Luddites No Longer: Adopting the Technology Tutorial at the Supreme Court*

I. Introduction

The average Supreme Court Justice is appointed to the Court at age fifty-three.[1] Modern Justices remain at the Court significantly longer than their ancestors did, retiring at an average age just short of seventy-nine.[2] A Justice appointed today will "enjoy a potential tenure that is fifty percent longer than that of their typical eighteenth- and nineteenth-century

---

* J.D., The University of Texas School of Law, 2012; B.S.Ed., University of Kansas, 2008.

My heartfelt thanks and appreciation to the tireless editors of the *Texas Law Review* for their help in preparing this piece for publication. Any errors remain my own.

1. Steven G. Calabresi & James Lindgren, *Term Limits for the Supreme Court: Life Tenure Reconsidered*, 29 HARV. J.L. & PUB. POL'Y 769, 800–01 & chart 8 (2006). This age has remained relatively constant throughout the Court's history. *Id.*

2. *See id.* at 782–83 ("Thus, the average age at which Justices have retired has increased markedly throughout history, and most sharply in the past thirty-five years.").

predecessors."[3] To put it bluntly, the Court is old, and it isn't getting any younger.[4]

Many of the legal issues before the Court are much younger.[5] Justice Elena Kagan, the youngest member of the current Court, has seen the rise (and fall) of the compact disc and the VCR, the evolution of video games from *Pong* to *World of Warcraft*, and the invention of both cell phones and the Internet. Technological progress challenges the Court by forcing it to adapt the law to fit new, often unique situations. "The impact of the new technology on substantive law is really quite significant," Chief Justice John Roberts quipped in 2011.[6]

This Note argues that the Supreme Court is ill-equipped to meet the challenges presented by rapidly changing technologies. Part II chronicles some of the Court's recent technological troubles, and explains how the current system fails to bridge the Court's technological gap. Part III illuminates how the Court's often Luddite existence damages the law as well as the Court itself. Part IV proposes a solution: the Supreme Court should implement a form of the "technology tutorial," a highly malleable process used in patent litigation to educate generalist judges about complex technologies. Through the use of technology tutorials, the Justices could enhance their understanding of the technologies underlying many difficult cases, resulting in more accurate, defensible, and responsible decisions while simultaneously boosting the Court's legitimacy. Part V briefly concludes.

II. The Supreme Court's Technological Troubles

The Supreme Court has never been accused of being ahead of the technological curve. It was not until the mid-1990s that the Court's oral arguments could be heard outside the courtroom, and even then access was still extremely limited.[7] Audio recordings of arguments were still zealously

---

3. *Id.* at 789.

4. Technically speaking, the Court *has* gotten younger in recent years. The current Roberts Court, which replaced four Justices in five years, is "the youngest court in the modern, digital age." David Kravets, *All Rise: Supreme Court's Geekiest Generation Begins*, WIRED (Oct. 1, 2010), http://www.wired.com/threatlevel/2010/10/supreme-court-2010-2011-term/all/1.

5. Of course, there is no guarantee that a younger Court would necessarily be a more technologically savvy Court. Accordingly, proposals that seek to create or maintain a more youthful Court—by imposing mandatory retirement ages or limiting tenure, for example—are inadequate to truly solve the problem this Note describes. *See* Calabresi & Lindgren, *supra* note 1, at 817–18 (discussing variations of two such proposals).

6. *A Conversation with Chief Justice Roberts* at 40:25 (C-Span television broadcast June 25, 2011), *available at* http://www.c-spanvideo.org/program/FourthCi.

7. *See* Tony Mauro, *"In Other News . . .": Developments at the Supreme Court in the 2002-2003 Term that You Won't Read About in the U.S. Reports*, 39 TULSA L. REV. 11, 13 (2003) (describing the Court's decision to feed live audio into the "lawyers' lounge" at the Court, allowing another fifty or so people to hear live oral argument).

guarded into the early 2000s.[8] The Court's first website launched in 2000,[9] years after the popular growth of the World Wide Web.[10] Carbon paper draft opinions circulated between the Justices through the 1960s.[11]

The modern Court still clings to vestiges of the past. Chief Justice Roberts "is known to write out his opinions in long hand with pen and paper instead of a computer."[12] Justice Stephen Breyer recently confessed that he "couldn't even understand" the Oscar-winning film *The Social Network*, which chronicles the rise of social networking behemoth Facebook from creator Mark Zuckerberg's Harvard dorm room.[13] In a similar vein, Justice Antonin Scalia explained to a congressional subcommittee, "I don't even know what [Twitter] is . . . . But, you know, my wife calls me 'Mr. Clueless.'"[14]

The Justices' technological ignorance often spills over into the courtroom, and even into the Court's written opinions. The following three cases—*Reno v. ACLU*,[15] *City of Ontario v. Quon*,[16] and *Brown v. Entertainment Merchants Ass'n*[17]—provide numerous examples of how a low-tech Court takes on high-tech cases, with troubling results.

---

8. *Id.*; *see also* Roy M. Mersky & Kumar Percy, *Features - The Supreme Court Enters the Internet Age: The Court and Technology*, LLRX.COM (June 1, 2000), http://www.llrx.com/features/supremect.htm ("Oral arguments are now tape-recorded, but that practice started in 1955, decades after the invention of sound recording, radio, and television.").

9. Mersky & Percy, *supra* note 8.

10. *See* Matt Blum, *20 Years Ago Today: The First Website Is Published*, WIRED (Aug. 6, 2011), http://www.wired.com/geekdad/2011/08/world-wide-web-20-years/ (reporting that website growth accelerated beginning in 1993); Matthew Gray, *Web Growth Summary*, INTERNET STAT. (1996), http://stuff.mit.edu/people/mkgray/net/web-growth-summary.html (counting 100,000 websites by January 1996, and estimating a growth to 650,000 by 1997).

11. Mersky & Percy, *supra* note 8.

12. Andrew Price, *Being Old, Supreme Court Justices Are Befuddled by Technology*, GOOD, http://www.good.is/post/being-old-supreme-court-justices-are-befuddled-by-technology/. Recently retired Justice David Souter similarly shunned computers and even typewriters. Kermit Roosevelt, *Justice Cincinnatus*, SLATE (May 1, 2009), http://www.slate.com/articles/news_and_politics/jurisprudence/2009/05/justice_cincinnatus.html.

13. Erik Schelzig, *Supreme Court Justices Must Adapt to Facebook World, Says Breyer*, MSNBC (Nov. 16, 2010), http://www.msnbc.msn.com/id/40224302/ns/technology_and_science-tech_and_gadgets/t/supreme-court-justices-must-adapt-facebook-world-says-breyer/#.UGHXjaRSQwy.

14. Mark Grabowski, *Opinion: Technical Difficulties at the Supreme Court*, AOL NEWS (June 1, 2010), http://www.aolnews.com/2010/06/01/opinion-technical-difficulties-at-the-supreme-court/.

15. 521 U.S. 844 (1997).

16. 130 S. Ct. 2619 (2010).

17. 131 S. Ct. 2729 (2011).

A. Case Examples

1. Reno v. ACLU.—The 1997 case *Reno v. ACLU* was the Supreme Court's first hands-on encounter with the Internet.[18] At issue in the case were First Amendment challenges to two provisions of the Communications Decency Act of 1996 (CDA), which prohibited the transmission of "indecent" material and the display of "patently offensive messages" to children.[19] The fledgling Internet's capabilities and limitations were crucial to the Court's legal analysis,[20] and the Court noted its reliance upon the extraordinary amount of fact-finding performed by the district court.[21]

In addition to being the Court's first encounter with the Internet, *Reno* was also the first time many of the individual Justices had seen the Internet. Inside the Supreme Court Library, several clerks gathered the Justices for a live demonstration.[22] This crash course in modern technology may have left the Court wanting; at oral argument, Chief Justice William Rehnquist began by extending the usual time allocation by five minutes per party.[23] Such generosity was rare: the Chief Justice was known for his strict enforcement of the Court's time limits, often stopping advocates mid-sentence when their time expired.[24]

---

18. *See* Mark S. Kende, *Lost in Cyberspace: The Judiciary's Distracted Application of Free Speech and Personal Jurisdiction Doctrines to the Internet*, 77 OR. L. REV. 1125, 1125 (1998) (labeling *Reno* the Court's "initial voyage to cyberspace"); Deborah, *Historic Supreme Court Decisions: Free Expression on the Internet and Protection for Consensual Sex*, LEGAL INFO. INST. (June 26, 2008, 6:00 AM), http://blog.law.cornell.edu/blog/2008/06/26/historic-supreme-court-decisions-free-expression-on-the-internet-and-protection-for-consensual-sex/ (calling the decision "the first major Supreme Court ruling regarding the regulation of materials distributed via the Internet").

19. *Reno*, 521 U.S. at 858–60.

20. *See id.* at 849 ("[T]he character and the dimensions of the Internet, the availability of sexually explicit material in that medium, and the problems confronting age verification . . . . provide the underpinnings for the legal issues . . . .").

21. *Id.* at 849 & n.2; *see also* Tony Mauro, *High Court Decidedly Disconnected from Case*, USA TODAY, Mar. 19, 1997, at A2 (reporting that the three-judge panel at the district court benefited from live, in-court demonstrations of the Internet).

22. Kende, *supra* note 18, at 1125 ("Before ruling in [*Reno*], several Justices apparently received a lesson on how to navigate the World Wide Web from their law clerks." (footnote omitted)); Tony Mauro, *The Hidden Power Behind the Supreme Court: Justices Give Pivotal Role to Novice Lawyers*, USA TODAY, Mar. 13, 1998, at A1.

23. *See* Oral Argument at 00:04, *Reno*, 521 U.S. 844 (No. 96-511), *available at* http://www.oyez.org/cases/1990-1999/1996/1996_96_511 ("[E]ach counsel will be allowed thirty-five minutes instead of the usual thirty in this case.").

24. William Dong & Jim Riley, Lessons for John Roberts: An Analytical Comparison of Marshall and Rehnquist (Apr. 27, 2009) (unpublished manuscript), *available at* http://academic.regis.edu/jriley/Lessons%20for%20John%20Roberts.htm. Rehnquist apparently believed that "a good lawyer should be able to make his argument in on[e] half hour." *Id.* He was known to allow argument to run over time "only in complex cases or those of particular importance to the public." *Id.*

Oral argument revealed the Court's discomfort with the Internet. Justice Scalia, one of the most tech-savvy members of the Court,[25] self-deprecatingly told one attorney, "If I had to be present whenever my 16-year-old is on the Internet, I would know less about this case than I know today."[26] Justice Scalia's joke contained at least a grain of truth. On multiple occasions during the argument, Justice Scalia's understanding of the Internet was corrected by counsel. Discussing a hypothetical analogizing the Internet to a physical bookstore, counsel reminded the Court about "the way the Internet works."[27] After Justice Scalia asserted that parental control technologies were ineffective at preventing children from accessing inappropriate content, counsel boldly interjected, "That's wrong, Justice Scalia."[28] The attorneys on both sides of the bench appeared far more comfortable discussing the law than the facts.

In an effort to understand the Internet, many of the "Justices seemed bent on finding the appropriate analogy which would tie the Internet to some existing line of First Amendment jurisprudence."[29] Justice Breyer thought of the Internet as akin to the telephone.[30] Justice Scalia preferred print materials, like those in physical bookstores.[31] Chief Justice Rehnquist felt the best comparison was to radio.[32] While these various analogies may have been helpful in shaping the contours of the Justices' legal thinking in the abstract, they offered the Court zero guidance on the most important facet of the case: the technology itself.

The Court's written opinion in *Reno* gives readers a false sense of security regarding just how well the Court understood the technologies at issue. Justice John Paul Stevens's majority opinion opened with a lengthy

---

25. Justice Scalia revealed at oral argument that he discards his computer "every five years," indicating he at least owned a computer at the time. Oral Argument at 51:46, *Reno*, 521 U.S. 844 (No. 96-511), *available at* http://www.oyez.org/cases/1990-1999/1996/1996_96_511. Justice Scalia is currently known to read briefs on an iPad. Jan Crawford, *Kagan's Kindle vs. Scalia's iPad*, CBS NEWS (Dec. 13, 2010), http://www.cbsnews.com/8301-504564_162-20025455-504564.html.

26. Oral Argument at 01:07:00, *Reno*, 521 U.S. 844 (No. 96-511), *available at* http://www.oyez.org/cases/1990-1999/1996/1996_96_511.

27. *See id.* at 56:59 ("Justice Scalia, the way the Internet works, a child using a search engine can sit down at their typewriter and they type in, if they want to go somewhere, and it's important to stress that in cyberspace, listeners must affirmatively choose where they want to go.").

28. *See id.* at 01:06:09 ("That's wrong, Justice Scalia. Right now . . . I'm a parent. I subscribe to one of the major online service providers. I clicked the kids only box. And that means my child does not have any access to the Internet unless I'm there to supervise.").

29. *See* Am. Libraries Ass'n v. Pataki, 969 F. Supp. 160, 161 (S.D.N.Y. 1997) (discussing the oral argument in *Reno*).

30. *See* Oral Argument at 30:04, *Reno*, 521 U.S. 844 (No. 96-511), *available at* http://www.oyez.org/cases/1990-1999/1996/1996_96_511 ("But the Internet is rather like the telephone.").

31. *See id.* at 35:44 ("Let's take printed communications.").

32. *See id.* at 41:08 ("Well, what about the first radio people, you know, before the Federal Radio Act in 1927?").

description of the Internet.[33] For all the detail contained in these opening pages, the Court made a surprising number of factual mistakes.[34] The Court pushed aside comparisons to broadcast mediums like television because the Internet seemed far less invasive,[35] when in reality the Internet's interactivity and anonymity make it far more dangerous to unsupervised children than television shows or radio broadcasts.[36] Moreover, the Court's position was based on the notion that pornographic material was virtually impossible to encounter accidentally,[37] a conclusion even a novice Internet user would dispute.[38] Although the Court recognized the presence of "[s]exually explicit material" on the Internet, the Justices' own unfamiliarity with the medium no doubt tempered their understanding of what the district court meant by content "extend[ing] from the modestly titillating to the hardest-core."[39] Perhaps most damningly, the Court's consideration of various alternatives, a crucial prong of the strict scrutiny approach, was riddled with inaccurate depictions of the effectiveness of the alternative technological approaches.[40] The impact of these mistakes is explored in Part III.

---

33. *Reno*, 521 U.S. at 850–57. The Court's discussion of the Internet comprises roughly one-fifth of the entire majority opinion.

34. *See* Kende, *supra* note 18, at 1161 ("The *Reno* opinion contains significant factual errors and omissions in its cyberspace discussion.").

35. *Reno*, 521 U.S. at 869.

36. *See* Kende, *supra* note 18, at 1161–62 ("The most serious omission of the *Reno* decision is the Court's unwillingness to confront the Internet's socially harmful qualities . . . .").

37. *Reno*, 521 U.S. at 869.

38. *See* David K. Djavaherian, Reno v. ACLU, 13 BERKELEY TECH. L.J. 371, 380 (1998) ("[S]eemingly innocuous net-searches such as 'teen,' 'eagle,' or 'candy' may lead users directly and unwittingly to sexually explicit web sites."); Cheryl B. Preston, *The Internet and Pornography: What If Congress and the Supreme Court Had Been Comprised of Techies in 1995–1997?*, 2008 MICH. ST. L. REV. 61, 68 (2008) ("Oh, the magic of clicking."). One unfortunate example is the domain name www.whitehouse.com, which, from 1997 to 2004, was a hardcore pornography site. Ted Bridis, *Whitehouse.com to Get Out of the Porn Business*, SEATTLE POST-INTELLIGENCER, Feb. 10, 2004, http://www.seattlepi.com/business/article/Whitehouse-com-to-get-out-of-the-porn-business-1136674.php. The owner decided to sell the domain name, which was "frequently confused with the official government site, www.whitehouse.gov," because "he [was] worried what his preschool-age son might think." *Id.*

39. *Reno*, 521 U.S. at 853; *see also* Kende, *supra* note 18, at 1163 ("[S]exually explicit material is frequently more graphic and disgusting on the Internet than on television . . . ."). On the modern Internet, a concept known as "Rule 34" postulates, with unsettling accuracy, "that pornography or sexually related material exists for any conceivable subject." Nukeitall, *Rule 34*, URB. DICTIONARY (Mar. 30, 2006), http://www.urbandictionary.com/define.php?term=Rule%2034; *see also* James, *Rule 34*, KNOW YOUR MEME, http://knowyourmeme.com/memes/rule-34 (discussing the history of Rule 34).

40. *See* Eugene Volokh, *Freedom of Speech, Shielding Children, and Transcending Balancing*, 1997 SUP. CT. REV. 141, 142, 156 (1997) (arguing that *Reno* "rests on a factually incorrect assertion" that equally effective alternatives existed, and noting that "[w]herever the Court got the erroneous notion that the alternatives would be equally effective, it wasn't from the findings below or from any concessions by the government").

2. City of Ontario v. Quon.—More than a decade after *Reno*, the Court faced a new set of technological troubles in *City of Ontario v. Quon*.[41] Jeff Quon, a SWAT Team officer, sued his employer, alleging a violation of his Fourth Amendment rights stemming from a search of messages sent and received by Quon's employer-issued pager.[42] The search revealed that Quon had been using the pager to exchange personal messages while on duty.[43] The sexually explicit nature of many of the messages led the media to dub *Quon* the "sexting case."[44] *Quon* offered the Court a chance to bring its workplace privacy doctrine into the modern communications era.[45]

Oral argument once again highlighted the difficulties the Justices faced in understanding the technology at issue. Chief Justice Roberts, after suggesting he may be a bit behind the rest of the bench, asked what the difference was "between a pager and e-mail."[46] Later in the argument, the Chief Justice again demonstrated his lack of familiarity with text-messaging technology by asking if users "get a busy signal" when they text an individual currently typing a message on a pager.[47] Justice Anthony Kennedy (jokingly?) suggested that the sender in that scenario might encounter "a voice mail saying that your call is very important to us; we'll get back to you."[48] A significant amount of confusion ensued when counsel revealed that text messages were routed through a carrier rather than sent directly from pager to pager.[49] Justice Scalia wanted to know if Quon could print out his "spicy conversations . . . and circulate them among his buddies,"[50] while Justice Alito asked twice—receiving a different answer each time—whether messages could be deleted from pagers by their users.[51]

---

41. 130 S. Ct. 2619 (2010).

42. *Id.* at 2625–26.

43. *Id.* at 2626.

44. *E.g.*, Lee Ross, *Supreme Court Hears Arguments in California 'Sexting' Case*, FOX NEWS (Apr. 19, 2010), http://www.foxnews.com/politics/2010/04/19/supreme-court-hears-arguments-california-sexting-case/; Eve Tahmincioglu, *Sexting Case Raises Workplace Privacy Issues*, MSNBC (Apr. 19, 2010), http://www.msnbc.msn.com/id/36602035/ns/business-careers/t/sexting-case-raises-workplace-privacy-issues/#.

45. *See* Marissa A. Lalli, *Spicy Little Conversations: Technology in the Workplace and a Call for a New Cross-Doctrinal Jurisprudence*, 48 AM. CRIM. L. REV. 243, 245–46 (2011) ("The Supreme Court had an opportunity to adapt the outdated [*O'Connor v. Ortega*, 480 U.S. 709 (1987)] test to the new generation of communications technology." (internal quotation marks omitted)).

46. Transcript of Oral Argument at 29, *Quon*, 130 S. Ct. 2619 (No. 08-1332).

47. *Id.* at 44. Chief Justice Roberts also wanted to know if the recipient of a text message knew "where the message was coming from." *Id.*

48. *Id.*

49. *See id.* at 49 ("CHIEF JUSTICE ROBERTS: Well, I didn't—I wouldn't think that. I thought, you know, you push a button; it goes right to the other thing. (Laughter.) MR. DAMMEIER: Well—JUSTICE SCALIA: You mean it doesn't go right to the other thing? (Laughter.)").

50. *Id.*

51. *Id.* at 51, 53.

Given the startling amount of confusion about the functionality of Quon's pager, it is unsurprising that the Court opted to simply avoid the technology issues and decide the case "on narrower grounds."[52] The Court noted that "[t]he judiciary risks error by elaborating too fully on the Fourth Amendment implications of emerging technology before its role in society has become clear."[53] Further, because "[a] broad holding concerning employees' privacy expectations vis-à-vis employer-provided technological equipment might have implications for future cases that cannot be predicted," the Court assumed without deciding that Quon had a reasonable expectation of privacy, was subjected to a search, and that the traditional legal rules for employee privacy applied to electronic communications.[54] In other words, the technological implications of pagers—a technology whose use had peaked in the 1990s and was largely replaced by mobile phone text messaging long before 2010[55]—were not yet ripe for the Court to consider.[56] Part III explores the ramifications of the Court's hesitance.

3. Brown v. Entertainment Merchants Ass'n.—The Supreme Court ventured into the realm of violent video games in *Brown v. Entertainment Merchants Ass'n*.[57] In 2005, California enacted a law prohibiting "the sale or rental of 'violent video games' to minors."[58] Before it could be enforced, the district court permanently enjoined enforcement of the law because it violated the First Amendment, and the Ninth Circuit affirmed.[59] The Supreme Court confirmed that the First Amendment applied to video games, and reaffirmed that old rules can apply to new technologies.[60]

The oral argument in *Brown* touched only briefly on video game technology. Justice Kennedy posited that the V-chip might be a less restrictive alternative, but relented when counsel revealed that the V-chip only applies to television broadcasts, not video games.[61] Justice Kagan suggested that "half of the clerks who work for [the Court] spent

52. *Quon*, 130 S. Ct. at 2630.

53. *Id.* at 2629 (citing its decision to overrule *Olmstead v. United States*, 277 U.S. 438 (1928), in *Katz v. United States*, 389 U.S. 347 (1967), as a reason for its reluctance to construe Fourth Amendment rights too narrowly).

54. *Id.* at 2630.

55. *See* Arik Hesseldahl, *Death of the Pager?*, FORBES (Dec. 13, 2001), http://www.forbes.com/2001/12/13/1213tentech.html (reporting that Motorola, "the world's biggest manufacturer of paging devices," had decided to stop making pagers in light of developing mobile phone technology).

56. George M. Dery III, *Legal Limbo: The Supreme Court's Discomfort with Technology in* City of Ontario v. Quon *Caused It to Confuse the Definition of a Fourth Amendment Search*, 22 GEO. MASON U. C.R. L.J. 61, 62 (2011).

57. 131 S. Ct. 2729 (2011).

58. *Id.* at 2732.

59. *Id.* at 2733.

60. *Id.*

61. Transcript of Oral Argument at 25, *Brown*, 131 S. Ct. 2729 (No. 08-1448).

considerable amounts of time in their adolescence playing" Mortal Kombat, a game she called "iconic."[62] Amidst the laughter that followed, Justice Scalia (perhaps facetiously) interjected that he did not know what Justice Kagan was talking about.[63] But on the whole, the Justices seemed comfortable in the realm of the First Amendment and preferred to discuss violence, obscenity, vagueness, and various line-drawing problems rather than the video games themselves.

The five-member majority, led by Justice Scalia, followed the trend of the oral argument, spending relatively little time discussing video games themselves, and instead focused on cementing video games within the realm of the First Amendment's protections and subjecting the California statute to the traditional strict scrutiny test, which it failed.[64] Justice Breyer dissented, disagreeing that the statute was unconstitutionally vague and finding the rigors of strict scrutiny satisfied.[65] Justice Clarence Thomas dissented on the grounds that the First Amendment, "as originally understood, [did] not include a right to speak to minors (or a right of minors to access speech) without going through the minors' parents or guardians."[66]

Justice Samuel Alito, joined by Chief Justice Roberts, concurred in the judgment because the California statute was "well intentioned" but "not framed with the precision that the Constitution demands."[67] But Justice Alito forcefully disagreed with the majority's blasé extension of the First Amendment to video games. Noting the dangers inherent in applying "unchanging constitutional principles to new and rapidly evolving technology," Justice Alito argued that the Court should "proceed with caution" and "make every effort to understand the new technology."[68] Yet Justice Alito's efforts to understand video games—whatever form they took—resulted in a description of the video game industry that an average gamer would scoff at.

To hear Justice Alito tell it, modern video gaming is a stone's throw away from *The Matrix* in the flesh. Graphics are now "strikingly realistic," and will soon be "virtually indistinguishable from actual video footage."[69] Three-dimensional gaming is just around the corner, as is "sensory feedback" that will have children gunning down their friends and feeling blood splatter on their faces.[70] Games are ultra-violent and antisocial, touching on subjects like the Columbine High School and Virginia Tech shootings, raping Native

62. *Id.* at 58–59.
63. *Id.* at 59.
64. *Brown*, 131 S. Ct. at 2733–42.
65. *Id.* at 2761–62 (Breyer, J., dissenting).
66. *Id.* at 2751 (Thomas, J., dissenting).
67. *Id.* at 2742 (Alito, J., concurring).
68. *Id.*
69. *Id.* at 2748 (citing Kyle Chayka, *Photorealism in Crisis*, KILL SCREEN (May 17, 2011), http://killscreendaily.com/articles/visual-games-photorealism-crisis).
70. *Id.* at 2748–49.

American women, and the assassination of President John F. Kennedy.[71] These realities, Justice Alito concludes, may render video games legally distinct from other forms of protected speech like television, movies, or books.[72]

Today's gamers would likely tell a different story. While the graphical fidelity of games has improved year after year, no game looks truly *real*[73]—indeed, the gaming industry has a concept known as the "Uncanny Valley" which posits that graphics approaching photorealism are judged more harshly by audiences than less realistic graphics.[74] Three-dimensional gaming does exist currently, in the same way that three-dimensional television and movies exist (and have existed for years).[75] Today's "3D" adds depth to images, but it is a far cry from the "realistic alternate worlds" Justice Alito fears may destroy the barrier between reality and fantasy.[76] Sensory feedback has existed in gaming since the 1980s,[77] though the examples Justice Alito points to are third-party gimmicks with limited commercial appeal.[78] Finally, Justice Alito looks to the basest forms of video game entertainment—the industry's equivalent of snuff films—as exemplars of the genre's standard

71. *Id.* at 2749–50.

72. *Id.* at 2751.

73. Justice Alito's own source on this point admits as much. *See* Chayka, *supra* note 69 ("After all, a videogame is never going to be real. Even a photograph—a chip or piece of film exposed to light—is more inherently connected to physical reality. Videogames, in contrast, are only depictions and representations of reality, artificial approximations.").

74. *See* Ross Miller, *Uncanny: L.A. Noire, Blade Runner, and Gaming's Quest to Capture Humanity*, VERGE (June 22, 2011), http://www.theverge.com/2011/06/22/uncanny-valley-la-noire-blade-runner-heavy-rain/ (describing the origins of the Uncanny Valley in robotics and applying the concept to video game graphics). The Uncanny Valley can only be spanned by creating a character "so similar to a human being that you couldn't tell the difference," something no game to date has done. *Id.*

75. For example, Nintendo offers a handheld gaming device that supports glasses-free 3D. *Nintendo 3DS*, NINTENDO, http://www.nintendo.com/3ds/features/.

76. *See Brown*, 131 S. Ct. at 2748 (Alito, J., concurring) ("These games feature visual imagery and sounds that are strikingly realistic, and in the near future video-game graphics may be virtually indistinguishable from actual video footage.").

77. *See* IAN BOGOST, HOW TO DO THINGS WITH VIDEOGAMES 80–82 (2011) (discussing the origins of haptic feedback and various applications of the Nintendo 64's Rumble Pak accessory).

78. *See, e.g.*, Coyote, *Stop Stop Gadget EVERYTHING!*, TEN TON HAMMER (Nov. 10, 2008), http://www.tentonhammer.com/node/48999 (including the Mindwire V5 and Feedback Vest discussed by Justice Alito on a list of "Gadgets and Gimmicks NO Geek Needs"). The example of a feedback device simulating blood splatter—an example Justice Alito conjures up twice for rhetorical effect—is a total bogeyman: Justice Alito's source merely *predicts* such technology will be in the average household by 2054. HAROLD SCHECTER, SAVAGE PASTIMES: A CULTURAL HISTORY OF VIOLENT ENTERTAINMENT 18 (2005). Even if this hypothetical blood-splatter device were a commonly used technology in 2054, it would be decades behind today's "4D" movie theaters that have been spraying audiences with water or turning on fans to simulate high winds for decades. *See, e.g.*, Kimberly A. Neuendorf & Evan A. Lieberman, *Film: The Original Immersive Medium*, *in* IMMERSED IN MEDIA: TELEPRESENCE IN EVERYDAY LIFE 9, 17–18 (Cheryl Campanella Bracken & Paul D. Skalski eds., 2010) (describing 4D films).

fare.[79] Moreover, the vast majority of modern games do not contain "explicit violence or sexual themes."[80] The concurrence erects a straw man of the video game industry that anyone familiar with games can immediately recognize.[81] The implications of the Court's approaches in *Brown* are explored more fully in Part III.

B. The Failure of Status Quo Solutions

The preceding examples illustrate the problems the Court faces when attempting to tackle new technologies, and suggest that the current methods of addressing this technological deficit are inadequate. The best indication that the system is broken may be the Justices themselves, who sometimes openly engage in independent, outside-the-record research on both legal and factual issues.[82] In particular, the two most obvious sources of assistance—

---

79. *Custer's Revenge*, the 1982 Atari 2600 game in which a naked General Custer attempts to "score" with a Native American woman, is recognized as "one of the most controversial and bizarre games ever released." Fragmaster, *Game of the Week: Custer's Revenge*, CLASSIC GAMING, http://classicgaming.gamespy.com/View.php?view=GameMuseum.Detail&id=282. The *School Shooter* game is actually a user-made modification to a popular, uncontroversial, and well-received game. *See* Jim Sterling, *School Shooter: The Case for 'Sick' Videogames*, DESTRUCTOID (Feb. 28, 2011), http://www.destructoid.com/school-shooter-the-case-for-sick-videogames-195296.phtml ("It's not like *School Shooter* is ever going to be in the vanguard of a great cultural revolution. It is, at the end of the day, a simple *Half-Life* mod that is probably getting a little bit too much attention."). Reviewing *School Shooter*, Jim Sterling remarked:

> I cannot in good conscience claim to be upset at the existence of a tasteless game, and I would hope that most of you feel the same way. Not because I think we should all feel compelled to actively *celebrate* the game, but because I am a staunch believer that the cherry-picking of offensive content is utterly disingenuous.

Id.

80. *See* Adam Thierer, *Fact and Fiction in the Debate Over Video Game Regulation*, PROGRESS ON POINT, Mar. 2006, at 11–12 (revealing that "over 87 percent of all games sold in 2005 were rated either 'Early Childhood' (EC), 'Everyone' (E), 'Everyone 10 and older' (E10+), or 'Teen' (T)" and that "for the top 20 video games and PC titles between 2001-2005 . . . over 80 percent of the most popular games were rated either 'E' or 'T'"); *see also* Adam Thierer, *Again, Most Video Games Are Not Violent*, TECH. LIBERATION FRONT (Mar. 21, 2011), http://techliberation.com/2011/03/21/again-most-video-games-are-not-violent/ (reporting similar figures in 2010).

81. *See* Mark Methenitis, *LGJ: On* Brown v. Entertainment Merchants Assn., JOYSTIQ (July 4, 2011), http://www.joystiq.com/2011/07/04/lgj-on-brown-v-entertainment-merchants-assn/ ("In fact, the citing of these games in various parts of the opinion, primarily the concurring opinion, is more red herring than substance; this law wouldn't make titles like RapeLay any more or less available.").

82. *See, e.g.*, Brown v. Entm't Merchs. Ass'n, 131 S. Ct. 2729, 2771–79 (2011) (Breyer, J., dissenting) (collecting, in two appendixes, "peer-reviewed academic journal articles on the topic of psychological harm resulting from playing violent video games," including sources not available to the California legislature or the parties); Brianne J. Gorod, *The Adversarial Myth: Appellate Court Extra-Record Factfinding*, 61 DUKE L.J. 1, 4 (2011) (explaining that Chief Justice Roberts showed "the ease with which judges can engage in independent research when, during oral argument in a case challenging the constitutionality of an Arizona campaign finance law, he noted that he 'checked the Citizens' Clean Elections Commission website [that] morning' to determine the purpose of the statute" (quoting Transcript of Oral Argument at 48, Ariz. Free Enter. Club's Freedom Club PAC v. Bennett, 131 S. Ct. 2806 (2011) (No. 10-238)).

the various written documents available to the Court and the Justices' own law clerks—do not offer sufficient help to inquisitive justices.

1. The Written Word: Opinions Below, Party Briefs, & Amicus Briefs.—"Appellate opinions are only as robust as the facts on which they are based."[83] The two most obvious places for the Court to look to for factual information are the two decisions below, first at the trial court and then at the appellate court. But emerging technologies pose a special problem: by their nature they are developing and changing, often rapidly, in ways that risk rendering lower court findings outdated and inaccurate.[84] This problem no doubt contributed to the flaws in the Supreme Court's opinion in *Reno*,[85] even though that case moved from motion for preliminary injunction to Supreme Court opinion in less than two years.[86] Knowledge of this risk routinely leads the Court to avoid squarely confronting the legal issues raised by new technologies.[87]

The briefs filed in a case may be even less helpful than the opinions below. Supreme Court briefs must adhere to strict word limits,[88] and the complexity of the novel legal issues naturally militates against spending "extra" words educating the Justices about the technologies involved. The

---

83. Stuart Minor Benjamin, *Stepping into the Same River Twice: Rapidly Changing Facts and the Appellate Process*, 78 TEXAS L. REV. 269, 272 (1999).

84. *See id.* at 271 ("What if, for example, factual findings regarding the Internet on which the Supreme Court relied in *Reno v. ACLU* are now outdated, such that the Communications Decency Act . . . merits new consideration as a possibly constitutional statute?" (footnote omitted)); *see also* Oral Argument at 51:51, Reno v. ACLU, 521 U.S. 844 (1997) (No. 96-511), *available at* http://www.oyez.org/cases/1990-1999/1996/1996_96_511 ("[JUSTICE SCALIA:] This is an area where change is enormously rapid. Is it possible that this statute is unconstitutional today, or was unconstitutional two years ago when it was examined on the basis of a record done about two years ago, but will be constitutional next week?").

85. *See* Preston, *supra* note 38, at 68 ("But some of the Court's stated assumptions about Internet use now incite reactions ranging from snickering to outright laughter from the students in my Internet Regulation classes and random thirteen-to-seventeen-year-olds."); *see also supra* notes 34–40 and accompanying text.

86. The initial pleading in *Reno*—a motion for preliminary injunction—was filed on February 8, 1996, and the Supreme Court decided the case on June 26, 1997. Plaintiffs' Memorandum of Law in Support of a Motion for a Temporary Restraining Order and Preliminary Injunction, ACLU v. Reno, 929 F. Supp. 824 (E.D. Pa. 1996) (No. 96-963), 1996 WL 33489551; ACLU v. Reno, 521 U.S. 844.

87. *See, e.g.*, *Brown*, 131 S. Ct. at 2742 (Alito, J., concurring) ("In considering the application of unchanging constitutional principles to new and rapidly evolving technology, this Court should proceed with caution."). Fourth Amendment cases may be an exception to this general practice. *See, e.g.*, Kyllo v. United States, 533 U.S. 27, 36 (2001) ("While the technology used in the present case was relatively crude, the rule we adopt must take account of more sophisticated systems that are already in use or in development."). *But see* United States v. Jones, 132 S. Ct. 945, 957–58 (2012) (Alito, J., concurring) (criticizing Justice Scalia's majority opinion for deciding a Fourth Amendment case about GPS tracking devices using "18th-century tort law" rather than asking whether the challenged use of "a 21st-century surveillance technique" violated the respondent's "reasonable expectations of privacy").

88. A typical merits brief, for example, may not exceed 15,000 words, including footnotes. SUP. CT. R. 33.1(g)(v)–(vi). Amicus merits briefs are limited to 9,000 words. *Id.* 33.1(g)(xi)–(xii).

parties also have no way of determining what the Justices know, or do not know, about the technology beforehand.[89] Trial counsel may also have constructed the record below without a Supreme Court appeal in mind, and thus significant background information may be outside the record and perceived as off limits.[90] Even if counsel contemplated and adequately prepared for a fact-heavy appeal, the Court may ultimately deem the technological issues too tough to tackle, as in *Quon*, and essentially ignore large swaths of the record. Amicus briefs fare no better. The Justices may not read them at all,[91] and a clerk's quick skim may miss new factual information because the clerks tend to focus on quickly identifying new *legal* arguments to separate the wheat from the chaff.[92] The usefulness of amicus briefs is also hampered by the fact that the Justices cannot question the amici directly (except in rare circumstances when an amicus is granted time at oral argument[93]), and thus must rely on the parties to explain the arguments of their "friends."[94]

2. Relying on "The Elect"—Supreme Court Law Clerks.[95]—Federal judges have long relied on their clerks to assist them in the performance of their judicial duties. On the Court of Appeals for the Federal Circuit, some judges view their young clerks as "the modern brains at the court."[96] One attorney involved in *Reno* hoped that a combination of clerks and the

89. Although, as this Note suggests, "little" is often a safe bet in cases dealing with new technologies.

90. When Chief Justice Roberts asked counsel in *Quon* about the possibility of receiving a busy signal when sending a text message to a pager, counsel responded: "I don't think that's in the record. However, my understanding is that you would get it in between messages." Transcript of Oral Argument at 44, City of Ontario v. Quon, 130 S. Ct. 2619 (2010) (No. 08-1332). Similarly, counsel in *Reno* responded to a question about the efficacy of programs that screen Internet users for age: "The fact that the Government is forced to refer to extra-record material shows there is no evidence in this record that you can [effectively screen]." Oral Argument at 38:54, *Reno*, 521 U.S. 844 (No. 96-511), *available at* http://www.oyez.org/cases/1990-1999/1996/1996_96_511.

91. *See* Rebecca Haw, *Amicus Briefs and the Sherman Act: Why Antitrust Needs a New Deal*, 89 TEXAS L. REV. 1247, 1259 (2011) ("Justices have no obligation to respond to amicus briefs—indeed they don't even have to read them."); *id.* at 1265 ("Whether and how carefully Justices even read amicus briefs varies greatly by Justice, as does the extent to which clerks are expected to inform a Justice about amicus arguments. Unlike the parties' briefs, at least some amicus briefs probably do not get read at all." (footnote omitted)).

92. Kelly J. Lynch, *Best Friends? Supreme Court Law Clerks on Effective Amicus Curiae Briefs*, 20 J.L. & POL. 33, 43–44 (2004).

93. SUP. CT. R. 28.7.

94. Haw, *supra* note 91, at 1265.

95. Adam Liptak, *A Justice Slows His Hiring, and Some Wonder About His Future*, N.Y. TIMES, Sept. 2, 2009, http://www.nytimes.com/2009/09/03/us/03stevens.html?_r=3 ("On [the legal blog] Above The Law, Supreme Court clerks are called the Elect.").

96. James F. Davis, *Interview with Judge Giles S. Rich*, 9 FED. CIR. B.J. 55, 67 (2000). Judge Rich recalls newly-minted Judge Lindsey Almond asking him how to handle technological cases without first-hand knowledge of the technology. *Id.* His response: "Well Lindsey, [it's] no secret, this is how you do it. You hire a law clerk who knows the technology." *Id.* (internal quotation marks omitted).

Justices' own grandchildren would help the Court understand the Internet.[97] Justice Stevens even allowed his clerks to pen portions of that opinion based on their "unusual interest" in the subject matter, even though the Justice openly confessed that he never truly understands a case until he drafts the opinion.[98]

But relying on the Elect to educate the Court brings its own set of problems. First, whatever knowledge the clerks may impart does not benefit from the traditional adversarial process.[99] This problem was borne out in *Reno*, where the clerks, despite being "internet whizzes,"[100] nevertheless produced an opinion wrought with factual errors about the nature of the Internet.[101] Further, because the Elect differ from their Federal Circuit brethren in that they are not generally hired with an eye to their technical backgrounds or special expertise, there is no guarantee that the clerks will actually be knowledgeable about any given technology, let alone in any helpful way.[102] Second, reliance on individual clerks risks putting individual Justices at an informational advantage (or disadvantage), which harms the Court's ultimate goal of arriving at a consensus decision. Third, because the Justices themselves are the final arbiters of the content of the Court's opinions, even tech-savvy clerks may be forced to ignore or skirt technological issues based on their bosses' orders.[103] Finally, whatever problems plague the Court's reliance on the record and briefs also affect the clerks. When it comes to amicus briefs in particular, a clerk may be the only one at the Court to read a particular brief,[104] and may dedicate as little as sixty seconds to the task.[105]

III. The Dangers of Technological Illiteracy

One possible reaction to the Supreme Court's technological gap is to simply ask, "so what?" The American judicial system, filled with generalist

---

97. *See* Mauro, *supra* note 21 ("'The clerks are bright, and they're part of the right generation,' Solano said. 'So between the clerks and the justices' grandchildren, we hope they'll understand this new medium.'").

98. Mauro, *supra* note 22.

99. *See* Gorod, *supra* note 82, at 2 ("The United States' commitment to an adversarial system of justice is a defining and distinctive feature of its legal system." (footnote omitted)).

100. Mauro, *supra* note 22.

101. *See supra* notes 34–40 and accompanying text.

102. *Cf.* Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 18 (2001) ("The Federal Circuit judges do, however, generally hire law clerks with various technical backgrounds to assist them with their cases.").

103. For example, a clerk working on the *Quon* opinion would be unlikely to tell her boss that pagers stopped being considered an "emerging technology" when the clerk was in grade school. *See supra* note 53 and accompanying text.

104. *See supra* note 91–93 and accompanying text.

105. *See* Lynch, *supra* note 92, at 43–46 (concluding that most clerks at least skimmed each amicus brief after using a variety of informational shortcuts to determine whether each brief was worthy of more attention).

judges, has survived through centuries of technological innovation. There are, of course, historic examples of the Court advancing technologically indefensible arguments. In 1928, a sharply divided Court decided that wiretaps were not "searches" within the meaning of the Fourth Amendment because they did not involve a physical invasion of the home.[106] Justice Brandeis's prescient, haunting dissent[107] eventually persuaded the Court, nearly fifty years later, to reverse course.[108] Yet despite its occasional failings, the Supreme Court continues to enjoy a level of respect and support that few courts across the globe can match.[109] Is this perpetual technological gap at the Court merely a case of harmless error?

This part argues that two specific harms flow from the Court's failure to fully comprehend technology, and these two harms justify making the changes necessary to close the Court's technological gap. First, the Court's technological troubles have the potential to impact the decisions that the Court renders on the merits. In the worst case scenario, the Court could reach an incorrect conclusion based on an erroneous factual premise. In less dramatic situations, the Court may craft overly broad (or narrow) rules, needlessly complicate legal doctrines, or simply refuse to provide guidance on difficult but timely questions that require a serious grasp of the technologies involved. Second, the Court's lack of familiarity and comfort with modern technology exposes the Court to public ridicule and harms the Court's most valuable commodity: legitimacy. With rapid technological changes now creeping into nearly every aspect of the law,[110] a procedural adjustment seems warranted.

---

106. Olmstead v. United States, 277 U.S. 438, 466 (1928), *overruled by* Katz v. United States, 389 U.S. 347 (1967), *and* Berger v. New York, 388 U.S. 41 (1967).

107. *See id.* at 471–85 (Brandeis, J., dissenting). In response to the majority opinion, Justice Brandeis noted,

> Moreover, "in the application of a constitution, our contemplation cannot be only of what has been but of what may be." The progress of science in furnishing the Government with means of espionage is not likely to stop with wire-tapping. Ways may some day be developed by which the Government, without removing papers from secret drawers, can reproduce them in court, and by which it will be enabled to expose to a jury the most intimate occurrences of the home. Advances in the psychic and related sciences may bring means of exploring unexpressed beliefs, thoughts and emotions. "That places the liberty of every man in the hands of every petty officer" was said by James Otis of much lesser intrusions than these. To Lord Camden, a far slighter intrusion seemed "subversive of all the comforts of society." Can it be that the Constitution affords no protection against such invasions of individual security?

Id. at 474 (footnotes omitted).

108. *See Katz*, 389 U.S. at 352–53 (concluding that the Fourth Amendment protects people, not places, and thus no physical trespass is required for a search to occur).

109. *See* James L. Gibson & Gregory A. Caldeira, *Has Legal Realism Damaged the Legitimacy of the U.S. Supreme Court?*, 45 LAW & SOC'Y REV. 195, 199 (2011) (reporting that "few courts in the world have accumulated more institutional support than the Supreme Court").

110. *See A Conversation with Chief Justice Roberts* at 40:25 (C-Span television broadcast June 25, 2011), *available at* http://www.c-spanvideo.org/program/FourthCi ("The impact of the new technology on substantive law is really quite significant. . . . [I]t's going to be a great challenge both in the substantive area and for many of us to try to keep up with new technology . . . .").

A. Missing the Mark on the Merits

1. Threatening the Validity of the Court's Holdings.—The idea that the Supreme Court of the United States could be seriously wrong about the factual underpinnings of a case may seem far-fetched, but the risk is more fact than fiction. The Court's 2008 decision in *Kennedy v. Louisiana*[111] provides a recent example. The Eighth Amendment issue in the case turned in large part on the existence (or nonexistence) of national consensus in favor of the death penalty for child rape.[112] Both the majority and the dissent agreed that federal law did not authorize capital punishment for the crime.[113] Within days of the opinion being released, a military law blogger revealed that the Court, as well as both parties and all the amici, had "overlooked" a provision of a 2006 omnibus military authorization bill that "amended the Uniform Code of Military Justice to add the death penalty for child rape."[114]

Revelation of the "factual flaw" in the Court's opinion spread like wildfire.[115] The White House was "disturbed" by the Court's "mistake,"[116] while Congress "asked the Justices to rehear the case because 'a central factual basis for the majority opinion was not only incomplete, but inaccurate.'"[117] Harvard Law professor Laurence Tribe called the Court's decision "seriously misinformed."[118] Rather than rehear the case, the Justices opted to modify their opinions, though the result remained the same.[119]

Such mistakes are even more likely when the Court confronts unfamiliar technology. Though the Court ultimately reached the correct result in

---

111. 554 U.S. 407, *modified on denial of reh'g*, 554 U.S. 945 (2008).

112. *See id.* at 419 (noting that whether a punishment is deemed cruel and unusual "is determined not by the standards that prevailed when the Eighth Amendment was adopted in 1791 but by the norms that currently prevail" (footnote omitted) (internal quotation marks omitted)).

113. *Id.* at 422–26; *id.* at 459–61 (Alito, J., dissenting).

114. Douglas E. Abrams, Lochner v. New York *(1905) and* Kennedy v. Louisiana *(2008): Judicial Reliance on Adversary Argument*, 39 HASTINGS CONST. L.Q. 179, 185–86 (2011) (citing National Defense Authorization Act for Fiscal Year 2006, Pub. L No. 109-163, 119, § 553(a) Stat. 3136, 3264 (2006); 10 U.S.C. §§ 856, 920 (2000 and Supp. V 2006); MANUAL FOR COURTS-MARTIAL, UNITED STATES, Part IV, Art. 120, ¶ 45.f(1), p. IV-78 (2008)).

115. Linda Greenhouse, *In Court Ruling on Executions, a Factual Flaw*, N.Y. TIMES, July 2, 2008, http://www.nytimes.com/2008/07/02/washington/02scotus.html.

116. Linda Greenhouse, *Justice Dept. Admits Error in Failure to Brief Court*, N.Y. TIMES, July 3, 2008, http://query.nytimes.com/gst/fullpage.html?res=9E06E0D81239F930A35754C0A96E9C8B63.

117. Abrams, *supra* note 114, at 186 (quoting *Rehberg Calls on Supreme Court to Reconsider Opposition to Death Penalty for Child Rapists*, DENNY REHBERG (July 10, 2008), http://rehberg.house.gov/news-releases/rehberg-calls-on-supreme-court-to-reconsider-opposition-to-death-penalty-for-child-rapists/).

118. Laurence H. Tribe, *The Supreme Court Is Wrong on the Death Penalty*, WALL ST. J., July 31, 2008, http://online.wsj.com/article/SB121746018426398797.html.

119. *See Kennedy*, 554 U.S. at 426 n.* (concluding that "the military penalty does not affect our reasoning or conclusions").

Reno,[120] the Court's factual errors risked corrupting the strict scrutiny inquiry by transforming the traditional search for a "less restrictive alternative" into a search for an alternative that is "at least as effective."[121] That new test would mean that statutes like the CDA would pass constitutional muster with just a little more legwork by Congress.[122] That result "risks dramatically *under*protecting speech in future cases."[123] A Court that better understood the Internet and the capabilities of the tools used to control it may have been less inclined to alter the bounds of the strict scrutiny test and instead decide the case solely on vagueness or overbreadth grounds.

Factual errors also threaten the legal conclusions of the Court in *Brown*. While the five-member majority (correctly) extended full First Amendment protection to video games, "the Court appears to be split into a somewhat more fragile 5–4 alignment than the overall vote [of 7–2 in favor of striking down the California statute] might suggest."[124] Justice Alito's concurrence, premised on a distorted perception of the technology driving the video game industry, makes clear that at least two members of the Court seriously doubt that video games are covered by the First Amendment's umbrella in the same way other forms of media (books, movies, etc.) are.[125] If a single Justice from the narrow majority (for example, the aging Justice Ginsburg) is replaced by a Justice who agrees with Justice Alito, the next video game case could reach a very different result. The two dissenters are unlikely to stand in the way of states who seek to regulate video games, at least as to minors: Justice Thomas because he views the First Amendment as inapplicable,[126] and Justice Breyer because he believes statutes like California's can satisfy strict scrutiny, based partially on his own extensive extra-record research.[127]

2. A Lack of Guidance.—Factual errors also undermine the value of the Court's cases as precedent. "If the facts in the original case are incorrectly stated or analyzed, then the case will be of extremely limited precedential

120. *See, e.g.*, Volokh, *supra* note 40, at 142 ("The decision was widely considered a great victory for free speech, and I agree that it reached the right result." (footnote omitted)).

121. *See id.* at 158 ("A lower court, a legislator, or an executive official can easily read *ACLU* . . . as choosing the 'equally effective alternative' test . . . .").

122. *See id.* at 158–59 (arguing that, in light of the Court's "at least as effective" approach, "Congress could just reenact the CDA whenever it gets enough evidence," and pointing out that "future bans . . . would be constitutional so long as there was no equally effective alternative for shielding children, a factual predicate that would almost always be met").

123. *Id.* at 157.

124. David G. Post, *Sex, Lies, and Videogames:* Brown v. Entertainment Merchants Association, 2010–2011 CATO SUP. CT. REV. 27, 51 (2011).

125. *See* Brown v. Entm't Merchs. Ass'n, 131 S. Ct. 2729, 2751 (2011) (Alito, J., concurring) ("When all of the characteristics of video games are taken into account, there is certainly a reasonable basis for thinking that the experience of playing a video game may be quite different from the experience of reading a book, listening to a radio broadcast, or viewing a movie.").

126. *See supra* note 66 and accompanying text.

127. *See supra* notes 65, 82 and accompanying text.

value."[128] This is especially true when dealing with judge-made rules that involve unclear or ambiguous standards. Such rules are given meaning only by the creation of "benchmark" cases that can serve as useful data points to future litigants.[129] Given the ever-shrinking docket at the Court,[130] maximizing the utility of each case by ensuring that it serves as a strong benchmark is of utmost importance.

Reno is also an example of how the Court's failure to grasp the technology can lead to the creation of an unhelpful benchmark. In *Reno*, the Court oversold the effectiveness of the available technological alternatives to the CDA's general speech ban.[131] The implications of this factual error are myriad. First, Congress was placed in an awkward position, left to guess if the alternatives the Court discussed could be incorporated into a constitutional statute.[132] Second, it creates two classes of future litigants: those who know of the factual errors inherent in the Court's holding and those who do not. Those two classes are likely to approach the *Reno* precedent differently as a benchmark case, resulting in confusion and uncertainty in the lower courts. Third, the Court's de facto endorsement of filtering software encouraged the development of such programs over other alternatives.[133]

This last point deserves a few more words. When the Court speaks, the litigants are not the only ones listening. The choices the Court makes concerning emerging technologies invariably affect the way those technologies develop. A classic example comes from *Sony Corp. of America v. Universal City Studios, Inc.*,[134] the case in which the Court created a copyright "safe harbor" for technologies "capable of substantial

128. Volokh, *supra* note 40, at 157.

129. *Id.* at 161.

130. *See, e.g.*, Richard J. Lazarus, *Advocacy Matters Before and Within the Supreme Court: Transforming the Court by Transforming the Bar*, 96 GEO. L.J. 1487, 1507–08 (2008) (describing the "precipitous decline" in the number of opinions issued by the Court despite a doubling of "the number of cases filed in the federal courts of appeals . . . since the mid-1980s"); David R. Stras, *The Supreme Court's Gatekeepers: The Role of Law Clerks in the Certiorari Process*, 85 TEXAS L. REV. 947, 963–68 (2007) (exploring the "massive reduction in the Court's plenary docket in recent years").

131. *See* Volokh, *supra* note 40, at 149 ("But the Court is wrong. None of the Court's proposed alternatives to the CDA—or any other alternatives I can imagine—would have been as effective as the CDA's more or less total ban.").

132. *See id.* at 162–63 (arguing that because the *Reno* Court "never acknowledged that the alternatives involved *any* sacrifice of effectiveness," the opinion is "largely useless" as a benchmark). The Court's error is also "unfair to Congress" because it suggests that Congress was "either careless or uncaring" in drafting the CDA. *Id.* at 156.

133. *See* MARJORIE HEINS, NOT IN FRONT OF THE CHILDREN: "INDECENCY," CENSORSHIP, AND THE INNOCENCE OF YOUTH 180–86 (2001) (recounting how the Clinton administration, filtering software developers, and libraries all responded to *Reno* by promoting and expanding the use of filters).

134. 464 U.S. 417 (1984).

noninfringing uses."[135] *Sony* "has come to be viewed as the Magna Carta of both product innovation and the technology age[,] . . . protect[ing] the development and sale of everything from Apple Computer's iPod to an ordinary PC."[136] Had *Sony* been resolved differently, the history of home entertainment technology—perhaps all consumer technology—would likely be much different.

The Court's endorsement of filtering has similarly impacted the development of the Internet.[137] After large portions of the CDA were invalidated in *Reno*, Congress went back to the drawing board. Its next effort, the Child Online Protection Act, was also struck down by the filter-preferring Court.[138] Congress took the hint. The Children's Internet Protection Act regulated computers in public libraries, and conditioned federal money on the installation of Internet filtering software.[139] The Court upheld the statute in *U.S. v. American Library Ass'n*,[140] despite specific findings by the district court that "filtering programs erroneously block a huge amount of speech that is protected by the First Amendment."[141] More recent studies have confirmed the ineffectiveness of Internet filtering software,[142] but the legacy of *Reno* lives on.

---

135. *Id.* at 442.

136. Peter S. Menell & David Nimmer, *Legal Realism in Action: Indirect Copyright Liability's Continuing Tort Framework and* Sony*'s De Facto Demise*, 55 UCLA L. REV. 143, 144–45 (2007) (footnotes omitted) (internal quotation marks omitted); *see also* Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 STAN. L. REV. 1345, 1387 (2004) ("The VCR is an obvious example of a technology that the copyright industries tried to ban but that later developed in unanticipated ways, creating new markets that have provided tremendous benefit to the very copyright owners who would have outlawed it." (footnotes omitted)).

137. *See* Julie Adler, *The Public's Burden in a Digital Age: Pressures on Intermediaries and the Privatization of Internet Censorship*, 20 J.L. & POL'Y 231, 236 (2011) (arguing that one legacy of the Court's choice to promote filtering software is that "American filtering software companies have thrived and even sell their products to some of the world's most censorial governments").

138. *See* Ashcroft v. ACLU, 542 U.S. 656, 667 (2004) (noting that filtering software is "less restrictive than COPA" and "also may well be more effective than COPA"). The Supreme Court technically affirmed the grant of a preliminary injunction against enforcement of COPA, finding that the statute's challengers were likely to succeed on the merits. *Id*. at 665. Following a bench trial on remand, the district court found COPA unconstitutional, partially because the government did not show that it was "the least restrictive and most effective alternative" available. ACLU v. Gonzales, 478 F. Supp. 2d 775, 821 (E.D. Pa. 2007). The Third Circuit affirmed on multiple grounds, including that filters were both more effective and less restrictive than COPA. ACLU v. Mukasey, 534 F.3d 181, 202–05 (3d Cir. 2008). The Supreme Court denied certiorari. Mukasey v. ACLU, 555 U.S. 1137, 1137 (2009).

139. Tonnis H. Venhuizen, United States v. American Library Association*: The Supreme Court Fails to Make the* South Dakota v. Dole *Standard a Meaningful Limitation on the Congressional Spending Powers*, 52 S.D. L. REV. 565, 567 (2007).

140. 539 U.S. 194 (2003).

141. Am. Library Ass'n v. United States, 201 F. Supp. 2d 401, 448 (E.D. Pa. 2002), *rev'd*, 539 U.S. 194 (2003). The district court concluded that all filtering programs had, at a minimum, a 6% to 15% "overblocking" rate. *Id.* at 442.

142. In preparation for the bench trial on the constitutionality of COPA in *Gonzales*, the Department of Justice commissioned a new study on the effectiveness of filtering software.

What the Court chooses not to say also has consequences. *Quon* is an example of the equivocal, bet-hedging precedent that can result from a technologically befuddled Court. The *Quon* majority avoided the tough technological questions posed by the case by opting *not* to answer the question of whether Quon had a reasonable expectation of privacy.[143] But the Court nonetheless offered what Justica Scalia called an unnecessary "excursus on the complexity and consequences" of answering that question.[144] That excursus drew on specific facts, noting, for example, that Quon's pager messages were not considered private by Quon's employer.[145] The entire discussion was dicta—though Supreme Court dicta—that will no doubt confuse future courts that may not have the luxury of avoiding the tough question[146] and must seek to answer it based on the wavering guidance provided by *Quon*.[147] "The Court failed to provide the clear guidance expected of it while at the same time dribbling out statements likely to sow confusion among employers, police, and courts alike."[148]

Philip B. Stark, *The Effectiveness of Internet Content Filters*, 4 I/S: J.L. & POL'Y FOR INFO. SOC'Y 411, 414 (2008). The results of that study confirmed that filters both underblock offending content and overblock innocent content. *Id.* at 422–29. The most restrictive filter studied would, on average, "erroneously block about 22.1 clean webpages for each adult page it blocks correctly." *Id.* at 422. "Less restrictive filters blocked as little as 40% of the adult webpages in the indexes and fewer total clean pages in error." *Id.* at 423. Other studies offer similar findings. *See, e.g.*, MARJORIE HEINS ET AL., INTERNET FILTERS: A PUBLIC POLICY REPORT 73 (2d ed. 2006), *available at* http://www.fepproject.org/policyreports/filters2.pdf (reviewing dozens of individual filtering studies and concluding that "filters continue to block large amounts of valuable information. . . . Internet filters are powerful, often irrational, censorship tools"). One study concluded that over 90% of the content blocked by two popular filters used in public schools was not required to be blocked under CIPA, and that schools frequently expand filtering in ways that block material relevant to school curricula. *Id.* at 66–67. A study of Rhode Island public libraries revealed a number of problems with filtering programs in the CIPA context. *See* ACLU, READER'S BLOCK: INTERNET CENSORSHIP IN RHODE ISLAND PUBLIC LIBRARIES (2005), *available at* http://web.archive.org/web/20081110020014/http://www.riaclu.org/friendly/documents/2005library internetreport.pdf (finding that federal law's filtering requirements are expansively enforced, librarians are often ignorant of how the filters work and how to disable them upon legitimate request, and libraries often fail to notify users that they have a right to bypass the filter to access material inappropriately blocked).

143. City of Ontario v. Quon, 130 S. Ct. 2619, 2628–29 (2010).

144. *Id.* at 2634–35 (Scalia, J., concurring); *see also id.* at 2635 ("To whom do we owe an *additional* explanation for declining to decide an issue, once we have explained that it makes no difference?").

145. *Id.* at 2629 (majority opinion).

146. Justice Scalia also chided the majority for its "fears that applying [*O'Connor*] to new technologies will be too hard . . . ." *Id.* at 2635 (Scalia, J., concurring).

147. Dery, *supra* note 56, at 78–79; *see also id.* at 79 ("Thus, the [*Quon*] Court first refused to answer whether the reading of text messages on pagers was an intrusion on a reasonable privacy expectation, then offered hints about how it would have ruled if it had chosen to do so, and finally commended itself on avoiding a broad holding." (internal quotation marks omitted)).

148. *Id.* at 79.

B. Losing Legitimacy

The Supreme Court's legitimacy is its most valuable commodity. Because the Court has no formal coercive power like the other branches of government,[149] it must rely primarily on its ability to persuade others to obey its decisions. To the Court's credit, it is considered "a widely legitimate institution."[150] Thus the Court's mandates are generally followed, even by those who vehemently disagree with them.[151]

Much scholarship on Supreme Court legitimacy has focused on the political nature of the Court. Many have argued that the Court must avoid making seemingly political decisions in order to maintain its legitimacy.[152] The Court itself has acknowledged the validity of this view.[153] Others have concluded that the public understands that the Court is not an apolitical institution and trusts that the Court will generally exercise its discretion "in a principled, rather than strategic, way."[154] Still others have argued that the Court's legitimacy would nevertheless benefit from an open recognition by the Court that it does engage in discretionary decision making like the political branches.[155]

This Note contends that there is another aspect to the Court's legitimacy. A corollary to the common understanding that the Court's decisions must be "dictated by law"[156] is that they must also be dictated by facts. A perception that the Court is wrong about the facts—or simply does not understand them—could be just as deadly to the Court's legitimacy as a perception that the Court is wrong about the law.[157] If the public begins to

---

149. *See* Kathleen M. Sullivan, *Foreword: The Justices of Rules and Standards*, 106 HARV. L. REV. 22, 71 (1992) ("The Court is the least dangerous branch. It cannot tax, and it has no tanks. So why should people obey it? Because it has 'legitimacy, a product of substance and perception.'" (quoting Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 865 (1992))).

150. Gibson & Caldeira, *supra* note 109, at 199.

151. *See id.* ("Even highly controversial decisions such as *Bush v. Gore* (2000) seem not to detract from the support people extend to the Court."); Tom R. Tyler & Gregory Mitchell, *Legitimacy and the Empowerment of Discretionary Legal Authority: The United States Supreme Court and Abortion Rights*, 43 DUKE L.J. 703, 722 (1994) ("Historical research suggests that Americans have traditionally been more willing to accept unpopular public policy decisions if the Supreme Court legitimizes those decisions.").

152. *See, e.g.*, Thomas W. Merrill, *A Modest Proposal for a Political Court*, 17 HARV. J.L. & PUB. POL'Y 137, 138 (1994) (identifying a "central theme" in the scholarship based on the "common assumption . . . that the Court's decisions will not be regarded as legitimate unless a coherent case can be made that they are dictated by law").

153. *See Casey*, 505 U.S. at 865–66 ("The Court must take care to speak and act in ways that allow people to accept its decisions on the terms the Court claims for them, as grounded truly in principle, not as compromises with social and political pressures . . . .").

154. Gibson & Caldeira, *supra* note 109, at 213.

155. *See, e.g.*, Merrill, *supra* note 152, at 138–39 ("The legitimacy of the Court would in fact be enhanced rather than diminished if the Court renounced the idea that its decisions are compelled by law, and instead openly acknowledged that it exercises political discretion.").

156. *Id.* at 138.

157. The public outcry following the Court's faux pas in *Kennedy v. Louisiana* is illustrative of this point. *See supra* notes 111–21 and accompanying text. The Court's amended opinion was

think that the Court is not competent to handle high-tech cases, the Court could have a new legitimacy crisis on its hands.

Oral arguments are breeding grounds for the kinds of comments that could spark such a crisis. Because arguments are one of the few windows the public has into the minds of the Justices, what the Justices say carries significant weight. The Justices have been accused of displaying "a startling level of ignorance about computing and communication methods that many Americans take for granted."[158] They have been called "out of touch,"[159] "befuddle[d]" by technology,[160] and "decidedly disconnected,"[161] accused of "revel[ing] in the past."[162] Nicer critics have referenced the Court's "sometimes limited grasp of technological developments."[163]

The examples listed throughout subpart II(A) show the validity of the media's concerns. Even the current Court, "the youngest court in the modern, digital age,"[164] is struggling to keep pace with the technologies of yesteryear. Even more troubling, the effects of that struggle may already be showing. In October of 2011, a Gallup poll found that "[a]pproval of the U.S. Supreme Court has dropped to its second-lowest rating ever recorded."[165] In March 2012, one commentator noted that "the current court is almost fanatically worried about its legitimacy and declining public confidence in the institution."[166] While it is still a stretch to say that the Court is in the midst of a genuine legitimacy crisis, it may be heading towards one, at least among younger, tech-savvy Americans.

The Court's legitimacy vis-à-vis technology may also be challenged by what the Court chooses *not* to do. *Quon* is an example of the Court refusing to confront the intersection of law and modern technology even when the

---

criticized in the *Washington Post* as "unconvincing." *Case Closed*, WASH. POST, Oct. 2, 2008, http://www.washingtonpost.com/wp-dyn/content/article/2008/10/01/AR2008100102775.html. The *Post* contended further that "the court may have damaged, even if slightly, its own reputation" by "leav[ing]—deservedly or not—the impression that a majority of the court refused to allow new facts to alter their positions." *Id.*

158. Grabowski, *supra* note 14.

159. Jeff Dunn, *Sexting Case Shows Out of Touch Supreme Court*, EDUDEMIC (Apr. 21, 2010), http://edudemic.com/2010/04/sexting-case-shows-out-of-touch-supreme-court/; *see also id.* (contending that the oral argument in *Quon* "seem[ed] more like a scene out of Night Court rather than the Supreme Court").

160. Bianca Bosker, *Sexting Case Befuddles Supreme Court: 'What's the Difference Between Email and a Pager?'*, HUFFINGTON POST (May 25, 2011), http://www.huffingtonpost.com/2010/04/21/ontario-quon-sexting-case_n_545764.html.

161. Mauro, *supra* note 21.

162. *Id.*

163. Schelzig, *supra* note 13.

164. Kravets, *supra* note 4.

165. Tim Mak, *Poll: SCOTUS Approval Drops*, POLITICO (Oct. 4, 2011), http://www.politico.com/news/stories/1011/65074.html.

166. Dahlia Lithwick, *It's Not About the Law, Stupid*, SLATE (Mar. 22, 2012), http://www.slate.com/articles/news_and_politics/jurisprudence/2012/03/the_supreme_court_is_more_concerned_with_the_politics_of_the_health_care_debate_than_the_law_.single.html.

issues are clearly presented.[167] "While the Court scratches its head about pagers, the public has moved on to newer technologies, such as cell phones."[168] As technology continues to pass the Justices by, the Court may find that its reluctance to confront pressing technological questions "undermine[s] its relevance, leaving it to offer legal opinions on obsolete technology."[169] If the public begins to perceive the Court as incompetent to confront modern technological problems, the Court's legitimacy will almost certainly suffer.

IV. Bridging the Technological Gap

The Court's technological troubles stem from a fundamental lack of understanding. It follows, then, that educating the Court is the simplest way to close the knowledge gap. In technology-heavy patent cases, the lower federal courts use a variety of tools to come to grips with the relevant inventions and devices.[170] The available options include the use of court-appointed technical advisors, special masters, expert witnesses, and technology tutorials.

A. Advisors, Special Masters, and Experts: Ill-Suited to Appellate Practice

The Federal Circuit officially sanctioned the use of court-appointed technical advisors in *TechSearch, L.L.C. v. Intel Corp.*[171] Advisors can serve as sounding boards or tutors for the judge, explain terminology, and help the judge think through the technical aspects of the case.[172] The ex parte nature of most judge–advisor interactions is troubling for multiple reasons, including the deviation the process takes from the traditional adversarial process.[173] Advisors may not "appreciate the nature of judicial decision-making" and thus threaten to "usurp the judicial role."[174] Many of those issues are magnified when the advisor is asked to serve nine masters rather

167. *See supra* notes 53–56 and accompanying text.

168. Dery III, *supra* note 56, at 87.

169. *Id.*

170. *Cf.* John Shepard Wiley, Jr., *Taming Patent: Six Steps for Surviving Scary Patent Cases*, 50 UCLA L. REV. 1413, 1426, 1438, 1462 (2003) (advocating for greater use of experts, technical advisors, special masters, and other strategies to assist judges in patent cases at the district court level).

171. 286 F.3d 1360, 1381 (Fed. Cir. 2002).

172. Peter S. Menell et al., *Patent Claim Construction: A Modern Synthesis and Structured Framework*, 25 BERKELEY TECH. L.J. 711, 804 (2010).

173. Joshua R. Nightingale, *An Empirical Study on the Use of Technical Advisors in Patent Cases*, 93 J. PAT. & TRADEMARK OFF. SOC'Y 400, 415–16 (2011); *see also id.* at 416 ("[A] judge can filter out 'bad' legal advice or research from a law clerk; he or she is ill-equipped, however, to do the same with 'bad' technical advice." (internal quotation marks omitted)).

174. Menell et al., *supra* note 172, at 804.

than one. Despite the Federal Circuit's blessing, advisors are still rarely used in patent cases.[175]

Federal Rule of Civil Procedure 53 authorizes the appointment of special masters in certain situations.[176] Special masters are frequently experienced attorneys, though some possess relevant technical expertise as well.[177] In theory and in practice, special masters typically serve as *legal* consultants rather than *technical* consultants.[178] Special masters would thus seem to offer little help to the Court; the Elect are essentially the Justices' legal consultants, and where the Justices need assistance is the technical side of the case.

Federal Rule of Civil Evidence 706 authorizes the court to appoint expert witnesses.[179] Even at the trial level, this option is rarely necessary because parties have adequate incentives to find their own experts (if the case requires them).[180] Court-appointed experts also bring with them a host of difficult issues involving "compensation, judicial propriety, neutrality, difficulties in locating experts, timing, and ex parte communication," all of which make judges "reticent to use them."[181] Modifying this procedure to fit an appellate proceeding would be difficult, if not impossible, and the dangers accompanying the shift suggest the cake is not worth the candle.

B. The Adaptable Tutorial Process

Technology tutorials are by far the most adaptable of the options available to the lower courts. They can range from a simple introduction before a Markman hearing to a specially prepared video complete with animations and graphics.[182] Tutorials can be fully adversarial, with each

---

175. From 2000 to 2010, the use of advisors was contemplated in only 1.65% of all patent cases. Nightingale, *supra* note 173, at 425. Advisors were actually appointed in even fewer cases (roughly 1.09%). *Id.* at 427. Even the Federal Circuit cautions that "district courts should use this inherent authority [to appoint advisors] sparingly and then only in exceptionally technically complicated cases." *TechSearch*, 286 F.3d at 1378.

176. FED. R. CIV. P. 53.

177. Menell et al., *supra* note 172, at 805; Nightingale, *supra* note 173, at 410.

178. *See* Nightingale, *supra* note 173, at 410 ("Special masters generally help the judge in working through difficult legal issues, rather than technical ones . . . ."); *id.* at 411 (summarizing an empirical study of the use of special masters in patent cases, which concluded that "[t]he reported issues addressed by special masters are legal in nature, rather than technical").

179. FED. R. EVID. 706.

180. *See* Menell et al., *supra* note 172, at 806 (observing that court-appointed experts are rare in the Markman process because parties normally appoint their own experts who can answer courts' technical questions).

181. Nightingale, *supra* note 173, at 410 (internal quotation marks omitted).

182. Menell et al., *supra* note 172, at 802; *see also The Sedona Conference Report on the Markman Process*, 7 SEDONA CONF. J. 205, 212 (2006) (noting that "[t]he order does not require that the tutorial be presented in any particular format" and that "it was the consensus of the group that the tutorial requirement should be flexible to allow the parties freedom to choose the format best suited to the technology at issue and most efficient in the context of an individual case"); Ronald J. Schutz & Jonathan D. Goins, *Case Management Issues in Patent Litigation*, 5 SEDONA

party presenting information while separate party-retained experts sit ready to answer any questions that might arise.[183] But they can also be more informal, such as the "hot tub" method "in which experts for each side engage in a dialogue with the court moderating the discussion and probing to determine areas of agreement and disagreement."[184] In-court presentations can be recorded for use in chambers by judges or law clerks, and videos, PowerPoint presentations, or other interactive media can be provided to the court as well.[185] A recent expert working group noted that tutorials are "[o]ften [h]elpful and [s]ometimes [n]ecessary,"[186] which might explain why judges in the Eastern District of Texas—a well-known patent litigation hotspot—proactively ask for them in many cases.[187]

The adaptability of the technology tutorial makes it uniquely suited to be added to the Supreme Court's repertoire. Unlike technical advisors, special masters, and court-appointed expert witnesses, the technology tutorial could be simply and discretely inserted into any case in which the Court felt it could benefit from additional technological expertise. The Court could select a date—perhaps a few weeks prior to oral argument—on which the Justices could convene in the courtroom and engage with the attorneys and their experts. The process could be closed to the public to ensure that the Justices felt free to ask questions without fear of ridicule. The scalability of the proceeding's adversarial nature would ensure honesty and accuracy in contentious scenarios.[188] If the parties and Court took full advantage of their multimedia capabilities, both the Justices and the clerks could have a useful primer to refer back to for a fact refresher during the opinion-drafting stage.

Further, the technology tutorial has the potential to solve, or at least greatly ameliorate, the technological troubles that currently plague the Court. The removal of factual inaccuracies and misperceptions would allow the Court to engage legal questions more directly, avoiding meandering and equivocal opinions that create poor precedent. Equipped with the technology tutorial, a once "curiously passive" *Quon* Court may have issued a

---

CONF. J. 1, 8 (2004) (describing varying methods of tutoring ranging from joint statements of uncontested facts to informal pretrial conferences).

183. Menell et al., *supra* note 172, at 802.

184. *Id.* The parties could also agree to provide the Court with a single, joint presentation if multiple experts and arguments from each side seem unnecessary or superfluous.

185. *See id.* (discussing the possibility of providing courts with videos and other interactive media).

186. *The Sedona Conference Report on the* Markman *Process*, *supra* note 182, at 211.

187. Xuan-Thao Nguyen, *Justice Scalia's "Renegade Jurisdiction": Lessons for Patent Law Reform*, 83 TUL. L. REV. 111, 136–37 (2008).

188. *See* Alderman v. United States, 394 U.S. 165, 184 (1969) (admitting that although "[a]dversary proceedings will not magically eliminate all error, . . . they will substantially reduce its incidence by guarding against the possibility that the trial judge, through lack of time or unfamiliarity with the information contained in and suggested by the materials," will make a mistake).

revolutionary new privacy opinion.[189] The Court would also be better equipped to make decisions about, for example, less restrictive alternatives, perhaps avoiding the filter frenzy of *Reno* and its progeny and instead offering a more technologically neutral solution.[190] A more robust understanding of the state of the relevant art would give purpose and direction to the Court's decision making. The Court's image would also improve. By improving technological literacy among the Justices, the perception of the Court as a group of disconnected Luddites would begin to fade. The Court may also find itself invigorated by the intellectual stimulation of the tutorial process and be more likely to hear and resolve disputes concerning emerging technologies, bringing a fresh wave of relevance to the Marble Palace.

All this is not to suggest that the tutorial process would be without its flaws. The primary difficulty may be getting the Justices to *actually use* the tutorial option. Since most cases have no need for a specialized technology tutorial, a rule requiring the use of the process would be wasteful and inappropriate. But leaving the decision entirely in the hands of the Justices may result in underuse. One solution is to model the tutorial procedure after the Court's own approach to the "call for response." In cases where a respondent waives the right to file a brief in opposition to a petition for certiorari, a single interested Justice can require the party to file by issuing a "CFR."[191] No vote is required, and the identity of the Justice requesting the response remains anonymous.[192] That procedure could be extended to the "call for tutorial," creating a low threshold that should encourage the Justices to use the procedure in relevant cases.

A second concern is that tutorials may interfere with the appellate process by introducing extra-record information. This concern is legitimate, but empirically unwarranted. Recent scholarship has revealed (or perhaps only confirmed) that "appellate courts often look outside the record the parties develop before the trial court, turning instead to their own independent research and to amicus briefs, even though the resulting factual findings will not have been thoroughly tested by the adversarial process."[193]

---

189. *Cf.* Dery III, *supra* note 56, at 62 (attributing the Court's passivity in *Quon* to its lack of comfort with pagers).

190. *See supra* notes 133, 137–41 and accompanying text.

191. SUP. CT. R. 15.1; David C. Thompson & Melanie F. Wachtell, *An Empirical Analysis of Supreme Court Certiorari Petition Procedures: The Call for Response and the Call for the Views of the Solicitor General*, 16 GEO. MASON L. REV. 237, 242 (2009).

192. Thompson & Wachtell, *supra* note 191, at 242.

193. Gorod, *supra* note 82, at 4; *see also* Michael Abramowicz & Thomas B. Colby, *Notice-and-Comment Judicial Decisionmaking*, 76 U. CHI. L. REV. 965, 971–72 (2009) ("Sometimes the court will decide the case on the basis of 'facts' in the record not addressed by the parties—which means that the court's decision is driven by evidence that the parties never explained and the meaning or importance of which they never contested." (footnote omitted)); Gorod, *supra* note 82, at 25–35 (collecting "examples of appellate court reliance on facts not provided by the parties to the litigation").

The Supreme Court itself "regularly grants certiorari in cases that require it to ultimately look outside the record for relevant factual assertions."[194] Even carefully prepared, substantial trial-court records are occasionally supplemented by the Court's own research.[195]

Formalizing this already common practice through the technology tutorial creates procedural safeguards (e.g., the adversary process) that are missing in the current system. The Court's willingness to look beyond the boundaries of the formal record suggests that it would welcome an opportunity to do just that. The tutorial process thus takes advantage of a latent tendency already present among the Justices, but adds layers of protection by involving the parties and their experts.

Third, there are a host of other practical considerations that may counsel against augmenting the appellate process by introducing the technology tutorial. For example, adding yet another step to the appellate process may slow down the already arduous task of completing a Supreme Court appeal.[196] Improving the Justices' understanding of the facts of their cases, and thus hopefully improving their jurisprudential products, easily balances out any delay incurred by a technology tutorial. But delay is not inevitable. It is quite possible that a more informed Court will encounter fewer difficulties in the opinion-drafting stage, rendering opinions more swiftly once the status quo's information deficit is reduced. The cost of a Supreme Court appeal is also of some concern. Attorneys and their retained experts rarely work for free, and any increase in workload from the bar is likely to be met with increased fees for clients. Nevertheless, the quality and accuracy of Supreme Court decision making is surely worth the price, and relatively new options like pro bono Supreme Court clinics offer modern litigants a realistic shot at Supreme Court representation.[197]

V. Conclusion

The Supreme Court should welcome this Note's proposal to augment its decision-making toolkit in a way that better equips the Court to confront an area many of the Justices readily admit to being uncomfortable with. Nevertheless, given the Court's presumable hesitance to implement this change, future research could strengthen the case for the technology tutorial

194. Gorod, *supra* note 82, at 27.

195. *Id.* at 33–34; *see also supra* note 82.

196. By the Court's own rules, parties are typically granted a maximum of 105 days for briefing, not counting any (routinely granted) requests for extension. SUP. CT. R. 25.1–3. The time between argument and published decision varies wildly from case to case, but "the Court issues only about half of its decisions in three months or less." Margaret Meriwether Cordray & Richard Cordray, *The Calendar of the Justices: How the Supreme Court's Timing Affects Its Decisionmaking*, 36 ARIZ. ST. L.J. 183, 213 (2004).

197. *See generally* Jeffrey L. Fisher, *A Supreme Court Clinic's Place in the Supreme Court Bar*, 65 STAN. L. REV. (forthcoming 2012) (exploring the implications of Supreme Court clinics on Supreme Court litigation).

at the Court. The alternative view of the Court's legitimacy espoused in subpart III(B) is likely empirically testable, and confirmation of the Court's incipient legitimacy crisis (especially among tech-savvy young citizens) would be welcome. It is also possible that the Court's reluctance to engage emerging-technology issues leads it to disproportionately deny certiorari in cases focusing on topics like social media usage[198] and peer-to-peer file-sharing. Finally, it would be wise to keep an eye open for technological troubles in future Supreme Court cases to stoke the flames hopefully ignited by this Note.

—Karson Thompson

198. Just this term, the Court declined to weigh in on three cases contributing to the growing legal uncertainty surrounding "whether [public] schools may censor students who are off-campus when they create online attacks against school officials and other students." Maryclaire Dale, *Court Rejects Appeals in Student Speech Cases*, YAHOO! NEWS (Jan. 17, 2012), http://news.yahoo.com/court-rejects-appeals-student-speech-cases-151914450.html.