, we nonetheless feel obliged to disclose to the parties that we have also discovered extra-record facts that would appear to raise additional concerns regarding plaintiff’s credibility.” (citing earlier cases involving the same plaintiff)). In this case, however, the court may have inadvertently turned up these extra-record facts through legal research on Westlaw.

42. FED. R. EVID. 201 cmt. a.

43. Kenneth Culp Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 HARV. L. REV. 364, 402 (1942).

44. Frederick Schauer, *The Decline of “The Record”*: A Comment on Posner, 51 DUQ. L. REV. 51, 57 (2013); see also BLACK’S LAW DICTIONARY, “Legislative Fact” (2009); *Qually v. Clo-Tex Intern, Inc.*, 212 F.3d 1123, 1128 (8th Cir. 2000) (“Legislative facts do not relate specifically to the activities or characteristics of the litigants. A court generally relies upon legislative facts when it purports to develop a particular

margins, the distinction between adjudicative facts and legislative facts can become a bit blurry,⁴⁵ but it is easy to see the distinction between these categories in general. Whether the plaintiff's seatbelt was fastened at the time of an accident would be an adjudicative fact. Assumptions about whether marriages would be harmed by the elimination of the common law spousal privilege involve legislative facts.⁴⁶

II. INDEPENDENT RESEARCH OF ADJUDICATIVE FACTS

Judges independently researched facts for many years before the Internet ever entered the scene. For legislative facts, judges have in the past turned to local libraries and consulted available social science literature—an activity that became increasingly common with the rise of legal realism.⁴⁷

The most common pre-Internet method to research adjudicative facts was for judges to leave the courtroom and visit locations or objects that were important to the litigation—that is, to take a judicial view.⁴⁸ An analogy can be drawn between adjudicative fact research and judicial views. Judicial views have long been accepted as proper fact-finding procedure.⁴⁹ But independent judicial views, those taken by judges without notice to or consent of the parties, have almost universally been recognized as error—any visit by a judge to a location or object pertinent to the litigation should be on the record with the participation of the parties.⁵⁰ In some instances, however, courts considered erroneous views to

law or policy and thus considers material wholly unrelated to the activities of the parties.”).

45. *United States v. Gould*, 536 F.2d 216, 219 (8th Cir. 1976) (“The precise line of demarcation between adjudicative facts and legislative facts is not always easily identified.”). Professor Schauer discusses the possibility of a third category of facts, something akin to Monahan and Walker’s idea of “social framework evidence, in which aggregate conclusions from social science research are used to suggest conclusions in particular cases.” Schauer, *supra* note 44, at 59.

46. *See Hawkins v. United States*, 358 U.S. 74 (1958) (retaining privilege on this basis).

47. John Monahan & Laurens Walker, *Twenty-Five Years of Social Science in Law*, 35 LAW & HUM. BEHAV. 72, 73 (2011); Laura Kalman, *Eating Spaghetti with a Spoon: Patterns of American Jurisprudence*, 49 STAN. L. REV. 1547, 1554 (1997) (describing legal realists’ desire to “inject [the social sciences] into legal research”).

48. Keele, *supra* note 1, at 1091. Sometimes, this is referred to as a “view,” but I use the term “judicial view” to distinguish it from a “jury view,” in cases in which the jury travels as factfinder to the scene or object in question.

49. *See id.* at 1116.

50. *Lillie v. United States*, 953 F.2d 1188, 1190–91 (10th Cir. 1992); *see also Lejeune v. Transocean Offshore Deepwater Drilling, Inc.*, 247 F. App’x 572, 575 (5th

be harmless error if the trial judge stated that the view's purpose was merely to provide background or context for the case rather than to take evidence.⁵¹ Online judicial research of adjudicative facts has been defended on almost exactly the same grounds—that is, that “research for ‘background’ information is proper because it is not ‘in dispute’ in the proceeding.”⁵²

A. *Benefits of Online Adjudicative Fact Research*

1. Opinion Flavoring

Judge Posner is probably the most vocal defender of judicial Internet fact research. He expressly advocates judicial Internet research in order to reassure judges that they have “understood the real-world setting of the case,”⁵³ and to craft a tighter, more readable opinion.⁵⁴ He suggests that law clerks should “Google the parties and do other online research to help them and [the judge] understand the parties, the commercial or other context of the case, and the activities of the parties or others that gave rise to the case,”⁵⁵ and he has defended judicial Internet factual research, provided the purpose of the research is to offer background information about the parties or their businesses.⁵⁶

Cir. 2007) (holding that trial judge erred by assigning weight to judge's observations of party on courthouse steps outside of judge's window because “[i]t was improper for the court to make observations, essentially admitting evidence, without giving the parties the opportunity to challenge that evidence”).

51. Keele, *supra* note 1, at 1108, 1116; see, e.g., *EEOC v. Mercy Hospital and Medical Center*, 709 F.2d 1195, 1200 (7th Cir. 1983).

52. Elizabeth G. Thornburg, *The Curious Appellate Judge: Ethical Limits on Independent Research*, 28 REV. LITIG. 131, 151 (2008).

53. Richard A. Posner, *Judicial Opinions and Appellate Advocacy in Federal Courts – One Judge's Views*, 51 DUQ. L. REV. 3, 11 (2013).

54. *Id.* at 28–29 (“A formalist opinion will usually start with a detailed recitation of ‘the facts,’ many of them irrelevant as well as uninteresting (dates, for example, where nothing turns on the date of a particular occurrence), yet with much left out that is both interesting and important and could be found in a five-minute search of the Web; for often a case involves mysterious business practices, arcane foreign customs (in asylum cases, for example), rare medical mishaps, and other esoterica that the lawyers do not bother to explain to the judges.”).

55. *Id.* at 20. In a very recent opinion, Judge Posner referred readers to a Youtube video featuring one of the parties, and he described the party's disposition in the video as “lively, engaging, eminently approachable, enthusiastic, and . . . charismatic.” *Lubavitch-Chabad of Ill., Inc. v. Northwestern Univ.*, No. 14-1055, 2014 WL 5762937, at *1, 4 (7th Cir. Nov. 6, 2014). Judge Posner also noted that “[c]onsiderable other online material about him can be obtained by Googling his name.” *Id.* at *1.

56. See, e.g., POSNER, *supra* note 6, at 137–39; Hon. Richard A. Posner, *Effective Appellate Brief Writing*, APP. PRAC. J. 15–16 (Spring 2010) (hereinafter *Brief Writing*). Judge Posner distinguishes “background” or “context” facts from “adjudicative facts,”

Judge Posner is known for his conversational, easy-to-read opinions.⁵⁷ Readability is certainly a good that we should prize in judicial opinions,⁵⁸ but Judge Posner was known for these types of opinions long before he began relying on the Internet to add in “flavoring” facts. Thus, it is unclear how much, if any, benefit his Internet research has accounted for in terms of readability or accessibility.⁵⁹ Equally unclear is whether a marginal potential increase in this good outweighs the risks discussed below associated with independent judicial research.

2. Potential Gains in Accuracy

Judge Posner has not directly suggested that judges should search online for case-dispositive facts,⁶⁰ although he posits that the realist judge searches the Internet because he “want[s] to get deep into the weeds in a case” that is “indeterminate from a formalist perspective.”⁶¹ In other words, he says, hard cases call upon the judge to do more than merely apply established legal principles to given facts; they ask the judge to, among other things, “get as good a handle as possible on the likely consequences of a decision, one way or the other.”⁶² Thus, in these hard cases, any Internet-discovered facts would presumably be included as part of

see Posner, *supra* note 50 at 11–12; Posner, *Brief Writing*, at 15; POSNER, *supra* note 6, at 136–37, but his description of such background facts in some cases falls better within the ambit of the traditional definition of “adjudicative facts,” (e.g., understanding the parties and their activities giving rise to the case) and in others are at least not facts of the typical legislative variety. See Schauer, *supra* note 44, at 58–60; see also Elizabeth G. Thornburg, *The Lure of the Internet and the Limits on Judicial Fact Research*, 38 LITIGATION 41, 47 (2012) (quoting an unpublished Posner manuscript as saying that he used the Internet to gather facts that “could well be regarded as adjudicative facts, [b]ut the purpose of obtaining and publishing them was not to sway or bolster the outcome; it was to provide a fuller picture of the crime and the crime scene”).

57. WILLIAM D. POPKIN, *EVOLUTION OF THE JUDICIAL OPINION: INSTITUTIONAL AND INDIVIDUAL STYLES* 153–67 (NYU Press 2007).

58. Readability furthers the purposes of judicial opinions to provide accountability and transparency in the judicial system.

59. POPKIN, *supra* note 57, at 153–67 (discussing Posner’s style and citing numerous opinions predating the Internet).

60. See generally Posner, *supra* note 53 (Brief Writing), at 15; see also POSNER, *supra* note 6, at 136.

61. Posner, *supra* note 53, at 11.

62. *Id.* at 9. See also RICHARD POSNER, *LAW, PRAGMATISM, AND DEMOCRACY* 59–60 (2003) (describing a theory of judicial decision-making that essentially takes account of all “facts and consequences”).

the considerations that a realist judge would account for in formulating a decision and, in that sense, would be material.⁶³

Certainly it is possible for the Internet to assist judges in locating material adjudicative facts. Arguably, one example of just such a case is *N.Y.C. Medical and Neurodiagnostic, P.C. v. Republic Western Insurance Co.*,⁶⁴ which involved a motion to dismiss for lack of jurisdiction.⁶⁵ The case concerned an automobile accident involving a U-Haul vehicle. Republic Western had insured the U-Haul vehicle, but argued that its insurance policies were issued out of state and that it did not transact business within the City of New York. Republic Western's state claims manager provided an affidavit to that effect, and the plaintiff offered no contrary evidence. The trial court, however, reviewed both Republic Western's and U-Haul's websites, where it discovered that these companies were sibling companies both owned by a company called "Amerco," and that Republic Western claimed to operate in 49 states. The court also reviewed information on the New York State Insurance Department's web site. On the basis of this online information, the trial court denied the motion.⁶⁶

On motion for re-argument, the defendant complained about the trial court's use of independent factual research for its conclusion. The trial court responded by pointing to the increased access to information, increased efficiency provided by the Internet, and the truth-seeking function of the judicial system: "Just as computerized research of Westlaw and Lexis have made resort to more time-consuming conventional research secondary, factual information and data that, in the past, would have taken days and hours to retrieve, are now available in a matter of seconds. . . . For a judge to ignore these new technological

63. Judge Posner is famed for unapologetically going beyond the record in appeals. See, e.g., Posner, *supra* note 53, at 9; Sylvia H. Walbolt & Joseph H. Lang, Jr., *Off the Record*, 81 FLA. B.J. 26, 26–27 (Nov. 2007); See also *United States v. Boyd*, 475 F.3d 875, 877, 879 (7th Cir. 2007). In addition, Judge Posner has elsewhere implied that judges should use information obtained from the Internet in deciding cases. See Posner, *supra* note 53, at 37–38 ("The judicial mind is not a tabula rasa. It is informed, enriched, by a judge's experiences, impressions, temperament, and outside reading, which increasingly is the reading of online materials. The Web is as great a resource for lawyers as for judges—and is underutilized by both."); POSNER, *supra* note 6, at 135–36.

64. 774 N.Y.S.2d 916 (N.Y. Civ. Ct. 2004).

65. The basis of the motion to dismiss was a New York City law akin to personal jurisdiction, requiring a defendant haled into court in New York City to have certain minimum contacts with *New York City. N.Y.C. Med. & Neurodiagnostic, P.C. v. Rep. W. Ins. Co.*, No. 77578/2002, 2003 WL 21537410, at *2 (N.Y. Civ. Ct. July 7, 2003).

66. *Id.* at *1.

changes . . . would be to blind oneself.”⁶⁷ The court found its searches of Republic Western’s and U-Haul’s sites to be proper, because the postings were on the “world wide web,” and were “electronically made available for everyone on the face of the earth with access to a computer to see.”

The trial court defended its search by noting that it “did not undertake its own personal investigation,” in that it did not physically travel to a U-Haul facility to obtain a car rental form or to inquire about insurance and it did not conduct its own poll or “send law clerks to the reading room of the main branch of the New York Public Library on Fifth Avenue to dig for statistics, articles, news accounts, or information written by a third party in a remote treatise.”⁶⁸ The court did not explain why this distinction mattered—that is, why it would have been improper to conduct “personal investigations,” but was perfectly proper to acquire the same information online.⁶⁹ Because the only apparent difference between a “personal investigation” and an Internet investigation is the time and effort needed to acquire the information, presumably the judge believed that the prohibition against independent investigation is premised on the time and effort needed to acquire the information.⁷⁰

Republic Western appealed, and the appellate court reversed.⁷¹ It held that the trial court, in conducting independent research, “deprived the parties of an opportunity to respond to its factual findings” and “usurped the role of counsel and went beyond its judicial mandate of impartiality.”⁷² In dissent, one judge argued that the trial court’s reference to the New York state insurance website was the subject of judicial notice, and that this was sufficient to affirm the trial court’s decision.⁷³

67. N.Y.C. Med. & Neurodiagnostic, P.C. v. Republic W. Ins. Co., 774 N.Y.S.2d 916, 919 (N.Y. Civ. Ct. 2004), *ordered not precedential*, 798 N.Y.S.2d 309 (N.Y. App. Div. 2004).

68. *Id.* at 930.

69. Perhaps the court’s point with regard to information authored by third parties was one of reliability—the court assumed the truth of information appearing on the parties’ web sites, but third-party information might have been disputable. But that does not explain the court’s distinction between traveling to a U-Haul location to obtain information and locating that information on the web.

70. The court also noted—again, without explaining the relevance—that the “facts secured by [the] Court . . . were *not* derived by framing term requests on any of the modern, popular search engines—such as Google, MSN Search, Yahoo Search, or Ask Jeeves—and, based on the information derived therefore, used to fashion a factual argument to sandbag counsel.” *Id.* at 920 (emphasis in original).

71. NYC Med. & Neurodiagnostic, P.C. v. Republic W. Ins. Co., 798 N.Y.S.2d 309 (N.Y. App. Div. 2004).

72. *Id.* at 313.

73. *Id.* at 314–15 (Pesce, P.J., dissenting). I argue below that judicial notice can justify some courts’ Internet searches (likely including the *Republic Western* court’s

The appellate court's reversal in *Republic Western* was not based on any assertion that the research resulted in erroneous facts. In fact, the trial court noted that, even on re-argument, Republic Western's counsel did not dispute the accuracy of the facts on which the trial court relied.⁷⁴ Instead, the appellate court reversed out of concern for the process in general—the idea that independent research is error, even if it assists in obtaining an accurate outcome in a particular case. But why should this be so? The potential capability of Internet research to contribute to just outcomes is a significant potential benefit.

We recognize this benefit in our treatment of judges' independent legal research. Conventional wisdom in the American system is that judges should research and consider important case law even if it is overlooked by the parties and their attorneys.⁷⁵ So why has the United States' system historically been open to independent legal research but disfavored independent factual research, at least when it comes to adjudicative facts?

The difference is probably partly a function of presumed competencies.⁷⁶ We assume that the judge is the expert in the law, has access to the necessary materials, and is just as, if not more, competent than the parties and advocates in ascertaining the relevant law. But adjudicative facts traditionally have been almost exclusively in the hands of the parties and witnesses.⁷⁷ If the distinction between legal research (which judges are permitted to do) and factual research (which judges are discouraged from doing) is purely or predominantly one of competency, Internet access undermines, to some extent, the traditional prohibition against factual research. The Internet could, at least in some cases, make judges competent to locate adjudicative facts.

examination of the state insurance website), but courts should generally follow the procedures of Rule 201 and provide the parties with notice and an opportunity to be heard before taking judicial notice of Internet resources. *See infra* Part IV.B.

74. *N.Y.C. Med.*, 774 N.Y.S.2d at 920 (“Republic’s counsel does not even challenge their accuracy.”).

75. R. LEMPERT & S. SALTZBURG, *A MODERN APPROACH TO EVIDENCE* 850 (2d ed. 1982) (“In deciding questions of law, the judge is not confined to sources supplied by the parties.”). Judges conduct independent legal research on points raised by the parties, but they usually decline to decide cases on grounds not raised by the parties. *See Moats v. City of Hagerstown*, 597 A.2d 972, 974–75 (Md. 1991). In some situations, however, courts have discretion to consider grounds not raised by the parties in the interests of justice. *Id.*

76. *See generally* Michael Abramowicz, *On the Alienability of Legal Claims*, 114 *YALE L.J.* 697, 751 (2005) (noting that facts and evidence generally are “uniquely in the possession of the original parties to the suit”).

77. *See* Brianne J. Gorod, *The Adversarial Myth: Appellate Court Extra-Record Factfinding*, 61 *DUKE L.J.* 1, 10 (2011).

This increased efficiency in factual research might also serve to distinguish online factual research from independent judicial views. As mentioned above, almost everyone agrees that independent judicial views—taken by judges without notice to the parties—are error.⁷⁸ There is no practical difference between a judge independently visiting the scene of an accident and a judge, for example, logging onto Google Street View to virtually visit the scene on his computer monitor,⁷⁹ except that a virtual visit is much faster and cheaper. Thus, given that independent on-site visits have traditionally amounted to error, we would expect a Google Street View to likewise constitute error unless, as the *Republic Western* trial court seemed to believe,⁸⁰ the proscription against independent factual research is premised on judicial efficiency concerns.⁸¹

B. Risks of Online Adjudicative Fact Research

The prohibition against independent factual research has never been predicated on the time and money necessary to conduct the research, but is instead based on avoiding prejudice, ensuring fairness to the parties, and increasing the overall reliability of our adjudicatory system, even at the *potential* cost of reduced accuracy of *some* adjudications.

1. Potential Losses of Accuracy

In *Lillie v. United States*,⁸² the Tenth Circuit reversed the trial court's decision because the trial judge took an improper view. The court expressed concern that, in the absence of the protection of the adversarial system, there is no certainty that a judge who conducts a view is observing the correct object or location, or that the site is in the same condition as it was at the time in question.⁸³ The same can be said for Internet research; a judge conducting Internet research cannot be certain that a website actually belongs to a particular party or that the information con-

78. *Lillie v. United States*, 953 F.2d 1188, 1190–91 (10th Cir. 1992).

79. Posner, *supra* note 53 (*Brief Writing*), at 37.

80. See *N.Y.C. Med. & Neurodiagnostic, P.C. v. Republic W. Ins. Co.*, 774 N.Y.S.2d 916, 919 (N.Y. Civ. Ct. 2004).

81. Cf. Brianne J. Gorod, *The Adversarial Myth: Appellate Court Extra-Record Factfinding*, 61 DUKE L.J. 1, 57 (2011) (“Courts will choose whether or not to engage in additional research based on the topic of the case and the resource constraints facing the judge.”); see also Eugene Volokh, *Wikipedia Law*, VOLOKH CONSPIRACY (Nov. 13, 2008, 12:18 PM), <http://www.volokh.com/2008/11/13/wikipedia-law/> (“For certain uncontroversial matters . . . citing Wikipedia is probably fine, given that the time of judges, staff attorneys, and law clerks is valuable and best not spent on tracking down The Perfect Source.”).

82. 953 F.2d 1188 (10th Cir. 1992).

83. *Id.* at 1191.

tained on the site is current and accurate. There is a risk of counterfeit websites,⁸⁴ of alterations made by individuals, by the site administrator, or by hackers,⁸⁵ or of outdated information that has not been updated.⁸⁶ As the Tenth Circuit made clear in the context of views, without the parties' adversarial participation, the judge lacks any checks on the information being absorbed.⁸⁷

Professor Schauer articulated a similar argument in response to Judge Posner's endorsement of independent judicial research:

The disputability of the seemingly indisputable has of course long been recognized in the judicial notice doctrine and literature, which is why taking judicial notice is surrounded by more procedural safeguards than are necessary in routine exercises of judicial notice. But the very reason for those procedural safeguards suggests the problem with the judicial notice defense of independent appellate court factual research—often the conclusions of that research are obvious to the judge, but might not be to others, and might not be in fact. To put it more bluntly, that which appellate judges think is self-evidently right may be wrong. And without the procedural safeguards of the adversary trial or the traditional approach to judicial notice, the risks come without the most obvious approach to alleviating them.⁸⁸

One response to Professor Schauer's worry is that the opportunity for post-error correction largely eliminates this concern. Thus, Judge Posner, having acknowledged the potential for error to creep into a case through online judicial research, suggested that this problem can be addressed through post-judgment motions or petitions for reconsideration: "[I]n the unusual case, in which the map or photo is inaccurate, someone is bound to notify the court of its error and the opinion will be corrected."⁸⁹

84. See *infra* Part V.A.2.

85. J. T. Westermeier, *Ethical Issues for Lawyers on the Internet and World Wide Web*, 6 RICH. J.L. & TECH. 5, 31 (1999) (discussing obscene alterations by hackers to CIA website and to Justice Department's website).

86. For example, a person wanting to learn about the planets could visit the outdated web site at http://www.hightechscience.org/our_solar_system.htm and conclude that there are nine planets in our solar system. In 2006, Pluto was delisted as a planet by the International Astronomical Union, leaving only eight planets in the solar system. Mason Inman, *Pluto Not a Planet, Astronomers Rule*, NATIONAL GEOGRAPHIC NEWS, Aug. 24, 2006, available at <http://news.nationalgeographic.com/news/2006/08/060824-pluto-planet.html>.

87. *Lillie*, 953 F.2d at 1191.

88. Schauer, *supra* note 44, at 64.

89. Posner, *supra* note 53, at 12–13.

There are at least two reasons, however, to think that Judge Posner's remedy is insufficient. First, some flawed information will never make it into the opinion, even if it influences the judge's decision-making processes. Prejudicial but legally irrelevant information would not end up in an opinion, though we might expect it to influence the decisions of judges who, to use Judge Posner's words, are not "disciplined and self-aware" enough to keep their "priors" from unduly influencing their decisions.⁹⁰ Second, the momentum created by an initial ruling and the desire to save face may make judges reticent to substantively correct their opinions even when they learn that they relied in part on flawed information. As shown below, each of these counter-arguments to the defense of Internet research finds support in Judge Posner's writings.

a. Behind-the-Scenes Influences

Post-decision error correction by the parties is not possible where the judge does not reference the erroneous information in his opinion. If a judge discovers decision-influencing information on the Internet but omits that information from the written opinion, the party harmed by misinformation is deprived of the opportunity to correct the judge's mistaken impressions. Our initial reaction to this assertion is rightly skeptical—how often will judges uncover information that affects the outcome of the case without relying on it in their opinion?

Judge Posner, in a trademark dispute between the Indianapolis Colts and the Baltimore CFL Colts, describes such a scenario:

The briefs described the trademarked products (such as hats and T-shirts) but did not include pictures. At the oral argument, [I] asked [a] lawyer . . . whether he had any of the products with him. He was a little startled but went to his briefcase and pulled a pair of hats, one an Indianapolis Colt hat and the other a Baltimore CFL Colt hat. The hats looked identical. *He won his case at that moment.*⁹¹

By Judge Posner's account, the case was decided when the appellate lawyer produced two hats with identical-looking trademarks. In that particular case, however, the similarity of the trademarks was only tangentially relevant to the issues on appeal, which concerned whether the

90. *Id.* at 21–22.

91. Posner, *supra* note 53, at 12 (emphasis added). The trademarks at issue in this case were word marks (meaning the words themselves were trademarked in the particular industry) rather than design marks (in which the similarity of the images would have mattered). See *Indianapolis Colts, Inc. v. Metropolitan Baltimore Football Club, Ltd.*, No. IP 94-727C, 1994 WL 592844, at *1 (S.D. Ind. June 10, 1994).

district court erred in holding the defendant subject to personal jurisdiction in Indiana, and whether the district court committed clear error in finding a likelihood of confusion at the preliminary injunction stage.⁹² The appellant's substantive argument centered on the district court's acceptance of the testimony of, and a study conducted by, the plaintiff's expert against the testimony of the defendant's proffered expert.

Judge Posner's opinion discussed the competing experts and reviewed the district court's reasons for discounting the opinion of one expert, but nowhere did Judge Posner mention the very thing that, by his account, was the determining factor in the appeal—that the two trademarks looked identical.⁹³ Given that it was not the appellate court's duty to decide whether the trademarks created a likelihood of confusion, Judge Posner's subjective assessment of the similarity of the trademarks had no rightful place in the disposition of the case, a fact that he implicitly recognized by omitting any discussion of it from his opinion, although it was, by his account, the determining factor in the appeal.⁹⁴

Given Judge Posner's support of online research, were this case to have arisen in the days of the Internet, there can be little doubt that he would have quickly turned to the Internet to locate images of products featuring the trademarks at issue. His assessment of the similarity of the marks would have had a dramatic impact on his disposition of the case, at

92. *See Indianapolis Colts, Inc. v. Met. Baltimore Football Club, Ltd.*, 34 F.3d 410 (7th Cir. 1994).

93. In explaining why the Baltimore team's agreement to insert "CFL" into its name did not appease the Indianapolis team, Judge Posner mentioned that, in some of "the merchandise in the record," CFL appears small or blurred and, in any event, CFL doesn't mean anything to many of the fans who could potentially be confused by the use of the word mark." *Id.* at 412. It's very doubtful that this reference is to the materials produced at oral argument (because of the reference to "the record") but, in any event, it does not discuss the similarity of the marks at all.

94. Perhaps Judge Posner was merely providing a rhetorical flourish in his article by suggesting that the attorney won his case at the moment he showed the hats to the panel, but I have accepted his account at face value. Judge Posner's anecdote also illustrates another danger of relying on non-record evidence. Experts often conduct surveys to determine the likelihood of confusion resulting from trademarks, but the surveys must be conducted under carefully controlled conditions, including sufficiently replicating the manner in which consumers are likely to encounter the products in the marketplace. *See, e.g., THOIP v. Walt Disney Co.*, 690 F. Supp.2d 218, 240 (S.D.N.Y. 2010); *see also* 6 MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 32:194 (4th ed. 2013) ("A conscientious judge is distrustful of his or her own subjective estimations of consumer reaction and welcomes some accurate factual information on this score."). A brief look from a distance at oral argument of both products simultaneously probably does not comport with the carefully controlled conditions that courts often require in assessing the likelihood of consumer confusion.

least if we take seriously his declaration that the appeal in the Colts case was decided when the lawyer displayed the marks at oral argument. But, just as his opinion contained no reference to the production of the trademarks at oral argument, we can safely assume that his opinion in a modern-day Colts case would contain no reference to the results of his Internet research, and the parties would have no opportunity to correct any errors after the fact, because they would never even know of the judge's Internet search.

If a judge's Internet search uncovers prejudicial but legally irrelevant information, it is unlikely that the search will appear in the court's opinion. The Internet, however, is replete with potentially prejudicial information. For example, parties' mugshots can appear in a Google Images search, and arrest records can appear in the results of a web search. These arrest records may not be relevant to the issues before the court, and they thus would not appear in the court's opinion, but they may nevertheless impact the judge's perception of the parties.⁹⁵

Similarly, a judge in an age discrimination lawsuit against a company could be prejudiced by information regarding that company's stance toward contraception coverage, abortion coverage,⁹⁶ or same-sex marriage.⁹⁷ Or the judge might find a Facebook page depicting drug use or discover that a party has been politically active for partisan causes that counter the judge's moral or political ideology.⁹⁸ Judge Posner described uncovering one party's "intense hostility to homosexuality" through an Internet search, but he "did not mention that hostility in [his] opinion."⁹⁹ To be sure, judges may, when a lawsuit is filed, already know certain facts about parties involved in litigation, and we generally expect that judges will put aside personal feelings or biases about issues in order to judge fairly. It is one thing for a judge to have advance knowledge of or feelings about a litigant before the case is filed, however, it is another thing alto-

95. Judges are sometimes forced to consider potentially prejudicial information, such as when ruling on a motion to exclude evidence. Nevertheless, the fact that a judge must sometimes confront this information is hardly reason to needlessly expose oneself to it.

96. See, e.g., Jonathan Stempel, *Hobby Lobby Wins a Stay Against Birth Control Mandate*, REUTERS, JUL. 19, 2013, available at <http://www.reuters.com/article/2013/07/19/us-hobbylobby-contraception-idUSBRE96I0SW20130719>.

97. Associated Press, *In Gay Marriage Fight, Some Brands Take a Stand*, July 27, 2012, available at <http://www.foxnews.com/us/2012/07/27/in-gay-marriage-fight-some-brands-take-stand>.

98. Or, for elected judges, the judge may discover that the party or advocate has actively endorsed and contributed to a judge's opponent.

99. Posner, *supra* note 6, at 139.

gether for that judge to consciously and needlessly expose himself to additional and potentially prejudicial information.

Further, if the error does not appear to have affected the outcome, the parties may not wish to expend the resources necessary to bring the error to the court's attention.¹⁰⁰ The lawyer may well advise the client against it, if it seems unlikely to change the outcome. Given the tendency toward judicial entrenchment discussed below, and given that online research is often discussed in a footnote or in a string cite,¹⁰¹ it is likely that even prejudicial online research will not appear to be dispositive in the written opinion. If no follow-up motion is filed, any erroneous information relied upon will remain in the public record, and the litigants are likely to be left with the perception that the judge is incompetent, or that they were deprived of a fair hearing.

b. Momentum of Mistakes

A second reason that post-error correction offers an insufficient answer to Professor Schauer is found in what we might describe as judicial inertia. Because of pride and a desire to be respected, a judge who bases a decision in part on prejudicial or inaccurate information online may be reticent to reverse the disposition even after the inaccuracy is pointed out. Judicial momentum may make it more difficult for a judge to change his judgment in a particular case than it would have been for the judge to come out differently in the first place.¹⁰²

If the idea of judicial entrenchment seems far-fetched, consider what Judge Posner had to say about it in the context of tentative votes occurring immediately after oral argument: "[T]he ostensibly tentative vote that the judges take at conference carries a lot of momentum."¹⁰³ Thus, "[o]nce a judge has indicated his vote in the case, even if tenta-

100. At the appellate level, such an effort would presumably involve filing a petition for rehearing under Rule 40, at significant expense in terms of attorneys' fees and time.

101. See *supra* notes 16–18 and accompanying text.

102. This may be especially true where the judge bolsters his ruling with multiple supporting rationales. The judge confronted with error may feel comfortable simply removing the error and leaving the disposition as is, even though that judge may not have felt comfortable initially disposing of the case in the same way without the Internet information. See, e.g., *N.Y.C. Med. & Neurodiagnostic, P.C. v. Republic W. Ins. Co.*, 774 N.Y.S.2d 916, 917 (N.Y. Civ. Ct. 2004), *rev'd* 798 N.Y.S.2d 309 (N.Y. App. Div. 2004) (noting that the motion "appears to be the first in the nation to challenge a court's use of the Internet to deflate the sails of a party's arguments" but later stating that the "Court's references to the U-Haul and Republic web sites were . . . not the sole foundation for its decision").

103. Posner, *supra* note 53, at 39.

tively, concern with saving face may induce him to adhere to the vote in the face of the arguments of the other judges.”¹⁰⁴

The American Bar Association articulated this concern in explaining the value of the adversary system. The ABA’s Joint Conference on Responsibility opined that a judge would be unlikely to be a neutral decision-maker were she responsible to develop the evidence and arguments for both sides: “what starts as a preliminary diagnosis designed to direct the inquiry tends, quickly and imperceptibly, to become a fixed conclusion, as all that confirms the diagnosis makes a strong imprint on the mind, while all that runs counter to it is received with diverted attention.”¹⁰⁵ Thus, “[a]n adversary presentation seems the only effective means for combating this natural human tendency to judge too swiftly in terms of the familiar that which is not yet fully known.”¹⁰⁶

There is a danger of entrenchment—a tendency to maintain an initial position, even in the face of the erosion of that position’s foundation—when a judge “strays from the passive role” and takes on a more active role in fact development.¹⁰⁷ That entrenchment is no doubt stronger by the time the judge issues a decision in writing. This is not to say that the entrenchment would be insurmountable, but empirical studies demonstrate that “once a judge or fact finder adopts a bias—tentatively decides an issue in favor of one party—it becomes difficult to change that opinion.”¹⁰⁸ In other words, it requires more to persuade a judge to reverse course than it would have taken to persuade the judge not to take a particular course in the first place. This raises doubts about justifying Internet research on the basis of correcting errors after the fact.

2. Losses of Procedural Fairness and Transparency

In addition to potential losses in accuracy, there is another reason for the adversary system that “touch[es] the integrity of the adjudicative

104. *Id.* at 21.

105. *Professional Responsibility: Report of the Joint Conference of the American Bar Association and the Association of American Law Schools*, 44 A.B.A. J. 1159, 1160 (1958).

106. *Id.*

107. Stephan A. Landsman, *A Brief Survey of the Development of the Adversary System*, 44 OHIO ST. L.J. 713, 714–15 (1983) (“The adversary system relies on a neutral and passive decision maker . . . He . . . is prohibited from becoming actively involved in the gathering of evidence or in the parties’ settlement of the case. Adversary theory suggests that if the decision maker strays from the passive role he risks prematurely committing himself to one version of the facts and failing to appreciate the value of all the evidence.”).

108. Fred C. Zacharias, *Structuring the Ethics of Prosecutorial Trial Practice: Can Prosecutors Do Justice?*, 44 VAND. L. REV. 45, 54 (1991).

process itself. It is only through the advocate's participation that the hearing may remain in fact what it purports to be in theory: a public trial of the facts and issues."¹⁰⁹ In cases involving improper judicial views, courts have emphasized the importance of adversarial participation not only because it reduces the potential for error, but also because of the importance with which we view the adversary system.¹¹⁰ Like the off-the-record improper view, independent fact research undermines the litigants' and society's sense of procedural fairness on which our legal system depends.¹¹¹ This procedural fairness includes the confrontation and cross-examination of adverse witnesses as well as the opportunity to rebut unfavorable evidence.¹¹²

Even if the outcome of the case is correct, and even if Internet research does not change the outcome, parties are deprived of the adversary procedure and the sense of having had a fair hearing when judges conduct independent factual Internet research in the course of a case.¹¹³ Parties are sure to be skeptical of the judge's methodology for conducting Internet research—whatever results the judge mentions in a hearing, in trial, or in an opinion are almost certainly not the only sites the judge reviewed while conducting the research. Thus, the parties cannot know whether the research was slanted, and the losing party is likely to believe that the research was one-sided. Indeed, many have theorized that In-

109. John F. Sutton, Jr., *Guidelines to Professional Reponsibility*, 39 TEX. L. REV. 391, 406–07 (1960).

110. See, e.g., *Kennedy v. Great Atl. & Pac. Tea Co.*, 551 F.2d 593, 596 (5th Cir. 1977).

111. See generally *Thornburg*, *supra* note 52.

112. These rights are guaranteed under the Constitution's Sixth Amendment with respect to criminal trials, see U.S. CONST. amend. VI, but they are also deeply ingrained in our civil justice system as well. 3 TRIAL HANDBOOK FOR ARKANSAS LAWYERS § 30:18 (2012-2013 ed.) ("While the right of confrontation does not apply in civil cases, the result is virtually the same. The due process requirement gives every party in a civil case the right to be present at all stages of a trial and to cross-examine witnesses for the opposition.").

113. Professor Schauer recognized this "cosmetic" benefit of requiring "an opportunity for serious input by the parties" when judges independently research facts: it would provide "a degree of legitimation even if not much in the way of epistemic advantage." Schauer, *supra* note 44, at 65. See also John Thibaut & Laurens Walker, *PROCEDURAL JUSTICE* 74 (1975) (describing an empirical study comparing adversary and inquisitorial systems and finding that parties in the adversary system are more satisfied, believe they have been treated with greater dignity, and consider the adversary procedure to be generally fair).

ternet research may be more likely than traditional research to accommodate researchers' biases by the very nature of point-and-click research.¹¹⁴

Behind-the-scenes fact research also reduces transparency. Transparency is a highly-valued aspect of our judicial system, as is clear from our system's emphasis on a written opinion explaining the basis for judicial decisions.¹¹⁵ Transparency builds confidence and trust in the judicial system.¹¹⁶ Transparency is diminished when judges conduct extra-judicial factual research, whether on the Internet or in person, which stands to diminish society's respect for the judicial system as a whole.

Take, for example, the universal prohibition against jurors' research of the cases on which they are sitting.¹¹⁷ If we expect jurors to refrain from researching the background of the cases on which they are involved, there is little reason to allow judges to do the same. This is true both when judges are sitting in the same fact-finding role that a jury occupies or when they are *not* factfinders and are instead limited to the record before them.¹¹⁸ Simply put, the benefits of judicial searches for adjudica-

114. See Thornburg, *supra* note 52, at 196; see also Katrina Fischer Kuh, *Electronically Manufactured Law*, 22 HARV. J.L. & TECH. 223, 261 (2008).

115. Gerald Lebovits et al., *Ethical Judicial Opinion Writing*, 21 GEO. J. LEGAL ETHICS 237, 247 n.69 (2008); see also Gorod, *supra* note 77, at 62.

116. Ronald T.Y. Moon, *Together, Courts and Media Can Improve Public Knowledge of the Justice System*, 87 JUDICATURE 205, 205 (2004); see also Gorod, *supra* note 77, at 62.

117. A proposed instruction warning jurors not to conduct independent research offers helpful parallels: "One reason for these prohibitions is because the trial process works by each side knowing exactly what evidence is being considered by you and what law you are applying to the facts you find. As I previously told you, the only evidence you are to consider in this matter is that which is introduced in the courtroom. The law that you are to apply is the law that I give you in the final instructions. This prohibits you from consulting any outside source." Rosalind R. Greene & Jan Mills Spaeth, *Are Tweeters or Googlers in Your Jury Box?*, ARIZ. ATT'Y, February 2010, at 38, 42.

118. There are at least two possible distinctions that might justify allowing judicial research where we disallow research by jurors. One is that we simply trust judges more to screen out prejudicial or irrelevant information and eliminate its effects on decisional processes. But there is no reason to think that all judges are more selective or more impervious to prejudice than jurors, and it seems an insufficient reason to justify the risk in any event, particularly given that Internet searches by jurors are often presumed to be prejudicial. See *McGee v. City of Chicago*, 979 N.E.2d 470, 474, 478–79 (Ill. App. Ct. 2012); *Chambers v. State*, 739 S.E.2d 513, 518 (Ga. Ct. App. 2013). The second reason is that judges are more accountable than jurors: they generally must support their decisions with written judicial opinions, and their decisions are subject to appeal, whereas jurors' reasoning is much more opaque. But, as discussed above, judges who encounter prejudicial but otherwise irrelevant information will not incorporate it into the written opinion. And, where judges supply multiple reasons for a conclusion, and those reasons include facts derived from Internet research, appel-

tive facts—even background facts about the parties—are not worth the risks.

III. INDEPENDENT RESEARCH OF LEGISLATIVE FACTS

A. *The Existing Debate About Legislative Fact Research*

While judges should avoid using the Internet to research adjudicative facts, conducting online research for legislative facts raises other issues. Judicial citations to legislative facts untested by the adversarial process have been around for many years,¹¹⁹ although the demarcating line between what is considered a legislative fact or adjudicative fact is at times fuzzy.¹²⁰ Particularly in constitutional cases, courts have sometimes considered legislative facts to be outcome-determinative.¹²¹ For example, in a case involving the question of whether there is a rational basis for restrictions on same-sex marriage, if the defense of the law centers on empirical studies regarding the outcomes of children of same-sex couples versus those of opposite-sex couples, the case could turn on the court's evaluation of those empirical studies.¹²²

The Brandeis Brief,¹²³ authored by Louis Brandeis, in *Muller v. Oregon*,¹²⁴ is one famous example of citation to legislative facts that were not

late courts are left to speculate about the effect of the research on the conclusion as a whole and, in cases involving a deferential standard of review, a lower court's decision can often be affirmed either way. I recognize, however, that jurors generally have no reason to turn to the Internet for anything case related, whereas judges may have legitimate reasons to research online.

119. Schauer, *supra* note 44, at 58; *see also* Edmund M. Morgan, *Judicial Notice*, 57 HARV. L. REV. 269, 270 (1944) ("In determining the content or applicability of a rule of domestic law, the judge is unrestricted in his investigation and conclusion. . . . He may make an independent search for persuasive data or rest content with what he has or what the parties present.").

120. *United States v. Gould*, 536 F.2d 216, 219 (8th Cir. 1976).

121. *See generally* Gorod, *supra* note 77, at 11.

122. *See, e.g., DeBoer v. Snyder*, 973 F. Supp. 2d 757, 761-68 (E.D. Mich. 2014). This is not to suggest that the case *should* turn on the court's evaluation of these studies, nor is it meant to suggest whether and to what extent the court should evaluate those studies apart from the legislature's own evaluation prior to enacting the law. The point here is simply that there are cases in which legislative facts have been considered to be outcome determinative. The standard of review for findings of legislative facts remains unclear. *United States v. Windsor*, 133 S. Ct. 2675, 2719 n.7 (2013) (Alito, J., dissenting); *Lockhart v. McCree*, 476 U.S. 162, 168 n.3 (1986).

123. Brief for the Defendant in Error (No. 107), *reprinted in* 16 LANDMARK BRIEFS AND ARGUMENTS OF THE SUPREME COURT OF THE UNITED STATES: CONSTITUTIONAL LAW 63 (Philip B. Kurland & Gerhard Casper eds., 1975).

124. 208 U.S. 412 (1908).

part of the appellate record. Brandeis submitted the brief in support of a state law restricting the hours that women were permitted to work. The brief contained only two pages of legal argument, followed by more than 100 pages of social science data and testimony by medical personnel and others concluding that long hours negatively impacted the “health, safety, morals, and general welfare of women.”¹²⁵ The Supreme Court relied heavily on the social science data and other legislative facts in the brief in holding the law constitutional, even though this data was not subjected to adversarial challenge in the judicial system.¹²⁶

Judges have long disagreed about the propriety of judicial use of extra-record legislative facts. The disagreement is evident in *Roper v. Simmons*,¹²⁷ where Justice Scalia chastised the majority for relying on “scientific and sociological studies, picking and choosing those that support its position” and never explaining “why those particular studies are methodologically sound” when “none [of these studies were] ever entered into evidence or tested in an adversarial proceeding.”¹²⁸ Likewise, in her dissent in *Gratz v. Bollinger*,¹²⁹ Justice Ginsburg cited numerous social science studies and surveys in arguing that poverty, unemployment, salaries, education, and health care access are all subject to racial disparities.¹³⁰

125. Lee J. Strang & Bryce G. Poole, *The Historical (In)accuracy of the Brandeis Dichotomy: An Assessment of the Two-Tiered Standard of Stare Decisis for Supreme Court Precedents*, 86 N.C. L. REV. 969, 981–82 (2008).

126. Some suggest that the Brandeis Brief demonstrates what is wrong with courts actively considering legislative facts in rendering decisions, arguing that much of the social science data included in the brief was inaccurate and employed erroneous methodology. See generally, Wendy M. Rogovin, *The Politics of Facts: “The Illusion of Certainty,”* 46 HASTINGS L.J. 1723, 1726 n.11 (1995). In the case of the Brandeis Brief, however, the law before the Court was subject to a rational basis review. Consequently, the Court needed to examine the studies only to see whether they offered a reasonable basis for the legislation—the Court did not have to concern itself with choosing between opposing social science arguments. Schauer, *supra* note 44, at 55–56.

127. 543 U.S. 551 (2005).

128. *Id.* at 617 (Scalia, J., dissenting). Appellate judges’ ability to draw upon legislative facts outside of the record may help give teeth to our system of precedent. See *Hope Clinic v. Ryan*, 195 F.3d 857, 884 (7th Cir. 1999) (Posner, J., dissenting) (“I have no objection to a court’s relying on extra-record evidence to determine the health effects of ‘partial birth’ abortion. Those effects should indeed be treated as a legislative fact rather than an adjudicative fact, in order to avoid inconsistent results arising from the reactions of different district judges, sheltered by the deferential ‘clear error’ standard of appellate review of factfindings, to different records—the inconsistency illustrated by the different findings of Judges Shabaz and Kocoras in the two cases before us.”).

129. 539 U.S. 244 (2003).

130. *Id.* at 299–301 (2003) (Ginsburg, J., dissenting). Commentators, like judges, have disagreed with respect to the judiciary’s search for legislative facts. See, e.g., John

Despite the disagreement, the Supreme Court and many appellate courts continue to cite legislative facts to support opinions, particularly social science studies and empirical research reported in law reviews and other journals.¹³¹

Some concerns with legislative fact research are systemic—that the use of such facts is the province of the legislature rather than judges,¹³² while other concerns focus on competency issues: “[f]ew judges are trained in statistics, demography, psychoanalysis, cognitive psychology, or whatever the relevant social science material may be.”¹³³ Expanded on-line access to legislative facts does not affect the propriety of the use of those facts. If our legal system approves of courts using social science data and other legislative facts in decision-making, the increased access to this kind of data created by the Internet would be a net positive, as long as the data are as reliable as traditional print data.

B. Unprecedented Access to Legislative Facts

The ongoing debate about independent research for legislative facts will soon reach fever pitch because of the volume of such facts now available with a few keystrokes.¹³⁴ “Because of the ease of finding nonlegal information on the Internet, both practitioners and judges are referring to more sociology, psychology, criminology, medical, and economics texts and journals and to more nonacademic books, magazines, and newspapers. . . . [T]heir use has increased exponentially in the past decade and is

Frazier Jackson, *The Brandeis Brief—Too Little, Too Late: The Trial Court as a Superior Forum for Presenting Legislative Facts*, 17 AM. J. TRIAL ADVOC. 1 (1993); see generally Dean Alfange, Jr., *The Relevance of Legislative Facts in Constitutional Law*, 114 U. PA. L. REV. 637 (1966).

131. John Monahan & Laurens Walker, *Social Authority: Obtaining, Evaluating, and Establishing Social Science in Law*, 134 U. PA. L. REV. 477, 477 n.2, 514–16 (1986).

132. Alfange, *supra* note 130, at 640–41.

133. Michael J. Saks, *Judicial Attention to the Way the World Works*, 75 IOWA L. REV. 1011, 1026 (1990). Professor J. Alexander Tanford has described the judicial-incompetence theory as the “ignorance hypothesis.” See J. Alexander Tanford, *The Limits of Scientific Jurisprudence: The Supreme Court and Psychology*, 66 IND. L.J. 137, 154–55 (1990).

134. See Michael Whiteman, *The Death of Twentieth-Century Authority*, 58 UCLA L. REV. DISCOURSE 27, 28–30 (2010) (“The reliance on traditional sources such as legal encyclopedias and law reviews is giving way to citation to blogs, Wikipedia articles, and other general web sources . . . Over the past ten years, a shift has been occurring away from these old sources toward more ephemeral, but easily accessible, internet sources.”).

likely to continue.”¹³⁵ Many empirical studies have documented a significant increase in judicial citations to non-legal sources over the past two decades, spurred by ready access to these sources on the Internet.¹³⁶ Even the number of sources on the Internet has been used as a legislative fact—Judge Posner recently relied on the number of Google hits from a particular search to support his argument that a case did not involve “a question of exceptional importance,” and therefore did not warrant rehearing *en banc*.¹³⁷ The burgeoning availability of legislative facts and the manner in which Internet research is conducted create new risks and additional concerns associated with judges conducting such research.

Ready access to relevant information can benefit the bench. As Judge Posner put it:

American law is becoming more complex, but the judges can cope with that. What most of them cannot cope with is the increased complexity of activities that gave rise to litigation. Increasingly, cases involve statistical proof, advanced medical technology, environmental science, computer science, and . . . the application of mathematical techniques to investment and lending. . . . [A]nd online research can be a life saver in helping judges cope with technical issues, because the Internet contains a vast amount of technical information in all fields, much of it accessible to persons with limited technical background.¹³⁸

These potential benefits come at a price, however, because unprecedented access to legislative facts raises new risks. Judges will have a harder time filtering out irrelevant, misleading, or erroneous information due to the volume of material. Without the benefit of the adversarial sys-

135. Cathy Cochran, *Surfing the Web for a “Brandeis Brief”: The Internet and Judicial Use of Legislative Facts*, 70 TEX. B.J. 780, 781 (2007).

136. Margolis, *supra* note 17, at 115–16.

137. *Mitchell v. JCG Indus., Inc.*, 753 F.3d 695, 700 (7th Cir. 2014) (Posner, J., concurring) (“A Google search reveals a number of references to the panel decision (many critical of the ‘experiment’ conducted by court staff in that case regarding the time it takes to don and doff the sanitary gear that poultry workers are required to wear) but nothing to suggest that the decision involves an issue of general importance. A Google search of ‘donning and doffing’ (and some variant terms suggested at the bottom of the first Google page) revealed only one reference to donning and doffing in the poultry processing industry and nothing to suggest a concern with donning and doffing at meal breaks.”).

138. Posner, *supra* note 53, at 15.

tem, the potential errors can severely stretch the institutional competencies of the judiciary.¹³⁹

Despite the absence of formal structure or rules governing a court's use of extra-record legislative facts, the legal system maintains an informal convention that courts will exercise caution in the sources relied upon.¹⁴⁰ In one recent case, Judge Posner heavily criticized the district court and the magistrate judge for failing to independently research the medical seriousness of a lapse in hypertension treatment, a failure he characterized as "indicative of a widespread, and increasingly troublesome, discomfort among lawyers and judges confronted by a scientific or other technological issue."¹⁴¹ In that case, the plaintiff, a prisoner with hypertension, had allegedly been deprived of his medication over a three-week period.¹⁴² The magistrate judge recommended that summary judgment be granted on the plaintiff's deliberate indifference claim, concluding that a reasonable jury might find that plaintiff had a serious medical condition, but the plaintiff had not presented evidence of deliberate indifference to that condition.¹⁴³ The district court adopted the magistrate judge's report.¹⁴⁴

After taking the district court to task for its failure to consult medical literature on the question, Judge Posner discussed the symptoms of hypertension as well as the risks associated with a lack of treatment, although he acknowledged that the briefs offered nothing helpful on this count.¹⁴⁵ In discussing symptoms, he relied on traditional hard-copy sources¹⁴⁶ as well as Internet resources. Specifically, he twice cited the Cleveland Clinic's website.¹⁴⁷ This example illustrates a risk that accompa-

139. See Saks, *supra* note 133, at 1026 ("Few judges are trained in statistics, demography, psychoanalysis, cognitive psychology, or whatever the relevant social science material may be.").

140. For example, in a case involving the definition of "wear and tear," the Seventh Circuit pointed to Wikipedia's definition of the term. In a post on The Volokh Conspiracy, Eugene Volokh acknowledged that the judges would be free to reason from their own experiences or logic, but found the reliance on Wikipedia "troubling." Eugene Volokh, *Wikipedia Law*, *VOLOKH CONSPIRACY* (Nov. 13, 2008, 12:18 PM), <http://www.volokh.com/2008/11/13/wikipedia-law/>.

141. *Jackson v. Pollion*, 733 F.3d 786, 787 (7th Cir. 2013).

142. *Jackson v. Pollion*, No. 09-CV-688, 2012 WL 2412066, at *2 (S.D. Ill. Mar. 12, 2012).

143. *Jackson*, 733 F.3d at 787.

144. *Id.*

145. *Id.*

146. *Id.* at 789 (quoting 2 DAN J. TENNENHOUSE, *ATTORNEYS MEDICAL DESKBOOK* § 24:4 (4th ed. 2012) and citing NORMAN M. KAPLAN, *CLINICAL HYPERTENSION* 124–25 (9th ed. 2006)).

147. *Jackson*, 733 F.3d at 788–89.

nies independent judicial research; Judge Posner—even as he insisted that “[t]he legal profession must get over its fear and loathing of science”—cited the Cleveland Clinic’s discussion of *pulmonary* hypertension to support his analysis of the medical consequences of *systemic* hypertension.¹⁴⁸ However, pulmonary hypertension was not at issue in *Jackson*; the claims related only to systemic hypertension,¹⁴⁹ which is a different disorder. In other words, Judge Posner examined and relied on at least one website that was not only irrelevant, but also potentially misleading. Judge Posner’s use of this site was not case dispositive—he undoubtedly would have reached the same result had he not relied on the web page discussing pulmonary hypertension.¹⁵⁰ Nevertheless, it provides a prime example of a case in which a judge’s independent Internet research into legislative facts led the judge into error and also demonstrates why many judges are hesitant to rely on such research.¹⁵¹

The Internet itself creates risks unique to online legislative fact research. Some search engines, including Google, personalize a user’s search results based on that user’s “geographic region, Web History, and other factors.”¹⁵² As search engines learn which sites a person frequents and other information peculiar to the searcher, the search engines are able to tailor results to the perceived preferences of the particular researcher, increasing the risk of biased or incomplete research. In addition, some commentators theorize that “the very process of Internet re-

148. *Id.* at 789–90. Pulmonary hypertension is high blood pressure in the lungs and bears little relation to systemic blood pressure. It has different causes and symptoms than systemic hypertension, it cannot be measured with an arm cuff like systemic blood pressure, and it involves a “separate ‘loop’ in the circulatory system” from systemic blood pressure. American Heart Association, “What is Pulmonary Hypertension?” http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/AboutHighBloodPressure/What-is-Pulmonary-Hypertension_UCM_301792_Article.jsp (last updated Aug. 4, 2014).

149. *See generally Jackson*, 733 F.3d at 789 (noting measurements of systemic blood pressure of 142/78 and 146/90).

150. Indeed, Judge Bauer, in concurrence, noted that Judge Posner’s whole discussion of the seriousness of hypertension (or, more accurately, a temporary lapse in hypertension treatment) was unnecessary dicta because “the opinion made the necessary legal point when it said that the record shows that summary judgment was clearly the right decision.” *Id.* at 791 (Bauer, J. concurring).

151. I suspect that the ease and convenience of Internet research prompted this carelessness, and I doubt that it would have happened had Judge Posner been relying on print media alone.

152. Inside Search, GOOGLE, <http://www.google.com/intl/en/insidesearch/howsearchworks/algorithms.html> (last visited Apr. 19, 2013); *see also* Help, Search History Personalization/Basics: Search History Personalization, GOOGLE, https://support.google.com/accounts/answer/54041?hl=en&ref_topic=14153 (last visited Apr. 19, 2014).

search—making decisions on the fly about what links to click and what paths to follow—makes it more likely that the results are shaped by the researcher’s preexisting opinions and biases.”¹⁵³ Judge Posner noted a similar concern with judges’ ability to research facts online when he stated the “danger that judicial recourse to secondary literature, and to the Internet more broadly, will often be rhetorical rather than substantive”¹⁵⁴ as a result of judges’ inability to “filter out junk science” in their reviews of “statistical studies, as well as of other scientific or quasi-scientific evidence.”¹⁵⁵

IV. OTHER CHANGES RESULTING FROM JUDICIAL INTERNET RESEARCH

A. *Changes to the Adversary System*

One result of independent judicial factual research, whether adjudicative or legislative, is that it erodes our adversary system. This is not by itself a criticism—that depends on one’s assessment of the system,¹⁵⁶ and certainly even the current system is not fully adversarial—but it is a consideration to take into account.

Pre-Internet, if a court was presented with a question involving legislative facts, for example, questions about the effect of long working hours on a particular gender, or societal effects created by a segregated school system, courts would have had limited access to potentially relevant social science data and even legislative history. Judges’ willingness to obtain this information, to the extent it was not contained in the court libraries, would have been a function of their assessment of (1) the propriety of using this information in their decision-making; (2) the likely relevance of the information; and (3) the likely difficulty of obtaining the

153. Elizabeth G. Thornburg, *The Lure of the Internet and the Limits on Judicial Fact Research*, 38 LITIGATION 41, 45; see also Kuh, *supra* note 114, at 261 (“[B]oth print and electronic researchers are motivated in their research and subject to confirmatory bias; electronic research exacerbates confirmatory bias as compared to print research by removing some of the checks on confirmatory bias that are present during a print search.”); Elizabeth F. Judge, *Curious Judge: Judicial Notice of Facts, Independent Judicial Research, and the Impact of the Internet*, 2012 ANN. REV. OF CIV. LITIG. 325, 345–47.

154. POSNER, *supra* note 6, at 142.

155. *Id.* Judge Posner stated that he had “no solution to this problem—other than to suggest trying through judicial training and other means to increase the intellectual sophistication of the judiciary.” *Id.*

156. For a survey of arguments about the efficacy of the adversary system, see Jerold H. Israel, *Cornerstones of the Judicial Process*, 2 KAN. J. L. & PUB. POL’Y 5, 12–15 (1993).

information. Judges' and their clerks' perceptions of their own limitations in conducting this kind of research would have made them less certain that they could dig up relevant information, which would in turn decrease their expected benefit measured against the costs of off-site research. Consequently, to the extent they were inclined to use legislative facts, judges relied fairly heavily on the parties, on expert testimony, and on the briefs of amici involved in the case.

But those concerns are largely efficiency-based concerns. With many efficiency concerns eliminated by the ease of Internet research, we must ask the more foundational questions: what are the benefits of adversarial procedures generally, and are they worth the costs?¹⁵⁷ Doubts about the efficacy of the adversary system seem to underlie Judge Posner's support of judicial Internet research, as the following quotation illustrates:

Of course Web research can result in errors. But no one should be so naïve as to believe that the determination of facts by the familiar adversary process at a trial is proof against error—that witnesses dare not violate their oath to tell the truth, the whole truth, and nothing but the truth, so help them God, for fear of divine retribution; that cross-examination is an infallible or even a reliable tool for exposing lies and mistakes; that all expert testimony is reliable and intelligible; that all trial lawyers are competent at obtaining, evaluating, and presenting evidence; that judges and jurors are skilled at evaluating the credibility of witnesses; or that the rules of evidence are single-mindedly designed to produce truth rather than to serve other, and inconsistent, goals as well, such as, protecting people's privacy, limiting executive power, and conserving judicial resources.¹⁵⁸

The United States long ago gave up on a purely adversarial system. For example, judges here, in contrast to the recent practice in English courts, have long been free to conduct their own legal research and rely

157. Schauer, *supra* note 44, at 65–66.

158. Posner, *supra* note 53, at 13; *see also id.* at 12 (“Lawyers want to control litigation. They are unhappy when appellate judges go outside the record that the lawyers have shaped.”). Judge Posner's doubts about the efficacy of the adversary system caused him to perform an in-chambers experiment to determine the time necessary for poultry workers to “doff and don” protective clothing during their lunch breaks, although he denied that the experiment was “evidence” or “appellate factfinding,” instead stating that it was merely “the fruits of curiosity.” *Mitchell v. JCG Indus., Inc.*, 753 F.3d 695, 703-04 (7th Cir. 2014) (Posner, J., concurring) (“[H]ow is such a fact to be determined by a jury? . . . [D]etermining facts in a litigation can be devilishly difficult if one thinks accuracy important.”).

on cases not cited by the parties.¹⁵⁹ Additionally, amici briefs, court-appointed experts, and other procedures diminish, to some extent, the adversarial nature of our system.¹⁶⁰ Because it has been argued that the adversarial component of our justice system makes it the best in the world,¹⁶¹ in part because it aids truth-seeking and provides transparency,¹⁶² any argument about the desirability of independent judicial Internet research must at least address related arguments about its effect on the adversary system and on the values served by such a system.

B. Changes to Judicial Notice

The Internet also has greatly affected judicial decision-making in the area of judicial notice. Federal Rule of Evidence 201, which governs judicial notice,¹⁶³ carries forward Professor Davis's distinction between adjudicative and legislative facts—the rule explicitly “governs judicial notice of an adjudicative fact only, not a legislative fact.”¹⁶⁴ Thus, nothing in the rules bars judicial reliance on independent knowledge of extra-record legislative facts, although courts frequently, and unnecessarily, point to “judicial notice” to establish a legislative fact or to justify their research of

159. Ruggero J. Aldisert, *The English Appellate Process: A Distant Second to our Own?*, 75 JURIDICATURE 48, 48 (June-July 1991); Schauer, *supra* note 44, at 53. One might hypothesize that this strict adversarial system was never adopted in the United States because our justice system was established around the time reporters came into fashion—as case reporters began collecting and widely distributing cases, the costs of judicial research so diminished that it simply became accepted for judges to deviate from the cases cited by the parties. Indeed, “[t]here has never been an official English system for reporting decisions and opinions of the appellate courts.” Aldisert, *supra* at 49.

160. With these procedures, however, the parties see and can respond and object to any information or data supplied to the judge. Thus, there is at least some adversarial component, even if not of the traditional kind.

161. See Michael Asimow, *Popular Culture and the Adversary System*, 40 LOY. L.A. L. REV. 653, 653 (2007); Daniel Markovits, *Legal Ethics from the Lawyer's Point of View*, 15 YALE J.L. & HUMAN. 209, 260 (2003) (“Nearly all the critics agree . . . that some version of the adversary system should remain in place.”); see also Norman W. Spaulding, *The Rule of Law in Action: A Defense of Adversary System Values*, 93 CORNELL L. REV. 1377 (2008).

162. See generally *Herring v. New York*, 422 U.S. 853, 862 (1975) (“The very premise of our adversary system of criminal justice is that partisan advocacy on both sides of a case will best promote the ultimate objective that the guilty be convicted and the innocent go free.”).

163. Rule 201 permits two kinds of adjudicative facts to be judicially noticed: facts that are either generally known in the trial court's jurisdiction or capable of ready and accurate determination. See FED. R. EVID. 201(a).

164. *Id.*; see also FED. R. EVID. 201 advisory committee's note.

legislative facts.¹⁶⁵ This is not to say that there should be no procedures in place to govern courts' research and acknowledgment of legislative facts,¹⁶⁶ such as notice and an opportunity to be heard, but only that any such procedures are not mandated by Rule 201.¹⁶⁷

Courts may take judicial notice of adjudicative facts at any stage in proceedings, including for the first time on appeal.¹⁶⁸ But courts—especially appellate courts—often overlook or ignore the procedural protections described in Rule 201.¹⁶⁹ Rule 201 encourages notice and an opportunity to be heard before the court takes judicial notice, although the rule also contemplates that courts will sometimes take judicial notice without first providing the parties with an opportunity to be heard: “On timely request, a party is entitled to be heard on the propriety of taking judicial notice and the nature of the fact to be noticed. If the court takes judicial notice before notifying a party, the party, on request, is still entitled to be heard.”¹⁷⁰

In order for a court to take judicial notice, there must be sufficient reliability of both information and source.¹⁷¹ A fact is fodder for judicial notice if it is either generally known within the jurisdiction or readily ascertainable from a source whose accuracy cannot reasonably be questioned.¹⁷² For “generally known” facts, no source is necessary, though they may be included to back up the generally-known fact. Sources traditionally falling within the ambit of the second judicial notice category, that is, those sources whose accuracy cannot reasonably be questioned, include, among other things, dictionaries, government documents, maps, encyclopedias, and well-recognized treatises.¹⁷³ Of course, a source is not

165. See, e.g., *Harrisburg Sch. Dist. v. Hickok*, 762 A.2d 398, 401 n.1 (Pa. Commw. Ct. 2000) (taking judicial notice of legislative history).

166. See Gorod, *supra* note 77, at 68–77 (suggesting potential procedures for the use of legislative facts).

167. See *Qualley v. Clo-Tex Int'l, Inc.*, 212 F.3d 1123, 1128 (8th Cir. 2000) (holding that trial court erred by taking “judicial notice” of legislative facts and instructing jury under Rule 201, because Rule 201 governs judicial notice of adjudicative facts only). In *United States v. Gould*, 536 F.2d 216 (8th Cir. 1976), the Eighth Circuit held that it was *not* error for the trial court to judicially notice legislative facts and instruct the jury as to them, because the instruction did not need to comply with Rule 201.

168. See FED. R. EVID. 201.

169. Schauer, *supra* note 44, at 62 (stating that, if an appellate judge writing an opinion wants to take judicial notice of some fact, “she simply does it, with neither notice to an opposing party nor the opportunity for that party to object”).

170. FED. R. EVID. 201(e).

171. Thornburg, *supra* note 153, at 45.

172. FED. R. EVID. 201.

173. 1 CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, *FEDERAL EVIDENCE* § 2:5 (4th ed. 2013).

unimpeachable and subject to judicial notice merely because it falls into one of these categories. Thus, although Wikipedia proclaims itself to be “The Free Encyclopedia,”¹⁷⁴ many courts have concluded that it lacks sufficient external indicia of reliability in order for its contents to be judicially noticeable, in part because it is editable by anyone and is constantly updated.¹⁷⁵

Regardless of whether Wikipedia qualifies as a source whose accuracy cannot reasonably be questioned, one thing is certain: the Internet has caused an increase in judicial notice. In *Bari*,¹⁷⁶ the Third Circuit implied that courts already planning to take judicial notice would likely support the judicially noticed fact by citing to an Internet resource.¹⁷⁷ But it is also evident that courts on the whole have become more willing to take judicial notice in the first instance because of access to Internet resources. Put differently, courts are not just using the Internet to confirm intuitions of which they were already planning to take judicial notice—presumably, generally-known facts—but they are also turning to sources on the Internet to take judicial notice more often.¹⁷⁸ A Westlaw search suggests a correlation between our general growing reliance on the Internet and courts’ willingness to take judicial notice, especially at the trial level. Specifically, an “All Federal Cases” search for the term “judicial notice” on Westlaw produced in 1,699 cases in the 1960s, 2,433 hits in the 1970s, 3,517 hits in the 1980s, 5,586 hits in the 1990s, and more than 10,000 hits in the 2000s. A year-by-year comparison is also telling.¹⁷⁹ Although there may be other factors contributing to the increase in instances of judicial notice, there can be little doubt that the Internet is a significant moving force behind this explosion.

174. WIKIPEDIA, <http://www.wikipedia.org/> (last visited Feb. 7, 2014).

175. J. ALEXANDER TANFORD & LAYNE S. KEELE, *THE PRETRIAL PROCESS* 159 n.14 (2013); Peoples, *supra* note 16, at 15; *see, e.g.,* BP Products N. Am. Inc. v. United States, 716 F. Supp. 2d 1291, 1295 n.10 (Ct. Int’l Trade 2010) (rejecting Wikipedia as a source for judicial notice). Some courts have taken judicial notice of Wikipedia articles. *See, e.g.,* Io Group, Inc. v. Veoh Networks, Inc., 586 F. Supp. 2d 1132, 1145 n.8 (N.D. Cal. 2008) (taking judicial notice of Wikipedia’s definition of “IP Address”). For a discussion of the evolution of courts’ treatment of Wikipedia as a source, *see* Michael Whiteman, *The Death of Twentieth-Century Authority*, 28 UCLA L. REV. DISCOURSE 27, 48–53 (2010).

176. *See supra* notes 19–25 and accompanying text.

177. United States v. Bari, 599 F.3d 176, 180–81 (2d Cir. 2010); *see also* Magnoni v. Smith & Laquercia, LLP, 701 F.Supp.2d 497, 501 (S.D.N.Y. 2010).

178. *See* Margolis, *supra* note 17, at 87.

179. This chart presents the correspondence between the term “judicial notice” and Internet citations (by using “www” as an imperfect proxy) for the given years:

With the increasing instances of judicial notice, however, it appears that judges are becoming more lax in the procedural protocols described by Rule 201. A judge who wishes to take judicial notice of an adjudicative fact should provide advance notice and an opportunity to object before taking judicial notice. In *Pickett v. Sheridan Health Care Center*,¹⁸⁰ the Seventh Circuit remanded a case in which the district court adjusted attorney’s fees on the basis of the Consumer Price Index and the Laffey Matrix, both of which the district court had found online.¹⁸¹ The Seventh Circuit agreed that these were appropriate sources for judicial notice, but it instructed the district court to give the parties the opportunity to provide input into the appropriate use of these resources.¹⁸² The appellate court chastised the district court for neglecting the procedural requirement of Rule 201 and depriving the parties of the opportunity to be heard prior to taking judicial notice of the websites.¹⁸³

In many cases, the parties will not discover that the court has taken judicial notice of some fact unless and until it appears in the court’s opin-

Year	“Judicial Notice” (All Fed. Cases)	“Judicial Notice” (Appellate Feds)	“www” (All Fed. Cases)
1989	415	108	1
1991	430	113	2
1993	554	172	28
1995	608	184	26
1997	620	169	47
1999	653	204	48
2001	845	196	69
2003	1043	188	86
2005	1748	248	162
2007	3563	264	1269
2009	4514	318	1507
2011	5910	335	1818
2012	6650	408	1841

Although most of these cases involve the court taking judicial notice of some fact, not all of them do. Some cases involve the trial court refusing a party’s request for judicial notice, or the appellate court addressing something of which the trial court took judicial notice. Searches for “We take judicial notice” and “(take* OR took) /s “judicial notice”)” led to fewer results, but similar trends.

180. 664 F.3d 632 (7th Cir. 2011).

181. The Laffey Matrix is a chart of hourly rates for legal professionals in the Washington, D.C. area prepared by the local United States Attorney’s Office. *Id.* at 649.

182. *Id.* at 651.

183. *Id.* at 648.

ion.¹⁸⁴ And, in most cases, no party requests the opportunity to be heard, because the judicially noticed fact is either widely known or readily and accurately verifiable. But the procedural safeguards exist precisely for the relatively rare circumstances in which what seems obviously true to one person is disputable to another, or a widely trusted source contains an error or omission. I do not mean this as a nod toward postmodern epistemology; only as the much less controversial assertion that sometimes people are wrong about what they think they know. As Professor Schauer put it:

The disputability of the seemingly indisputable has of course long been recognized in the judicial notice doctrine and literature, which is why taking judicial notice is surrounded by more procedural safeguards than are necessary in routine exercises of judicial notice.¹⁸⁵

In addition to following the proper procedures in taking judicial notice, courts must exercise caution when relying on Internet sources to take judicial notice. If online information “is highly likely to be correct because of the same sorts of continual use and even commercial pressure that tends to insure the accuracy of common sourcebooks, or when such information is comprised of well-settled data such as details of calendar or geography, judicial notice seems appropriate, and the Internet can qualify as a source whose accuracy is not reasonably open to question.”¹⁸⁶ But courts must take care when relying on Internet sources as “sources whose accuracy cannot reasonably be questioned.”¹⁸⁷

V. KEY CONSIDERATIONS GOING FORWARD

There are a number of considerations that courts must take into account when assessing the propriety of judicial notice of online facts. One

184. *See, e.g.*, *Gent v. CUNA Mut. Ins. Soc’y*, 611 F.3d 79, 84 n.5 (1st Cir. 2010); *Havens Steel Co. v. Randolph Eng’g Co.*, 813 F.2d 186, 188–89 (8th Cir. 1987); *Bridgeway Corp. v. Citibank*, 45 F. Supp. 2d 276, 278 n.2 (S.D.N.Y. 1999); *Fedorenko v. U.S. INS*, 598 F. Supp. 1527, 1527–28 (E.D. Pa. 1984).

185. Schauer, *supra* note 44, at 64; *see also* Gorod, *supra* note 77, at 9 (“[T]he fact that a credible treatise presents one way of looking at the world (for example, a particular view of the economic effects of a merger or the environmental consequences of a particular action) does not mean that there are not other credible treatises that present alternative ways of looking at it. Given this indeterminacy, it is problematic when such ‘facts’ are ‘found’ by ad hoc methods without the benefit of rigorous testing and then provide the basis for consequential legal decisions.”).

186. MUELLER & KIRKPATRICK, *supra* note 173.

187. FED. R. EVID. 201.

thing that we can be sure of is that judges will continue to use the Internet. They will use it to conduct legal research, many will use it in researching legislative facts, and some (maybe many) will independently research adjudicative facts. In light of these certainties, we can perhaps minimize the potential ill-effects of judicial Internet research by offering some guidelines about how Internet research should be conducted. In considering the propriety of any research, we must consider three elements: (1) the purpose for which the source is used; (2) the authenticity of the source; and (3) the reliability of the source. This section discusses these three elements with respect to online research.

A. Purpose

One factor that determines the propriety of Internet research is the purpose behind the research. For example, the use of even traditional legal sources may be improper if the purpose is improper. Thus, a court assessing a plaintiff's credibility in one case should not reinforce its conclusion by pointing to another case in which another court concluded that this same plaintiff lacked credibility.¹⁸⁸ Similarly, a judge acting as factfinder should not conduct a Westlaw search to see how many prior lawsuits had involved the same kind of device involved in the particular case.¹⁸⁹ (This would be true even if the search was to be conducted using hard copy case reporters but, in reality, a comprehensive search of this type in hard copy would be impossible.)

A similar analysis governs non-legal sources. We generally recognize that it would be improper for a court to travel to an intersection to take a picture of the conditions of the intersection or of the street signs. Unless

188. For a court that went partway, see *Vakas v. Barnhart*, 120 F. App'x 766 (10th Cir. 2005) (affirming ALJ's denial of disability benefits and noting prior cases that reflected negatively on plaintiff's credibility, but stating that the court was "not permitted to rely on extra-record facts and [would] not do so here").

189. *But see Gaunt v. Progressive Sec. Ins. Co.*, 92 So. 3d 1250, 1258–59 (La. Ct. App. 2012) ("The record demonstrates that the trial court's law clerk conducted a Westlaw search, not an internet search. There is a crucial distinction between the two. The performance of a Westlaw search, a commonly-used legal research tool, is not improper . . . Moreover, although the trial judge denied having looked at any of those cases, if she had reviewed any, her reviewing them would not have been improper. The reviewing of published jurisprudence, on Westlaw or otherwise, is a normal component of the legal research ordinarily conducted by the court."). Although a review of such cases on Westlaw or Lexis would be improper in these circumstances, one doubts that any remedy for this exists—any examination of a judge's Westlaw or Lexis research would simply be too intrusive on the judicial process because these sites are so frequently (and legitimately) used to conduct research and determine cases. I am simply making a normative claim about judges' behavior.

that impropriety stems from considerations of judicial efficiency and resources, it is likewise improper to rely on Google Street View for the same data. But, where the purpose of research into non-legal sources—whether online or in hard copy—is to research legislative facts, to verify a fact for judicial notice, or to gather collateral information unrelated to the parties, citation to non-legal sources may be proper. In other words, and as a general proposition, we can measure the propriety of citation to non-traditional sources by assessing the propriety of citation to their off-line parallels under the same circumstances, subject to added authenticity and reliability concerns discussed below.

When we discuss research into non-legal sources, we should distinguish between research into the parties or their backgrounds and “collateral references”¹⁹⁰ to other information used for rhetorical flourishes. For example, courts sometimes add “coloring book facts” as Judge Posner refers to them,¹⁹¹ to an opinion as a literary device, and may glean those coloring book facts from the Internet just as from any other source. One such example would be a citation to an online dictionary or to a Wikipedia entry about Ludacris when describing a court reporter’s inadvertent substitution of “hoe” for “ho” in the trial transcript.¹⁹² The concern discussed above about inadvertently stumbling on prejudicial information is dramatically smaller in collateral-reference research than when the judge conducts a general Internet search for information about the parties themselves,¹⁹³ searches out a party’s social media page or, worse yet, when the judge specifically searches for material facts in the case. Indeed, Judge Posner has acknowledged that, during the course of party-specific Internet “background” research, he has discovered facts supporting a party’s testimony about a contested issue, although he dismissed that discovery as non-prejudicial.¹⁹⁴

190. See Peoples, *supra* note 17, at 27.

191. Posner, *supra* note 53, at 12.

192. See United States v. Murphy, 406 F.3d 857, 859 n.1 (7th Cir. 2005). Judge Evans simply referred to Ludacris’s rap music, and to “rap music vernacular,” without any citation at all. But, had he included a citation to a Ludacris site or to a Wikipedia page, for example, few would have questioned the propriety of such a citation. *Id.*

193. See Posner, *supra* note 53, at 20 (advocating law clerks Googling the parties for judges).

194. POSNER, *supra* note 6 (REFLECTIONS ON JUDGING), at 140 (“The satellite photo did support Brother Jim’s contention that the library lawn was a superior venue for preaching or other speechifying than the cramped walkway to which he was confined. . . . But since the university won the case anyway, our photographic assistance to Brother Jim could not be thought to have had a prejudicial effect.”).

B. Authenticity

The ability of anyone to publish anything on the Internet means that courts must exercise discernment when selecting sources, and Internet resources give rise to authenticity and reliability concerns that may be less prevalent in more traditional forms of research. In this context, authenticity is an evaluation of whether the resources are what they purport to be and whether the authors or providers are who they purport to be. An example of an inauthentic site is the purported website of the World Trade Organization located at www.gatt.org.¹⁹⁵ The site is, by almost all appearances, legitimate, but it is in fact a counterfeit website. The giveaway might be the press release announcing the disbanding of the WTO.¹⁹⁶ Similar authenticity concerns are raised by the millions of documented false Twitter and Facebook accounts.¹⁹⁷ The Bluebook rightly expresses a preference for “‘authenticated’ sources: those that use an encryption-based authentication method, such as digital signatures and public key infrastructure, to ensure the accuracy of the online source.”¹⁹⁸

C. Reliability

Reliability is a separate consideration from authenticity. Even if an Internet resource is authentic—that is, it is what it purports to be—the resource may nevertheless be factually inaccurate. For example, the online version of China’s Communist Party newspaper ran a 55-page photo spread to celebrate North Korea’s Kim Jong-Un being named “Sexiest Man Alive for 2012.”¹⁹⁹ The site was authentic in that it was what it purported to be, but its information, or rather, mis-information, came from the popular satire site “The Onion.”²⁰⁰ Online information can be intentionally inaccurate as in spoofs or more malicious misinformation, unin-

195. The WTO’s official site is www.wto.org. See Mary J. Koshollek, *Assessing Information on the Internet: How Do You Know What’s Behind That Web Site?*, WIS. LAWYER November 2006, at 26.

196. See WORLD TRADE ORGANIZATION, <http://www.gatt.org/irelease.html> (last visited May 20, 2002).

197. See Julie Bort, *Twitter Has a Big Problem with Fake User Accounts*, BUSINESS INSIDER (Aug. 6, 2012), <http://www.businessinsider.com/twitter-has-a-big-problem-with-fake-user-accounts-2012-8>; Heather Kelly, *83 Million Facebook Accounts Are Fakes and Dupes*, CNN (Aug. 2, 2012), <http://www.cnn.com/2012/08/02/tech/social-media/facebook-fake-accounts/>.

198. THE BLUEBOOK: A UNIFORM SYSTEM OF CITATION 165–66 (Columbia Law Review Ass’n et al. eds., 19th ed. 2010).

199. Edward Wong, *Kim Jong-un Seems to Get a New Title: Heartthrob*, N.Y. TIMES, Nov. 28, 2012, at A6.

200. *Id.*

tentionally inaccurate, or accurate but misleading or untimely.²⁰¹ Similarly, information appearing on one institution's website may link to or be embedded from another site over which the institution does not maintain control.

A less humorous example of a potentially unreliable source is Wikipedia—the infamous online community encyclopedia, anonymously editable almost anytime by anyone.²⁰² Wikipedia is probably sufficiently authentic to satisfy us because it is exactly what it purports to be—an online, user-editable encyclopedia. The site is unlikely to have been hacked or to be counterfeit. But Wikipedia is also probably insufficiently reliable to satisfy us as a resource in most cases, in part because it is anonymously editable anytime by anyone.²⁰³ One survey found that 60 percent of Wikipedia entries about corporate entities contained factual errors.²⁰⁴ Wikipedia entries have been vandalized, with misinformation being picked up from those articles by other websites.²⁰⁵ And a program known as “Storming Wikipedia” is teaming up with universities to offer college credit for students who inject feminism into Wikipedia entries to counter a claimed existing bias resulting from current uneven gender participation in Wikipedia editing.²⁰⁶ Thus, while our collective resources may be sufficient to keep Wikipedia entries largely accurate for a large portion of the time for the satisfaction of idle curiosity, the potential for opportunistic editing by litigants and for errors in the articles probably render it insuffi-

201. Consider Google Street View to observe the scene of an accident. We would not let a photograph into evidence without an authenticating witness to testify that the photograph accurately depicts the scene it purports to represent. 12A JOHN BOURDEAU ET AL., *FEDERAL PROCEDURE* § 33:589 (2013). It would be insufficient for the lawyer to say, “Well, we don’t really mean for the jurors to base their decisions on it; we just want to give them some flavor and background information.” See *United States v. Lawson*, 494 F.3d 1046, 1052 (D.C. Cir. 2007).

202. For an excellent survey of Wikipedia use in judicial opinions, see Peoples, *supra* note 17.

203. Wikipedia records IP Addresses of edits, but that may be of little help for edits made on public computers or on public networks. *IPs are Human Too*, WIKIPEDIA, (Jan. 15, 2014), https://en.wikipedia.org/wiki/Wikipedia:IPs_are_human_too. Also, certain articles have restricted editing in limited cases to prevent disruption or vandalism. *Id.*

204. One study found that sixty percent of Wikipedia articles about companies contained “factual errors,” although the report does not describe the significance of the errors. Dick Jones Comm’ns, *Survey Finds Majority of Wikipedia Entries Contain Factual Errors*, *MARKETING BUSINESS WEEKLY*, May 6, 2012, at 1510.

205. See Peoples, *supra* note 17, at 4–5.

206. *Wikistorming: Colleges Offer Credit to Inject Feminism into Wikipedia*, FOX NEWS (Sept. 6, 2013), <http://www.foxnews.com/tech/2013/09/06/wikistorming-colleges-offer-credit-to-corrupt-wikipedia/>.

cient to qualify as a source whose accuracy cannot reasonably be questioned for judicial notice purposes.

On the other hand, many Internet sources are at least as reliable as print sources, and we can in many instances assess the propriety of online research by asking whether the same research would be permissible with offline parallels.²⁰⁷ Some Internet resources are simply online versions of traditional legal resources, both primary and secondary. Law journals, case law, and statutes are available online, both through legal providers like Lexis and Westlaw as well as elsewhere on the web. Many law journal articles are available on SSRN or on the journals websites.²⁰⁸ Statutes and regulations are available on numerous government websites and third-party sites such as Cornell's Legal Information Institute site.²⁰⁹ And case law can be found on Google Scholar²¹⁰ and numerous court websites.²¹¹ Courts' use of these traditional legal resources is usually untroubling, as long as the materials themselves are authentic.²¹²

207. We might exhibit some preference for imaged copies (such as .pdf files) of print sources, as some law journals do and as the BLUEBOOK does, *see* BLUEBOOK, *supra* note 198, at 165, but in most cases the imaged copy and the online text will be identical. In cases in which an online version is created by scanning and OCRing (that is, performing an optical character recognition analysis) on a print copy, errors can occasionally make their way into the online source. In the very rare case, these errors can cause problems. For an example of a case in which a typographical error that was introduced into the online version of a case significantly altered its precedential effect, *see* the discussion of *Diffenderfer v. Diffenderfer*, 491 So.2d 265 (Fla. 1986), in *Acker v. Acker*, 821 So.2d 1088 (Fla. Dist. Ct. App. 2002). Westlaw and Lexis now allow electronic submission of opinions for publication, so this issue is unlikely to arise in the future.

208. *See, e.g.*, Danielle Keats Citron & David C. Gray, *Addressing the Harm of Total Surveillance: A Reply to Professor Neil Richards*, 126 HARV. L. REV. 262 (2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2285775 and http://www.harvardlawreview.org/issues/126/may13/forum_1010.php and http://www.harvardlawreview.org/media/pdf/vol126_leong.pdf.

209. *See, e.g.*, Cornell Univ. Law Sch., LEGAL INFO. INST., <http://www.law.cornell.edu/> (last visited Sept. 5, 2014); *Federal Digital System*, U.S. GOV'T PRINTING OFF., <http://www.gpo.gov/fdsys/search/home.action> (last visited Sept. 5, 2014); Office of the Law Revision Counsel, U.S. CODE, <http://uscode.house.gov/> (last visited Sept. 5, 2014).

210. *See* GOOGLE SCHOLAR, www.scholar.google.com (last visited Sept. 5, 2014).

211. *See, e.g.*, *Opinions*, U.S. CT. OF APPEALS FOR THE ELEVENTH CIR., <http://www.ca11.uscourts.gov/opinions> (last visited Sept. 5, 2014).

212. *But see* Kuh, *supra* note 114, at 229 (discussing "medium theory" and asserting that the "medium by which information is communicated — for example, oral versus print — is not neutral" but instead "significantly shapes how the conveyed information is understood").

To the extent it is proper for a court to consult a physical copy of Merriam-Webster's dictionary, Encyclopedia Britannica, a Rand-McNally map, or similar resources, there is little cause for concern when a court cites the online version of the same resource.²¹³ Similarly, courts frequently cite to literature from other disciplines—most commonly the social sciences. These citations occurred well before the Internet came along,²¹⁴ and, to the extent this citation is proper, citation to the online version of the resource does not change that propriety.

Reliability can be considered on something of a sliding scale, depending on the level of precision needed for the case. Thus, for example, whether a mapping site is sufficiently reliable for judicial use may depend on how precise the distance or time must be measured.²¹⁵ If the issue before the court is whether a particular location is within 100 miles of the courthouse for purposes of Rule 45,²¹⁶ and if the location is 53 miles away, all online mapping websites would likely lead to the same result. On the other hand, if the location is 99.97 miles away, the various mapping sites may very well lead to disparate results. Thus, one court expressed concern about using mapping sites to determine the driving time from one location to another.²¹⁷ In addition, reliability is not uniform for all pages on a given site. Some Wikipedia entries, for example, are “stubs”—short articles with only a few sentences of text and often without supporting references—while others are more vetted articles with supporting citations, which enhances reliability.²¹⁸

Indicia of authenticity and reliability can help assess the usefulness of a website. For example, it is easy to look up information regarding the registrant and administrator of a website. If one were to look up the fictional WTO site, gatt.org, one would discover that the site was registered

213. In fact, where it is proper for a court to cite a particular resource, and that identical resource is available both online and in hard copy, we should prefer at least a parallel citation to the online version for purposes of increased access.

214. See Kurland & Casper eds., *supra* note 123, at 83–177.

215. See *Medi-Weightloss Franchising USA, LLC v. Medi-Weightloss Cline of Boca Raton, LLC*, No. 8:11-cv-2437-T-30MAP, 2012 WL 2505930, at *3 n.2 (M.D. Fla. May 24, 2012) (“The parties’ reliance on MapQuest and Google are understandable in this age of Internet searches, however, those queries have led to inconsistent distance calculations and the Court’s independent inquiry has suggested even different distances.”).

216. See FED. R. CIV. P. 45(d)(3)(A)(ii) (on motion, court must quash subpoena requiring non-party to travel more than 100 miles).

217. *Jianniney v. State*, 962 A.2d 229, 232 (Del. 2008) (noting that even Mapquest’s own website “expressly disclaims the accuracy of its information” including potentially failing to take into account weather, construction, unexpected traffic, and other issues).

218. *Peoples*, *supra* note 17, at 12.

and is administrated by Andrew Bichlbaum, a well-known prankster of “The Yes Men.”²¹⁹ Another quick gauge is the kind of domain—in general, government domains, .gov, .mil, and .fed.us, are tightly controlled and should be relatively trustworthy, and .edu domains almost always belong to accredited higher education institutions.²²⁰ The commercial domains and other domains, including .com and .net, are, as a whole, more questionable.²²¹ Thus, the official site for the White House is whitehouse.gov; whitehouse.net is a spoof site. Encrypted websites, those that *The Bluebook* prefers,²²² begin with HTTPS (Hypertext Transfer Protocol Secure) rather than HTTP, and are authenticated by Internet certificate authorities.²²³

Another potential check is a quick trademark search on the United States Patent and Trademark Office’s website.²²⁴ This kind of search can bolster confidence in a site by showing that a particular entity has a trademark in a given domain name, such as NYTimes.com or Lexis.com. Also, some website evaluators identify other websites and pages that link to a given site.²²⁵ A website is more likely to be authentic if other reputable websites link to it and use the information in it. None of these is unqualified proof that the website is authentic, but the more indicia of authenticity, the more confidence one can have in the site.²²⁶

There are also other indicia of reliability. The date that any information was updated is of course relevant, as are any citations provided for the information on the page. For example, while one might choose not to cite Wikipedia for a particular point, the references in Wikipedia might

219. Alexa.com and whois.net both provide information regarding the registrant and administrator, although this information can be falsified as well. *See Site Overview: gatt.org*, ALEXA, <http://www.alexa.com/siteinfo/gatt.org> (last visited Sept. 5, 2014); *Whois Lookup: gatt.org*, WHOIS.NET, <http://whois.net/whois/gatt.org> (last visited Sept. 5, 2014).

220. STEPHEN QUINN & STEPHEN LAMBLE, *ONLINE NEWSGATHERING: RESEARCH AND REPORTING FOR JOURNALISM* 94 (2008).

221. *Id.*

222. BLUEBOOK, *supra* note 198, R. 18.2.1(a)(i), at 165–66.

223. A. GENCO & S. SORCE, *PERVASIVE SYSTEMS AND UBIQUITOUS COMPUTING* 103 (2010). As an aside, it seems to me that records gathered by parties from authenticated government websites should be admissible over a hearsay objection, and certified documents should not be necessary unless the opposing party challenges the authenticity or reliability of the record.

224. The utility of such a search, of course, is in turn a function of the authenticity and reliability of the USPTO’s website.

225. *See, e.g.*, ALEXA, *supra* note 219.

226. On the other hand, as more background digging is required to gain a comfort level of authenticity and reliability, we diminish the chief advantages of Internet research—ease and efficiency.

be useful for locating that same point on another website that is sufficiently authentic and reliable. The author of the page factors into the reliability, as does the kind of information that it contains. For example, all things being equal, a blog by a single individual is less likely to be reliable than a scholarly article with multiple citations that has been through a peer-review process.²²⁷

For many Internet resources, we can be sufficiently confident in the resources' authenticity and reliability that we do not flinch when courts rely on them. We don't look twice when courts cite to cases on Westlaw or Lexis, or to a law journal article that the court located on HeinOnline. In theory, a hacker could gain access to these sites and alter the materials, or the materials may not accurately reflect what they purport to be, but we believe the chances of this are so insignificant—and that, if the sites' integrity were breached, word would spread very quickly and the problem would be immediately addressed—that we accept their use unhesitatingly.

Ultimately, the propriety of courts' use of a particular web page is a function of at least three variables. The resource used must be (1) of an acceptable kind for the purpose for which it is used; (2) of acceptable authenticity; and (3) of acceptable reliability. If the resource fails in any of these three respects, courts should avoid using it.

D. Some Final Thoughts about Internet Research

I do not mean in this article to suggest that the Internet has no place in judicial decision-making. The Internet increases access to and efficiency of research in traditional legal sources, and it can be an excellent source of information for parties and judges alike. We should, however, recognize the limits of Internet research and the proper limits on judges who wish to conduct Internet research. Our concerns about judicial Internet fact gathering could be diminished by the implementation of procedural protocols and constraints.

The concerns about factual Internet research are in part a result of the absence of party participation. Consequently, one suggestion might be to require "a judge who intends to rely on materials obtained by searching the Internet [to] first inform the parties of the substance of the materials, and then offer the parties an opportunity to respond."²²⁸ Al-

227. Undergraduate institutions now offer classes on conducting quality Internet research, and numerous resources exist related to conducting "Research-quality Web Searching." See, e.g., *Class Handouts for Teaching Web Searching*, UC BERKELEY LIBR., <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Handouts.html> (last updated May 8, 2012); QUINN & LAMBLE, *supra* note 220.

228. Tennant & Seal, *supra* note 39, at 17.

though this would be beneficial, it does not address the concerns related to the judge who searches for information about the parties or the case, discovers information that impacts his decision-making, but who does not rely on it in the opinion or who otherwise does not consciously rely on the information gleaned from the Internet.²²⁹

In *Kourkounakis v. Russo*,²³⁰ the trial judge's law clerk conducted a Google search of the plaintiff's expert during the pendency of a motion for summary judgment.²³¹ The judge informed the parties of this search at the hearing on the motion, telling the parties that he would not use any information learned from the search in ruling on the motion.²³² Most of us would probably praise the judge for his transparency in revealing his Google search to the parties. But, if our intuition is that the judge did the right thing—that is, that the judge should inform the parties of any search that reveals anything of interest, even if the judge does *not* intend to use the information in deciding the case—then it hardly makes sense for the judge to conduct the search at all, unless the judge intends the search to address specific questions. Further, if the judge intends only to conduct the search to address specific questions, there is little reason for the judge not to notify the parties in advance. Stated differently, notice to the parties by a judge who has already searched and now intends to use extra-record adjudicative facts in the opinion is a step in the right direction, but only a step. Instead, if a judge wishes to gather adjudicative facts from the Internet, the judge should notify the parties to allow them to object in advance.²³³

Also, websites constantly change and disappear; thus there is a significant risk that a website will have materially changed between the time that the trial court refers to it and the time that a reader—whether that is a later court looking for precedent, an appellate court, a party, or an interested observer—visits the site. The prevalence of “link rot” in judicial opinions—once-live links that later lead to dead ends or to pages that no

229. See *supra* Part II.B.

230. *Kourkounakis v. Russo*, 167 F. App'x 255 (2d Cir. 2006).

231. Katrina Hall, Comment, *Kourkounakis v. Dello Russo: Should a Trial Judge Be Permitted to Independently Google an Expert Witness to Determine Credibility?*, 112 PENN ST. L. REV. 885, 887 (2008).

232. *Id.*; Petition for Writ of Certiorari at 8–9, *Kourkounakis v. Russo*, 549 U.S. 826 (2006) (No. 05-1669), 2006 WL 1794506 at *9.

233. Cf. Gorod, *supra* note 77, at 74–75 (“The possibility of courts engaging in the type of factual development typically undertaken by legislatures may give a reader some pause. But to the extent that engaging in that type of factual development is a fundamental part of the enterprise of judging, it is better that it be done in the open.”).

longer contain the referenced source²³⁴—has been well documented. One author found that 85 percent of Internet citations in judicial opinions from 1997 were inaccessible five years later, and 34 percent of Internet citations in opinions from 2001 were inaccessible one year later.²³⁵ Another study of Washington state court opinions between 1999 and 2005 found that, by 2007, the referenced resource could not be located at the linked site for 64 percent of the links.²³⁶ In a more recent study, the authors found that 29 percent of Supreme Court Internet citations are no longer working.²³⁷ Thus, judges citing Internet resources should routinely print and preserve the linked resources, as called for under the Judicial Conference's suggested practices.²³⁸

CONCLUSION

There are potential benefits of judicial Internet factual research—more colorful and readable opinions and potentially more accurate adjudications. These benefits, however, are framed against the drawbacks associated with Internet research for adjudicative facts—the potential loss of accurate outcomes, the loss of transparency, and the erosion of the adversary system.

While independent judicial Internet research raises some thorny issues, leading to courts' and commentators' ambivalence about the endeavor, our legal system can take some steps to minimize drawbacks of this kind of research. Judges should carefully consider their purpose in accessing online information, as well as the authenticity and reliability of the websites visited. To aid in this effort, courts can look to various indicia of authenticity and reliability. Judges should also provide the parties with

234. Mary Rumsey, *Runaway Train: Problems of Permanence, Accessibility, and Stability in the Use of Web Sources in Law Review Citations*, 94 LAW LIBR. J. 27, 30 n.21 (2002).

235. Coleen M. Barger, *On the Internet, Nobody Knows You're a Judge: Appellate Courts' Use of Internet Materials*, 4 J. APP. PRAC. & PROCESS 417, 438–39 (2002).

236. Tina S. Ching, *The Next Generation of Legal Citations: A Survey of Internet Citations in the Opinions of the Washington Supreme Court and Washington Appellate Courts, 1999-2005*, 9 J. APP. PRAC. & PROCESS 387, 389, 396–97 (2007).

237. Raizel Liebler & June Liebert, *Something Rotten in the State of Legal Citation: The Life Span of a United States Supreme Court Citation Containing an Internet Link (1996-2010)*, 15 YALE J.L. & TECH. 273, 309 n. 139 (2013).

238. *Internet Materials in Opinions: Citations and Hyperlinking*, U.S. CTS.: THE THIRD BRANCH (July 2009), http://www.uscourts.gov/news/TheThirdBranch/09-07-01/Internet_Materials_in_Opinions_Citations_and_Hyperlinking.aspx. Somewhat ironically, these suggested practices were cited in the Liebler & Liebert piece discussing the issue of link rot, *supra* note 237, at 291 n.78, but, as of the time of this writing, the link used in that piece (a 2013 article) leads to a “Page Not Found” error.

advance notice of their intention to conduct Internet searches for any adjudicative facts and should preserve in the court files any web sites on which they rely. To put it simply, the Internet is not going away, and it can benefit our legal system, but we must be careful to use it appropriately.