TAKING IMAGES SERIOUSLY

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Law has been trapped in a stylistic straitjacket. The Internet has revolutionized media and communications, replacing text with a dizzying array of multimedia graphics and images. Facebook hosts more than 150 billion photos. Courts spend millions on trial technology. But those innovations have barely trickled into the black-and-white world of written law. Legal treatises continue to evoke Blackstone and Kent; most legal casebooks are facsimiles of Langdell's; and legal journals resemble the Harvard Law Review circa 1887. None of these influential forms of disseminating the law has embraced—or even nodded to—modern, image-saturated communication norms. Litigants, scholars, and courts have been rebooting the same formalist templates for over a century—templates that were formed before widespread use of the camera, never mind the computer. Outside of trial, where image-driven advocacy has a long history, legal practice begins and ends with text.

But over the past five years, for the first time—unrecognized by scholars or courts—creative trial lawyers, receptive judges, and the iPhone camera are breaching these conservative bulwarks. Images are moving out of the evidentiary margins and are driving argument in litigation documents from pleadings to judicial opinions. If left unregulated, visual argument threatens fundamental premises of legal discourse and decisionmaking. Yet in comparison with law's rich and detailed traditions for interpreting ambiguous text, lawyers and judges have few tools beyond common sense with which to ameliorate the interpretive risks of visual persuasion. "I know it when I see it" is not merely an aphorism; it is the reigning interpretive canon for images in law.

This Article, the first comprehensive scholarly treatment of images in written legal argument, identifies and critiques the nascent phenomenon of multimedia written advocacy as a vital, if potentially problematic, element of a lawyer's toolbox. It argues that despite substantial risks, the profession should cautiously embrace the communicative power of multimedia writing. It concludes by offering concrete suggestions for the fair regulation of multimedia persuasion, including two foundational canons of visual interpretation—the basis for developing new traditions for integrating images into written advocacy.

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INTRODUCTION

Last Term the Supreme Court decided a rather dry yet important case involving interpretation of the Fair Labor Standards Act. ¹ In essence, the question before the Court in *Sandifer v. United States Steel Corp.* was whether workers donning certain items—including a hardhat, wristlets, a "snood," earplugs, safety glasses, steel-toed boots, a respirator, and flame-retardant pants and top—were "changing clothes." ² If what workers were doing was "changing clothes," the Act did not mandate that employers pay salary for that time. ³ In contrast, if the workers were doing something other than "changing clothes"—for example, "donning gear"—the Act arguably mandated compensation. Judge Richard Posner's opinion for the Seventh Circuit Court of Appeals held that the

^{1.} Sandifer v. U.S. Steel Corp. (Sandifer II), 134 S. Ct. 870 (2014).

^{2.} Id. at 874–75.

^{3.} Id. at 875-76.

items were indeed "clothes." The centerpiece of his analysis is unusual, particularly for a statutory-interpretation case: a quite large (approximately three-inch by six-inch) color photograph of, as Posner described it, "a man modeling the clothes": ⁵



POSED PHOTO IN SANDIFER I^6

^{4.} See Sandifer v. U.S. Steel Corp. (Sandifer I), 678 F.3d 590, 594 (7th Cir. 2012) (holding items at issue qualify as both "personal protective equipment" and "clothing"), aff'd, 134 S. Ct. 870.

^{5.} Id. at 592-93.

^{6.} Id. at 593, image available at http://media.ca7.uscourts.gov/cgi-bin/rssExec.pl? Submit=Display&Path=Y2012/D05-08/C:10-1821:J:Posner:aut:T:fnOp:N:917129:S:0 (on file with the $Columbia\ Law\ Review$).

The image is not an afterthought relegated to an appendix, but instead is an integral, indeed central, aspect of the statutory analysis.⁷ Also noteworthy, the image is not taken from the case record on appeal. In fact, it appears to have been conceived of, staged, created, curated (assuming there were multiple photos taken and only one was selected), and edited by someone in Judge Posner's chambers. The model, who looks suspiciously like a law clerk, is wearing only some, but not all, of the equipment at issue: His jaunty air of fashion might have been tarnished had he been wearing the leggings and wristlets also in contention, or perhaps the respirator. The image's background also enhances Judge Posner's analysis. Instead of standing amid the sparks and flames of a steelworks, Judge Posner's model leans against what appears to be a (flameproof?) chambers door. What is presented in the Seventh Circuit's opinion as a neutral depiction of evidence—a complete picture—is in fact a purposefully crafted visual argument, subtly but persuasively advancing Judge Posner's interpretation of the Fair Labor Standards Act. And his strategy seems to have been effective. In the opening moments of oral argument in the Supreme Court, Justice Ginsburg made her views plain, stating, "[F]rom the picture, that looks like clothes to me." Recently, a unanimous Court decided the case against the workers. 10

If the photo in *Sandifer I* seems unusual in a court document, it should. Tradition governs every aspect of a court opinion, from structure and content to citations and font. And according to that tradition—which in large part predates the camera, never mind the computer—images have a peripheral or, more typically, nonexistent role. ¹¹ Law has been trapped in a stylistic straitjacket. The Internet has revolutionized media and communications, replacing text with a dizzying array of multimedia graphics and images. Facebook hosts over 150 billion photos. ¹² Courts spend tens of millions of dollars each year installing and main-

^{7.} Id. at 592 (noting "picture is worth a thousand words").

 $^{8.\ \,}$ See Richard A. Posner, Reflections on Judging $146\ (2013)$ (confirming model was Posner's law clerk).

^{9.} Transcript of Oral Argument at 5, Sandifer II, 134 S. Ct. 870 (No. 12-417).

^{10.} Sandifer II, 134 S. Ct. at 877 ("We see no basis for the proposition that the unmodified term 'clothes' somehow omits protective clothing.").

^{11.} See Ronald K.L. Collins & David M. Skover, Paratexts, 44 Stan. L. Rev. 509, 534 (1992) ("The model of contemporary law remains largely print-based. Accordingly, text typically is the starting and ending point.").

^{12.} See Gary Price, Infographic: Facebook's Huge Trove of Photos in Context & How Many Photos Have Ever Been Taken?, Libr. J.: INFOdocket (Sept. 19, 2011), http://www.infodocket.com/2011/09/19/infographic-facebooks-huge-trove-of-photos-incontext-how-many-photos-have-ever-been-taken/ (on file with the *Columbia Law Review*) (noting as of September 2011 Facebook hosted 140 billion photos and was expected to add 70 billion more in following year).

taining trial technology. 13 But those innovations have barely trickled into the black-and-white world of written law. Legal treatises continue to evoke Blackstone and Kent; most legal casebooks are facsimiles of Langdell's; and legal journals resemble the Harvard Law Review circa 1887. None of these influential forms of disseminating the law has embraced—or even nodded to—modern, image-saturated communication norms. Lawyers and courts routinely confront visual questions, such as whether the government must release photographs and videotapes documenting abuse of detainees in Guantanamo Bay;¹⁴ whether the state can ban cross-burning; 15 and what restrictions a state may place on the display of gruesome abortion photos outside an abortion clinic.¹⁶ But courts, scholars, and practitioners analyze such image-centered disputes within a tradition-bound framework—a framework in which the alleged objectivity of text literally papers over the emotion-laden visual subjects in dispute. Images are associated with emotion and irrationality.¹⁷ Written law resists that irrationality by subjecting the photos, the flame, and the fetus to a unifying, detached, linear, black-and-white medium of analysis. 18 For the most part, Lady Justice has remained blind. 19

Perhaps the greatest symbol of such blindness has been the routine deletion of images from legal documents other than judicial opinions on Westlaw and LexisNexis. These databases, which in key respects define legal reality for many lawyers, do not allow image searches. To the contrary, until quite recently they have routinely elided many of the few images that did appear in legal documents, replacing them with a textual notation: "TABULAR OR GRAPHIC MATERIAL SET FORTH AT THIS POINT IS NOT DISPLAYABLE." This all-caps, impersonal dismissal of all

^{13.} See William E. Smith, Judicial Opinions and the Digital Revolution, Judges' J., Fall 2010, at 7, 10 [hereinafter Smith, Judicial Opinions] (stating federal judiciary received nearly \$35 million for installation, replacement, and maintenance of courtroom technology in 2009).

^{14.} See ACLU v. Dep't of Def., 389 F. Supp. 2d 547, 578–79 (S.D.N.Y. 2005) (holding redacted images not exempt from disclosure), aff'd on other grounds, 543 F.3d 59 (2d Cir. 2008), vacated 130 S. Ct. 777 (2009).

^{15.} See Virginia v. Black, 538 U.S. 343, 363 (2003) (upholding state law banning cross burning with intent to intimidate).

^{16.} See Saint John's Church in the Wilderness v. Scott, 296 P.3d 273, 281 (Colo. App. 2012) (concluding state can ban display of such images).

^{17.} See Rebecca Tushnet, Worth a Thousand Words: The Images of Copyright, 125 Harv. L. Rev. 683, 694 (2012) [hereinafter Tushnet, Worth a Thousand Words] ("Images seem especially dangerous because their power is irrational.").

^{18.} See Edward Tufte, Beautiful Evidence 94 (2006) [hereinafter Tufte, Beautiful] ("In American courts, the standard format for legal documents yields thin information densities (is productivity measured by the page?) induced by excessively leaded-out type.").

^{19.} See Judith Resnik & Dennis Curtis, Representing Justice: Invention, Controversy and Rights in City-States and Democratic Courtrooms 91 (2011) [hereinafter Resnik & Curtis, Representing Justice] (exploring iconography of blindfolded Justice).

things visual is a metaphor for the neglect of images more broadly in our conception and practice of written law, whether that writing is scholarly or part of practice. But databases' refusal to display images is not only a metaphor: It is also a real injury. Deletion impoverishes works that contain or analyze images.²⁰ It also prevents us from noticing the increasing role that images are beginning to play in litigation outside of trial. Image-driven written argument represents a sea change in legal discourse, yet thus far we typically do not see it, and we fail to notice it when we do.

Yet change is here. Over the past few years—almost entirely unacknowledged by scholars or courts—creative trial lawyers, receptive judges, and the iPhone camera have begun breaching conservative stylistic bulwarks. Thanks to a range of technological and cultural transformations, images are moving out of the evidentiary margins and are driving argument in litigation documents from pleadings to judicial opinions. Images feature in bare-bones complaints and in Supreme Court briefs, in civil cases and in criminal. Some images come from the case record; others, as in Sandifer I, are created by courts; still others are simply copied off the Internet. In these contexts, images do not merely replace text: They work with text to create a new multimedia legal discourse. And a range of new legal-research tools promises to harness the intuitive power of visual information in order to optimize our understanding of law-for example, by using mapping or other visual tools to show the link between one legal authority and others.²¹ Even traditional legal databases are beginning to respond to this more visual written jurisprudence. In addition to printing images that appear in judicial opinions, Westlaw now includes Portable Document Format (PDF) copies of many filings, which contain any original images. Law is defined—in

^{20.} For a particularly galling example, see, e.g., Lee Anne Fennell, Picturing Takings, 88 Notre Dame L. Rev. 57, 60 (2012). Fennell uses self-created diagrams to illuminate theoretical connections and boundaries in takings jurisprudence. In the absence of her diagrams, her article loses not only significant content, but almost all of its meaning. For another example, compare the originally published version of Tushnet's article critiquing copyright's attention to images with the version of the article reprinted in Westlaw with all images omitted. Compare, e.g., Tushnet, Worth a Thousand Words, supra note 17, at 687, 718, 720, 722, 725, 748 (print version), with id., available at Westlaw, 125 HVLR 683, *687, *718, *720, *722, *725, *748 (on file with the *Columbia Law* Review) (online version) (replacing images with notation "TABULAR OR GRAPHIC MATERIAL SET FORTH AT THIS POINT IS NOT DISPLAYABLE").

^{21.} See Robert Ambrogi, Visual Law Services Are Worth a Thousand Words—and Big Money, A.B.A. J., May 2014, at 35, 35–41, available at http://www.abajournal.com/magazine/article/visual_law_services_are_worth_a_thousand_words—and_big_money/ (on file with the *Columbia Law Review*) (describing new search services including Ravel, Fastcase, and JustCite's Precedent Map); see also infra notes 170–171 and accompanying text (discussing new visual-research tools).

ways both positive and negative—by its form.²² We are on the cusp of an analytic shift toward a more vibrant, yet potentially troubling, visual legal discourse. Years before the advent of the digital camera, Susan Sontag said, "Today everything exists to end in a photograph."²³ In the near future, many such photographs will exist to end in a legal document.

Unless courts specifically prohibit it, multimedia written advocacy will become the norm.²⁴ To rising generations of young lawyers, images are the vernacular of modern communication. Even long-tenured judges—many of whom now rely on image-friendly tablets to read court papers—are newly receptive to visual written argument.²⁵ In fact, embedded images are only the beginning: Technological advances have opened the door to integrating video, audio, and other technology into briefs or opinions. A quick glance at the *New York Times*—which published its first front-page color photograph only in 1997—demonstrates the extent to which digital technology has transformed other tradition-bound print media. Today the *Times* website is a pulsing quilt of video and interactive graphics.²⁶ Recently MIT's Media Lab even showcased a "wearable and immersive" book, aptly titled *The Girl Who Was Plugged In*.²⁷ Many of these innovations can and will contribute to new forms of multimedia legal

^{22.} See Collins & Skover, supra note 11, at 509 ("In important ways, law is the product of its methods of creation, transmission, and execution."). See generally M. Ethan Katsh, The Electronic Media and the Transformation of Law 3 (1989) [hereinafter Katsh, Electronic Media] (arguing broad changes in law are tied to appearance of "new methods of storing, processing, and communicating information").

^{23.} Susan Sontag, On Photography 24 (1977).

^{24.} Cf. Allison Orr Larsen, Confronting Supreme Court Fact Finding, 98 Va. L. Rev. 1255, 1290 (2012) (assuming "digital revolution and the dramatic change in the way we access information mean in-house fact finding will only increase over time").

^{25.} See David Nuffer, Judges + iPads = Perfect Fit?, 3 Geeks and a Law Blog (June 12, 2012, 8:48 AM), http://www.geeklawblog.com/2012/06/judges-ipads-perfect-fit.html (on file with the *Columbia Law Review*) (summarizing federal study of iPad usage by federal judges); see also Daniel Sockwell, Writing a Brief for the iPad Judge, Colum. Bus. L. Rev. Announcements (Jan. 14, 2014, 11:26 AM), http://cblr.columbia.edu/archives/12940 (on file with the *Columbia Law Review*) (stating "large and growing percentage of briefs are read on iPads," and noting Fifth Circuit judges read majority of briefs on iPads).

^{26.} See, e.g., John Branch, Snow Fall: The Avalanche at Tunnel Creek, N.Y. Times (Dec. 20, 2012), http://www.nytimes.com/projects/2012/snow-fall (on file with the *Columbia Law Review*) (using interactive multimedia, including text, videos, moving images, satellite photos, interactive maps, and individual portraits to tell story of sixteen skiers and snowboarders caught in avalanche in Cascade Mountains); see also, e.g., David Barstow & Alejandra Xanic von Bertrab, The Bribery Aisle: How Wal-Mart Got Its Way in Mexico, N.Y. Times (Dec. 18, 2012), http://www.nytimes.com/2012/12/18/business/walmart-bribes-teotihuacan.html (on file with the *Columbia Law Review*) (embedding documents and interactive maps into investigative report).

^{27.} See Megan Garber, The Book You Read Feel, Atlantic (Jan. 29, 2014, 5:03 PM), http://www.theatlantic.com/technology/archive/2014/01/the-book-you-strike-read-strike-feel/283424/ (on file with the *Columbia Law Review*) ("Instead of asking the reader (well, 'the reader') to empathize with its heroine, imaginatively, the novella uses physical stimuli to enforce that connection.").

writing. Litigants, scholars, and courts have been rebooting the same formalist templates for over a century—templates that were formed before widespread use of the camera, never mind the computer. But in the words of Margaret Hagan, who leads the newly launched Program for Legal Technology & Design at the Stanford Design School, "We are having a visual moment." Conditions are ripe for written law to escape the typographic flatlands. ²⁹

There are enormous potential upsides to disrupting legal discourse in ways that capture the power of visuality. Images are efficient, accessible, and memorable. Multimedia legal argument may assist courts, litigants, and scholars to convey complex scientific, technical, or abstract information. They also engage readers, particularly twenty-first-century readers, to whom legal writing is a vast black-and-white desert. Yet visual written argument also poses dangers to the structure and substance of legal decisionmaking. This Article focuses on three of the foremost dangers of unregulated visual advocacy: the danger that implicit biases and naïve realism—the belief that an image represents a transparent window into a single truth—will infect judges' decisions; the risk that images will warp the allocation of decisionmaking power between the judge and jury, and between appellate courts and trial courts; and finally, the risk that images will vitiate legal discourse by sacrificing depth for flash—turning legal arguments into memes.

This Article argues that none of these problems is insurmountable. Because we don't take images seriously, however, we currently lack tools to deal with these risks. To take the most basic example, written advocacy is characterized by a host of formal rules intended to make legal pleadings and briefs readable and to create procedural equity among parties. These rules govern everything from font size to the requirement that litigants cite controlling precedent. Lawyers and judges care about these things. There are vigorous debates about such seeming minutiae as the number of spaces that should come after a period, or the value

^{28.} Ambrogi, supra note 21, at 37.

^{29.} Cf. Edward Tufte, Envisioning Information 9 (1990) [hereinafter Tufte, Envisioning] ("How are we to represent the rich visual world of experience and measurement on mere flatland?").

^{30.} See Tushnet, Worth a Thousand Words, supra note 17, at 688 ("[C]ourts don't like to think about images, and have few tools to deal with them ").

^{31.} See id. at 713 ("Typeface and font are important to understanding and even shaping meaning...."); see also, e.g., Seventh Circuit, Requirements and Suggestions for Typography in Briefs and Other Papers 2–5, available at http://www.ca7.uscourts.gov/rules/type.pdf (on file with the *Columbia Law Review*) (last visited Aug. 11, 2014) (advising lawyers to use serif type, single space after period, and smart quotes).

^{32.} See Bryan A. Garner, The Tyranny of Typewriters: These 4 Vignettes Lead to a Single Moral About Writing Better Briefs, A.B.A. J., Jan. 2014, at 22, 22–23, available at http://www.abajournal.com/magazine/article/4_vignettes_lead_to_a_single_moral_about_writing_better_briefs/ (on file with the *Columbia Law Review*) (describing his reluctant

(or not) of double-spacing a document.³³ In contrast, there are few if any rules governing the appropriate use of images in legal documents, and there is no debate about them. Only one federal procedural rule contemplates use of images in legal briefs—Federal Rule of Appellate Procedure 32—and the relevant portion of that rule has not been subject to even a single recorded case of judicial interpretation.³⁴ Yet embedded images raise serious theoretical and practical questions in legal documents, just as text does. On a theoretical level, image-driven written argument threatens the factfinding role of the jury by placing the facts—seemingly "the truth"—before a judge at an early and potentially dispositive state of litigation. The same influence of images may cause appellate courts to reduce their deference to trial court or jury findings. On a practical level, we have little guidance on the appropriate form or function of images in legal documents. Is it appropriate to edit a digital image before embedding it into a pleading by removing red-eye? Heightening color contrast? Or using Photoshop to remove an obstructing object or shadow? If yes, must that be disclosed, and when? May parties embed staged photos into their briefs, as Judge Posner staged his photo in Sandifer I? Again, must that be disclosed? How might an embedded video affect a page limit? Photojournalists have detailed codes of conduct answering many of these questions. 35 Outside of trial, however—where rules of evidence might provide some answers—law has none.³⁶

We also lack rules to mitigate the interpretive risks associated with images. Lawyers are trained to be attuned to the way that a particular

conversion to practice of putting one space after period, and confessing "[t]oday I feel a very mild revulsion at seeing two spaces"); see also Jay Shepherd, Small Firms, Big Lawyers: A Period Piece, Above the Law (Aug. 17, 2011, 1:45 PM), http://abovethelaw.com/2011/08/small-firms-big-lawyers-a-period-piece/ (on file with the *Columbia Law Review*) (stating result of poll finding 65.9% of respondents use two spaces after period, compared to 34.1% who use one space).

- 33. See Eugene Volokh, Against Double Spacing, The Volokh Conspiracy (Mar. 26, 2009, 8:02 PM), http://www.volokh.com/posts/1238112172.shtml (on file with the *Columbia Law Review*) (arguing double spacing wastes paper and adds unnecessary space between related sections).
- 34. See Fed. R. App. P. 32(a)(1)(C) ("Photographs, illustrations, and tables may be reproduced by any method that results in a good copy of the original").
- 35. See, e.g., NPPA Code of Ethics, Nat'l Press Photographers Ass'n, https://nppa.org/code_of_ethics [hereinafter NPPA Code of Ethics] (on file with the *Columbia Law Review*) (last visited Aug. 18, 2014) (enumerating ethical standards for photojournalists); see also, e.g., John Long, National Press Photographers' Association Special Report: Ethics in the Age of Digital Photography, Nat'l Press Photographers Ass'n (Sept. 1999), https://nppa.org/page/5127 (on file with the *Columbia Law Review*) (describing NPPA ethics cochair's views on characteristics of photojournalistic ethical code).
- 36. See Christopher J. Buccafusco, Gaining/Losing Perspective on the Law, or Keeping Visual Evidence in Perspective, 58 U. Miami L. Rev. 609, 622 (2004) ("Before digital images or animations may be admitted into evidence, they must be made available during pre-trial discovery, properly authenticated, and submitted to an inquiry concerning their logical and legal relevance.").

word or a subtle shift in a sentence's emphasis can influence or even alter a reader's understanding. Yet in the realm of visual argument, lawyers are laypeople. Visual literacy is not part of legal education or training, and no canons exist to provide lawyers with rules of thumb in the skeptical interpretation of multimedia legal argument.³⁷ In comparison with law's rich traditions for and debates about interpreting ambiguous text, lawyers and judges have few tools beyond common sense with which to ameliorate the interpretive risks of visual persuasion. In the visual realm, we lack the institutionalized skepticism that defines legal education and legal practice. Justice Ginsburg's simple comment in *Sandifer II*—"that looks like clothes to me"—captures the essence of law's current approach to images.³⁸ "I know it when I see it" is not merely an aphorism: It's the reigning, if not sole, canon of visual interpretation in law.

Compounding these concerns, currently there is very little awareness of the need to develop rules and traditions for regulating images in legal documents. Over two decades ago, Ronald Collins and David Skover argued eloquently that the digital age would transform legal discourse—but their focus was on trial-related technology, such as videotaped proceedings and day-in-the-life videos. Similarly, in 1995 M. Ethan Katsh predicted that digital culture would transform written law, but Katsh was ahead of his time and his prescient vision drew only lukewarm contemporaneous response. More recently scholars have devoted significant attention to the influence of visual technology on law, but almost invariably these analyses have centered on trial—the traditional

^{37.} See Richard K. Sherwin, Neal Feigenson & Christina Spiesel, Law in the Digital Age: How Visual Communication Technologies Are Transforming the Practice, Theory, and Teaching of Law, 12 B.U. J. Sci. & Tech. L. 227, 267 (2006) [hereinafter Sherwin et al., Law in the Digital Age] ("[R]etooling the legal mind so that it may be better adapted to function effectively in a legal (and popular) culture transformed by new communication technologies constitutes the most pressing challenge before the legal academy today.").

^{38.} Transcript of Oral Argument, supra note 9, at 5.

^{39.} Collins & Skover, supra note 11, at 537–49. The debate over the influence of video on trial continues to this day. See, e.g., Jennifer L. Mnookin, Can a Jury Believe What It Sees? Videotaped Confessions Can Be Misleading, N.Y. Times (July 13, 2014), http://www.nytimes.com/2014/07/14/opinion/videotaped-confessions-can-be-misleading. html [hereinafter Mnookin, Jury] (on file with the *Columbia Law Review*) (observing "camera perspective bias" skews interpretation of confession videos, even among judges and police interrogators).

^{40.} See M. Ethan Katsh, Law in a Digital World 145 (1995) [hereinafter Katsh, Digital World] ("[W]hat is perhaps most important to understand is that there will be ongoing pressures from the computer for law to accommodate itself to the visual and to employ new means to communicate."); see also Eugene Volokh, Technology and the Future of Law, 47 Stan. L. Rev. 1375, 1391 (1995) (reviewing Katsh, Digital World, supra) [hereinafter Volokh, Technology] (concluding Katsh had not demonstrated "emergence of 'a more visual model of law'" (quoting Katsh, Digital World, supra, at 152)).

and accepted realm of the visual.⁴¹ In addition, led by Rebecca Tushnet's incisive critique of copyright's inadequate treatment of the visual,⁴² scholars have begun to analyze the impact of the visual on specific doctrinal areas.⁴³ Other than a smattering of pieces analyzing the role of images in Supreme Court opinions, however, there has been no scholarly recognition of the nascent phenomenon of images as engines of written legal argument.⁴⁴ The Supreme Court's 2007 opinion in *Scott v. Harris*, in which the Court included a link to the police dashboard video on which it based its decision, brought a hailstorm of scholarly attention.⁴⁵ But

- 42. See Tushnet, Worth a Thousand Words, supra note 17, at 684–85 (criticizing copyright's incoherent analysis of images).
- 43. See also, e.g., Stephen R. Miller, The Visual and the Law of Cities, 33 Pace L. Rev. 183, 183 (2013) [hereinafter Miller, Visual] (describing influence of visual persuasion on urban development law).
- 44. See Hampton Dellinger, Words Are Enough: The Troublesome Use of Photographs, Maps, and Other Images in Supreme Court Opinions, 110 Harv. L. Rev. 1704, 1707–10 (1997) (considering Supreme Court opinions in which photograph, map, replica, or reproduction is attached); Nancy S. Marder, The Court and the Visual: Images and Artifacts in U.S. Supreme Court Opinions, 88 Chi.-Kent L. Rev. 331, 331–33 (2013) (arguing in favor of cautiously including images in Supreme Court opinions). Federal District Court Judge William Smith has written a thoughtful essay discussing his use of technology, including in judicial opinions. See Smith, Judicial Opinions, supra note 13, at 7. Notably, however, Judge Smith consciously avoids "wad[ing] into the substantive law debate" raised by this use of images. Id. at 8.
- 45. See Scott v. Harris, 550 U.S. 372, 378 n.5 (2007); see also, e.g., Joan Steinman, Appellate Courts as First Responders: The Constitutionality and Propriety of Appellate Courts' Resolving Issues in the First Instance, 87 Notre Dame L. Rev. 1521, 1524 (2012) (noting "technological advances" may impact appellate decisionmaking). See generally Dan M. Kahan et al., Whose Eyes Are You Going to Believe? *Scott v. Harris* and the Perils of

^{41.} In their book Law on Display, the best and most comprehensive work on the subject, Neal Feigenson and Christina Spiesel carefully deconstruct the use of digital media in a range of trials, from the video used in the closing arguments of the famous trial of Michael Skakel, to the use of PowerPoint to frame the plaintiffs' case in Vioxx productliability trials. Neal Feigenson & Christina Spiesel, Law on Display 137-62 (2009). They also examine the use of modern imaging technology, such as fMRIs and CT scans, as trial evidence. Id. at 120-30; see also, e.g., Buccafusco, supra note 36, at 609-27 (analyzing evidentiary rules as applied to digital visual evidence); Fred Galves, The Admissibility of 3-D Computer Animations Under the Federal Rules of Evidence and the California Evidence Code, 36 Sw. U. L. Rev. 723, 724-39 (2008) (discussing evidentiary objections to attempts to use computer-animation evidence); Carrie Leonetti & Jeremy Bailenson, High-Tech View: The Use of Immersive Virtual Environments in Jury Trials, 93 Marq. L. Rev. 1073, 1077-78 (2010) (addressing evidentiary barriers to admission of immersive technology at trial); Keith J. Hays & Jeffrey D. Roberts, No Longer a Luxury: Technology as a Vital Tool to Educate the Fact-Finder, For Def., Sept. 2011, at 56, 56 (encouraging practitioners to develop strong multimedia presentations to engage factfinders); Henry J. Reske, Generation X Jurors a Challenge: Lawyer Oratory May Bore Those Raised with MTV and Remote Control, A.B.A. J., Oct. 1995, at 14, 14 (noting visual presentations might be more engaging to younger jurors); Andrew E. Taslitz, Digital Juries Versus Digital Lawyers, Crim. Just., Spring 2004, at 4, 4 (introducing symposium for trial lawyers on digital evidence).

despite that intense focus, few in the legal community have recognized *Scott* as a symbol of a broad new role for images in written law.⁴⁶ A recent book on law and the technologies of communication, Peter Tiersma's *Parchment, Paper, Pixels*, barely mentions the existence of visual law.⁴⁷ Thus far, legal scholars—like the law more broadly—have overlooked multimedia written advocacy.

This Article, the first comprehensive scholarly treatment of image-driven written advocacy, seeks to fill that scholarly gap. It has two goals. The first is to describe and establish the emerging phenomenon of image-driven written argument. Advancing that descriptive goal, Part I briefly explains the cultural and technological reasons for the law's historical and current resistance to visual communication, as well as why technological developments—particularly over the past five years—have opened a new era of multimedia legal writing. Part II describes this visual vanguard of written law, offering a range of specific examples of the effective use of images in litigation documents, from pleadings to judicial opinions. It also describes possible future developments.

The second goal is to critique image-driven advocacy and offer initial suggestions for ways that courts and scholars might begin to develop traditions for regulating images in this new context. Advancing that goal, Part III draws on cognitive-science and marketing scholarship to explain why multimedia written advocacy makes a difference—why it is not merely a rhetorical flourish. It analyzes the risks and benefits of images in pleadings, briefs, and judicial opinions, and explains the reasons why current procedural, evidentiary, and interpretive rules are insufficient for ensuring fairness and clarity in this new visual context. Part IV concludes by arguing that, despite these risks, there are good reasons for the profession to embrace visual tools of persuasion, if we do so with caution. The time is ripe for scholars, courts, and practitioners to reboot longstanding templates in order to facilitate more effective, efficient dissemination of legal thought. In any event, recent experience proves that some change is inevitable: Unless courts explicitly prohibit it, litigants are already adopting multimedia advocacy techniques. As a corollary, however, the legal profession must develop consistent strategies to treat images with the interpretive sophistication with which it approaches textual analysis. Toward that end, this Article offers suggestions for the development of

Cognitive Illiberalism, 122 Harv. L. Rev. 837, 841–42 (2009) (critiquing Supreme Court's circumvention of jury's role as result of its interpretation of police dashboard video).

^{46.} One student note argues that the Court's approach in *Scott* may impact prisoners' Eighth Amendment claims. See Nina Frank, Note, Such Visible Fiction: The Expansion of *Scott v. Harris* to Prisoner Eighth Amendment Excessive Force Claims, 32 Cardozo L. Rev. 1481, 1485–86 (2011).

^{47.} Peter M. Tiersma, Parchment, Paper, Pixels: Law and the Technologies of Communication 6 (2010) (observing "traditional supremacy of written text, in the sense of ink on paper, is being challenged," but not focusing on role of visual media in change).

court rules regulating images, as well as two initial canons of visual interpretation to govern the use of images in written legal arguments.

I. THE RISE OF VISUAL PERSUASION

People now see more images in a day than our ancestors would have seen in their lives; over 3.5 trillion photos have been taken, and there are ubiquitous tools for sharing such photos.48 Few of those images come from or end up in legal documents, however. Words, not images, are a lawyer's most essential tool. From plausible pleadings to fractured Supreme Court opinions, from reams of discovery documents to piles of due diligence, text defines the profession. For the most part, the visual comes into the law only in the guise of metaphor, or in a textual description of a religious symbol, a sonogram image, or a picture at the heart of a copyright dispute. 49 But that does not mean text must be the sole medium for disseminating legal ideas. Visual evidence has been a "takenfor-granted form of proof" in trial practice for well over a century, and extensive research has proven its capacity to efficiently and powerfully convey even complex information.⁵⁰ Moreover, other professions whose stock-in-trade is words, including journalism, medicine, and business, have embraced multimedia communications in order to reach newly tech-savvy audiences.

Meanwhile, although trial practice is at the forefront of digital communication, conventional norms of written legal expression have remained static for decades; indeed, many of their roots date back centuries. Legal briefs from 1967 or 1997 look practically identical to typical briefs filed today. Supreme Court opinions are growing longer but

^{48.} See Feigenson & Spiesel, supra note 41, at 14 (stating, due to modern technological advances, "person in contemporary culture sees more constructed images in a day than someone living a few centuries ago did in a lifetime"); see also Price, supra note 12 (stating as of 2011 3.5 trillion photos had been taken, and noting in 2011 people took four times the number of photos they took a decade earlier).

^{49.} See, e.g., McCreary Cnty. v. ACLU of Ky., 545 U.S. 844, 856–57 (2005) (considering Establishment Clause challenge to counties' posting of the Ten Commandments and other religious documents in courthouses); Tex. Med. Providers Performing Abortion Servs. v. Lakey, 667 F.3d 570, 583 (5th Cir. 2012) (discussing state statute requiring performance of sonogram on pregnant women); see also Claudia Haupt, Active Symbols, 55 B.C. L. Rev. 821, 827–28 (2014) (critiquing Supreme Court's textual analyses of religious symbols); Bernard J. Hibbitts, Making Sense of Metaphors: Visuality, Aurality, and the Reconfiguration of American Legal Discourse, 16 Cardozo L. Rev. 229, 230 (1994) (listing host of visual metaphors for describing legal concepts, including "bright-line" tests, constitutional "penumbras," and "bundle of sticks" in property rights).

^{50.} Jennifer Mnookin, The Image of Truth: Photographic Evidence and the Power of Analogy, 10 Yale J.L. & Human. 1, 3 (1998) [hereinafter Mnookin, Image of Truth]; see also infra Part III.

otherwise remain faithful copies of their predecessors. 51 "Learned" lower court opinions follow the same form, which means—as Judge Posner observes—"no pictures!" 52 Constrained by cost and tradition, casebooks generally follow the blueprint established by Christopher Columbus Langdell in the late 1800s. With rare and recent exceptions, casebooks' illustrations are limited to black-and-white images of long-dead jurists, perhaps wearing appropriately authoritative wigs.⁵³ And legal scholarship consists predominantly of long blocks of text, perhaps broken up by an occasional table or graph. While technology-including research databases, electronic filing, and email—has yielded undeniable efficiencies in the legal profession, these efficiencies have served primarily to reinforce, rather than revolutionize, long-established modes of text-centered legal discourse. Just as some auto buyers use hybrid technology to justify the purchase of a 5,000-pound SUV rather than a 2,000-pound Honda Civic, lawyers, judges, and legal scholars have largely harnessed new digital technology to create more and longer textual documents, rather than to communicate the law in a new, denser, and potentially more powerful manner.

This Part describes the enormous analytical shift to a more visual jurisprudence—one that embraces the new reading and communication techniques of the digital era. Section A traces the roots of our logocentric legal discourse. Section B explains why those barriers have persisted until very recently, even as other professions—and trial practice—began to adopt the visual language of the digital age. Section C concludes by describing very recent transformations in communications technology and in literacy patterns that have—finally—opened the way to a more visual approach to written law, through visual legal briefs, illustrated judicial opinions, and a more visual approach to legal scholarship.

^{51.} See Ryan C. Black & James F. Spriggs II, An Empirical Analysis of the Length of U.S. Supreme Court Opinions, 45 Hous. L. Rev. 621, 634 (2008) ("While the median length of the Court's majority opinions hovered around 763 words for the first twenty years of its existence, the same quantity more than quintupled to 4,250 words for the most recent twenty-year period.").

^{52.} Richard A. Posner, Judicial Opinions and Appellate Advocacy in Federal Courts—One Judge's Views, 51 Duq. L. Rev. 3, 8 (2013) [hereinafter Posner, Judicial Opinions].

^{53.} See, e.g., Victor E. Schwartz et al., Prosser, Wade and Schwartz's Torts 693 (11th ed. 2005) (including reproduction of portrait of Lord Blackburn). For an example of a highly visual textbook, see John H. Langbein, History of the Common Law: The Development of Anglo-American Legal Institutions (2009). Recently, led by Jonathan Zittrain, the Berkman Center for Internet and Society has created a free, open-source platform for creating digital-age casebooks. For a video describing the adaptable digital-textbooks vision, see Jonathan Zittrain, HILT 47 Jonathan Zittrain, YouTube (Apr. 22, 2013), http://www.youtube.com/watch?v=7FCqxV_1Ceo (on file with the *Columbia Law Review*) (describing new digital casebook as creating an "intellectual playlist" at 1:57).

A. The Nineteenth-Century Templates of Modern Written Advocacy

There have been dramatic substantive upheavals in American law over the last century. One of those upheavals involved the integration of photographs and other visual evidence into trial practice beginning in the last quarter of the nineteenth century. Despite this turn toward the visual at trial, however, in significant ways our templates for written legal expression—including litigation documents, treatises, textbooks, and legal scholarship—have remained stable since before the snapshot (never mind Snapchat) came into existence. Our models for written legal argument were formed under the influence of a tightly coiled braid of cost, technology, and culture during or before the nineteenth century. Those factors converged to create a resilient legal discourse that was—and has remained—almost exclusively print based.

The most obvious reason for the disregard of images in early legal writing is simple: a lack of photographic images.⁵⁵ Before the camera was invented in the mid-nineteenth century, it would have been impossible to include a photographic image in a legal document. The camera became an established technology in the decade after the Civil War, but in many ways the original device bears little resemblance to its modern counterparts. Early cameras were bulky affairs.

Adding a further layer of difficulty, camera film only became relatively affordable and easy to develop in the 1880s—up until that time most cameras were operated by professional photographers.⁵⁶ The vast majority of nineteenth-century photographs were staged portraits, scenic landscapes, or urban scenes,⁵⁷ which typically had limited utility in legal disputes. On rare occasions, photographs did capture material ripe for use in lawsuits, and by the second half of the nineteenth century, lawyers began to use photographic images as forms of direct or demonstrative

^{54.} See Mnookin, Image of Truth, supra note 50, at 3–4 (describing "more than 125 years of photography's sustained legal use").

^{55.} See id. at 8–14 (describing limited early American use of photographs as demonstrative evidence at trial and noting link with "history of photographic technologies").

^{56.} See Risto Sarvas & David M. Frohlich, From Snapshots to Social Media—The Changing Picture of Domestic Photography 20 (2011) (describing emergence of amateur "snapshot photography" starting with Kodak in 1888). The predecessor to the camera, the daguerreotype—named after its inventor, Louis Jacques Mandé Daguerre—was made public in France by the French government in 1839. See Naomi Rosenblum, A World History of Photography 18 (4th ed. 2007) (explaining King Louis Philippe donated process to French public, though British subjects were required to pay license fee to Daguerre). But while it was widely heralded as an innovation, it produced relatively few images. "Daguerreotypes had to be exposed to light for 10–15 min[utes] to get a photograph, the final picture was easily damaged, and the mercury fumes required in the process were unhealthy." Sarvas & Frohlich, supra, at 26.

^{57.} See Sarvas & Frohlich, supra note 56, at 31–32 (describing contours of early photography business); Mnookin, Image of Truth, supra note 50, at 7–8 (arguing by 1860 there was "thriving photographic industry").

evidence in trial.⁵⁸ One commentator in 1871 observed that "'as a witness in the courts of justice, photography is constantly employed in detecting forgery, revealing perjury, and in telling the truth.'"⁵⁹ And there are examples of a party filing a legal brief accompanied by a photograph.⁶⁰ But images could not and did not compete with print in the nineteenth century: There was not yet such thing as a snapshot. The primacy of print over images in legal writing was reinforced by the invention of the typewriter, which swept through the nation's law offices beginning in the mid-1870s. Financed and promoted by lawyer James Densmore, the typewriter dramatically increased the speed at which textual legal documents could be produced.⁶¹

Cost was an equally powerful barrier to illustrated legal argument during the nineteenth century. After all, even before the invention of the camera, lawyers used diagrams, maps, and other visuals in the courtroom; theoretically it would have been possible to include such visual aids in legal documents too. ⁶² In his biography of George Washington, John Marshall had an entire separate volume, an *Atlas*, of "'plans and charts of those parts of the country which were the scenes of the most important events during the War.'"⁶³ In a letter to his publisher Marshall stated, "'In a history of military transactions, plans or cutts [sic] are of vast importance [They] of course wou[l]d contribute much to the satisfaction of the reader.'"⁶⁴ In fact, Marshall's *Atlas* swallowed up the publisher's potential profit.⁶⁵

^{58.} See Luco v. United States, 64 U.S. (23 How.) 515, 516 (1860) (describing as "remarkable" that witness at trial, a photographer, had "attached to his deposition photographs of original documents").

^{59.} Mnookin, Image of Truth, supra note 50, at 11 (quoting Some of the Modern Appliances of Photography, 1 Photographic Times 33, 34 (1871)).

^{60.} See Don Cruse & Blake A. Hawthorne, Appellate Briefs of the Future, Presentation to the 20th Annual Conference on State and Federal Appeals 2 (June 3–4, 2010), http://www.scotxblog.com/wp-content/uploads/2010/06/Appellate-Briefs-of-the-Future-final.pdf (on file with the *Columbia Law Review*) (describing 1888 case in which Walgreen's filed its brief "on high quality paper along with a professional photographer's photograph of the Walgreen's store at issue").

^{61.} See M.H. Hoeflich, From Scriveners to Typewriters: Document Production in the Nineteenth-Century Law Office, 16 Green Bag 2d 395, 403–04 (2013) (noting Densmore's role as promoter and machine's "revolutionary" increase in speed).

^{62.} See Mnookin, Image of Truth, supra note 50, at 5 (describing "maps and surveys in land dispute cases, or drawings and diagrams in patent cases" as early forms of visual evidence).

^{63.} Ross E. Davies, Marshall's Maps, the *U.S. Reports*, and the New Judicial Restraint, 15 Green Bag 2d 445, 446 (2012) (quoting Advertisement for the Life of George Washington, Gazette U.S., Sept. 22, 1802, at 3, reprinted in 6 The Papers of John Marshall 241 (Charles F. Hobson et al. eds., 1990) [hereinafter Marshall Papers]).

^{64.} Id. at 447 (quoting Letter from John Marshall to Caleb P. Wayne (Jan. 22, 1804), reprinted in Marshall Papers, supra note 63, at 254–55).

^{65.} See id. (noting "Marshall persisted and Wayne was stuck with performing on the

In his official capacity as head of the federal judiciary, Marshall could not have afforded the luxury of satisfying the reader's visual appetite even had he wanted to do so. During his time as Chief Justice, the Reporters of Decisions (William Cranch, Henry Wheaton, and Richard Peters) were private entrepreneurs, not government bureaucrats, and publishing the *U.S. Reports* was barely profitable.⁶⁶ In this context, it is hardly surprising that there was a near total absence of maps, diagrams, or other illustrations in early Supreme Court opinions. Under Marshall, only two decisions contained visuals of any kind, and both were simple, typographic replications of financial documents—one a lottery ticket and the other a bank check.⁶⁷ Marshall's omission of illustrations from Court opinions, rather than his enthusiastic endorsement of them in his private scholarship, set the tone for the judicial opinions issued during Marshall's tenure, even after court reporting became "in part a creature of government" in 1817.⁶⁸

This was true even where the subject of a decision might seem to have invited inclusion of an image. For example, in *Luco v. United States*, the Court, in ruling on the validity of a land grant, relied on the justices' own visual comparison—"evidence 'oculis subjecta fidelibus'"—of a photograph of the document in question (which they found a forgery) with similar undisputedly valid documents. ⁶⁹ The Court did not attach copies of the photographs to its opinion to give readers an opportunity to see the alleged disparities with *their* own eyes.

State-court opinions were similarly black-and-white, text-bound affairs. As with the *U.S. Reports*, early state reports were published by private entrepreneurs.⁷⁰ It was only toward the end of the nineteenth century that all states had reporters of decisions, and even then many states only reported decisions of their highest court.⁷¹ As was the case in the Supreme Court, there were rare examples of visual artifacts in opinions. Judge Cardozo once included a replica of a bill of lading in a decision in a contract suit about the delivery of a quantity of potatoes.⁷² And the

contract").

^{66.} See id. at 448 (describing Reporters of Decisions during Marshall's tenure).

^{67.} See Clark v. Mayor of Wash., 25 U.S. (12 Wheat.) 40, 44 (1827) (showing image of lottery ticket); Mechanics' Bank of Alexandria v. Bank of Columbia, 18 U.S. (5 Wheat.) 326, 327 (1820) (showing image of bank check).

^{68.} Davies, supra note 63, at 448-49.

^{69.} See 64 U.S. (23 How.) 515, 541 (1859) ("We have ourselves been able to compare these signatures by means of photographic copies, and fully concur (from evidence 'oculis subjecta fidelibus') that the seal and the signatures of Pico on this instrument are forgeries.").

^{70.} Erwin C. Surrency, A History of American Law Publishing 41 (1990).

^{71.} The drive for published reports began at the end of the eighteenth century. Morton J. Horwitz, The Transformation of American Law, 1780–1860, at 28 (1977).

^{72.} Loomis v. N.Y. Cent. & Hudson River R.R., 108 N.E. 837, 838 (N.Y. 1915).

Supreme Court of Alabama included in one opinion a diagram of lands in a property dispute.⁷³ But these black-and-white, typographic replicas were made using the traditional printer's tools, and in any event they were so rare as to escape all extant contemporaneous judicial or scholarly commentary.

Culture, inextricably intertwined with cost and technology, was the most potent barrier to visual jurisprudence. By the eighteenth century, English law was indelibly linked to print.⁷⁴ As Collins and Skover point out in their history of law's evolution from orality to text, the print-based form of these works was an essential aspect of their authoritative role: "The typographic word enhances all of the values associated with the supremacy of law—uniformity, predictability, universality, and analytical applicability of printed commands. With its systematic categories and abstract concepts, typographic law emphasizes detached and logical analysis."⁷⁵

British legal treatises were the embodiment of these values, and early American legal treatises adhered to the form and structure established by the great British authorities, who retained enormous influence in the new country. The first homegrown American works, such as Zephaniah Swift's *System of the Law of Connecticut* and Kent's *Commentaries on American Law*, emulated the black-letter, authoritative tone that characterized Coke's *Institutes* and Blackstone's *Commentaries*. Their goal was to "promote[] the comforting ideal of a logical, symmetrical, and most important, inexorable system of law." Under the strong influence of this conception of law, it is highly unlikely that Marshall would have illustrated the Supreme Court's opinions even had the funds been available. One scholar has characterized Marshall as the "preeminent example of [the] Typographic Man—detached, analytical, devoted to logic "77

After the Civil War, the rise of legal formalism, which conceived of law as a "science," reinforced typographic values. Formalism "was designed to separate politics from law, subjectivity from objectivity, and laymen's reasoning from professional reasoning." ⁷⁸ Formalist litigation culture valued universal criteria over unique facts, judges over juries. ⁷⁹ The development of the modern law school at the turn of the twentieth

^{73.} Alexander v. Caldwell, 55 Ala. 517, 522 (1876).

^{74.} See, e.g., Entick v. Carrington, (1765) 95 Eng. Rep. 807 (K.B.) 817; 2 Wils. K.B. 275, 291 (Pratt, J.) ("[I]f this is law it would be found in our books ").

^{75.} Collins & Skover, supra note 11, at 534.

^{76.} Horwitz, supra note 71, at 258.

^{77.} Neil Postman, Amusing Ourselves to Death: Public Discourse in the Age of Show Business 57 (1985).

^{78.} Horwitz, supra note 71, at 257.

^{79.} See Collins & Skover, supra note 11, at 533 ("To succeed, such criteria cannot be too fact-dependent, because precedent and the rule of law command that such criteria be applied universally, in ways that transcend individual experience.").

century enshrined this formalist, typographic mode of legal analysis as the preeminent standard of the profession. The single greatest contributor to this transformation was Christopher Columbus Langdell. Langdell—the oft-underestimated first dean of the Harvard Law School—was a writer's lawyer. During his years in practice, Langdell disliked "grand style" trial and oral advocacy, preferring the quiet detachment of drafting and brief writing. At Harvard he established a deeply formalist law-school curriculum that adhered to his values, privileging writing over speaking, law over facts. He also established a law library, creating a specialized space for quiet, formalized legal thought. Element of the profession.

Langdell's formalist law-school curriculum has proven to be remarkably, almost preternaturally, resilient. Langdell's casebooks and inductive pedagogy reflected and perpetuated his focus on logic, consistency, and a "scientific" analysis of precedent and legal rules. Not surprisingly, these revolutionary casebooks prioritized black-letter law and cases; none were illustrated. We have Langdell to thank not only for the casebook method but also for the three-year, relatively standardized law-school curriculum, for merit-based admissions, and for the use of written examinations as the primary—if not sole—mode of assessment. The sharp divide between written law and oral advocacy, between law and facts, tended to relegate images to the courtroom.

Despite this sharp Langdellian divide, courts did on rare occasions incorporate images into their opinions, to great effect. For example, *Appleby v. City of New York* concerned the ability of deed holders to fill in river lots by creating wharves and other structures.⁸⁴ In setting forth the problem, the Supreme Court included (and West's *Supreme Court Reporter* embedded) a map of one of the deeded areas:

^{80.} Christopher Tomlin, Book Review, 59 J. Legal Educ. 657, 660 (2010) (reviewing Bruce A. Kimball, The Inception of Modern Professional Education: C.C. Langdell, 1826–1906 (2009)) (noting Langdell preferred "exacting preparation of extended written briefs" to oral advocacy).

^{81.} See W. Burlette Carter, Reconstructing Langdell, 32 Ga. L. Rev. 1, 27 (1997) (describing how Langdell "initiated the employment of a permanent librarian, secured new additions to the collection, including new reporters, and took steps to prevent the collections from theft").

^{82.} See, e.g., Christopher Columbus Langdell, Selection of Cases on the Law of Contracts (1871) (containing no illustrations).

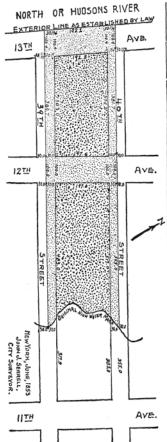
^{83.} See Margaret Z. Johns & Rex R. Perschenbacher, The United States Legal System: An Introduction 5–14~(2002) (chronicling Langdell's reforms at Harvard and their spread throughout legal academy).

^{84. 46} S. Ct. 569, 569–70 (1926) (describing Appleby's deed with New York City).

1925)

APPLEBY v. CITY OF NEW YORK

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width of the northerly half part of Thirty-Ninth street and the southerly half part of Fortieth street, which were reserved to the city"

At the time of these deeds, there was no filling between the high-water mark and Twelfth avenue, but since that time, and before 1871, the lots were filled by Appleby from high-water mark to within 4 feet of the easterly side of Twelfth avenue, a distance of approximately 500 feet.

In 1855 (Laws 1855, c. 121), for the avowed reason that grants had been made and piers built which obstructed the river navigation, provision was made for a harbor commission to prepare plans for harbor improvement and as a result chapter 763, Laws 1857, was passed to establish for the harbor bulkhead and pier lines. In its second section it provided:

"It shall not be lawful to fill in with earth, stone, or other solid material in the waters of said port, beyond the bulkhead line or line of solid filling hereby established, nor shall it be lawful to erect any structure exterior to the said bulkhead line, except the sea wall mentioned in the first section of this act, and piers which shall not exceed seventy feet in width respectively, with intervening water spaces of at least one hundred feet, nor shall it be lawful to extend such pier or piers beyond the exterior or pier line, nor beyond, or outside of the said sea wall."

In the same year, by virtue of the act, the harbor commission established a bulkhead line beyond which there could be no solid filling at 100 feet west of Twelfth avenue. The necessary effect of this legislation and

The necessary effect of this legislation and action, if made effective was to abolish Thirteenth avenue as a ripa or exterior line on the river, and to prevent the filling of plaintiffs' lots outshore from the bulkhead line, and the making of docks on the lots, and the enjoyment of wharfage at the ends thereof within 100 feet of the city's piers.

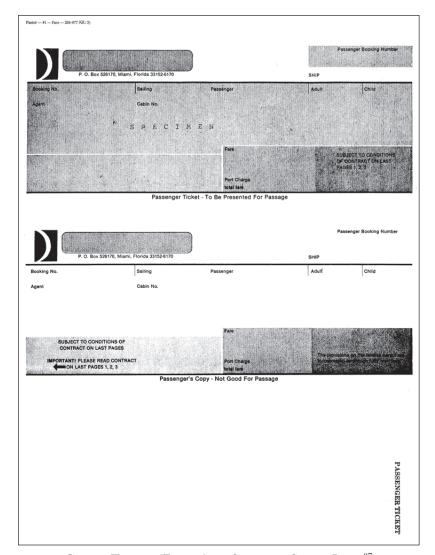
"By Laws 1871, c. 574, § 6, which amended section 99 of the Act of April 5, 1870 (Laws 1870, c. 137), relating to the government of the city of New York, it was provided that the department of docks should be established, that it should determine upon such plans as they deemed wise for the whole or any part of the water front, and submit them to the commissioners of the shiking fund, who might adopt or reject any such plan. After the plan was adopted, no wharf, pier, bulkhead, basin, dock, slip or any wharf, structure, or superstructure should thereafter be laid out or constructed within the territory or district embraced in and specified upon such plan except in accordance with the plan. The department was authorized in the act of 1871 to acquire, in the name and for the benefit of the city, any and all wharf property in the city to which the city had no right or title, and any rights and easements, and any rights, terms, easements, and privileges, pertaining to any wharf property in the city, and not owned by the city, by purchase or by condemnation. By the act of 1871, the bulkhead line for solid filling was fixed at 150 feet west of Twelfth avenue, instead of 100 feet, as previously fixed.

In 1890, the Secretary of War fixed the same bulkhead line as that fixed by dock commissioner under the act of 1871. Thereupon, in 1894, a condemnation proceeding was begun by the city against Appleby to appro-

MAP OF DEEDED AREA IN APPLEBY⁸⁵

The long, narrow excerpt of the deed map fits elegantly within the margins of the *Supreme Court Reporter*, giving visual interest while also showing the changes in the high-water mark in response to evolving city policies. This simple use of visual information could in theory have

inspired a trend toward embedded images in legal documents. Yet such a foray into nontextual presentation of information was, and until recently has remained, unusual. Due to its ubiquitous presence in civil procedure courses, the replication of the cruise ticket following Justice Stevens' dissent in *Carnival Cruise Lines, Inc. v. Shute* is perhaps the most famous Supreme Court visual.⁸⁶



CRUISE TICKET (FRONT) IN CARNIVAL CRUISE LINES⁸⁷

^{86. 499} U.S. 585, 597 & app. (1991) (Stevens, J., dissenting).

^{87.} Id.

TERMS AND CONDITIONS OF PASSAGE CONTRACT TICKET include, the purus where appropriate, and an persons engaging to anothe traveling of (ract. The masculine includes the feminine. (b) The Masculine and Crew of the Vessel shalf have the benefit of all of the travelines of this contract. CONTRACT PAGE 2

CONTRACT PAGE 3

CRUISE TICKET (BACK) IN CARNIVAL CRUISE LINES⁸⁸

And yet that ticket—blurry and relegated to the appendix—carries far less visual impact than the map in Appleby and is now sometimes edited out by casebook authors.⁸⁹ After all, it is the fine print on the back

88. Id.

89. See, e.g., Geoffrey Hazard et al., Pleading and Procedure 328–38 (9th ed. 2005) (omitting image of ticket from edited opinion); Richard L. Marcus et al., Civil Procedure: A Modern Approach 904-05 (6th ed. 2013) (discussing Carnival Cruise Lines, but omitting image of ticket).

of the ticket (also replicated in the appendix) that primarily concerned Justice Stevens. 90

Judicial opinions and legal documents were not the only forms of written law to eschew visual communication. Langdell's formalism also permeated legal scholarship, which was, and remains, overwhelmingly typographic. While he was dean, a group of six students calling themselves "the Langdell Society" inaugurated the *Harvard Law Review*, the nation's first successful student-run journal. Beginning with its 1887 volume the *Review* reflected and disseminated Langdell's formalist educational and legal beliefs. (And not only in an indirect fashion: Langdell ultimately published twenty-seven articles in the *Review*. Protographic image in that journal—a formal portrait of the then-new Harvard Law School building—appeared in 1907. While the *Review* occasionally dedicated volumes to prominent jurists, whose portraits would appear inside the front cover, images were almost never used to illustrate or support scholarly arguments. The same was true for other American law journals.

On the rare occasions where journals did include images, they were startlingly effective. For example, in 1923 Charles Warren published an article on the history of the Judiciary Act of 1789 in the *Harvard Law Review*. 95 Both figuratively and literally, the centerpiece of Warren's article was a "photostat copy" of a handwritten draft of the statute Warren discovered in the National Archives. 96

^{90.} See *Carnival Cruise Lines*, 499 U.S. at 597 (Stevens, J., dissenting) (stating he had appended facsimile of document "using the type size that actually appears in the ticket itself" to show "only the most meticulous passenger is likely to become aware of the [provision at issue]").

^{91.} See Michael I. Swygert & Jon W. Bruce, The Historical Origins, Founding, and Early Development of Student-Edited Law Reviews, 36 Hastings L.J. 739, 770–71 (1985) (detailing origin of *Harvard Law Review*).

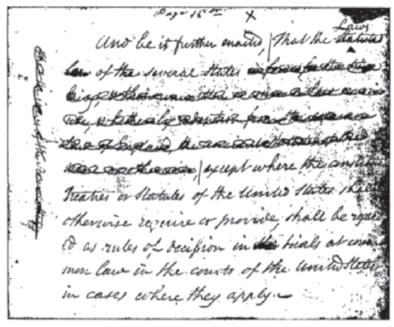
^{92.} Id. at 778.

^{93.} See G. Phillip Wardner, Enforcement of a Right of Action Required Under Foreign Law for Death upon the High Seas, Pt. II, 21 Harv. L. Rev. 75, unnumbered page between 75 and 76 (1907) (displaying image of Langdell Hall).

^{94.} See, e.g., Joseph H. Beale, Tribute to Jens Iverson Westengard, 32 Harv. L. Rev. 93, unnumbered page preceding 93 (1918) (displaying portrait of Jens Westengard); Roscoe Pound, Justice Holmes's Contributions to the Science of Law, 34 Harv. L. Rev. 449, unnumbered page between 449 and 450 (1921) (displaying portrait of Oliver Wendell Holmes, Jr.).

^{95.} Charles Warren, New Light on the History of the Federal Judiciary Act of 1789, 37 Harv. L. Rev. 49 (1923).

⁹⁶. See id. at 85–88 (discussing and displaying image of original draft of Judiciary Act of 1789). Photostat machines, first produced in 1908, were the earliest version of what decades later became photocopiers.



PROTOSTAT COPY OF SECTION 34 OF THE JUDICIARY ACT.

IMAGE OF DRAFT STATUTE⁹⁷

The embedded image showed a marked-up draft of the Act with rewrites supporting Warren's argument that the drafters of the Act intended it to encompass decisional as well as statutory law. 98 It showed the thought process of the Act's drafters in a way that mere description could not. Warren's historical analysis was cited as a deciding factor in the Supreme Court's watershed 1938 decision interpreting the Act in *Erie Railroad Co. v. Tompkins*. 99 Such visual argument was incredibly rare, however. The vast majority of legal scholarship was, and remains, exclusively textual.

As one commentator notes, "Langdell's personal trajectory serves as an example of the significant shift in litigation from trials based on principles to briefs based on cases, and of a split between trial and paper lawyers in the practice of litigation." The firm establishment of paper

^{97.} Id. at 87 (image rotated ninety degrees clockwise above).

^{98.} Id. Note that on Westlaw, the image has been removed. See Warren, supra note 95, available at Westlaw, 37 HVLR 49 (on file with the *Columbia Law Review*).

^{99.} See 304 U.S. 64, 72–73 (1938) ("[I]t was the more recent research of a competent scholar, who examined the original document, which established that the construction given to [the Judiciary Act of 1789] by the Court was erroneous ").

^{100.} Tomlin, supra note 80, at 660.

lawyers as central to the profession solidified the typographic, image-averse legal discourse. Later schools of legal theory, including legal realism, critical legal theory, and law and economics, successfully undermined key aspects of Langdell's rigid formalism in legal scholarship and—to a lesser extent—legal education. Yet Langdell's formalist roots went deep. Linear, print-based legal reasoning was and remains the enduring, signature style of legal practice. As an understandable result, "[t]o this day, archetypal notions of Anglo-American jurisprudence—the force of precedent, the rule of a reasoned decision, and the supremacy of law—are linked to print." ¹⁰¹ Brian Leiter has accurately described Langdellian formalism as the law's "lingua franca." ¹⁰² And until very recently that lingua franca began and ended with words.

B. Law 1.0: The Digital Age Arrives but Barriers Linger

Starting about twenty years ago, with the widespread adoption of personal computers, scholars began to predict the decline of the dominance of typographic law. Writing in 1992, Collins and Skover argued that law was pressing beyond its print-based boundaries to enter a new and more complex audio-visual age—the age, as they called it, of "paratexts," which combined the traditional print medium with oral elements of preliterate legal culture. According to Collins and Skover, technological innovations would "profoundly test judicial institutions and practices." In a similar vein, Katsh's 1995 book, *Law in a Digital World*, predicted the image would take on a new role in legal culture as a result of electronic media. Use Writing a contemporaneous review of Katsh's book, Eugene Volokh was frankly skeptical. He agreed that perhaps digital tools might create "a few new opportunities" but thought Katsh had offered little direct evidence "of any basic change in the way people think about the law."

At the time, Volokh's lukewarm reaction was understandable. In the 1990s, digital media-making tools began to make visual and multimedia representations central to many professions. They also pervaded courtrooms, where videos of interrogations, confessions, and depositions

^{101.} Collins & Skover, supra note 11, at 533.

^{102.} See Brian Leiter, American Legal Education: The First 150 Years, Huffington Post (Jan. 12, 2014, 9:35 AM), http://www.huffingtonpost.com/brian-leiter/american-legal-education-_b_4581672.html (on file with the *Columbia Law Review*) (observing despite significant developments in schools of legal scholarship, fundamental legal pedagogy remains rooted in Langdellian formalism).

^{103.} Collins & Skover, supra note 11, at 535 (arguing paratexts "challenge the content-limited character" of print materials).

^{104.} Id. at 547.

^{105.} See Katsh, Digital World, supra note 40, at 133–71 (crediting "new electronic tools" with beginning change in legal landscape).

^{106.} Volokh, Technology, supra note 40, at 1391.

became routine elements of trial practice. ¹⁰⁷ Despite these visual incursions, however, print-dominated legal culture remained aloof from these developments. To be sure, digital databases dramatically increased the efficiency of legal research; email and the Internet dramatically improved communication of legal ideas and documents; and rules governing electronic filing and discovery modernized fundamental areas of practice. But—ironically, perhaps—those innovations largely reinforced, rather than revolutionized, law's typographical roots, just as the type-writer had done a century earlier. ¹⁰⁸ Visual media remained largely the province of the factfinder (or—as the O.J. Simpson trial brought into sharp relief—the television audience¹⁰⁹). Occasional forays into the visual, such as Justice Stevens's attachment of a cruise ticket to his dissent in *Carnival Cruise Lines, Inc. v. Shute*, were no more than notable curiosities, almost invariably relegated to an appendix. ¹¹⁰

Beginning around the turn of the twenty-first century, lawyers made sporadic efforts to embrace a more visual form of written advocacy, but to no great effect. Notably, the first parties to attempt to file technologically innovative Supreme Court briefs were amici, who—as a result of their outsider status—may have felt less compelled to adhere with perfect fidelity to traditional modes of argument. In 1995, for example, a Stanford law professor attempted to file the first hyperlinked amicus brief on CD-ROM in the United States Supreme Court. The Court rejected the brief on the ground that it "was not equipped to view it." In 1997 the Court accepted its first CD-ROM brief—an amicus brief in

^{107.} See Collins & Skover, supra note 11, at 511–12 (noting, in context of criminal trials, "[b]oth the prosecution and the accused resort to video in a wide variety of actions, ranging from contempt, perjury, escape, and sexual and obscenity-related offenses to burglary, theft, and drug crimes").

^{108.} See Katsh, Digital World, supra note 40, at 147 ("The manner in which personal computers were used during most of the 1980s, therefore, tended to reinforce the law's reliance on words and text and revealed little about the ultimate impact of the electronic image on law.").

^{109.} See Lilah Raptopoulos, The OJ Simpson Case 20 Years Later: Making 'Trials into Television,' Guardian (June 17, 2014, 11:57 AM), http://www.theguardian.com/world/2014/jun/17/oj-simpson-trial-cameras-court-justice-culture (on file with the *Columbia Law Review*) (discussing effect of televising O.J. Simpson trial).

^{110.} See 499 U.S. 585, 597 & app. (1991) (Stevens, J., dissenting) (including facsimile of passenger ticket in appendix to demonstrate unlikelihood of passenger reading fine print).

^{111.} See Wendy R. Leibowitz, When High-Tech is over the Top: Is a CD-ROM Brief Fair or Foul?, Nat'l L.J., Mar. 3, 1997, at B8 (noting Professor Joe Grundfest was first to attempt to file electronic "hypertext-linked brief" with Supreme Court); Michael Whiteman, Appellate Court Briefs on the Web: Electronic Dynamos or Legal Quagmire?, 97 Law Libr. J. 467, 469 & n.16 (2005) (describing early attempts to file nontraditional, technology-based briefs, including Professor Grundfest's CD-ROM amicus brief).

^{112.} Whiteman, supra note 111, at 469 n.16. Other federal courts and many states took longer to accept electronic briefs. See id. at 469.

ACLU v. Reno that linked to scientific and medical websites that would be caught up in the censoring web of the Communications Decency Act. 113 But this visual advocacy needed an audience in order to be effective; there is no way to know whether the justices—or even the law clerks—depended on that visual presentation in preparing for or deciding the case.

These technological and practical hurdles to visual advocacy remained significant until at least 2005. Pioneers in this area were lonely. For example, Peter Bensinger, a Chicago litigator who earned the title "the most wired lawyer in America" in 2000, would routinely submit what he termed "magazine briefs"—briefs on CD-ROMs with full color images, PowerPoint slides, and graphics seamlessly embedded into the text. ¹¹⁴ He also embedded into his briefs hyperlinks to pinpoint citations or deposition transcripts, theoretically allowing readers seamless navigation from argument to evidence. Presaging the new multimedia advocacy, Bensinger argued that "showing why you are right, rather than just talking about it, builds credibility." ¹¹⁵ In essence, a Bensinger magazine brief marketed his argument to the judge. ¹¹⁶

Yet magazine briefs did not catch on in a significant way.¹¹⁷ To gain some perspective, consider that in 1989, only fifteen percent of households had a personal computer and there was no commercially available digital camera. The prototype of the first digital camera, produced in 1975, weighed over eight pounds and produced a 100 by 100 pixel, blackand-white image.¹¹⁸ The first such camera priced under \$1,000 became

^{113.} Brief of Amici Curiae Am. Ass'n of Univ. Profs., et al. in Support of Appellees, Reno v. ACLU, 521 U.S. 844 (1997) (No. 96-511), 1997 WL 74396; Whiteman, supra note 111, at 469.

^{114.} See Mark Voorhees, The Peter Principle, Mobile Law. (Supp. to Am. Law.) (Dec. 13, 2000), http://www.law.com/jsp/article.jsp?id=900005516401&slreturn=20140124193858 [hereinafter Voorhees, Peter Principle] (on file with the *Columbia Law Review*) ("Bensinger may be the most wired lawyer in America and one of the clearest examples of how technology can explode the myth and tradition that law is a deskbound endeavor."); see also Peter B. Bensinger Jr., Magazine Briefs 2–15 (2000), available at http://www.bartlit-beck.com/media/news/10_article_92800.pdf (on file with the *Columbia Law Review*) (showing examples of embedded images, graphics, and informational sidebars, and providing specific instructions). Compare Voorhees, Peter Principle, supra (displaying no photos), with id., available at http://www.bartlit-beck.com/about-news-66.html (on file with the *Columbia Law Review*) (displaying selected photos).

^{115.} Bensinger, supra note 114, at 1.

^{116.} For an argument that this approach dramatically alters the dynamics of judicial decisionmaking, see infra Part III.

^{117.} See Morgan Smith, e-Briefs on the iPad: An Exciting New Tool to Give Attorneys an Edge, Cogent Legal Blog (Feb. 14, 2012), http://cogentlegal.com/blog/2012/02/ebriefs-on-the-ipad/ (on file with the *Columbia Law Review*) (observing, as of 2012, "use of e-briefs is still limited," despite predictions of revolution in brief writing in 2000).

^{118.} See James Vlahos, Digital Camera, *in* Hugo Lindgren, Who Made That?, N.Y. Times Mag., June 9, 2013, at 36, 36 (describing first prototype of digital camera).

available only in 1994. In order to get the camera's low-resolution images onto a computer it was necessary to use a scanner, which at that time cost another \$1,000. Even once such images were stored in a computer, they could not easily be transferred; as late as 1997 only 35.2% of U.S. adults used the Internet at home. Those barriers persisted into the first years of the twenty-first century. In order to support his technological innovation, Bensinger would travel with 135 pounds of equipment.

Lawyers lacking Bensinger's technological know-how (or what appears to be his boundless energy) would have faced a choice between mastering layers of kludgy computer processes in addition to their legal work or paying high prices to have an outside firm convert a brief into a hyperlinked CD-ROM. 121 Either process—in-house or professional would cost precious time and money. In addition, court rules generally required litigants to submit paper briefs in addition to any digital submissions. Even a decade ago, there was not an enthusiastic readership for digital documents. The extra effort and expense for a hyperlinked brief may not have been worthwhile given that most judges would simply have read them the old-fashioned way, in hard copy. 122 Perhaps most importantly, law firms were likely comfortable with their traditionally formatted templates, which conformed to court rules and were reliably appropriate. As a result, fifteen years after Katsh predicted widespread visual change in legal documents, a typical appellate brief, certiorari petition, or motion for summary judgment had changed little, if at all, in response to the explosion of visual information emerging on the Internet and in telecommunications.

Books offering advice on brief writing have perpetuated this marginalization of image-driven written advocacy. There are thousands of pages of advice to lawyers on how to craft effective pleadings and briefs, including an entire volume devoted to typography and another dedicated exclusively to formatting briefs in Microsoft Word. ¹²³ Yet to this day most books on the subject lack even a reference guide entry for

^{119.} Eric C. Newburger, U.S. Census Bureau, Computer Use in the United States, Population Characteristics, October 1997, at 6 tbl.C (Sept. 1999), available at http://www.census.gov/prod/99pubs/p20-522.pdf (on file with the *Columbia Law Review*).

^{120.} See Voorhees, Peter Principle, supra note 114 (showing image of lawyer Peter Bensinger surrounded by his pile of technological equipment).

^{121.} For a company that continues to produce hyperlinked e-briefs, see A2L Consulting, http://www.A2LC.com (last visited Sept. 9, 2014).

^{122.} See Maria Perez Crist, The E-Brief: Legal Writing for an Online World, 33 N.M. L. Rev. 49, 78 (2003) (noting as of 2003 "demand for electronic briefs is not widespread" and speculating "both the courts and the attorneys may simply experience a common aversion to change").

^{123.} See, e.g., Matthew Butterick, Typography for Lawyers: Essential Tools for Polished and Persuasive Documents (2010); John M. Miano, Formatting Briefs in Word (2011).

"figure," "graphic," "illustration," "photograph," or "picture."124 One book suggests that lawyers preparing to write a brief "[spend] a few minutes with a diagram as part of your analysis"—but makes no mention of including such a diagram in the final product. 125 Another urges lawyers to "create pictorial clarity" with subheadings, lists, and columns, but never mentions actual pictures. 126 The Law as Architecture uses a series of glossy color photos as extended metaphors for legal writing, but the author does not appear to contemplate the possibility of using images in the writing itself. 127 And Matthew Butterick's informative (and visually beautiful) recent book, Typography for Lawyers, instructs lawyers to heighten the visual appeal of legal documents by optimizing font styles and employing other techniques such as "kerning" (which is the "adjustment of specific pairs of letters to improve spacing and fit"). 128 Despite his strong focus on the visual impact of typography, Butterick does not mention images.

Even now, only a few commentators have taken genuine interest in visual persuasion outside of trial. Writing about appellate advocacy, Bryan Garner urges lawyers to "[u]se charts, diagrams, and other visual aids when you can." As Garner wryly observes, "A picture can be worth... well, it can help win a lawsuit." In a similar vein, Judge Richard Posner criticizes typical legal writing as merely "serviceable" and particularly criticizes lawyers' "surprising reluctance to use pictures." Judge Posner now routinely illustrates his Seventh Circuit opinions, but he is a pioneer. A prominent handbook on judicial opinion writing observes that trial-court decisions "should be readily understandable, with the fewest possible distractions such as headings, footnotes, citations, and illustrations." Until quite recently, on the rare occasion

^{124.} See, e.g., Butterick, supra note 123, at "Contents" (unnumbered page) (including no table of contents entry for any listed term); Miano, supra note 123, at 279–81 (including no index entry for any listed term).

^{125.} Norman Brand & John O. White, Legal Writing: The Strategy of Persuasion 7 (3d ed. 1994); see also id. at 93 (suggesting lawyers use "graphics," meaning headings and subheadings).

^{126.} Susan Brody et al., Legal Drafting 106 (1994) ("Integrate structure and content to create pictorial clarity.").

^{127.} Jill J. Ramsfield, The Law as Architecture: Building Legal Documents (2000); see also Miano, supra note 123, *passim* (containing dozens of screenshots and illustrations but never suggesting lawyers might want to insert illustrations into briefs).

^{128.} Butterick, supra note 123, at 97 (distinguishing kerning from letterspacing).

^{129.} Bryan Garner, The Winning Brief 326-33 (2d ed. 2004) (discussing use of visual aids, in Tip #70).

^{130.} Id. at 328.

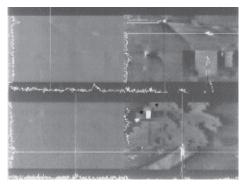
^{131.} Posner, Judicial Opinions, supra note 52, at 23.

^{132.} See, e.g., Gonzalez-Servin v. Ford Motor Co., 662 F.3d 931, 934–35 (7th Cir. 2011) (Posner, J.) (providing illustrations comparing unprofessional attorney to ostrich).

^{133.} Joyce J. George, Judicial Opinion Writing Handbook 161 (5th ed. 2007).

when an image was included in a judicial opinion, it was typically attached in an appendix, and its treatment in the opinion—if indeed it was mentioned at all—reflected that peripheral status.¹³⁴

In lieu of images, judicial opinions and other written legal documents often resort to imagery. Legal discourse is littered with visual metaphor, from "black-letter law" to "bright-line" rules, from "blue-penciling" a brief to "redlining" a document. This colorful language replaces the actual color of images. The Supreme Court's 2001 opinion in *United States v. Kyllo* is a paradigmatic example of imagery trumping image in a fairly recent judicial opinion. The question in *Kyllo* was the validity under the Fourth Amendment of thermal images of the defendant's home, taken by the police without a warrant. The images, which were part of the record, might predictably have provided a natural focal point for the constitutional analysis of the intrusiveness of the warrantless search:



THERMAL IMAGES IN KYLLO¹³⁸

In fact, in a case about images, the images played almost no role at all. The images, which showed large swaths of gray interspersed with a few shadowy blobs of light, did not offer much in the way of support to the *Kyllo* majority, which was determined to rule that the device impermissibly invaded the intimacy of the home. Thus, the majority opinion disregarded the actual images and instead created its own, verbal image, hypothesizing that the thermal-imaging device (or a future, more technologically sophisticated version of it) "might disclose, for example,

^{134.} See Marder, supra note 44, at 332 (criticizing recent Supreme Court decisions for including images without commentary or context).

¹³⁵. See, e.g., Hibbitts, supra note 49, at 229-33 (describing role of metaphor in legal discourse).

^{136. 533} U.S. 27 (2001).

^{137.} Id. at 29 (stating question presented).

^{138.} Id. at 52 app. (Stevens, J., dissenting), image available at http://law2.umkc.edu/faculty/projects/ftrials/conlaw/kyllo.htm.

at what hour each night the lady of the house takes her daily sauna and bath."¹³⁹ The gritty reality of the black-and-white images of marijuana plants growing over a garage was overwritten by a romanticized (and gendered) narrative of domestic tranquility disturbed by unbridled technology. If the images poorly served the majority's legal position, they were ideal fodder for Justice Stevens's dissent. Yet while Justice Stevens did include the thermal images, he did so only in an appendix, and he did not tightly link his analysis to the images themselves. ¹⁴⁰ On many levels, *Kyllo*—a case about technology and images—reflects law's discomfort with images.

The Court's dismissive attitude toward the central piece of evidence in Kyllo stands in direct contrast to its approach only six years later in another Fourth Amendment case, Scott v. Harris. 141 Based on its view of a police dashboard video, the Court in Scott held that the police officer's conduct in the chase did not violate the Fourth Amendment. 142 In reaching this conclusion the Court essentially deleted the text of the two lowercourt opinions, replacing those analyses with a link to the video and expressly inviting readers of the opinion to see for themselves. ¹⁴³ In Kyllo, metaphor trumped image; in Scott, the image—a dashboard video of a police chase—displaced textual analysis. In part, of course, the difference in treatment is the result of differing legal contexts: Kyllo reflects the Court's deep suspicion of technology aimed at the home, while Scott dealt with a more mundane, workaday Fourth Amendment dispute in which the Court sympathized with the police rather than the fleeing driver. Yet that distinction is not fully satisfying. At least in part, the difference in approach appears to reflect dramatic changes between 2001 and 2007 in the receptivity of people, including judges, to visual reasoning.

Judges and practitioners are not the only lawyers who have been slow to integrate modern visual media into legal writing. Textbooks and journal articles have remained almost disturbingly faithful to traditional, nonvisual forms. The aversion to images in textbooks may be driven by high printing cost and the costs of obtaining copyright permission, two potentially formidable obstacles. But in the context of legal scholarship, it seems far more likely that scholars—products of a legal education that idealizes text and rarely if ever mentions visual literacy—were not thinking in visual terms and therefore not submitting work that pushed visual boundaries.

^{139.} Id. at 38 (majority opinion).

^{140.} See id. at 52 app. (Stevens, J., dissenting) (displaying thermal images as appendix to Stevens's dissent).

^{141. 550} U.S. 372 (2007).

^{142.} Id. at 386.

^{143.} Id. at 378 n.6.

Widely used legal databases Westlaw and LexisNexis also posed—and continue to pose—an obstacle to image-driven legal argument. Text is "simple to translate into software code and to share over networks—it doesn't require a lot of memory to store, a lot of bandwidth to transmit, or a lot of processing power to render on a screen." Because there has been no pressing demand for databases to take the extra step to incorporate images, until very recently Westlaw and LexisNexis removed most images from many legal documents, replacing them with a textual notation: "TABULAR OR GRAPHIC MATERIAL SET FORTH AT THIS POINT IS NOT DISPLAYABLE." That all-caps message is a metaphor for the law's traditional dismissal of the visual in legal briefing and scholarship. But it is not only a metaphor. As a practical matter, the omission of images alters the meaning of documents that contain images. In addition, it was (and remains) impossible to search for an image in either database.

Ironically, therefore, lawyers taking advantage of new research technology might have been *less* likely than predigital lawyers—who were relying on books—to encounter what few images were contained in legal documents. A lawyer or academic reading a Westlaw copy of Warren's article on the Judiciary Act, for example, would not see the embedded archival document. These barriers created a vicious cycle: Because images were not in active circulation, lawyers and judges were unlikely to consider image-driven advocacy as a potential option. In addition, images' disappearance from documents prevented other litigants, judges, or academics from interpreting those images when analyzing a precedent or scholarly argument. Even a decade ago, as the Internet revolutionized communication in other fields, a legal scholar, practitioner, or judge who sought to use an image was spitting into the wind.

C. Law 2.0: The New Visual Advocacy

Today—almost twenty years after M. Ethan Katsh predicted it—longstanding barriers to visual persuasion in written advocacy are finally coming down. By 2000, the number of computer-owning households had climbed to fifty-one percent. A year after that, in 2001, came the first commercially available camera phones. The scales tipped decisively in favor of visual communication when the web went 2.0 around 2004 to 2005, years that saw the launch of Facebook, Flickr, and YouTube—all

¹⁴⁴. Nicholas Carr, The Shallows: What the Internet Is Doing to Our Brains 83 (2010).

^{145.} Eric C. Newburger, U.S. Census Bureau, Home Computers and Internet Use in the United States: August 2000, Current Population Reports 1 (Sept. 2001), available at http://www.census.gov/prod/2001pubs/p23-207.pdf (on file with the *Columbia Law Review*).

^{146.} See Sarvas & Frohlich, supra note 56, at 93 (documenting revolution in camera equipment).

sites purpose to encourage wide, instant visual whose was communication.¹⁴⁷ Within a few years, Facebook hosted twenty billion photos, Apple launched the iPhone, and seventy-nine percent of young Americans were posting photos online. 148 By 2008 text messages (which often contain images) outnumbered phone calls. 149 In 2011, eighty billion digital photos were taken; of those, thirty billion were taken with camera phones. 150 As of 2013, ninety percent of adults in the United States had some form of cellular phone and over half had a smartphone; smartphone ownership went up to eighty-three percent of adults age eighteen to twenty-nine. 151 In tandem with the rapid development of a digital-media network, new digital reading devices such as the iPad have transformed American literacy habits. Although it was first released only in 2008, forty-two percent of American adults now own a tablet computer, and thirty-two percent own an e-reader. 152 Under the influence of the iPad, laptops, and other personal reading devices, more Americans now read electronically for work and pleasure than read in hard copy.¹⁵³

The explosion in the number of circulating images and in the variety of platforms for seeing those images has transformed the way people read, write, and think.¹⁵⁴ Whether on a bus, on a plane, at home, on the street, in a café, or in the office, we do not only *see* a seemingly infinite array of images, but we *interact* with them: zooming in, changing perspec-

^{147.} Id. at 155.

^{148.} Id. at 92; Maeve Duggan, Pew Research Internet & Am. Life Project, Photo and Video Sharing Grow Online 5 (Oct. 28, 2013), http://www.pewinternet.org/files/old-media//Files/Reports/2013/PIP_Photos%20and%20videos%20online_102813.pdf (on file with the *Columbia Law Review*).

^{149.} Christine Erickson, A Brief History of Text Messaging, Mashable (Sept. 21, 2012), http://mashable.com/2012/09/21/text-messaging-history (on file with the Columbia Law Review).

^{150.} Christine M. Kreiser, Digital Camera, Am. Hist., Aug. 2012, at 25, 25.

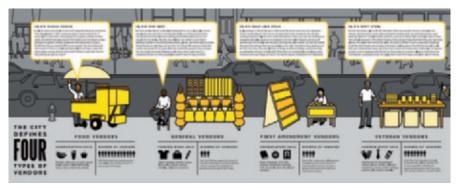
^{151.} Mobile Technology Fact Sheet, PewResearch Internet Project, http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/ (on file with the *Columbia Law Review*) (last visited Aug. 4, 2014) (reporting cellular-phone ownership in January 2014).

^{152.} Id. (reporting tablet and e-reader use levels).

^{153.} See, e.g., How Americans Get Their News, Am. Press Inst. (Mar. 17, 2014, 3:00 PM), http://www.americanpressinstitute.org/publications/reports/survey-research/how-americans-get-news/ (on file with the *Columbia Law Review*) (showing extent of computer-based news access); Watching, Reading and Listening to the News, Pew Research Ctr. for the People & the Press (Sept. 27, 2012), http://www.people-press.org/2012/09/27/section-1-watching-reading-and-listening-to-the-news-3 (on file with the *Columbia Law Review*) (showing digital news surpassing print news). But see Power(ed) Readers: Americans Who Read More Electronically Read More, Period, Harris Polls (Apr. 17, 2014), http://www.harrisinteractive.com/NewsRoom/HarrisPolls/tabid/447/ctl/Read Custom%20Default/mid/1508/ArticleId/1415/Default.aspx (on file with the *Columbia Law Review*) (reporting more Americans read books in print than digital format).

^{154.} See Carr, supra note 144, at 6 (discussing impact of Internet on "concentration and contemplation").

tive, mapping where they were taken, commenting on them, flipping through a series of images with our fingers, or instantly sharing them by text, email, or social network. We read in a new, digital—visual—fashion. Magazines are "'filled with color, oversized headlines, graphics, photos, and pull quotes.'" Sometimes the purpose of this visuality is mere entertainment, but often it is education, such as this poster by the Center for Urban Pedagogy, which aims to educate New York City street vendors of their rights and obligations using a newly visual vocabulary:



POSTER BY THE CENTER FOR URBAN PEDAGOGY¹⁵⁶

This new visuality is not without drawbacks. Image-rich print, videos, and "easy-to-browse blurbs" have displaced deeper textual analysis in many media, responding to the voracious appetite for novelty and the shortened attention spans of wired readers. Our media are more colorful and far more interactive, but they are also—at least sometimes—more superficial. In addition, as a result of constant connectivity, recording an event has become an integral aspect of experiencing it, blurring the divide between lived experience and narration, between reality and marketing. For example, people posted Instagram snapshots of victims in the immediate aftermath of a deadly shooting at the Empire State Building in 2012. In response to criticisms, one of those posting responded: "This was the victim and [I] apologize to his family, but this

^{155.} Id. at 94–95 (quoting Michael Scherer, Does Size Matter?, Colum. Journalism Rev., Nov./Dec. 2002, at 32).

^{156.} Candy Chang, Ctr. for Urb. Pedagogy, Vendor Power!: A Guide to Street Vending in New York City 4 (2009) (image excerpted above), available at http://welcometocup.org/file_columns/0000/0012/vp-mpp.pdf (on file with the Columbia Law Review).

^{157.} Carr, supra note 144, at 94.

^{158.} Id. at 97 (quoting Google CEO Eric Schmidt enthusiastically describing situations where "everybody is watching a play and are busy talking about the play while the play is under way").

had to be documented. It was my reality."¹⁵⁹ Other postings on the same thread were from journalists, seeking permission to spread the bloody photographs to a wider audience. Connectivity opened the door to more powerful communication—but it is not easy to close the door.

"As goes popular discourse, so goes legal rhetoric." ¹⁶¹ Under the irresistible force of these cultural and technological upheavals, the barriers to multimedia written advocacy have begun to come down, for lawyers and for judges. Most courts—including all federal courts—now allow or mandate electronic filing of documents in searchable PDF, into which it is a simple matter to embed digital images. ¹⁶² Equally important, judges have become far more receptive to reading legal documents in electronic form. According to a recent survey, fifty-eight percent of federal judges use iPads to do court work (with tech-savvy bankruptcy judges at a higher seventy percent). ¹⁶³ Justices Kagan, Scalia, and Sotomayor are among those who now prepare for cases by reading briefs on image-friendly tablets rather than or in addition to hard copy. ¹⁶⁴

Judges are also increasingly comfortable with using the imagesaturated Internet as a source of factual information. ¹⁶⁵ Justice Souter was the first federal appellate judge to cite to the Internet in an opinion, in 1996. ¹⁶⁶ That practice has increased steadily under the encouragement of

^{159.} Heather Murphy, The Empire State Building Shooting Photos on Instagram: Were They Too Soon?, Slate: Brow Beat (Aug. 24, 2012, 4:37 PM), http://www.slate.com/blogs/browbeat/2012/08/24/the_empire_state_building_shooting_photos_on_instagram _were_they_too_soon_.html (on file with the *Columbia Law Review*).

^{160.} See id. (noting "stream of requests" from photo editors to use shooting image).

^{161.} Richard K. Sherwin, A Manifesto for Visual Legal Realism, 40 Loy. L.A. L. Rev. 719, 724 (2007).

^{162.} See, e.g., Jodi S. Balsam, The New Second Circuit Local Rules: Anatomy and Commentary, 19 J.L. & Pol'y 469, 510–11 (2011) (noting Second Circuit first permitted submission of PDF documents in 2005, and mandated it for all documents starting in 2010).

^{163.} See supra note 25 and accompanying text (describing judges' use of tablet computers).

^{164.} See Dylan Tweney, Supreme Court Considers Kindle v. iPad, Wired (Dec. 13, 2010, 5:08 PM), http://www.wired.com/2010/12/supreme-court-kindle/ (on file with the *Columbia Law Review*) (stating Justice Kagan used Kindle and Justice Scalia used iPad to read "vast quantities of written material" involved in their jobs); Oprah Winfrey, Oprah Talks to Sonia Sotomayor, O Mag. (Jan. 28, 2013), http://www.oprah.com/world/Oprah-Interviews-Sonia-Sotomayor-in-O-Magazine (on file with the *Columbia Law Review*) (stating Sotomayor "reads almost everything on her iPad").

^{165.} See, e.g., Coleen M. Barger, On the Internet, Nobody Knows You're a Judge: Appellate Courts' Use of Internet Materials, 4 J. App. Prac. & Process 417, 428 (2002) (noting 113 circuit court and Supreme Court cases citing internet sources in first seven months of 2002); Larsen, supra note 24, at 1288 (documenting prevalence of Supreme Court justices citing sources outside record gathered from websites).

^{166.} See Denver Area Educ. Telecomm. Consortium, Inc. v. FCC, 518 U.S. 727, 777 n.4 (1996) (Souter, J. concurring) (citing *USA Today* article and technology site).

several prominent jurists.¹⁶⁷ Judicial citations also reflect an increasing awareness of the impact of social media on law. In 2008, fourteen federal judicial opinions cited Facebook; by 2012 that number had climbed to 480. A similar pattern applies to Twitter, YouTube, and Google. Some courts—including the California Judicial Branch—now have Twitter feeds.168 And administrative agencies have begun communicating with the public via graphics rather than in text.¹⁶⁹

Legal search tools are also pioneering efforts to enhance the role of visuality in law. Relative newcomer among legal databases HeinOnline allows instant access to PDF versions of documents that retain their footnotes, images, graphics, and all other visual details. ¹⁷⁰ To further enhance its visual impact, HeinOnline has partnered with new database Fastcase, which uses interactive timelines to visually display the interrelationship between one authority and others that cite it. ¹⁷¹ Other legal-search-tool start-ups, including Ravel and the JustCite Precedent Map, similarly promise to expand the ways in which lawyers access, understand, and explain the law. ¹⁷² And legal scholars have begun to experiment with visual legal scholarship. For example, recently two scholars published an article adapted from a video ¹⁷³ in the *Federal Courts Law Review*. ¹⁷⁴

^{167.} Justice Stephen Breyer is an outspoken advocate of using digital tools to conduct independent research on issues that arise before the Supreme Court. See Larsen, supra note 24, at 1261–63 (suggesting courts develop coherent practices for when independent judicial internet research is appropriate). Similarly, Judge Richard Posner has argued that judges can, and should, look to the Internet for "technically sophisticated but lucid explanations" for complex questions. Jacob Gershman, Get Over Your Fear of the Internet, Judge Tells Peers, Wall St. J.: Law Blog (July 17, 2013, 1:01 PM), http://blogs.wsj.com/law/2013/07/17/get-over-your-fear-of-the-internet-judge-tells-peers/ (on file with the *Columbia Law Review*).

^{168.} California Courts, Twitter, https://twitter.com/CalCourts (on file with the *Columbia Law Review*) (last visited Sept. 9, 2014).

^{169.} See, e.g., President Obama's Plan to Fight Climate Change, White House (June 25, 2013), http://www.whitehouse.gov/share/climate-action-plan (on file with the *Columbia Law Review*) (displaying map showing impact of climate change on United States); see also, e.g., Cass Sunstein, Simpler: The Future of Government *passim* (2013) (including various graphical images used by government agencies throughout); Chang, supra note 156 (providing informative visual guide to rights and responsibilities of street vendors in New York City).

^{170.} What is HeinOnline?, HeinOnline, http://home.heinonline.org/about/what-is-hein-online/ (on file with the *Columbia Law Review*) (last visited Sept. 30, 2014).

^{171.} See Mary Whisner, Getting to Know Fastcase, 106 Law Libr. J. (forthcoming 2014) (manuscript at 1–2) (on file with the *Columbia Law Review*).

^{172.} See Ambrogi, supra note 21, at 36 ("'What we're trying to do is make the [legal research] process easier, more intuitive, more thorough.'" (quoting Daniel Lewis, cofounder of Ravel)).

^{173.} Scott Dodson & Colin Starger, Mapping Supreme Court Doctrine: Civil Pleading, Fed. Cts. L. Rev., http://www.fclr.org/fclr/articles/video_embed.shtml (on file with the *Columbia Law Review*) (last visited Aug. 13, 2014).

These changes in the way that people communicate with each other and access information are not temporary blips in an otherwise print-driven world. "The history of the Web suggests that the velocity of data will only increase." These emerging businesses, together with institutions such as the newly formed Program for Legal Technology & Design at the Stanford Design School, point toward a broad shift toward the visual in our conception and practice of written law. Together, these cultural changes have prompted a new and fascinating challenge to the unquestioned hegemony of print in legal documents. Image-driven written persuasion is here.

II. MARKETING THE LAW: A SNAPSHOT OF THE NEW DIGITAL ADVOCACY

Nicholas Carr describes the revolution in digital technology as a "moveable feast." This Part shows the growing impact of that feast on written legal argument and decisionmaking. Liberated from the evidentiary margins, a dizzying and colorful array of images has begun to play a central role in written legal argument. The use of images is not restricted to particular courts, doctrinal areas, or stages of litigation. To the contrary, as the below examples demonstrate, images are bubbling up, unregulated and almost unnoticed, in any type of suit where lawyers or judges think images would be effective.

In one sense images in legal documents are startling in their newness, in their sharp departure from the accepted tone of written legal argument. At the same time, they are seductively natural, because we are bombarded daily with visual messages, and because in the past decade other forms of writing—even "serious" scholarly or journalistic writing—have embraced multimedia exposition.¹⁷⁷ Multimedia legal argument is thus novel and, simultaneously, utterly pedestrian—an intriguing combination that may lead courts, and scholars, to underestimate its potential impact on the structure and substance of legal decisionmaking.

It may be tempting to downplay embedded images as merely an extension of previous practice, wherein litigants and courts occasionally attached images in exhibits or appendices following written briefs or opinions. The instinct to analogize a new mode of communication to a

^{174.} Scott Dodson & Colin Starger, Mapping Supreme Court Doctrine: Civil Pleading, 7 Fed. Cts. L. Rev. 275, 275 (2014), available at http://www.fclr.org/fclr/articles/html/2010/Dodson.pdf (on file with the *Columbia Law Review*).

^{175.} Carr, supra note 144, at 157.

^{176.} Id. at 4 ("As networked computers have shrunk to the size of iPhones and Blackberrys, the feast has become a movable one, available anytime, anywhere.").

^{177.} For a particularly telling example, see the Journal of Visual Experiment, or "JoVE." JoVE, http://www.jove.com/ (last visited Aug. 5, 2014). JoVE's articles are in video form; the purpose is to make accurate, real-time videos of ongoing experiments to assist other scientists to replicate findings in fields from neuroscience to applied physics.

preexisting legal doctrine or tradition is hardly new, and courts have frequently assimilated cyberspace into existing legal doctrines.¹⁷⁸ But, as is true in other contexts, reasoning by analogy risks underplaying the significance of an analytical shift.¹⁷⁹ In traditional legal documents, images were rarely, if ever, intended to be the engine of a persuasive argument. Their presence did not disrupt the linear, detached discourse of a traditional legal brief or opinion. By definition, an appendix to a brief or an opinion is supplemental—secondary. Today, however, lawyers and judges are embedding images directly into legal documents, using those images to drive arguments and—through explicit argument and implicit messaging—to compel conclusions.¹⁸⁰ Lawyers and courts are harnessing the power of the new visual vernacular to market their views of a case.

This is not to overstate the current role of images in litigation documents. Linear textual argument remains—by far—the dominant template for written law. Even in situations where images would seem to be an obvious choice, they are often omitted. As late as 2012, Justice Kennedy's majority opinion in a major water-rights case used "over 1,500 words and twenty-nine source citations to describe the course of three rivers," eschewing all use of maps despite the fact that the State of Montana had provided a "detailed map that clearly denoted the course of the three rivers in a single image." Yet adventurous lawyers and receptive courts are now taking advantage of ubiquitous picturing tools to argue, explain, and prove facts in litigation documents. In doing so, they are shifting the locus of interpretive power away from Langdell's linear formalism, and toward a more flexible, more accessible—yet

^{178.} See Jonathan H. Blavin & I. Glenn Cohen, Gore, Gibson, and Goldsmith: The Evolution of Internet Metaphors in Law and Commentary, 16 Harv. J.L. & Tech. 265, 267 (2002) ("When courts encounter new technologies not yet anticipated by the law, their reliance on analogical reasoning plays a profoundly important role in the application of proper legal rules."); Cass R. Sunstein, On Analogical Reasoning, 106 Harv. L. Rev. 741, 741–42 (1993) (discussing role of analogical reasoning in law); see also, e.g., Riley v. California, 134 S. Ct. 2473, 2491 (2014) (rejecting analogy of cell phone to closed container for Fourth Amendment purposes).

^{179.} See Mnookin, Image of Truth, supra note 50, at 6–7 (describing judicial adoption of photograph and arguing "dramatic change can be wrought out of the very effort to accommodate new technologies *without* change").

^{180.} See Sherwin et al., Law in the Digital Age, supra note 37, at 227 ("The practice of law—how truth and justice are represented and assessed—increasingly depends on what appears on electronic screens in courtrooms, law offices, government agencies, and elsewhere.").

^{181.} Miller, supra note 43, at 188 (describing lack of visual communication in PPL Mont., LLC v. Montana, 132 S. Ct. 1215 (2012)); see also Jessica Silbey, Images in/of Law, 57 N.Y.L. Sch. L. Rev. 171, 177 (2012–2013) ("Despite the proliferation of film as a basic tool of communication in our digital age, it remains rare to hear of legal scholarship, case law, and legislative initiatives analyzing film's role as a legal tool or constitutive part of legal culture.").

potentially problematic—visual legal discourse. Using a series of contemporary visual examples, this Part provides a snapshot of the current ways that lawyers and courts are harnessing the power of images to convey legal ideas and principles.

A. Visual Plausibility: Images as Evidence

In *Bell Atlantic Corp. v. Twombly*, the Supreme Court imposed heightened obligations on parties in federal courts to support their pleadings with factual allegations. A complaint, the Court held, must state a claim "that is plausible on its face." Increasingly, plaintiffs are taking that invitation literally, embedding images that go to the heart of their factual and legal allegations directly into paragraphs of their complaints. Appendices and even hyperlinks require readers to detach from the text of an argument. Embedded images remedy society's cognitive and cultural impatience with such extratextual steps by incorporating the immediacy and color of twenty-first-century media directly into the traditional form of a legal pleading. Instead of serving as evidentiary afterthoughts, images now serve multiple active advocacy purposes, only some of which are overt.

The recent Federal Trade Commission's (FTC) complaint against tech giant Apple is a perfect example. The gravamen of the FTC's complaint was that the tech company's software allowed children—unbeknownst to their parents—to purchase in-game treats and bonuses while playing computer games, the real cost of which was charged to their parents. The *Apple* case is already a landmark. It resulted in an unprecedented settlement under which Apple will reimburse over \$32 million dollars to parents who were charged for in-app purchases without their consent. It is also a landmark in a different, less well-recognized, sense: It appears to mark the first time that the FTC has embedded images into an administrative complaint.

^{182. 550} U.S. 544 (2007).

^{183.} Id. at 570.

^{184.} See Complaint at 6, In re Apple Inc., FTC File No. 112-3108, C-4444 (F.T.C. Mar. 25, 2014) [hereinafter FTC Apple Complaint], available at http://www.ftc.gov/system/files/documents/cases/140327applecmpt.pdf (on file with *Columbia Law Review*) (alleging Apple "bills parents... for children's activities in apps that are likely to be used by children without having obtained the account holders' express informed consent"); Press Release, Apple Inc. Will Provide Full Consumer Refunds of At Least \$32.5 Million to Settle FTC Complaint It Charged for Kids' In-App Purchases Without Parental Consent, FTC (Jan. 15, 2014), http://www.ftc.gov/news-events/press-releases/2014/01/apple-inc-will-provide-full-consumer-refunds-least-325-million (on file with *Columbia Law Review*) (stating typical in-app charges "range from 99 cents to \$99.99").

^{185.} Press Release, FTC, FTC Approves Final Order in Case About Apple Inc. Charging for Kids' In-App Purchases Without Parental Consent (Mar. 27, 2014), available at http://www.ftc.gov/news-events/press-releases/2014/03/ftc-approves-final-order-case-about-apple-inc-charging-kids-app (on file with the *Columbia Law Review*).

The FTC's newly visual approach is simple yet effective. The text of the complaint is replete with definitions for the lingo of modern software—"apps" and "caches" and "scrollable tiles." To a tech layperson, such abstract terms have little meaning. But screenshot examples provide an intuitive and straightforward explanation of the detailed appurchasing process at issue. Below, the screenshot to the left shows the game "Tiny Zoo Friends" as it would come up in a search; the screenshot to the right shows the app as it would appear if a user browsed for it on a list of related apps: ¹⁸⁷



SCREENSHOTS IN FTC APPLE COMPLAINT 188

Although the screenshots serve an important explanatory purpose, their most vital role is to persuade the reader of the merits of the FTC's claims. First, the FTC alleged that Apple was using in-app purchases in apps that are marketed to children as young as four. ¹⁸⁹ In the face of the screenshot of "Tiny Zoo Friends," any argument to the contrary by Apple would seem not only discordant, but disingenuous. Even to an uneducated observer, the bright colors, oversized letters, and animated creatures in the sample app are obviously geared toward young children.

Second, the FTC alleged that parents were frequently unaware that a particular app contained in-app purchases.¹⁹⁰ The sample screenshots provide strong support for that allegation. In the screenshot on the left,

^{186.} FTC Apple Complaint, supra note 184, at 1-2 (using and defining lingo of modern software apps).

^{187.} Id. at 3 (showing screenshots side by side, as pictured in this Article).

^{188.} Id.

^{189.} Id. at 5.

^{190.} Id. at 6 (giving example of one consumer whose child racked up over \$500 in charges over two days).

there is no information provided about in-app purchases. In the screenshot on the right, there is a notification of in-app purchases, but it is in tiny, low-intensity gray font, which would be essentially invisible to someone who was not specifically looking for it. In comparison, the much larger all-caps "FREE" sign is in a bright blue font that is associated in graphic design with cleanliness and honesty. ¹⁹¹ Finally, the FTC alleged that, unbeknownst to parents, once they entered their Apple ID password to purchase an app for their child, the password would remain valid for all subsequent purchases during a fifteen-minute window—wherein children could buy in-game treats that cost their parents real money without entering any further information. ¹⁹² Another screenshot directly supports this allegation by showing a password-prompt screen that contains no notification that entry of the password automatically creates a window for real-money purchases:



PASSWORD-PROMPT SCREEN IN FTC APPLE COMPLAINT 193

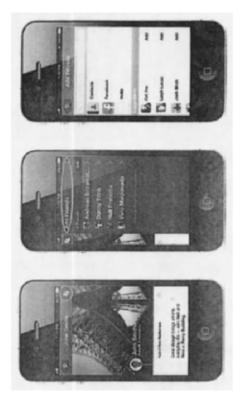
By embedding images of Apple's own products into its complaint, the FTC is *showing*, rather than merely *describing*, the steps Apple has taken to (1) attract children to its products; (2) minimize consumers' awareness of in-app offerings; and (3) streamline the process for making in-app purchases to increase the likelihood that consumers, even children, will spend real money while playing games. Far more effectively than text alone, the agency's visual arguments neutralize potential defenses of Apple. Finally, and perhaps most significantly, the screenshots convey the overarching (though unstated) theme of the complaint: Apple is an incredibly sophisticated company that devotes enormous resources to clear communication and effective design. A decision to minimize awareness of in-app purchases was not mere oversight. The complaint cries out for liability.

^{191.} See Amy E. Arntson, Graphic Design Basics 180 (3d ed. 1998) (noting blue "is used as a background color in package design because of its quiet, positive associations").

^{192.} FTC Apple Complaint, supra note 184, at 4-5.

^{193.} Id. at 4.

To see the difference that embedded images make in a legal document, compare the above *Apple* complaint with an FTC complaint filed last year charging a social-networking company with privacy-law violations. ¹⁹⁴ In *United States v. Path, Inc.*, the agency alleged that Path was collecting and storing data from children in violation of federal law. ¹⁹⁵ In an exhibit to the complaint (separated from it by a blank sheet of paper marked "Exhibit A"), the FTC attached a black-and-white photocopy of three separate screenshots related to Path's social-networking app.



PHOTOCOPY OF iPHONE SCREENS IN PATH 196

Relegated to the position of an exhibit, and in the absence of color, the screenshots perform little argumentative work. Without a textual

^{194.} See Complaint for Civil Penalties, Permanent Injunction, & Other Relief at 1–2, United States v. Path, Inc., No. C-13-0448 (N.D. Cal. Jan. 31, 2013), available at http://www.ftc.gov/sites/default/files/documents/cases/2013/02/130201pathinccmpt. pdf (on file with the *Columbia Law Review*) (bringing action for violations of FTC's Children's Online Privacy Protection Rule, 16 C.F.R. pt. 312 (1998)).

^{195.} See id. at 7 (charging Path knowingly collected and stored personal information of children who registered as users).

^{196.} Id. at exh. A.

explanation, it is difficult—and does not seem worth the effort—to decipher their significance. Embedding screenshots is not technically difficult, nor is it costly. Yet, with a simple switch to embedded images, the FTC dramatically improved the quality and effectiveness of its pleading. 197

Other civil litigants have harnessed the power of images to support their legal claims in a wide range of cases. Intellectual-property plaintiffs in particular have begun to unleash the full power of their copyrightable material in aid of their arguments. Given that copyright and trademark cases frequently depend on interpretation of visual material, it might seem surprising that this trend is so new. And indeed litigants have sometimes included exhibits containing the material at issue. Despite the obvious attraction of using the material, however, even intellectual-property litigants have overlooked the persuasive power of images. As Judge Posner describes:

Many years ago I was on the panel that heard an appeal in a trademark dispute between the Indianapolis Colts and the Baltimore CFL Colts. The briefs described the trademarked products (such as hats and T-shirts) but did not include pictures. At the oral argument, one of the judges (OK, I confess—it was I) asked the lawyer for the Indianapolis Colts

197. For another recent example of images that are less effective when relegated to an appendix, see Harney v. Sony Pictures Television, Inc., 704 F.3d 173, 176 (1st Cir. 2013) (considering copyright dispute over an idyllic photo taken by Boston newspaper photographer of man with his daughter in front of church on Palm Sunday). As it turned out, the father in the image was a "'professional' imposter who had been passing himself off as a member of the . . . Rockefeller family," as well as a descendent of British royalty, a rocket scientist, and a banker. Id. at 177. In producing a made-for-television movie about the man, including his abduction of his daughter during a custodial visit, Sony used a very similar image. Id. at 176. The First Circuit's substantial similarity analysis, which exhaustively analyzes the differences and similarities in the two images, is significantly hampered by absence of the disputed images within the text of the analysis. Id. at 186–88. In the appendix, the images have the role of an afterthought, despite their obvious centrality:





COMPARISON OF IMAGES IN HARNEY

Id. at 189 app., image available at http://docs.justia.com/cases/federal/appellate-courts/ca1/11-1760/11-1760-2013-01-07.pdf.

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. He was lucky that he was asked that question. He would not have needed luck had he included a photograph in his brief. 198

Recent intellectual-property plaintiffs have been more astute. For example, in 2012, a married couple and their wedding photographer sued an anti-gay-marriage organization for copyright infringement and misappropriation of likeness. 199 The plaintiffs alleged that the defendant unlawfully copied the couple's engagement photo off of their wedding blog and used it to create antigay political-campaign material. In their complaint, the plaintiffs used the material to create their own highly effective campaign. Leading the complaint—before traditionally foundational allegations such as the basis for jurisdiction and venue or identification of the parties—is an image of the couple's favorite engagement photo:



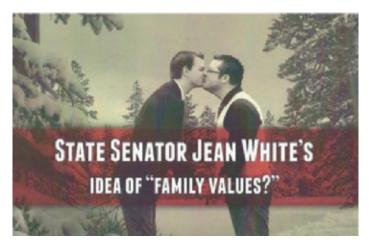
ENGAGEMENT PHOTO IN HILL²⁰⁰

198. Richard A. Posner, Effective Appellate Brief Writing, App. Prac. J., Spring 2010, at 1, 16, available at http://apps.americanbar.org/litigation/litigationnews/trial_skills/appellate-brief-writing-posner.html (on file with the *Columbia Law Review*). Notably, Judge Posner's earlier opinions placed images in appendices rather than in the body of the opinion. See, e.g., Ty, Inc. v. GMA Accessories, Inc., 132 F.3d 1167, 1174–1178 (7th Cir. 1997) (appending black-and-white images and sketches of Beanie Babies that were subject of copyright-infringement case). More recently, Judge Posner routinely embeds images into his opinions. See, e.g., Grayson v. Schuler, 666 F.3d 450, 452 (7th Cir. 2012) (embedding image of Bob Marley's dreadlocks).

^{199.} See Complaint $\P\P$ 44–46, at 10, \P 56, at 11, Hill v. Pub. Advocate of the U.S., No. 12-cv-02550 (D. Colo. Sept. 26, 2012), 2012 WL 4447620.

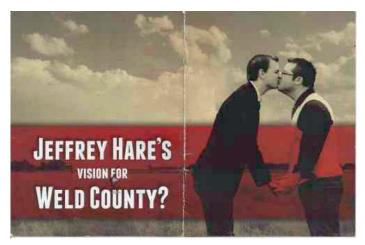
^{200.} Id.

A few paragraphs later is an image of a mailing—created by defendants without the plaintiffs' knowledge or permission—sent to Colorado voters in the mountainous Eighth State Senate District:



POLITICAL MAILING IN $HILL^{201}$

Shortly thereafter is a third image, used in the prairie towns of Colorado's Forty-Eighth State House District:



POLITICAL MAILING IN $HILL^{202}$

Underscoring the tight interrelationship between images and text, the simple textual overlays transform an iconic depiction of love into

^{201.} Id. ¶ 5, at 3.

^{202.} Id. ¶ 9, at 4.

homophobic propaganda. And the propaganda seems to have been effective. The candidates targeted by the mailings both lost their primaries. ²⁰³ But the images are equally effective in the couple's lawsuit. Visual symmetries literally and figuratively drive the legal argument. The playful, arching stance of the couple forms a memorable shape that jumps to the foreground in all three photos, especially when they are displayed in proximity to each other. ²⁰⁴ After seeing the images, the supporting legal allegations seem almost superfluous: The pictures speak for themselves. On a deeper level, defendants' repeated use of the identical image conveys a cynical disdain not only for the gay couple at issue, but also for the people of Colorado—who, the complaint conveys, can be easily manipulated by a quick Photoshop. In every respect, the complaint makes the defendants seem purposefully, willfully wrong. ²⁰⁵

In another recent intellectual-property case, the plaintiff successfully used humor in his declaratory-relief suit against U.S. government agencies that had sent a cease-and-desist order seeking to bar him from selling certain T-shirts, mugs, and other souvenirs that parody certain federal agencies. ²⁰⁶ Federal law prohibits use of the words "National Security Agency" or "NSA" "in any manner reasonably calculated to convey the impression that such use is approved, endorsed, or authorized by the National Security Agency." ²⁰⁷ In order to show that his wares could not reasonably create the impression that they were endorsed by the NSA, the plaintiff—represented by Public Citizen—embedded into his com-

^{203.} Republican state-senate candidate Jean White had voted to support a state measure allowing same-sex civil unions; Jeff Hare, a Republican state-senate candidate from another district, had never voted on the civil-union issue. The fliers were part of a successful campaign to defeat both candidates in Republican primaries. See Lynn Bartels, NJ Gay Couple Sues, Condemns Use of Their Picture in Colorado Ads, Denver Post (Sept. 26, 2012, 9:06 AM), http://www.denverpost.com/ci_21634721/nj-gay-couple-sues-condemns-use-their-picture (on file with the *Columbia Law Review*). After her loss in the Eighth District, Jean White stated, "I don't have any regrets about my vote. That was a principled vote." Lynn Bartels, Gay Couple Travels to Colorado for Lawsuit over Campaign Fliers Using Their Image, Denver Post: The Spot for Politics & Policy (Sept. 25, 2012, 8:19 PM), http://blogs.denverpost.com/thespot/2012/09/25/lawsuit-planned-colorado-attack-fliers/82463/#more-82463 (on file with the *Columbia Law Review*).

^{204.} Cf. Tufte, Envisioning, supra note 29, at 33 (noting multiples of single image, when viewed together, "enforce[] local comparisons within our eyespan, relying on an active eye to select and make contrasts rather than on bygone memories of images scattered over pages and pages").

^{205.} Despite their use of embedded images, the plaintiffs were not wholly successful in their claims. See *Hill*, No. 2014 WL 1293524, at *6–*8 (Mar. 31, 2014) (dismissing plaintiffs' misappropriation claim but allowing copyright-infringement claim to proceed).

^{206.} Complaint, McCall v. NSA, No. 13-cv-03203-MJG (D. Md. Oct. 29, 2013) [hereinafter *McCall* Complaint], image available at http://www.citizen.org/documents/McCall-v-NSA-Complaint-Declaratory-Relief.pdf (on file with the *Columbia Law Review*).

^{207.} National Security Agency Act of 1959, § 15(a) (1981) (original version at Pub. L. No. 86-36, 73 Stat. 63) (to be codified at 50 U.S.C. § 3613).

plaint several images documenting his products, including this of a T-shirt:



NSA T-SHIRT IN McCall²⁰⁸

The complaint, which refers to the above example as the "NSA Listens Parody" does not contain textual description of the image.²⁰⁹ Had the image been omitted, or even relegated to an appendix, the plaintiff would have had to recreate the sense of this visual parody through more burdensome—and almost certainly less entertaining—text.²¹⁰ Instead, it is now left to the NSA to argue that consumers might reasonably be persuaded that the government would endorse such an item—hardly a pleasant task for the NSA.

The above intellectual-property complaints use vivid, high-resolution images to market their legal claims in few or no words. But as Susan Sontag has observed, some images—such as mug shots and class pictures—"make[] a virtue of plainness."²¹¹ Images in some legal documents embody this principle. For example, a tort plaintiff deliberately and successfully embedded a low-resolution camera-phone snapshot in a products-liability complaint.²¹² The plaintiff, a Vancouver police officer named Robert Bylsma, sued Burger King for emotional distress after a Burger King employee spat onto his Whopper, purchased on a late-night drive-through run. The complaint states that Bylsma, suspicious of his interaction with the drive-through employees, opened his burger, "pulled the meat patty off the bottom bun, and found a slimy, clear and white

^{208.} McCall Complaint, supra note 206, para. 9, at 3.

^{209.} See id. para. 8, at 2, para. 10, at 3 (containing images for "DHS Stupidity Parody" and "NSA Spying Parody").

^{210.} Cf. Brief for Plaintiffs, BSH Home Appliances Corp. v. Julia Child Found. for Gastronomy & Culinary Arts, No. 1:12-cv-11590, paras. 14–18, at 4 (D. Mass. Aug. 24, 2012) (attempting to describe use of images in copyright dispute without employing use of images themselves).

^{211.} Sontag, supra note 23, at 7.

^{212.} Complaint for Damages para. 2.5, at 3, Bylsma v. Burger King Corp., No. CV10-403 PK (D. Or. Apr. 13, 2010), 2010 WL 2825380 [hereinafter *Bylsma* Complaint].

phlegm glob on the meat patty."²¹³ Embedded within the same paragraph of the complaint is a dim but nevertheless revolting image of the phlegm burger.



CAMERA-PHONE PICTURE IN BYLSMA COMPLAINT 214

Byslma was represented by a lawyer who frequently appears in the media and has represented such media-conscious clients as the magician David Copperfield and the Friends of Amanda Knox. ²¹⁵ His complaint uses the blurry, candid image to simultaneously allege its claim, prove its claim, and garner deep sympathy for the plaintiff. Everything, from the tiny triangle of cheese to the crumpled wrapper, screams authenticity. ²¹⁶ The fact that the photo is blurry is only an advantage: A closer view of the actual phlegm might have been too much. Burger King—itself a sophisticated marketing machine—has been out-marketed.

Notably, there is some evidence that Bylsma's visual strategy has been successful. Faced with a tenuous and novel question of Washington state law, the Ninth Circuit certified a question to the Washington Supreme Court rather than dismissing Bylsma's claims.²¹⁷ In addition, there appears to have been no serious scrutiny of the amount in controversy in this diversity suit, despite the fact that Bylsma (1) is a police officer who presumably is exposed to many violent and disgusting things,

^{213.} Id. para. 2.5, at 3.

^{214.} Id.

^{215.} See id. at 8; About Anne, Anne Bremner, PC, http://www.annebremner.com/about.html (last visited Aug. 5, 2014) (describing law and media practices of Washington lawyer Anne Bremner).

^{216.} See *Bylsma* Complaint, supra note 212, para. 2.5, at 3 (displaying photo of burger).

^{217.} Bylsma v. Burger King Corp., 676 F.3d 779, 784 (9th Cir. 2012) (certifying question whether Washington Product Liability Act permits "relief for emotional distress damages, in the absence of physical injury").

and (2) never actually took a bite of the offending burger. ²¹⁸ (Washington law bars punitive damages awards in this context. ²¹⁹) The complaint's story is so simple and so compelling that the courts seem willing to assist Bylsma in surmounting procedural and substantive hurdles.

Recently prosecutors and police in a criminal case effectively used low-quality images to convey the impression of a high-quality criminal investigation. In May 2012, Seattle, Washington, was rocked when an unknown person involved in a local gang dispute shot and killed a man stopped at an intersection not far from the local high school, with his two young children and his visiting parents in the car.²²⁰ The Seattle police ultimately charged a twenty-year-old man named Andrew Jermain Patterson with the homicide.²²¹ In their Certificate for Determination of Probable Cause, the police embedded several images of Patterson.²²² The Certificate embeds two side-by-side images of Patterson taken from different sources:





IMAGES OF SHOOTER IN PATTERSON²²³

218. Cf., e.g., Rosario Ortega v. Star-Kist Foods, 370 F.3d 124, 129 (1st Cir. 2004) (finding amount in controversy satisfied in close case where young girl cut pinky on tuna can because girl had permanent damage to pinky and required surgery), rev'd on other grounds, Exxon Mobile Corp. v. Allapattah Servs., Inc., 545 U.S. 546 (2005).

219. See Bylsma v. Burger King Corp., No. CV 10–403–PK, 2010 WL 4702296, at *2 (D. Or. Sept. 3, 2010) ("Washington Product Liability Act..., which would govern Bylsma's claim if Washington law applied, does not authorize recovery of punitive damages."), rev'd on other grounds, $706 {\rm F.3d} {\rm 930}$.

220. See Jennifer Sullivan, Madrona Dad Killed by a Bullet as He Drove Through Central Area, Seattle Times (May 25, 2012), http://seattletimes.com/html/localnews/2018285764_shooting26m.html (on file with the *Columbia Law Review*) ("The homicide—the 15th this year in Seattle—has galvanized a community already sickened by random violence....").

221. See Christine Clarridge, Suspect in Ferrari Slaying Charged with 2nd-Degree Murder, Seattle Times: Today Files (July 20, 2012, 12:37 PM), http://blogs. seattletimes.com/today/2012/07/suspect-in-ferrari-slaying-charged-with-2nd-degree-murder/ (on file with the *Columbia Law Review*) (describing use of witnesses' visual descriptions, video surveillance, and other tactics to bring second-degree murder charges against Patterson).

222. Information app. at 4–6, State v. Patterson, No. 12-1-04297-3 SEA (Wash. Super. Ct. July 19, 2012), available at http://media.cmgdigital.com/shared/news/documents/2012/07/20/pcdocinferrarideath.pdf (on file with the *Columbia Law Review*).

223. Id. app. at 6.

The image on the right is cropped from a video still taken from a bus near the time of the shooting;²²⁴ the left image is from surveillance videos taken two days before the shooting in an apartment complex that had been linked to the suspect.²²⁵ The images, though blurry, show a person with identical hair and earrings. The mug shot, with the description of the suspect's prior crimes of assault, firearms possession, and burglary, adds a strong visual suggestion that the suspect is a repeat offender, the very type of hardened criminal who would be likely to commit a reckless shooting of an innocent person:



MUG SHOT IN PATTERSON²²⁶

In theory these images add very little to the certificate of probable cause, which lists all of the surrounding facts. In reality, however, the photos are highly persuasive in a situation where the identity of a suspect is at issue. Here the photos, together with the supporting text, allow the reader to confirm for herself that the suspect identified on the Metro bus video is the same person captured on the apartment security camera. The effect of the images is to visually affirm the thoroughness of the police investigation and to-literally-create a picture of a career criminal. While the use of images to address questions of identity may be appropriate, in other contexts images may be used as a tool to unethically manipulate juries.²²⁷ For example, the Washington Supreme Court recently found a prosecutor had engaged in misconduct when, during closing arguments, he showed a slideshow that had copies of the defendant's booking photo with captions such as "DO YOU BELIEVE HIM?" and "GUILTY." 228 While the use of Patterson's mug shot at this early stage of litigation is not problematic in the same way, it does seem more

^{224.} Id.

^{225.} Id.

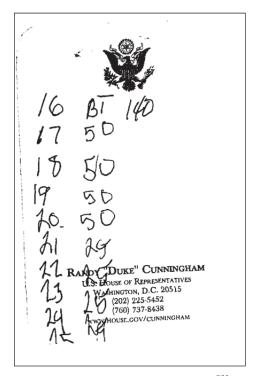
^{226.} Id. app. at 5.

^{227.} See Mnookin, Jury, supra note 39 (observing "camera perspective bias" skews interpretation of confession videos, even among judges and police interrogators).

^{228.} In re Glasmann, 286 P.3d 673, 676 (Wash. 2012); see also id. at 679 ("Highly prejudicial images may sway a jury in ways that words cannot.").

prejudicial than would a mere textual description of a defendant's prior record.

For a particularly effective example of images in a criminal document, take the sentencing memorandum submitted by the United States in its criminal suit against Randy "Duke" Cunningham, the California congressman who pleaded guilty to accepting millions of dollars in bribes in 2005.²²⁹ The sentencing memorandum was liberally interspersed with photos of the property Cunningham obtained with his ill-gotten funds, including a yacht, a \$2.5 million home, and a variety of antiques and carpets.²³⁰ The memorandum also includes photographic replication of a handwritten "bribe menu":



"Bribe Menu" in Cunningham²³¹

According to the memo, "[T]he left column represented the millions in government contracts that could be 'ordered' from Cunningham. The right column was the amount of the bribes that the

^{229.} Government's Sentencing Memorandum, United States v. Cunningham, No. 05cr2137-LAB (S.D. Cal. Feb. 17, 2006).

^{230.} Id. at 6, 8, 13.

^{231.} Id. at 3, image available at http://legacy.utsandiego.com/news/politics/cunnin gham/images/060218sentencememo.pdf.

Congressman was demanding in exchange for the contracts." ²³² The memorandum also includes embedded images of a \$2.5 million dollar home bought unlawfully, multiple checks documenting bribery, antique furniture (also given as bribes), a Rolls Royce, a yacht (the *Duke-Stir*), and a second yacht, the *Kelly C*:

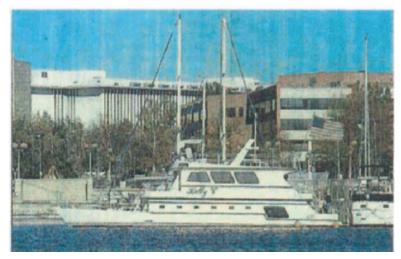


IMAGE OF YACHT IN CUNNINGHAM²³³

As Edward Tufte said of this highly effective sentencing memorandum, "[T]he adroit use of visual evidence intensifies the prosecutorial advocacy, reveals the scope of corruption, and mocks the attempts at evidence fabrication."²³⁴

Even the Solicitor General is using images to make legal arguments. The United States' brief in a *Bivens* case currently before the Supreme Court provides a notable recent example. In *Wood v. Moss*, political demonstrators sued two federal Secret Service agents for removing them from an area near the outdoor patio where President Bush and his family were eating in Jacksonville, Oregon.²³⁵ The Ninth Circuit denied the agents qualified immunity. ²³⁶ At the forefront of its merits brief appealing that ruling to the Court on behalf of the two agents, the United States embedded diagrams, including this one:

^{232.} Id.

^{233.} Id. at 6.

^{234.} Tufte, Beautiful, supra note 18, at 94.

^{235.} Moss v. U.S. Secret Serv., 675 F.3d 1213, 1219–21 (9th Cir. 2012), rev'd sub nom. Wood v. Moss, 134 S. Ct. 2056 (2014).

^{236.} Id. at 1229.

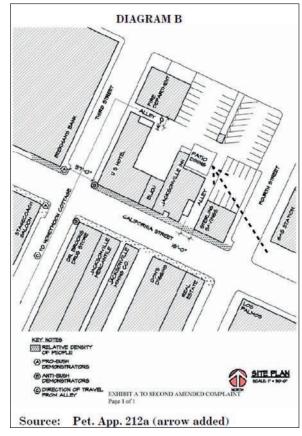


DIAGRAM IN WOOD²³⁷

Orginally the diagrams were exhibits to the protestors' complaint. The United States turns them to its advantage in its Statement of the Case, adding an explanatory arrow to the diagram above and using the diagram in support of *its* claim that the protesters were moved because they were in the direct line of sight of the President with only a low fence between.²³⁸ Here, the images allow viewers to draw connections or see relationships between pieces of information that might be difficult for a decisionmaker to grasp through a textual description alone.²³⁹

^{237.} Brief for Petitioners at 7, *Wood*, 134 S. Ct. 2056 (No. 13-115), 2014 WL 173484, at *7, image available at http://www.americanbar.org/content/dam/aba/publications/supreme_court_preview/briefs-v3/13-115_pet.authcheckdam.pdf.

^{238.} See id. at 6 ("[A]s illustrated on Diagram B... while the pro-Bush demonstrators had a large building (the U.S. Hotel) between them and the President, the anti-Bush demonstrators ... would have had their line of sight to the President blocked only by the patio's six-foot-high wooden fence.").

^{239.} Sherwin et al., Law in the Digital Age, supra note 37, at 241–42.

Adding a further layer to the visual argument in *Wood v. Moss*, an amicus brief in support of the Secret Service defendants openly urges the Court to use Google Maps Street View to get an accurate physical sense of the scene in which the agents were making their decisions.²⁴⁰ Filed by the National Conference of State Legislatures and others, the amicus brief argues that the Court can and should take judicial notice of the Street View data: "Like the car chase videotape in *Scott v. Harris*, Google Maps Street View photographs show that these allegations [of viewpoint discrimination against the agents] are profoundly inaccurate."²⁴¹ In a footnote, the brief offers precise instructions for locating the disputed area using Google Maps.²⁴² While there is no sign in the opinion that the Court did resort to Google Maps, Justice Ginsburg's opinion for a unanimous Court embedded both of the map images from the Solicitor General's brief into its statement of the facts.²⁴³

B. Visual Factfinding: Images in Judicial Opinions

Visual arguments are not limited to litigants. As Judge Posner's decision in *Sandifer I* underscores, judges may be even more adventurous than parties in using pictures to convey their arguments. After all, as one commentator noted wryly, "[J]udges don't have clients." ²⁴⁴ In many instances judges are integrating images from the record into their opinions. In other cases, however, judges are creating their own visual evidence by editing items from the record, or even by dragging images off the Internet and dropping them into their analysis.

The most common purpose of images in opinions is explanatory: For example, in *Woolley v. Rednour*, the Seventh Circuit adjudicated a habeas claim of ineffective assistance of counsel for a defendant who was convicted of murder for a shooting inside a tavern.²⁴⁵ The essence of the petitioner's claim was that his attorney had unreasonably failed to introduce at trial expert testimony that would have proven that petitioner's wife—and not petitioner—had been the shooter, based on testimony

^{240.} See Brief of National Conference of State Legislatures et al. as Amici Curiae in Support of Petitioners at 4–14, *Wood*, 134 S. Ct. 2056 (No. 13-115), 2014 WL 249795, at *4–*14 ("Here, the Court can and should view the protest from the perspective of the Petitioner Secret Service Agents by taking a tour of the area using Google Maps Street View.").

^{241.} Id. at 9; see also id. at 6 ("Federal courts have long deemed it appropriate to take judicial notice of geographical facts as observed through resources like Google Maps.").

^{242.} Id. at 9 n.3.

^{243.} Wood, 134 S. Ct. at 2062, 2064.

^{244.} Martin J. Siegel, Get Creative with Your Filings to Stand Out from the Crowd, law.com (Mar. 13, 2013), http://www.law.com/jsp/article.jsp?id=1202591960101&the page=3 (on file with the *Columbia Law Review*).

^{245. 702} F.3d 411, 413 (7th Cir. 2012).

about where they were each standing when the shooting took place.²⁴⁶ Petitioner claimed that he had initially falsely confessed to the crime to protect his wife.²⁴⁷ In setting forth the facts underlying petitioner's claim, the court embedded images from the record created by a crime-scene-reconstruction expert, hired for purposes of the habeas petition but not for the original trial, whose investigation supported the petitioner's claim that he could not have been the shooter if—as he testified—he was coming out of the men's bathroom at the time of the shooting.²⁴⁸



IMAGE IN WOOLLEY²⁴⁹

The opinion also included a diagram showing the alleged placement of people and objects inside the bar at the time of the shooting.²⁵⁰ Together these embedded visuals demonstrate petitioner's complex factual allegations with a clarity that mere text could not. Based in part on its analysis of these images, the court agreed that the petitioner's lawyer had provided ineffective assistance of counsel during trial by failing to proffer a defense expert.²⁵¹

^{246.} See id. at 419 (summarizing petitioner's argument that his counsel's failure to procure expert on ballistics was ineffective assistance of counsel).

^{247.} See id. at 413 ("After initially confessing, Martin later recanted, claiming he had falsely implicated himself to protect his wife").

^{248.} See id. at 418 (discussing and displaying crime-scene-reconstruction expert's findings).

^{249.} Id., image available at http://www.gpo.gov/fdsys/pkg/USCOURTS-ca7-10-035 50/pdf/USCOURTS-ca7-10-03550-0.pdf.

^{250.} Id. at 419.

^{251.} See id. at 424 (finding testimony of crime-scene-reconstruction expert "later showed that it was demonstrably possible for [the defendant's wife, and not defendant] to have fired the final shot," and finding defense counsel's failure to obtain such expert testimony at trial objectively unreasonable). Despite this conclusion, however, the court denied the petition, finding that petitioner could not demonstrate that the deficiency prejudiced his defense. See id. at 429.

In some instances such demonstrative evidence appears to have been created by the court rather than submitted by the parties. *Vodak v. City of Chicago*, for example, was a class action by 900 people arrested in a Chicago protest march on the day after the United States invaded Iraq. ²⁵² Analyzing the defendants' motion for summary judgment, the Seventh Circuit embedded a marked-up image from Google Maps to show the routes taken by the marchers and the intersection where the conflict between police and protestors erupted: ²⁵³



Map in $VODAK^{254}$

A second, close-up screenshot shows the precise location of the arrests.²⁵⁵ The opinion uses the maps—which were not part of the record—as the basis for a highly textured account of the likely path and even the possible reasoning of the protesters.²⁵⁶ As the amici in *Wood v. Moss* urged the Supreme Court to do, the court took judicial notice of geographic information freely available on the Internet and used it to inform its quite granular analysis of police conduct.²⁵⁷ Moreover, by marking up the map and embedding it into its opinion, the court took the use of internet

^{252.} See 639 F.3d 738, 740 (7th Cir. 2011) (discussing case background).

^{253.} See id. at 741–42 (stating image had been derived from 2011 version of Google Maps).

^{254.} Id. at 742, image available at http://www.gpo.gov/fdsys/pkg/USCOURTS-ca7-09-02768/pdf/USCOURTS-ca7-09-02768-0.pdf.

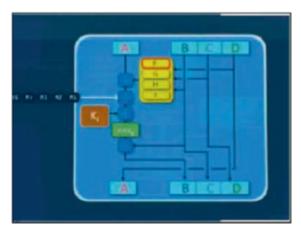
^{255.} Id. at 744.

^{256.} See id. at 741–46 (embedding maps in factual description).

^{257.} See David J. Dansky, The Google Knows Many Things: Judicial Notice in the Internet Era, Colo. Law., Nov. 2010, at 19, 24 ("Most courts are willing to take judicial notice of geographical facts and distances from private commercial websites such as MapQuest, Google Maps, and Google Earth."); supra notes 240–242 and accompanying text (discussing amicus brief in *Wood v. Moss*).

technology one step further. Here, as in *Sandifer I*, the Seventh Circuit is conducting visual in-house factfinding.²⁵⁸

Presaging future developments in multimedia legal writing, one court has taken visual factfinding—and embedded images—to a new level. In *Uniloc USA*, *Inc. v. Microsoft Corp.* (*Uniloc I*), District Court Judge William Smith issued the first known judicial opinion to contain an embedded video.²⁵⁹ Judge Smith's decision reversed a \$380 million jury verdict in favor of Uniloc and granted judgment as a matter of law to Microsoft.²⁶⁰ His holding was based in significant part on his factual conclusion that "a cryptographic hashing algorithm was not the same as a summation algorithm"—not something that was easily reducible to a clear textual explanation.²⁶¹ Therefore, with assistance from his law clerk and the IT experts at the Administrative Office of the U.S. Courts, Judge Smith melded a video presentation by Microsoft's expert on the algorithm with a recording of the expert's testimony at trial.²⁶² Here is a screenshot from the video:



SCREENSHOT FROM VIDEO IN $UNILOC I^{263}$

^{258.} For a discussion of risks associated with such factfinding, see infra Part III.C. Ultimately, based in large part on its detailed account of the facts, the Seventh Circuit reversed the grant of summary judgment to the defendants and allowed the already-certified class to proceed to trial. *Vodak*, 639 F.3d at 750.

^{259.} *Uniloc I*, 640 F. Supp. 2d 150, 169 (D.R.I. 2009), aff'd in part, rev'd in part, 632 F.3d 1292 (Fed. Cir. 2011).

^{260.} Id. at 155.

^{261.} Smith, Judicial Opinions, supra note 13, at 9.

^{262.} See id. (describing how he and his law clerk "'married' the animation and the digital audio recording of the testimony into a short movie (about twelve minutes long)").

^{263.} Uniloc I, 640 F. Supp. 2d at 169, image available at http://www.gpo.gov/fdsys/pkg/USCOURTS-rid-1_03-cv-00440/pdf/USCOURTS-rid-1_03-cv-00440-3.pdf ("The T-9a

Using Adobe Flash, Smith embedded this video—with voiceover—into his written opinion, so that readers who access the opinion through PACER (but not through legal databases) can view the video within the opinion itself as a basis for understanding the court's factual and legal conclusions. Because the video is not available in the official published reporter, nor is it viewable through legal databases, its usefulness to all but the Federal Circuit is debatable. Nevertheless, in the future, it may be possible for videos such as the one in *Uniloc I* to dramatically alter the tenor and structure of legal opinions.

C. Visual Rhetoric: Images as Icons

Courts and parties occasionally embed images into opinions for purposes that are tied more closely to rhetoric than substance. Such use of images gives opinions a lighter, more casual feeling—something akin to a blog post or a magazine article. At the same time, images that are used for rhetorical purposes often bring not only color, but also layers of extraneous and potentially troublesome cultural narratives, into judicial opinions. To take one popular but problematic recent example, Judge Posner embedded an image of singer Bob Marley into a 2012 opinion in a § 1983 suit by a prisoner whose dreadlocks were forcibly sheared:²⁶⁴



PICTURE OF BOB MARLEY IN $GRAYSON^{265}$

The alleged purpose of the image—which appears to have been copied off the Internet without attribution to the photographer, David Corio—was to demonstrate that "[d]readlocks can attain a formidable length

animation, combined with Dr. Wallach's explanation of the operation of MD5, is perhaps the most effective explanation of how the algorithms actually work." (citation omitted)).

^{264.} See Grayson v. Schuler, 666 F.3d 450, 452 (7th Cir. 2012) (embedding photograph of Bob Marley taken by David Corio).

^{265.} Id., image available at http://www.gpo.gov/fdsys/pkg/USCOURTS-ca7-10-0325 6/pdf/USCOURTS-ca7-10-03256-0.pdf.

and density," which might reasonably prompt prison regulation. 266 This may seem harmless enough (assuming, as does Judge Posner, that fair use protects his unauthorized use of the image). 267 Yet the image brings new and extraneous narratives into the opinion and therefore the case. The plaintiff was neither a Rastafarian nor a celebrity. Unintentionally, perhaps, the image replaces the actual plaintiff with an icon; it replaces the pain of a prisoner with the freedom of a rock star; and it sends the quiet but disturbing message that black men with dreadlocks are, on some level, interchangeable. Despite the fact that the court ultimately denied summary judgment to the defendant officials, one can't help thinking that Marley himself would have objected to this peculiar and unwarranted use of his likeness. More broadly, the naturalness of this and other images makes it less subject to criticism than judicial use of extraneous or rhetorical textual examples.²⁶⁸ Justice Blackmun's "Poor Joshua!" plea²⁶⁹ was subject to criticism²⁷⁰ for its overtly emotional appeal, whereas the images of California prisoners in Brown v. Plata have not been subject to the same negative attention.²⁷¹ As one commentator observed, the photos in Plata "introduce a human element to an otherwise almost clinical description of the prisoners' plight."272 Perhaps this is because—in contrast to the images in Sandifer I and Woolley, or the emotional language in *DeShaney*—the photos in *Plata* are reproduced in the appendix rather than interwoven into the text.²⁷³ They are only subtly referred to in the rather arid majority opinion, which "is replete with

^{266.} Id.

^{267.} See Terry Baynes, Photo-Happy Judge Adds Marley, Ostrich to Opinions, Reuters (Jan. 20, 2012, 4:27 PM), http://www.reuters.com/article/2012/01/20/us-judge-photos-idUSTRE80J1XY20120120 (on file with the *Columbia Law Review*) (quoting Posner saying using images in judicial opinions "couldn't conceivably be hurting the copyright holder")

^{268.} See Jamal Greene, Pathetic Argument in Constitutional Law, 113 Colum. L. Rev. 1389, 1407 (2013) ("Overt appeal to emotion is as scandalous in judging as it is prevalent in trial advocacy treatises.").

^{269.} DeShaney v. Winnebago Cnty. Dep't of Soc. Servs., 489 U.S. 189, 213 (1989) (Blackmun, J., dissenting).

^{270.} See, e.g., Jeffrey Rosen, Sentimental Journey, New Republic (May 2, 1994), http://www.newrepublic.com/article/politics/sentimental-journey (on file with the *Columbia Law Review*) (worrying lionization by liberals of Blackmun's opinion would expose them to charges of being "concerned only about results rather than reasons").

^{271. 131} S. Ct. 1910, 1949 (2011). But see Dahlia Lithwick, Show, Don't Tell: Do Photographs of California's Overcrowded Prisons Belong in a Supreme Court Decision About Those Prisons?, Slate (May 23, 2011, 6:45 PM), http://www.slate.com/articles/news_and_politics/jurisprudence/2011/05/show_dont_tell.single.html (on file with the *Columbia Law Review*) ("To what end did Kennedy attach those California prison photos? To make us angry? To justify his own strong response? To answer the pervasive criticism that the justices do not inhabit the real world?").

^{272.} Marder, supra note 44, at 353.

^{273.} See *Plata*, 131 S. Ct. at 1949 app. B.

statistics, examples, and expert testimony from the record." ²⁷⁴ The majority opinion includes the images, yet almost seems to purposefully distance itself from any possible emotional taint that the images might bring. Unsurprisingly, the dissent ignores the images entirely. Yet despite their relegation to second-class status as a visual afterthought, the images remain the essence of the case; almost certainly they will remain in readers' memories long after other details of the case have faded. ²⁷⁵





IMAGES OF PRISONERS IN $PLATA^{276}$

While the images in *Plata* inject pathos into the typically dry tone of judicial opinions, other courts might use images to invoke humor. Recently, for example, a district court in Texas denied a preliminary

^{274.} Marder, supra note 44, at 352.

^{275.} Id. at 355 ("The viewer is likely to remember the image of the tiny, wire cage long after he or she forgets how many prisoners were held in these cages or for how long they were held.").

^{276.} *Plata*, 131 S. Ct. at 1949 app. B, image available at http://www.supremecourt.gov/opinions/10pdf/09-1233.pdf.

injunction to a bar challenging an ordinance regulating strip clubs.²⁷⁷ The opinion has achieved notoriety, partly based on its text, which is saturated with sexual innuendo and puns. "Plaintiffs clothe themselves in the First Amendment seeking to provide cover against another alleged naked grab of unconstitutional power," the opinion summarizes.²⁷⁸ "Plaintiffs, and by extension their customers, seek an erection of a constitutional wall separating themselves from the regulatory power of city government."²⁷⁹ Seemingly in that light tone, the opinion includes an embedded image of a 1960s striptease dancer named Miss Wiggles, to whom the opinion refers as "truly an exotic artist of physical self expression even into her eighties."²⁸⁰



IMAGE IN 35 BAR & GRILLE 281

Miss Wiggles, who had passed away, had no role in the case.²⁸² Her image, together with the sexual puns in each sentence of the opinion, seems to have been used for comic purposes.²⁸³ But just as Miss Wiggles

 $^{277.\,}$ 35 Bar & Grille, LLC v. City of San Antonio, 943 F. Supp. 2d 706, 712 (W.D. Tex. 2013).

^{278.} Id. at 708-09.

^{279.} Id. at 709.

^{280.} Id.

^{281.} Id. at 710, image available at http://www.txwd.uscourts.gov/Opinions/Cases/35BarAndGrille_v_CityOfSA.pdf.

^{282.} See Mike Dunham, Mourners Recall the Humanitarian Side of 'Miss Wiggles,' Anchorage Daily News (Oct. 22, 2012), http://www.adn.com/2012/10/22/2668480/mourners-recall-the-humanitarian.html (on file with the *Columbia Law Review*) (describing extraordinary life and renowned kindness of Velma Adkerson, a.k.a. "Miss Wiggles," and noting her death on October 14, 2012).

^{283.} See 35 Bar & Grille, 943 F. Supp. 2d at 712–13 ("Should the parties choose to string this case out to trial on the merits, the Court encourages reasonable discovery

was a performer, here the district-court judge also seems to be performing, and the opinion is targeted more toward a popular reaction than toward respectful resolution of a dispute.

In addition to courts, lawyers have also used visual strategies to recast their legal arguments by invoking pop-culture narratives. For example, faced with a court-imposed limitation of five pages, a lawyer representing an amicus in an antitrust case filed a brief in the form of a "graphic novelette":²⁸⁴



IMAGE IN ANTITRUST BRIEF²⁸⁵

intercourse as they navigate the peaks and valleys of litigation, perhaps to reach a happy ending.").

284. Brief of Bob Kohn as Amicus Curiae, United States v. Apple, Inc., 889 F. Supp. 2d 623 (S.D.N.Y. 2012) (No. 12-CV-2826 (DLC)) [hereinafter Kohn Brief], image available at http://lawandthemultiverse.com/wp-content/uploads/2012/09/Kohn-Amicus-Brief.pdf (on file with the *Columbia Law Review*); see also Brief of Amicus Curiae The Andy Warhol Foundation for the Visual Arts in Support of Defendants-Appellants & Urging Reversal passim, Cariou v. Prince, 714 F.3d 694 (2d Cir. 2011) (No. 11-1197-cv), 2011 WL 5517866 passim [hereinafter Warhol Foundation Brief] (embedding multiple images to support argument court evaluating fair use of images incorporated into new works must consider historical, cultural, and artistic context).

285. Kohn Brief, supra note 284, at 1.

The brief garnered significant attention for creatively melding legal-writing traditions with a distinctly nonlegal, pop-cultural visual grammar. ²⁸⁶ Its highly visual style also reinforced the brief's message: that the Department of Justice was inadequately knowledgeable about the true impact of e-books and the digital world on market conditions. ²⁸⁷ Both the content and the structure of the amicus brief sought to get the court to reevaluate the case from a new perspective. Here, as in other early examples of visual argument, it seems that amici may feel more freedom to experiment with traditional legal forms given their quasi-outsider status to litigation. ²⁸⁸

D. The Future of Multimedia Written Argument

Most embedded visuals are images, charts, or graphics, which are now simple to "drop and drag" into a brief and easy to read in a variety of formats. But—as Judge Smith's opinion in *Uniloc I* presages—images may only be the beginning of visual legal writing.²⁸⁹ As technological barriers continue to fall, litigants and judges may be able to create legal documents that use a variety of digital media and technology that currently exists on the web. In addition to digital images, other embedded technology in briefs of the future may include:

- Video footage taken from, e.g., cellphone cameras, security cameras, police dashboard cameras, videos of surgical procedures, or videos made explicitly for purposes of litigation;
- Audio excerpts from, e.g., a 911 call, a deposition, a wiretap recording, or a consumer-complaint call;
- GIFs—short for "graphics interchange format"—which allow for short, repeating animated clips;²⁹⁰
- 360-degree panoramas that would allow a reader to "tour" the scene of an accident or "walk" the streets where police arrested political protestors;

^{286.} See, e.g., Christopher Danzig, Why Write an Amicus Brief—When You Can Draw One Instead?, Above the Law (Sept. 5, 2012, 2:13 PM), http://abovethelaw.com/2012/09/why-write-an-amicus-brief-when-you-can-draw-one-instead/ (on file with the *Columbia Law Review*) (saying of brief, "it's almost easier than reading Garfield" and asking readers, "Where are the animated motions for summary judgment? How about for sanctions?").

^{287.} See id. (calling submission of illustrated brief "so appropriate").

^{288.} For another excellent recent example of an amicus brief relying on visual argument, see Warhol Foundation Brief, supra note 284.

 $^{289. \ \, \}text{See}$ supra notes 258--263 and accompanying text (discussing embedded video in judicial opinion).

^{290.} Graphics Interchange Format, Wikipedia, http://en.wikipedia.org/wiki/GIF (on file with the *Columbia Law Review*) (last modified Aug. 2, 2014, 5:35 AM).

- Frames that link seamlessly to selected Google Maps, Facebook pages, or other external media;
- Demonstrative videos, complete with emotion-laden soundtracks;
- Document viewers, which allow readers to scan real versions of documents within or as a sidebar to a brief, or in an easily accessed new window;²⁹¹
- PowerPoint decks that allow a reader to peruse a slideshow of images, graphics, or other information within the context of a brief;
- Sparklines, which are very small charts or graphics that convey simple data embedded seamlessly within text;²⁹²
- Navigational tabs that enhance readers' flexibility when moving through a pleading or brief;
- Rollover/hover states, which display new information "over" the existing text or graphic when the cursor hovers over it. These might be used to allow readers to see excerpts from a deposition or other document when hovering over an image of the relevant evidence. A rollover might also allow a reader to access a menu through which she could skip to a different section of a brief.²⁹³

As a hypothetical example based on a real incident, take the story of Peretz Partensky, described in his recent and highly visual article published at Medium, entitled *Good Samaritan Backfire, or How I Ended Up in Solitary After Calling 911 for Help.*²⁹⁴ Partensky claims that in late July 2013, he called 911 to obtain medical help for two people injured late one night in a bike accident.²⁹⁵ When the police arrived, they beat up his friend and ultimately arrested Partensky, put him—naked—into solitary confinement, and marked him for psychiatric evaluation.²⁹⁶ The below image shows the scene of the accident, with labels for key incidents.

^{291.} A persuasive recent example of this appeared in the *New York Times*. See Kate Zernike, Christie Faces Scandal on Traffic Jam Aides Ordered, N.Y. Times (Jan. 8, 2014), http://www.nytimes.com/2014/01/09/nyregion/christie-aide-tied-to-bridge-lane-closings. html (on file with the *Columbia Law Review*) (linking seamlessly to correspondence by aides planning traffic crisis in Fort Lee, N.J.).

^{292.} See Tufte, Beautiful, supra note 18, at 47–63.

^{293.} Rollover (Web Design), Wikipedia, http://en.wikipedia.org/wiki/Rollover_(web_design) (on file with the *Columbia Law Review*) (last modified May 22, 2014, 5:22 AM).

^{294.} Peretz Partensky, Good Samaritan Backfire: Or How I Ended Up in Solitary After Calling 911 for Help, Medium, https://medium.com/human-parts/9f53ef6a1c10 (on file with the *Columbia Law Review*) (last visited Sept. 9, 2014). Medium is a website dedicated to multimedia journalism and storytelling.

^{295.} Id.

^{296.} Id.



ACCIDENT SCENE DESCRIBED BY PARTENSKY²⁹⁷

The article contains a host of other embedded images (of the injured cyclist, of the police trying to prevent bystanders from taking photos of the arrest, of a San Francisco hearing on police brutality against cyclists, and of the food he was offered in jail), a screenshot of a phone with embedded audio of his 911 call seeking help for the cyclists, and a three-dimensional map of the neighborhood.²⁹⁸ Partensky also obtained security-camera footage from a local restaurant.²⁹⁹ He filed a complaint with the city, but as of the writing of the article had heard nothing.³⁰⁰

With only minor modifications, Partensky's journalistic article could become a paradigmatic visual legal pleading or brief, rich with instantly accessible images, video footage, embedded replicas of x-rays, documents, and even audio. Similarly, a criminal complaint against alleged vandals might contain not only mug shots but also security-camera video footage showing the suspects entering the building wherein they are accused of destroying a historical artifact.³⁰¹ In both instances, there

^{297.} Id.

^{298.} Id.

^{299.} Id.

^{300.} Id.

^{301.} See, e.g., Iolani Palace Releases Surveillance Video of Vandalism Suspects, Hawaii News Now (Feb. 13, 2014, 5:57 PM), http://www.hawaiinewsnow.com/story/24719351/iolani-palace-releases-surveillance-video-of-vandalism-suspects (on file with the

would be no theoretical difference between a rich multimedia brief and an identical brief containing only text: Faced with each, the role of the judge would be to evaluate legal arguments, considering facts and witness credibility only to the minimum extent necessary to determine whether a case merits full adjudication. As discussed in the next Part, however, such a change in form—which ultimately could challenge the linearity that is the essence of written legal argument—will inevitably affect substance. Beneath its colorful surface, multimedia advocacy poses genuine risks to the structure and content of legal decisionmaking.

III. PHOTOSHOPPING JUSTICE: RISKS OF VISUAL ADVOCACY

As scholars began predicting two decades ago, the formal, structural, and aesthetic norms of law are transforming in response to the digital revolution. 302 Yet thus far there has been almost no consideration by courts or scholars of the impact of this new, nonverbal form of written advocacy. This Part examines the ramifications of visual persuasion in litigation documents and judicial opinions. The concept of an embedded image in a complaint or legal brief has a fun, innately harmless appeal to it. But beneath the screenshots and the celebrity photos, the comics and the T-shirts, images are more than colorful distractions for judges whose days are otherwise filled with text. We "read" images differently than we do text—more quickly, with a heightened (perhaps exaggerated) confidence in our understanding, and with more emotion. 303 We also remember images better than we do text.³⁰⁴ These qualities present significant advantages to litigants and courts, as they both attempt to explain complex concepts in an economical, memorable manner. Yet there are significant risks to allowing images to seep into the legal vernacular. This Part briefly summarizes research among legal and other scholars on the impact of images on perception. Then it focuses on three primary dangers of welcoming images into the legal-writing toolbox: the lack of legal rules or traditions to mitigate the interpretive risks associated with images; the related potential for visual arguments to warp traditional allocations of decisionmaking power; and finally, the risk that image-

Columbia Law Review) (showing video of defendants accused of destroying historic etched-glass door panel in Hawaiian palace).

^{302.} See Lawrence M. Friedman, The Republic of Choice: Law, Authority, and Culture 51–60 (1990) (arguing electronic communication and modernizing technology contribute to transformations of legal culture and law); see also Katsh, Electronic Media, supra note 22, at 1–16 (providing historical perspective of new media and its impact on perception and functionality of law).

^{303.} Ann Marie Seward Barry, Visual Intelligence: Perception, Image, and Manipulation in Visual Communication 3–6 (1997).

^{304.} See infra note 311 and accompanying text (discussing "picture superiority effect").

driven legal argument will vitiate the intellectual rigor and civility of legal discourse.

A. The Power and Peril of Multimedia Communication

Images are irrational, nonlinear, uncouth—un-legal.³⁰⁵ They are not yet an accepted element of mainstream written legal discourse. But as scholars have shown in analyses of visual presentations at trial, images are powerful tools of persuasion. Among other things, images are efficient at conveying information. "It takes a lot less time and mental effort to see a picture than to read a thousand words."306 Much of this efficiency comes from the fact that we "read" images differently than we do text. Rather than parsing an image into its constituent parts, we approach it from a gestalt perspective, taking it all in at once.³⁰⁷ When an image is fragmentary or incomplete, we mentally complete it. 308 And we do this literally at a glance—getting the "gist of a visual display in a single fixation lasting less than a third of a second."309 Rapid visual cognition of images allows us to understand complex factual scenarios without wading through a ponderous textual explanation. Pictures seem to convey information effortlessly, intuitively: We go through a complex educational process to learn to read, whereas "we are all assumed to require no training in order to see and to consume the visual."310 And we remember images better than we do text, a phenomenon known as the "picture superiority effect."311

Particular details about an image may enhance these effects. Adam Alter, a marketing professor at New York University, argues that color deeply, if subliminally, affects perception. For example, he claims, "[P]eople are far more likely to remember pictures of a place presented in color rather than in black and white...." The color "drunk tank pink" gets its name from research finding that jails that painted their drunk tanks a bright pink color recorded noticeably fewer incidents of

^{305.} See Feigenson & Spiesel, supra note 41, at 4 (noting of legal discipline, "it is often thought that thinking in words is the only kind of thinking there is").

^{306.} Sherwin et al., Law in the Digital Age, supra note 37, at 243.

^{307.} Zenon W. Pylshyn, Seeing and Visualizing: It's Not What You Think 67 (2003).

^{308.} Id.; see also Barry, supra note 303, at 8.

^{309.} Feigenson & Spiesel, supra note 41, at 7.

^{310.} Katsh, Digital World, supra note 40, at 153.

^{311.} Haupt, supra note 49, at 849 (citing Miriam Z. Mintzer & Joan Gay Snodgrass, The Picture Superiority Effect: Support for the Distinctiveness Model, 112 Am. J. Psychol. 113, 113 (1999)); see also Carmine Gallo, How Bill Gates Radically Transformed His Public Speaking and Communication Skills, Forbes (Feb. 7, 2014, 9:00 AM), http://www.forbes.com/sites/carminegallo/2014/02/07/how-bill-gates-radically-transformed-his-public-speaking-and-communication-skills/ (on file with the *Columbia Law Review*) (citing "picture superiority" as one reason for Bill Gates's improved public speaking, and arguing "best presentations include a balance of words *and* pictures").

^{312.} Adam Alter, Drunk Tank Pink 170 (2013).

violence or aggression among those held within.³¹³ Google tested forty-one different colors of blue for its hyperlinks before it settled on the precise shade that garnered the most clicks,³¹⁴ and in one study eighty-five percent of consumers cited color as a primary reason for buying a particular product.³¹⁵ Symbols, too, "are magnets for meaning," deeply embedded into our memories together with their emotional associations.³¹⁶ In one experiment, students who were briefly exposed to the Apple logo—associated with innovation—performed significantly better on a subsequent creativity test than students who were exposed to the IBM logo.³¹⁷

There are potential dangers to this quick-witted visual intelligence, however, particularly in the realm of written law, which lacks both formal and cultural rules for mitigating these dangers. Images "feel" real—as if they are transparent windows onto reality, rather than curated, edited, visual arguments. As a result, "we tend to read images using naïve theories of realism and representation"—that is, as if they don't require interpretation at all. 318 Naïve realism "is a fundamental part of our psychological makeup and hence a default mode of response to our mediated world."319 Studies have shown that viewers have an exaggerated confidence in their understanding of images, particularly of those that appear real.³²⁰ Justice Ginsburg's reaction to the image of the law clerk modeling the gear in Sandifer II is one such example. Her simple statement—"that looks like clothes to me"—indicates a perception of the image as a neutral depiction of facts. 321 Even the mere presence of an image can influence a viewer's receptivity to an argument. For example, studies show that when subjects read a fictional neuroscience article that contained serious logical errors, subjects whose articles were accompa-

^{313.} See id. at 2–3 ("Drunk Tank Pink emerged as the unlikely solution to a host of difficult puzzles, from aggression and hyperactivity to anxiety and competitive strategy.").

^{314.} See Carr, supra note 144, at 151 ("Google relies on 'cognitive psychology research' to further its goal of 'making people use their computers more efficiently.'" (quoting Helen Walters, Google's Irene Au: On Design Challenges, Business Week (March 18, 2009), http://www.businessweek.com/innovate/content/mar2009/id20090318_788470).

^{315.} How Do Colors Affect Purchases?, KISSmetrics, http://blog.kissmetrics.com/color-psychology/?wide=1 (on file with the *Columbia Law Review*) (last visited Sept. 9, 2014).

^{316.} See Alter, supra note 312, at 52–54 (using swastika to illustrate power of emotional association).

^{317.} See id. at 56–57 (finding students exposed to Apple logo generated two more creative uses on average compared with students exposed to IBM logo).

^{318.} Tushnet, Worth a Thousand Words, supra note 17, at 689.

^{319.} Feigenson & Spiesel, supra note 41, at 102.

^{320.} See Sherwin et al., Law in the Digital Age, supra note 37, at 244 ("[C]ompared to words, visual communications tend to generate less counterargument and hence more confidence in the judgments they support.").

^{321.} Transcript of Oral Argument, supra note 9, at 5.

nied by a brain image rated the reasoning of the article significantly higher than subjects who were merely exposed to text.³²²

Compounding the effect of this blunted skepticism, images are much more immediately and tightly linked with emotion than is text.³²³ Scientists have shown that "[p]hotorealistic pictures tend to arouse cognitive and emotional responses similar to those aroused by the real thing."324 In one experiment, mock jurors who were exposed to graphic photographs of a murder victim were almost twice as likely to find the defendant guilty as were jurors who were not exposed to the photographs.³²⁵ Inevitably, some such emotion-driven reactions are tainted by implicit biases—that is, unstated premises or stereotypes that we "would not endorse as appropriate" if we were aware of them. 326 The saying is that "seeing is believing," but our beliefs (whether conscious or not) also determine what we see. For example, as Malcolm Gladwell recounts, before the 1980s male musicians dominated top orchestras; the assumption was that women musicians were inferior. Yet once orchestras began holding blind auditions—where candidates played behind a screen women were so successful that their presence in major orchestras quintupled.³²⁷

Finally, annotating images with text—as parties and courts routinely do—exacerbates the interpretive distortion of images.³²⁸ People asked to describe how fast cars were going when they "smashed" into each other in a film gave higher estimates than did people asked to guess how fast

^{322.} See Teneille Brown & Emily Murphy, Through a Scanner Darkly: Functional Neuroimaging as Evidence of a Criminal Defendant's Past Mental States, 62 Stan. L. Rev. 1119, 1201–02 (2010) ("These data lend support to the argument that brain images have unique persuasive power, causing viewers to overlook serious logical errors and, therefore, to make improper inferences.").

^{323.} See Haupt, supra note 49, at 847 ("The proximity of perception and emotion, a result of the anatomy of the human brain, makes visual images particularly powerful.").

^{324.} Sherwin et al., Law in the Digital Age, supra note 37, at 242.

^{325.} Kevin S. Douglas, David R. Lyon & James R.P. Ogloff, The Impact of Graphic Photographic Evidence on Mock Jurors' Decisions in a Murder Trial: Probative or Prejudicial?, 21 Law & Hum. Behav. 485, 492 (1997).

^{326.} Id.; see also Lucille A. Jewel, Through a Glass Darkly: Using Brain Science and Visual Rhetoric to Gain a Professional Perspective on Visual Advocacy, 19 S. Cal. Interdisc. L.J. 237, 239 (2010) ("The non-rational aspects of visual processing lead to perceptual decisions that can be based on rapid reactions of fear or implicit bias, reactions that do not register with conscious perception.").

^{327.} See Malcolm Gladwell, Blink 248–52 (2005) ("In the past thirty years, since [blind auditions] became commonplace, the number of women in the top U.S. orchestras has increased fivefold.").

^{328.} See Tushnet, Worth a Thousand Words, supra note 17, at 690 ("Images coupled with argument are particularly persuasive, seeming to vouch for the truth of the argument even when they are open to interpretation or depict a phenomenon too complex for average viewers to comprehend.").

the cars were going when they "collided."³²⁹ This effect, in which a textual description of an image influences one's perception of the image itself, is called "verbal overshadowing."³³⁰ Thus, while images offer a wealth of creative and effective communication tools for lawyers, the very elements that make them persuasive pose dangers to the integrity of the decisionmaking process.

B. The Risk that Courts Lack Tools to Limit Images' Potential for Cognitive Biases and Naïve Realism

The biggest risk of failing to take images seriously is that—in stark comparison with our rich tools for dealing with the inherent problems of text—law lacks tools and traditions for mitigating the risks of image-driven communication. By education and practice, lawyers and courts take language seriously. There are no corresponding traditions in law to guide the interpretation of images, no training that forces viewers to treat images as "entit[ies] with a complicated relationship to the real." Because we don't take images seriously, we have no grammar, no syntax, no canons of interpretation for the visual. We lack the ingrained, institutionalized skepticism that we bring to text. In the absence of such institutionalized skepticism, it is likely that lawyers and courts will fall prey to naïve realism—the tendency to believe that images are transparent conveyors of a single truth—and implicit biases.

The dangers of naïve realism and cognitive bias are heightened by the ever-increasing ease with which images can be altered or manipulated. Journalists famously confronted this in 1994, when *TIME* magazine edited the mug shot of O.J. Simpson that appeared on its cover following his arrest for the murder of his ex-wife. As one commentator described it, "TIME darkened the handout photo creating a five o'clock shadow and a more sinister look. They darkened the top of the photo and made the police lineup numbers smaller. They decided Simpson was guilty so they made him look guilty." TIME's infamous visual manipulation was only revealed to the public because *Newsweek* ran the unaltered mug shot on its cover the same week:

^{329.} See Sherwin et al., Law in the Digital Age, supra note 37, at 240 (using caraccident example to illustrate how "verbal information" can impact memories created by images).

^{330.} Tushnet, Worth a Thousand Words, supra note 17, at 735 (noting effect of "accuracy of memory").

^{331.} Id. at 702.

^{332.} See Katsh, Digital World, supra note 40, at 157 ("[W]e have no experiences, traditions, customs or norms to draw upon as we do with text....").

^{333.} See Tushnet, Worth a Thousand Words, supra note 17, at 698–701 (discussing instances of courts readily interpreting what they see visually as representing objective fact).

^{334.} Long, supra note 35 (click on "Ethics" dropdown subtitle).



COMPARISON OF MAGAZINE PORTRAYALS OF MUG SHOT OF O.J. SIMPSON³³⁵

In a mea culpa editorial, *TIME*'s editor attempted to justify the concept behind the distorted image. "The harshness of the mug shot—the merciless bright light, the stubble on Simpson's face, the cold specificity of the picture—had been subtly smoothed and shaped into an icon of tragedy." 336 But critics charged *TIME* with racism—"intentional or not." 337 As one journalist put it, the cover "manipulated opinion by presenting an image of the menacing, predatory black man, the kind of criminal many Americans fear the most. It prejudiced the jury in the court of public opinion." 338 In editing the image, *TIME* had not only changed the story; it had also become part of the story.

Just as the O.J. Simpson *TIME* cover became a flash point for journalism to analyze implicit bias and naïve realism, the Supreme Court's 2007 decision in *Scott v. Harris* has come to serve as a symbol of the problems associated with "seeing is believing" by courts.³³⁹ In *Scott*, the Court relied on a police car dashboard video to overturn two lower-court decisions that had denied qualified immunity to a police officer

^{335.} OJ Simpson Newsweek TIME.jpg, Wikipedia, http://en.wikipedia.org/wiki/File: OJ_Simpson_Newsweek_TIME.jpg (on file with the *Columbia Law Review*) (last visited Aug. 19, 2014).

^{336.} James R. Gaines, To Our Readers: Jul. 4, 1994, TIME (July 4, 1994), http://content.time.com/time/subscriber/article/0,33009,981052,00.html (on file with the *Columbia Law Review*).

^{337.} See Rhonda Chriss Lokeman, TIME Brought Race into Simpson Case, Kan. City Star (July 3, 1994), http://articles.sun-sentinel.com/1994-07-03/news/9406290217_1_simpson-case-nicole-simpson-murder-oj (on file with the *Columbia Law Review*) (accusing *TIME* of "manipulat[ing] the public via racial bias").

^{338.} Id.

^{339. 550} U.S. 372 (2007).

who purposefully rammed the plaintiff's vehicle during a car chase.³⁴⁰ The court of appeals had refused to grant Officer Scott's motion for summary judgment. Affirming the district court's findings, the court of appeals held that the plaintiff, although fleeing the police, had generally used turn signals, slowed down in intersections, and had not threatened the safety of any pedestrians. A near-unanimous Supreme Court reversed, finding based on its view of the dashboard video that Scott had not violated the Fourth Amendment.

The Court's view of the video in *Scott* can be summarized in a single word that instantly conjures naïve realism: clear. The Court held that the video "quite *clearly* contradict[ed]" the court of appeals' and the plaintiffs' factual narratives.³⁴¹ The majority found it "quite *clear* that Deputy Scott did not violate the Fourth Amendment,"³⁴² "*clear* from the videotape that [Harris] posed an actual and imminent threat" to pedestrians, ³⁴³ and "equally *clear*" (though not certain) "that Scott's actions posed a likelihood of serious injury" to Harris.³⁴⁴ To eight out of nine justices, the video was a transparent—*clear*—window onto truth. Dan Kahan and his colleagues used empirical research to demonstrate that the facts of *Scott* were not as clear as the Court believed them to be, because a statistically significant number of viewers of the video disagreed with the Court's (non)interpretation of the video.³⁴⁵ Moreover, those viewers tended to come from subcommunities that are underrepresented among the justices and among courts more generally.³⁴⁶

Scott may be the symbol of naïve realism in law, but it is hardly alone. Rebecca Tushnet has convincingly shown that naïve realism infects copyright cases, because "excessive judicial self-confidence" results in decisions that assess artistic works according to unacknowledged and unsophisticated aesthetic judgments.³⁴⁷ Claudia Haupt has argued that the same lack of visual skepticism has damaged First Amendment doctrine in cases about religious symbols.³⁴⁸ And Feigenson and Spiesel have

^{340.} Id. at 372 (reversing denial of qualified immunity for police officer who rammed plaintiff's car, paralyzing plaintiff).

^{341.} Id. at 378 (emphasis added).

^{342.} Id. at 381 (emphasis added).

^{343.} Id. at 384 (emphasis added).

^{344.} Id. (emphasis added).

^{345.} See Kahan, supra note 45, at 866 (showing twenty-six percent of viewers did not believe deadly force was necessary).

³⁴⁶. See id. at 841 (discussing members of various subcommunities disagreeing with Court's decision).

^{347.} See Tushnet, Worth a Thousand Words, supra note 17, at 719–22 (providing examples of courts being misled by deceptive or inaccurate images in copyright cases).

^{348.} See Haupt, supra note 49, at 822–23 (arguing courts viewing religious symbols as "passive" and regarding them with "lower intensity" is counter to reality and doctrinally misguided).

shown the influence of naïve realism on trial.³⁴⁹ Routine use of images in civil and criminal cases threatens to dramatically expand naïve realism's reach, allowing visual credulity to creep into all stages of litigation in all sorts of cases.

As one example, take the lawsuit filed by young animation fan Jayme Gordon against DreamWorks, a major animation studio, alleging that DreamWorks had violated his copyright on several animation characters that became the famous characters in DreamWorks' blockbuster *Kung-Fu Panda* series. In *Gordon v. Dreamworks Animation SKG, Inc.*, Gordon made every effort to exploit visual argument. First, he placed his allegedly original work side-by-side with the familiar characters of Dreamworks's *Kung-Fu Panda* in the opening paragraphs of his complaint:



CHARACTER IMAGES IN GORDON³⁵¹

The side-by-side comparison forces the eye to downplay the distinctions between the two images and instead focus on a host of similarities, from the pointy ears of the red panda, to the pandas' postures and facial expressions, to the striped waistbands of their pants. Building on the power of this initial comparison, the complaint uses twenty-three embedded images to recount a dramatic visual narrative of a corporate behemoth taking advantage of a naïve animation enthusiast. But the use of images in Gordon's case was not limited to the copyright dispute. Gordon embedded multiple snapshots of *himself*—a young, white, eagerly

 $^{349. \ \,}$ See generally Feigenson & Spiesel, supra note 41, at 35--36 (discussing strength of images in jury trials).

^{350.} See Gordon v. DreamWorks Animation SKG, Inc., 935 F. Supp. 2d 306, 310 (D. Mass. 2013) (introducing plaintiff's allegations).

^{351.} See Complaint at 1, *Gordon*, 935 F. Supp. 2d 306 (No. 1:11-cv-10255), 2011 WL 531849, at *1. Note that while the hard-copy complaint (available in PDF via Westlaw) displays the image, it is omitted from the Westlaw version.

^{352.} See id. at 8 (showing photo of Gordon at animation promotional event); id. at 17 (showing photo of Gordon with former Disney CEO Michael Eisner).

smiling man—into the pleading, in order to create a visual narrative that directly supported the theme of his argument—that corporate behemoth DreamWorks callously exploited the plaintiff's youthful enthusiasm:



PHOTO OF GORDON IN COMPLAINT³⁵³

In the *Patterson* criminal complaint, described above, the embedded mug shot supported a prosecutor–police narrative of a recidivist African American criminal.³⁵⁴ In *Gordon*, the plaintiff used multiple photographs of himself for the opposite reason—to excite sympathy in his favor. In both cases, the legal drafters were (perhaps unknowingly) using photographic images to exploit potential unconscious bias or stereotyping based on race, gender, and age. Although such biases may be overcome after sustained examination of an individual's case, images in pleadings may have an impact without such deep analysis.³⁵⁵

In Gordon's case, his highly visual strategy was initially effective. The district court denied DreamWorks's motion for summary judgment despite significant red flags about Gordon's credibility. Specifically, it was undisputed that *after* he had viewed the *Kung Fu Panda* trailer, Gordon had shredded all copies of his previously drawn artwork (the work on which his claim was based). The main evidence supporting his copyright claim was a newly created book of his animation that he alleged was a complete and accurate replica of his earlier drawings. The district court conceded that without the earlier materials, DreamWorks had "no meaningful way to impeach the legitimacy" of Gordon's claims and

^{353.} Id. at 17 (showing Gordon with Eisner at Disney's "Pleasure Island" resort).

^{354.} See supra notes 222-226 and accompanying text (discussing use of imagery in criminal information).

^{355.} See Leonard Mlodinow, Subliminal: How Your Unconscious Mind Rules Your Behavior 158–59 (2012) (describing studies showing "people's attributions of guilt and recommendations of punishment are subliminally influenced by the looks of the defendant" but noting bias recedes in longer trials for more serious criminal charges).

^{356.} See *Gordon*, 935 F. Supp. 2d at 312 (describing compilation of new book).

would "face tremendous prejudice." But the court treated Gordon's actions as the misguided result of youth, sanctioning Gordon rather than dismissing his case. Ultimately, however, DreamWorks used its own visual argument to successfully defend against the suit. 358

0Journalists have devoted serious attention to the risks posed by images. The National Press Photographers' Association's Code of Ethics contains several provisions aimed at preventing incidents like *TIME*'s. It tells visual journalists to "[a]void stereotyping individuals and groups" and to "[r]ecognize and work to avoid presenting one's own biases."³⁵⁹ Another provision warns journalists: "Do not manipulate images... in any way that can mislead viewers or misrepresent subjects."³⁶⁰ Yet the profession continues to grapple with the relationship between photo editing and truth telling. In January 2014, the Associated Press (AP) fired a Pulitzer Prize-winning journalist for violation of its ethics code when the photographer used Photoshop to remove a colleague's camera from his image of a Syrian rebel. ³⁶¹ AP's Code of Ethics allows "[m]inor adjustments in Photoshop," such as "cropping, dodging and burning, conversion into grayscale, and normal toning and color adjustments . . .

^{358.} Mimicking Gordon's side-by-side comparison, the animation studio threatened to file a motion to dismiss on the basis that Gordon's panda creations were in fact copies of Disney coloring-book characters from 1996 (the evidence of which was presumably destroyed in the shredding). Here is DreamWorks fighting fire with fire:



DREAMWORKS COMPARISON OF ANIMATION IMAGES

Before the motion to dismiss could be filed, Gordon agreed to dismiss his case with prejudice. See Eriq Gardner & Matthew Belloni, DreamWorks Animation Wins Big 'Kung Fu Panda' Lawsuit (Exclusive), Hollywood Rep. (July 31, 2013, 2:59 PM), http://www.hollywoodreporter.com/thr-esq/dreamworks-animation-wins-big-kung-597254 (on file with the Columbia Law Review) (discussing case dismissal).

359. NPPA Code of Ethics, supra note 35.

360. Id.

361. See Luke Garratt, Pulitzer Prize-Winning Photographer Fired After Admitting that He Doctored Syrian War Rebel Picture by Photoshopping Camera out of Original Image, Daily Mail Online (Jan. 23, 2014, 9:22 AM), http://www.dailymail.co.uk/news/article-2544662/Pulitzer-Prize-winning-photographer-fired-admitting-doctored-Syrian-war-rebel-picture-photoshopping-camera-original-image.html (on file with the *Columbia Law Review*) (describing photographer's termination).

^{357.} Id. at 315; see also id. at 314 ("Gordon acknowledged that he contacted his current attorneys in 2008, possibly even before filing the 2008 copyright registration.").

minimally necessary for clear and accurate reproduction (analogous to the burning and dodging previously used in darkroom processing of images)." ³⁶² However, "[c]hanges in density, contrast, color and saturation levels that substantially alter the original scene are not acceptable." ³⁶³ AP does not even allow the removal of red-eye. ³⁶⁴ Other professions have faced similar conundrums. For example, in July the science journal *Nature* retracted two articles about a much-heralded new way to create stem cells. Most of the grounds for the retraction were related to the article's images, one of which had been digitally enhanced and several of which did not show what they purported to show. ³⁶⁵

Trial lawyers and courts—forced to grapple with visual evidence—have also confronted the interpretive risks of images, albeit with mixed success. ³⁶⁶ For example, the Washington Supreme Court found prosecutorial misconduct and granted a new trial to a criminal defendant when the prosecutor showed a slide show during closing argument that had copies of the defendant's booking photo with captions such as "DO YOU BELIEVE HIM?" and "GUILTY." ³⁶⁷ But written law has not yet developed strategies for regulating multimedia advocacy.

1. Lack of Court Rules for Images. — Courts have a "bewildering panorama" of rules ensuring the readability and fairness of legal filings. ³⁶⁸ For example, the Eleventh Circuit's rules cover such seeming minutiae as paper type (unglazed); spacing (double-spaced text but single-spaced quotations and footnotes); and type size (fourteen-point

^{362.} AP News Values & Principles, Associated Press, http://www.ap.org/company/news-values (on file with the *Columbia Law Review*) (last visited Sept. 9, 2014).

^{363.} Id.

^{364.} Id. ("The removal of 'red eye' from photographs is not permissible.").

^{365.} See Andrew Pollack, Stem Cell Research Papers Are Retracted, N.Y. Times (July 2, 2014), http://www.nytimes.com/2014/07/03/business/stem-cell-research-papers-are-retracted.html (on file with the *Columbia Law Review*) (chronicling discovery of alterations and errors and aftermath of retraction); see also Haruko Obokata et al., Retraction: Stimulus-Triggered Fate Conversion of Somatic Cells into Pluripotency, Nature (July 2, 2014), http://www.nature.com/nature/journal/v511/n7507/full/nature13598.html (on file with the *Columbia Law Review*) (detailing and apologizing for five errors that led to retraction).

^{366.} See, e.g., State v. Swinton, 847 A.2d 921, 951–52 (Conn. 2004) (holding inadmissible photographs modified by Adobe Photoshop to superimpose defendant's teeth on top of victim's bite marks). See generally Feigenson & Spiesel, supra note 41 (evaluating use of visual technologies in several trials, including those of Rodney King and Michael Skakel).

^{367.} See In re Glasmann, 286 P.3d 673, 676 (Wash. 2012); see also id. at 679 ("Highly prejudicial images may sway a jury in ways that words cannot.").

^{368.} See Carl Tobias, Local Federal Civil Procedure for the Twenty-First Century, 77 Notre Dame L. Rev. 533, 533 (2002) (calling federal civil procedure "byzantine"); see also Fed. R. App. P. 32 advisory committee's note ("The Advisory Committee believes that some standards [of font styles and sizes] are needed both to ensure that all litigants have an equal opportunity to present their materials and to ensure that the briefs are easily legible."); Fed. R. Civ. P. 83 (authorizing district courts and individual judges to create their own rules).

Times New Roman).³⁶⁹ The Seventh Circuit warns litigants sternly that failure to comply with margin and font rules may result not only in rejection of a brief but also sanctions.³⁷⁰ District courts have similarly detailed rules.³⁷¹ Lawyers and judges are intimately familiar with the tight regulation of textual argument.

Like text, images in legal documents raise problems of readability and fairness, but current court rules consider neither. In fact, only one procedural rule—Federal Rule of Appellate Procedure 32—appears to contemplate the use of images in a legal brief at all, and the relevant portion of that rule has not been subject to even a single recorded judicial interpretation.³⁷² To take the most pressing example, existing rules (or lack thereof) place no clear limits on the extent to which a digital image may be edited—i.e., altered—before its inclusion in a legal document.

To be sure, there are certain outer limits already in place. At trial, any images would be subject to the Rules of Evidence, including Rule 403's prohibition against evidence that is confusing, misleading, or wasteful.³⁷³ As of now, however, the Federal Rules of Evidence do not set forth specific admissibility requirements for digital photographs.³⁷⁴ Furthermore, while at trial the Federal Rules of Evidence might complicate the authentication of a digitally altered image—for example, by necessitating an expert on digital photography—such evidentiary rules are of little use

^{369.} U.S. Court of Appeals for the Eleventh Circuit, Briefing and Filing Instructions 1, available at http://www.call.uscourts.gov/sites/default/files/courtdocs/clk/FilingBriefsFormat.pdf (on file with the *Columbia Law Review*) (last visited Aug. 19, 2014).

^{370.} U.S. Court of Appeals for the Seventh Circuit, Practitioner's Handbook for Appeals 92 (2014), available at https://www.ca7.uscourts.gov/Rules/handbook.pdf (on file with the *Columbia Law Review*); see also id. at 117 (warning counsel must certify compliance with typeface and type-volume limitations).

^{371.} See, e.g., Bd. of Judges of the E. Dist. of N.Y. and the S. Dist. of N.Y., Local Rules of the United States District Courts for the Southern and Eastern Districts of New York (2013), available at https://www.nyed.uscourts.gov/sites/default/files/local_rules/localrules. pdf (on file with the *Columbia Law Review*) (providing eighty pages of local rules governing procedure in civil cases); U.S. Dist. Court, S. Dist. of Cal., Local Rules 6 (Jan. 1, 2014), available at https://www.casd.uscourts.gov/Rules/Lists/Rules/Attachments/1/Local% 20Rules.pdf (on file with the *Columbia Law Review*) (listing font-size and type requirements and stating "[q]uotations in excess of three lines must be indented and single spaced").

^{372.} See Fed. R. App. P. 32(a)(1)(C) ("Photographs, illustrations, and tables may be reproduced by any method that results in a good copy of the original").

^{373.} Fed. R. Evid. 403 ("The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.").

^{374.} See 2 McCormick on Evidence § 215 (Kenneth S. Broun ed., 7th ed. Supp. 2013) (explaining different theories used to justify admission of photographic evidence). Currently federal-court litigants must authenticate photographs under Fed. R. Evid. 901(b). One court has speculated that where a digital photograph has been enhanced, it may be necessary to call an expert witness to testify to the image-enhancement technology. Lorraine v. Markel Am. Ins. Co., 241 F.R.D. 534, 561–62 (D. Md. 2007).

in pleadings or summary judgment stages, where the question is the impact of an image on a judge, not a jury.³⁷⁵ The Federal Rules of Civil Procedure may also offer some protection: Under the 2006 amendments to Rule 26, "electronically stored information," which could include metadata for digital images, is subject to discovery.³⁷⁶ But even if such protections would be robust at trial, or even at summary judgment, it is far from clear that Rule 26 could offer real protection to litigants from the influence on judges of seeing embedded images in the early—typically pre-evidentiary—stages of a case.

Parties may also seek to exclude images using a motion to strike "redundant, immaterial, impertinent, or scandalous matter."³⁷⁷ But federal courts have been generally hostile to such motions, denying them "unless the challenged allegations have no possible relation or logical connection to the subject matter... and may cause some form of significant prejudice" to a party.³⁷⁸ A motion to strike is a blunt instrument unsuited to regulation of the subtle manipulation of images. Finally, the Model Rules of Professional Conduct might also prevent certain blatant falsehoods. Those Rules prohibit lawyers from "unlawfully alter[ing]... a document or other material having potential evidentiary value,"³⁷⁹ or from making a "false statement"³⁸⁰ or offering "evidence that the lawyer knows to be false."³⁸¹ For example, these rules might cover situations where one party edits video evidence in order to remove exculpatory footage.³⁸²

But such protections may be of limited use in situations where images have been edited in some way short of substantial alteration. After all, lawyers routinely edit their writing for clarity, persuasiveness, and emotional impact. Within the legal profession, there is widespread consensus about what constitutes appropriate editorial advocacy—such as

^{375.} See Fed. R. Evid. 403 (specifying court, rather than jury, "may exclude relevant evidence"); see also *Lorraine*, 241 F.R.D. at 561–62 (describing authentication process for digital photographs as part of comprehensive opinion governing admissibility of digital evidence).

^{376.} See Fed. R. Civ. P. 26(a)(1)(A) (listing required initial disclosures for discovery); Fed. R. Civ. P. 34(b)(1)(C) (permitting party to identify form in which electronically stored information should be produced); see also *Lorraine*, 241 F.R.D. at 547–48 (explaining parties can request "native format," which includes metadata for electronic document, under Rule 34).

^{377.} Fed. R. Civ. P. 12(f).

 $^{378.\ 5}C$ Charles Alan Wright & Arthur R. Miller, Federal Practice and Procedure $\S\ 1382,$ at $436\text{--}41\ (3d\ ed.\ 2004).$

^{379.} Model Rules of Prof'l Conduct R. 3.4(a) (2003).

^{380.} Id. R. 3.3(a)(1).

^{381.} Id. R. 3.3(a)(3).

^{382.} Cf. Feigenson & Spiesel, supra note 41, at 49–57 (describing criminal prosecution of Alexander Dunlop). By a stroke of luck, defense counsel discovered an unadulterated tape, and the charges were dropped. See id. at 54–55.

selecting the most powerful quote supporting one's position—and what crosses an ethical line, such as misquoting or willfully ignoring relevant precedent.³⁸³ But beyond certain boundaries, lawyers and courts may lack similar consensus about where to draw the line between routine and mechanical touch-ups—such as removing red eye or curating to select the most effective among several images—and alterations that might have subtle persuasive value.

What about less substantive changes? For example, marketing scholars have shown that men and women have different color preferences that might influence their purchasing habits. Among women, purple is a favorite color; among men, purple is a least favorite color.³⁸⁴ If a litigant were planning to embed a photograph in her brief to a male judge, would it be improper for her to adjust the tone of color such that the photograph subject's purple blouse appeared blue? Would it be more acceptable to apply a filter to the entire image so that it were black and white? Other studies have shown that, during an auction, a background color of red induces higher bids than does a background of blue, while, in a negotiation context, a background color of red induces lower offers than would blue. 385 The color red consistently triggers higher levels of aggression than does blue. Based on such studies, could a litigant adjust the background of an image to add blue, in order to optimize the willingness of the opposing party to negotiate based on the brief? If a photograph showed a person in an unflattering light, would it be acceptable to cut and paste in a different image of the subject's head? Or to zoom in on an image and crop it to exclude extraneous (or counterproductive) information? Should there be limits on the inclusion of gruesome images of an accident or crime in early documents? If yes, on what basis?

2. Law Lacks Interpretive Traditions for Images. — Analogously, layers of cultural tradition dictate how lawyers and courts approach ambiguous text, whether that text is in the language of a statute, a contract, or a judicial precedent. In the opening days of law school, most new members of our profession confront H.L.A. Hart's statutory-interpretation chestnut

^{383.} See, e.g., Daisy Hurst Floyd, Candor Versus Advocacy: Courts' Use of Sanctions to Enforce the Duty of Candor Toward the Tribunal, 29 Ga. L. Rev. 1035, 1038 (1995) (describing duty of candor to tribunal); Brian C. Haussmann, Note, The ABA *Ethical Guidelines for Settlement Negotiations*: Exceeding the Limits of the Adversarial Ethic, 89 Cornell L. Rev. 1218, 1224–29 (2004) (describing and critiquing "adversarial ethic").

^{384.} See True Colors, KISSmetrics, https://blog.kissmetrics.com/gender-and-color/?wide=1 (on file with the *Columbia Law Review*) (last visited Sept. 9, 2014) (noting twenty-three percent of women and zero percent of men identify purple as favorite color).

^{385.} See Rajesh Bagchi & Amar Cheema, The Effect of Red Background Color on Willingness-to-Pay: The Moderating Role of Selling Mechanism, 40 J. Consumer Res. 947, 951–54 (2013) (reporting findings on impact of background colors red and blue on bids and offers in auction and negotiation settings).

about the meaning of a rule that prohibits vehicles in the park.³⁸⁶ As Hart (and many law professors since) asked, "Plainly this forbids an automobile, but what about bicycles, roller skates, toy automobiles?"³⁸⁷ Professors coax Lon Fuller's response to Hart out of students, prompting them to imagine situations where even an automobile would not be prohibited.³⁸⁸ (A fire truck or ambulance? A tree-pruning or utility truck?) This simple hypothetical provides a departure point for debates about positivism and legal realism, and about the tension "between the text of a rule and its purpose—between the letter of the law and its spirit." ³⁸⁹ More fundamentally, however, it is an induction into the epistemological limits of textual communication, an appreciation for which is a defining hallmark of what it means to be a lawyer.

This is not to suggest that the legal profession has reached consensus on Hart's interpretive conundrum or on many others. The impact of interpretive traditions—from textualists' insistence on plain language to the canons according to which contractual clauses or penal statutes will be strictly construed against the drafters—may be controversial, either in individual cases or among legal thinkers more broadly. But the fact remains that one of the essential facets of legal training is mastering, and questioning, the traditions of reading the law. By education and practice, lawyers and courts take language seriously. There are no corresponding traditions in law to guide the interpretation of images, no training that forces viewers to treat images as "entit[ies] with a complicated relationship to the real." Because we don't take images seriously, we have no grammar, no syntax, no canons of interpretation for the visual. By training and practice, we lack the ingrained, institutionalized skepticism that we bring to text.

C. The Risk that Images May Distort Decisionmaking Structures

The second risk of image-driven written advocacy—related to the first—is that routine use of images will erode established structures of legal decisionmaking, particularly including the allocation of power between judge and jury, and between appellate courts and trial courts. According to tradition, the court is the arbiter of law, and the factfinder

^{386.} See H.L.A. Hart, Positivism and the Separation of Law and Morals, 71 Harv. L. Rev. 593, 606–15 (1958) [hereinafter Hart, Positivism] (presenting this statutory-interpretation hypothetical and using it to illustrate various interpretive challenges). The example is reprised in modified form in H.L.A. Hart, The Concept of Law 125–27 (Penelope A. Bulloch & Joseph Raz eds., 2d ed. 1994).

^{387.} Hart, Positivism, supra note 386, at 607.

^{388.} See Frederick Schauer, A Critical Guide to Vehicles in the Park, 83 N.Y.U. L. Rev. 1109, 1110–11 (2008) (summarizing Fuller's rebuttal to Hart's statutory-interpretation puzzle).

^{389.} Id. at 1115 (citation omitted).

^{390.} Tushnet, Worth a Thousand Words, supra note 17, at 702.

(paradigmatically a jury) makes factual determinations. On appeal, the dynamic shifts and "the appellate court, through the articulation and development of formal rules, is the ultimate arbiter of law";³⁹¹ the trial court, which was closer to the actual dispute, now becomes the realm of facts. A host of legal rules affirms these presumptive allocations of power. For example, in order to preserve the authority of the jury, trial courts are not supposed to evaluate the credibility of witnesses on summary judgment. On appeal, a "plain error" standard of review limits appellate courts' ability to re-evaluate facts; similarly, appellate courts review evidentiary and many other trial-court rulings only for abuse of discretion.

Image-driven advocacy threatens to blur these categories. Indeed, over twenty years ago Collins and Skover speculated that the rise of thennew practices such as videotaping depositions would blur traditional lines between decisionmakers:

The more dynamic electronic record will tend to subvert all of the current rules and practices of appellate courts As the appellate tribunal is exposed to paratexts, the appellate judge may find it increasingly difficult to maintain distance from the trial's context and to resist becoming enmeshed in the reevaluation of factual findings and evidentiary rulings. ³⁹²

As it turned out, videotaped depositions and other courtroom technology largely stayed in the courtroom. Perhaps because they were still rather cumbersome to view—or because they remained largely centered on trial-stage evidence—Collins and Skovers' paratexts did not radically undermine traditional categories of decisionmaking power as they foretold. But as *Scott* makes clear, Collins and Skover's concerns are newly relevant in the new digital-media era.

In *Scott*, the Court relied on the video in order to overturn the court of appeals as well as the trial court, finding their factual summaries "blatantly contradicted by the record."³⁹³ Second—and perhaps more disturbingly—the Court found that the presence of the video eviscerated the bedrock rule that a court on summary judgment should view all facts in the light most favorable to the nonmoving party (which here was the accident victim and plaintiff, Harris). Instead, the Court held, the court of appeals "should have viewed the facts in the light depicted by the videotape."³⁹⁴

Regardless of the outcome in *Scott*, the impulse expressed by the Court—that photo evidence should trump legal presumptions—indicates a real danger that multimedia advocacy will erode traditional decision-

^{391.} Collins & Skover, supra note 11, at 547.

^{392.} Id. at 548.

^{393.} Scott v. Harris, 550 U.S. 372, 380 (2007).

^{394.} Id. at 380-81.

making structures. Already scholars have criticized the tendency of courts to use doctrinal concepts such as foreseeability, as well as procedural hurdles such as summary judgment, to reduce the purview of the jury. As multimedia advocacy becomes richer and more realistic, that possibility becomes a probability. Even before a case first lands on a judge's desk, the availability of multimedia advocacy may influence the legal process. Faced with a choice of clients, a lawyer might lean heavily toward those who have solid visual evidence to support their claims, in order to maximize the possibility of surviving dispositive motions and of obtaining a quick and favorable settlement. If multimedia argument becomes the norm, parties and lawyers who lack visual evidence, or the technological know-how to seamlessly integrate that evidence, may be at a sizeable disadvantage.

Finally, there are dangers—or at least potential dangers—from courts injecting self-created images or cutting and pasting images from the Internet into their judicial opinions. Scholars have expressed concerns about the increasing practice of judges looking beyond a case's record and conducting internet research to inform their decisions. Such independent judicial factfinding might be particularly problematic when it takes visual form. Unlike visuals submitted to courts on appeal, these visuals have not been tested by the adversarial process. Yet precisely because images are memorable and intuitive, such images may play an outsized role in a case, both on direct appeal and in later use of the case as precedent. Already the presence of images in an opinion might disrupt long-settled practice for citing and relying on precedent; that disruption will be magnified if the images are artificial visual constructs of judges.

D. The Risk of Sound-Bite Advocacy

The final risk of welcoming images into the legal lexicon—the risk that multimedia advocacy will vitiate the quality of legal discourse—is more subtle, but perhaps more pernicious and less susceptible to regulation. Cultural critics have long recognized the impact of new media on public discourse. Echoing Marshall McLuhan's declaration that "the

^{395.} See, e.g., W. Jonathan Cardi, Purging Foreseeability, 58 Vand. L. Rev. 739, 740 (2005) (arguing foreseeability "has become the primary source of judicial power to weed out cases deemed by a judge to be unworthy"); Arthur R. Miller, Simplified Pleading, Meaningful Days in Court, and Trials on the Merits: Reflections on the Deformation of Federal Procedure, 88 N.Y.U. L. Rev. 286, 311 (2013) (describing summary judgment as "both the centerpiece and end-point for many (perhaps too many) federal civil cases").

^{396.} See Larsen, supra note 24, at 1260 (describing justices' independent factfinding); Lee F. Peoples, The Citation of Wikipedia in Judicial Opinions, 12 Yale J.L. & Tech. 1, 45 (2009) (noting scholarly concern that law is transitioning from discipline based on principles to one based on facts).

^{397.} See supra notes 1-10 and accompanying text (discussing impact of image in $Sandifer\ I$).

medium *is* the message,"³⁹⁸ Neil Postman explained that "a major new medium changes the structure of discourse; it does so by encouraging certain uses of the intellect, by favoring certain definitions of intelligence and wisdom, and by demanding a certain kind of content—in a phrase, by creating new forms of truth-telling."³⁹⁹ The process of learning to read, for example, dramatically expanded the variety of human thought and expression, but at the price of a "considerable detachment from the feelings or emotional involvement that a nonliterate man or society would experience."⁴⁰⁰ The same dichotomy—of broadening horizons while deepening detachment—has characterized more recent advances in communication technology. "The price we pay to assume technology's power," Carr says, "is alienation."⁴⁰¹

Legal discourse has a complicated relationship to this detachment. On the one hand, as Postman and others have observed, truth telling in the law is fundamentally premised on the authenticity, rigor, and alleged detachment of the printed word. 402 Legal reasoning is also, at least in theory, based on linear, deep analysis. On the other hand, within the profession there has been persistent, persuasive criticism of this abstract, formalist legal model. Legal realists have criticized formalism for being a sham—that is, for "smuggling policy choices into the premises for logical reasoning without analysis or even acknowledgment." 403 Critical legal scholars, in turn, have argued that law is—and should be recognized as subjective, relational, and contingent. These are familiar and important, if unresolvable, tensions in our conception of the purpose and process of legal decisionmaking. 404 But the digital vernacular of the new visual media arguably undermines the values on both sides of the divide. Modern visual communication raises the level of detachment to the point of cynicism, and it replaces deep reading with fragmented and often frenetic

^{398.} Marshall McLuhan, Understanding Media: The Extensions of Man 7 (1964) (emphasis added).

^{399.} Postman, supra note 77, at 27.

^{400.} Carr, supra note 144, at 56–57 (citation omitted) (internal quotation marks omitted).

^{401.} Id. at 211.

^{402.} See Postman, supra note 77, at 20 ("In our culture, lawyers do not have to be wise; they have to be well briefed."); see also, e.g., Chad M. Oldfather, Writing, Cognition, and the Nature of the Judicial Function, 96 Geo. L.J. 1283, 1285 (2008) (noting recognition of "reasoned analysis" as "core feature of legitimate judging").

^{403.} See Richard Posner, Jurisprudential Responses to Legal Realism, 73 Cornell L. Rev. 326, 326–27 (1988); see also id. at 326 ("Formalism can mean anything from casuistry to fidelity to law; realism anything from left-wing ideology to pragmatic, intelligent and epistemologically mature engagement with the legal system.").

^{404.} See generally Laura Kalman, Legal Realism at Yale: 1927–1960 (1986) (arguing by 1960s, legal realism had become orthodoxy and thus was subject to many of same problems for which realists had criticized formalists).

surfing. 405 To the extent that law adopts these communication tools, there is a real danger that legal writing—and perhaps more importantly, legal reading—will enter what Nicholas Carr calls "the shallows," "chipping away at [our] capacity for concentration and contemplation." 406

Fragmentation and superficiality may also result in substantive shortcuts that raise normative concerns. As legal scholars have observed, people tend to analyze legal disputes in light of background cultural narratives—"scripts, schemata, and stereotypes." 407 Leonard Mlodinow explains that categorization is an inherent human trait, necessary for survival. "The challenge," he says, "is not how to stop categorizing but how to become aware of when we do it in ways that prevent us from being able to see individual people for who they really are."408 "Each of us," Richard Sherwin says, "is well equipped to deny complexity, particularly when it threatens to destabilize what we want or need to believe about ourselves, others, and the world around us."409 Oversimple cultural narratives are the lifeblood of ubiquitous communication tools like Facebook and Twitter. Social networking privileges quick insight and witty banter over considered analysis; it seeks reactions that can be captured in one click of a digital thumb. In mass media, the result is widespread prevalence of certain visual tropes—tropes that evoke schadenfreude, empathy, pathos, or outrage in a single glance, frequently by tacitly referencing clichés or stereotypes. Lawyers and judges who employ images may resort to such tropes, thereby arguing in a language that appeals to emotion over intellect, that privileges a cheap laugh over a serious discussion, and that focuses on the present rather than the future. To the extent that these digital cultural preferences permeate legal discourse, the result may be a troubling—if difficult to pinpoint decline in the quality and nature of written legal analysis.

^{405.} See Carr, supra note 144, at 90–91 (describing how online page navigation, hyperlinks, and search function "lead to the fragmentation of online works"); see also Farhad Manjoo, You Won't Finish This Article: Why People Online Don't Read to the End, Slate (June 6, 2013, 7:03 PM), http://www.slate.com/articles/technology/technology/2013/06/how_people_read_online_why_you_won_t_finish_this_article.html (on file with the *Columbia Law Review*) (analyzing empirical research finding most people quit reading before scrolling through even half of news article—even if they then share article on social-networking sites). In an effort to induce people to read an entire piece, Slate's articles now indicate how many minutes they take to read. See Alexander Abad-Santos, Do We Really Need to Know How Long It Takes to Read Your Article?, Wire (Nov. 1, 2013, 3:36 PM), http://www.thewire.com/entertainment/2013/11/do-we-really-need-know-howlong-it-takes-read-your-article/71184/ (noting "1m to read" tag "screams 'this is short' and 'click on this'").

^{406.} Carr, supra note 144, at 6.

^{407.} See Richard K. Sherwin, Law Frames: Historical Truth and Narrative Necessity in a Criminal Case, 47 Stan. L. Rev. 39, 54 (1994) [hereinafter Sherwin, Law Frames] (arguing "familiar mental constructs" shape legal decisionmaking by jurors).

^{408.} Mlodinow, supra note 355, at 157.

^{409.} See Sherwin, Law Frames, supra note 407, at 43.

There are signs that this is happening already. For example, in 2010 a company controlled by Ross Perot Jr. brought a lawsuit against Mark Cuban, the controlling owner of the NBA team the Dallas Mavericks. ⁴¹⁰ Perot, a five-percent owner of the Mavericks, alleged that Cuban had brought the Mavericks to the brink of insolvency by mishandling the finances and management of the team. ⁴¹¹ In 2011, the Mavericks won the NBA championship. ⁴¹² Shortly thereafter, counsel for Cuban moved for summary judgment. The summary judgment brief, which was under four pages long, cited no cases and contained nothing that a lawyer would characterize as a legal argument. Between the caption and introduction and the signature block, the brief was primarily composed of a single embedded image of the victorious Mavericks celebrating their championship:



NBA VICTORY CELEBRATION PHOTO IN HILLWOOD INVESTMENT PROPERTIES III⁴¹³

^{410.} See World Champion Dallas Mavericks & Radical Mavericks Management's Motion for Summary Judgment at 1, Hillwood Inv. Props. III, Ltd. v. Radical Mavericks Mgmt., LLC, No. 10-05639 (Tex. Dist. Ct. June 22, 2011) 2011 WL 2649590 [hereinafter Mavericks Summary Judgment Brief] (discussing background of lawsuit in summary judgment brief).

^{411.} See id. ("Hillwood claims that Cuban has been 'careless and reckless' in his decision-making, allegedly causing Hillwood to 'lose substantial investment value.'").

^{412.} See id. at 2 (discussing Mavericks NBA championship).

^{413.} Id., image available at http://pdfserver.amlaw.com/tx/mavericks.pdf.

A few months later, Cuban followed that visual motion with a traditional, textual motion for summary judgment.⁴¹⁴ One month after that, the district court granted Cuban's motion for summary judgment in a one-page disposition that ordered Perot to pay costs.⁴¹⁵

Legal and mainstream commentators were united in lauding the visual brief's creativity. Legal journal the *Green Bag* nominated the brief to its annual list of exemplary legal writing. He are but commentators' analyses underscored the nonlegal nature of the narrative. The brief was described enthusiastically as "trash-talking," somewhat snarky," and "the ultimate 'fuck you' legal brief." Some reactions used basketball metaphors, calling the brief a "slam-dunk" on "the greatest legal scoreboard ever." What made Cuban's brief effective was that it was, at its essence, nonlegal: It bypassed all of the humdrum rigmarole of traditional legal analysis, with its burdensome case citations and exhaustive reference to allegedly disputed or undisputed facts in the record. Instead the brief set forth a tweetable, emotionally appealing syllogism:

Major premise [unstated]: Championship sports teams are always financially stable and are never mismanaged.

- 414. See Defendants' Amended Motion for Summary Judgment, Hillwood Inv. Props. III, Ltd. v. Radical Mavericks Mgmt., LLC, No. 10-05639 (Tex. Dist. Ct. Oct. 3, 2011), 2011 WL 4862623.
- 415. See Hillwood Inv. Props. III, Ltd. v. Radical Mavericks Mgmt., LLC, No. 10-05639, 2011 WL 5882967, at *1 (Tex Dist. Ct. Nov. 3, 2011) (granting amended motion for summary judgment).
- 416. See Exemplary Legal Writing, Green Bag, http://www.greenbag.org/green_bag_press/almanacs/almanacs.html (on file with the *Columbia Law Review*) (last visited Sept. 10, 2014) (listing summary-judgment brief among 2011 honorees).
- 417. Brian Baxter, Fish & Richardson, Mark Cuban, and a Trash-Talking Summary Judgment Motion, Am. Law Daily (June 22, 2011, 6:19 PM), http://amlawdaily.typepad.com/amlawdaily/2011/06/fish-richardson-cuban.html (on file with the *Columbia Law Review*).
- 418. Mike Masnick, Greatest Legal Filing Ever? Mark Cuban Files Photo of Mavs Championship in Response to Charges He Mismanaged the Team, Techdirt (June 24, 2011, 5:36 AM), https://www.techdirt.com/articles/20110623/14534114832/greatest-legal-filing-ever-mark-cuban-files-photo-mavs-championship-response-to-charges-he-mismanaged-team.shtml (on file with the *Columbia Law Review*).
- 419. Barry Petchesky, Mark Cuban Files the Ultimate "Fuck You" Legal Brief, Deadspin (June 22, 2011, 12:00 PM), http://deadspin.com/5814461/mark-cuban-files-the-ultimate-fuck-you-legal-brief (on file with the *Columbia Law Review*); see also Daniel Martin Katz, My New Favorite Summary Judgment Motion—Mark Cuban v. Ross Perot Jr., Computational Legal Stud. (June 22, 2011), http://computationallegalstudies.com/2011/06/22/my-new-favorite-summary-judgment-motion-ross-perot-jr-v-mark-cuban-via-deadspin/ (on file with the *Columbia Law Review*) (linking to Petchesky article).
 - 420. Masnick, supra note 418 (subtitling blog post "from the slam-dunk dept").
- 421. Robert Wilonsky, Did Mark Cuban's Attorney Just File Greatest Legal Scoreboard Ever in Ross Perot Jr. Case?, Dall. Observer (June 22, 2011, 10:11 AM), http://blogs.dallasobserver.com/unfairpark/2011/06/did_mark_cubans_attorney_just_file_greatest_legal_scoreboard_ever_in_perot_case.php (on file with the *Columbia Law Review*).

Minor premise [in photo]: The Dallas Mavericks are NBA champions.

Conclusion: The Dallas Mavericks are financially stable and not mismanaged.

This intuitive, simple argument is worthy of a "like" on Facebook. But the fact that it is appealing does not mean that it is correct. Cuban's summary-judgment brief does not even attempt to provide data or factual analysis substantiating the unstated major premise that a championship team could not be financially mismanaged. 422 Such analysis would require linear, traditional legal argument. Instead, the brief's visual argument invites the court to shoot from the hip—or, as psychologist Daniel Kahneman might phrase it, to use "fast" thinking rather than resort to the linear methods that characterize "slow" thinking and traditional legal analysis. 423

Because the defendants ultimately filed a traditional brief following their creative brief—straddling the line between old and new forms of legal argument—it is unclear to what extent the championship photo influenced the outcome. Yet it seems more than possible that the trial court accepted the brief's seductive invitation to circumvent legal analysis: The court granted Cuban's motion for summary judgment in a one-page order that contained no case citations, no analysis, and no reference to the record. 424 This was a victory for the Mavericks, and for Mark Cuban and his lawyers. But it is far less certain that this case represents a victory for the thorough—though admittedly sometimes dull—linear analysis that is the hallmark of traditional legal reasoning.

In a similar vein, Judge Posner garnered attention as well as criticism for an opinion in which he used pictures to drive home his metaphorical comparison of a lawyer who ignored circuit precedent to an ostrich burying its head in the sand. "The ostrich is a noble animal," the opinion states, "but not a proper model for an appellate advocate."⁴²⁵ The textual metaphor is followed by not one but two images placed one over the other. The first is of an ostrich with its head in the sand; the second is of a suited man in an identical pose:

^{422.} See Mavericks Summary Judgment Brief, supra note 410.

^{423.} See Daniel Kahneman, Thinking, Fast and Slow 44–46 (2013) (describing how otherwise-intelligent persons often fail "minitests" of reasoning skills even where same subjects could "solve much more difficult problems when...not tempted to accept a superficially plausible answer that comes readily to mind").

^{424.} See Hillwood Inv. Props. III, Ltd. v. Radical Mavericks Mgmt., LLC, No. 10-05639, 2011 WL 5882967 (Tex. Dist. Ct. Nov. 3, 2011) (granting amended motion for summary judgment).

^{425.} Gonzalez-Servin v. Ford Motor Co., 662 F.3d 931, 934 (7th Cir. 2011).





IMAGES IN GONZALEZ-SERVIN⁴²⁶

Although the opinion is only five pages long, its message is loud and clear. Its triple overkill—two images and a textual metaphor—effectively conveys the court's disdain for willfully ignorant lawyers. But with its stock photos—seemingly copied off the Internet—and its dripping sarcasm, the opinion has the tenor of a blog post rather than an official court pronouncement. Several commentators characterized the opinion as disrespectful,⁴²⁷ and the Houston lawyer who was the target of the attack stated, "I think it takes some dignity away from the court."⁴²⁸

Beyond questions of tone—of propriety, collegiality, and sophistication—increased use of visual argument threatens to change the process by which judges and lawyers access information in legal documents. Sidebars, infographics, rollover states, and embedded video in briefs could draw the eye and the mind away from the nuanced and substantiated legal arguments that have characterized legal writing until now. Where an image will do, perhaps readers will have less incentive to pore over detailed text. There is a real risk that visual advocacy will create more gloss but less substance in legal discourse.

^{426.} Id. at 935.

^{427.} See Abdon M. Pallasch, Judge Compares Lawyer to Ostrich, Chi. Sun-Times (Dec. 1, 2011, 12:58 AM), http://www.suntimes.com/news/metro/9163745-418/judge-compares-lawyer-to-ostrich.html (on file with the *Columbia Law Review*) (last updated Jan. 3, 2012, 9:09 AM) (quoting professor at Northwestern University School of Law as saying, "It certainly didn't add anything to the opinion, which was strong enough without the photos").

^{428.} See Diane Karpman, "The Ostrich Is a Noble Animal...," Cal. Bar J. (Jan. 2012), http://www.calbarjournal.com/January2012/EthicsByte.aspx (on file with the *Columbia Law Review*) (quoting David "Mac" McKeand, who represented plaintiffs in the dispute).

IV. TOWARD FAIR MULTIMEDIA ADVOCACY

Given the above risks of multimedia written advocacy, it might seem reasonable to take a strong stance against the use of embedded images or other media in legal documents. The traditional typographic system is ingrained in legal education and culture, and while it may not be perfect, it is comfortable and functional. One commentator has taken this position, at least as it relates to Supreme Court opinions. Writing in 1997, Hampton Dellinger argued that the Supreme Court has made poor use of attached visuals—including maps, photographs, and replicas of documents. 429 According to Dellinger, the various images attached to the Court's opinions over the years offer little substantive support for the textual analysis. To the contrary, he argues, in some cases the images are deceptive, while in others they act merely as distractions. 430 Dellinger says of the Supreme Court Justices, "If their point of view cannot be expressed with words alone, it is likely a sign that they should change it."431 In a contemporaneous digital analog to Dellinger's antivisual stance, Allison Orr Larsen has argued that courts should consider banning the practice of judges seeking information for cases on the Internet or through other extra-record research that has not been tested in the adversarial process. According to Larsen, the Court should either ban judicial factfinding entirely—"shut it down"—or take the opposite stance and "open it up" by candidly admitting that when it comes to independent research, anything goes. 432 "[E]ither course," she argues, "is superior to the outdated procedural void that currently exists."433

Multimedia written advocacy also suffers from a procedural void. But the all-or-nothing approaches proffered by Dellinger and Larsen are unsatisfying responses to the rise of multimedia argument. Banning visual advocacy seems willfully anachronistic (perhaps even ostrich-like) in the face of ever-increasing digital tools for making and embedding images, video, and other media into text. We are slowly exiting the typographic era. Images are powerful tools of proof and persuasion, and they are increasingly fundamental elements of American vernacular. At the same time, unrestrained use of images in legal documents raises the real dangers described above. Therefore, this Article argues, courts and scholars should eschew the extremes and take a messy middle ground by

^{429.} Dellinger, supra note 44, at 1710 (finding attachment of visual aids "unnecessary and largely unhelpful").

^{430.} Id. at 1721–29 (discussing grainy images and tricks of perspective in photographs selected by Justices and how maps distract Court from "fashioning cohesive case law" regarding political districting).

^{431.} Id. at 1750 ("Given the serious issues arising from their use, why employ attachments at all?").

^{432.} Larsen, supra note 24, at 1305–12 (proposing implementation schemes for both minimalist and maximalist approaches to judicial factfinding).

^{433.} Id. at 1305.

developing rules and interpretive traditions that will foster consistent and skeptical treatment of visual argument, similar to our current traditions that govern text. This Part offers initial suggestions toward the development of such institutionalized skepticism.

A. Courts Should Develop Rules Governing Multimedia Argument

Procedural rules seek to ensure that legal documents are readable and that litigants are treated equitably before a court. As parties increasingly rely on snapshots, maps, and other digital images in their legal documents, courts should include this form of legal argument within their regulatory umbrella. Courts may do this in several ways.

First, existing rules could be interpreted to apply to embedded images. For example, courts might construe Federal Rule of Civil Procedure 12(f), which allows motions to strike "redundant, immaterial, impertinent, or scandalous" material from a pleading, to apply to attempts by parties to embed graphic or highly gruesome images of a murder or accident scene into a complaint. 434 Similarly, courts might analyze images in legal documents within the established framework of Federal Rule of Evidence 403 or its state analogues, barring images that are more prejudicial than they are probative, with sensitivity given to the context in which they are used. 435 Yet these rules are blunt instruments for routine regulation of images in legal documents. Rule 12(f) has been used sparingly, and the rules of evidence are geared toward trial rather than toward early stages such as pleading. In addition, both Rule 12(f) and Rule 403 generally depend on one party moving to exclude material proffered by another—a cumbersome addition to the pleading or pretrial briefing process.

Instead, courts may wish to develop multimedia-specific rules that put parties on advance notice of limits on embedding visuals into legal documents. To give a simple example, courts may take inspiration from the ethics rules governing photojournalists and prohibit parties from embedding into legal documents images that have been modified or edited. Courts that are willing to tolerate certain modifications to photographic images, such as cropping or color adjustment, should specify as much. Courts should also consider whether and under what circumstances parties may stage photographs for use in legal argument, similar to what Judge Posner did in *Sandifer I*.

Relatedly, courts should consider requiring parties to state the source of any embedded image, the time and date the image was created,

^{434.} Fed. R. Civ. P. 12(f).

^{435.} See Fed. R. Evid. 403 ("The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of . . . unfair prejudice").

^{436.} See supra notes 359–364 and accompanying text (discussing codes of ethics in photojournalism).

and any modification of the image by the party relying on it. Such a rule would serve two simultaneous purposes. First, it would minimize the risk associated with subtle but potentially prejudicial manipulation of images, such as that exemplified by *TIME*'s editing of O.J. Simpson's mug shot. Second—and equally important—the requirement that parties identify the source of an image may act as a subtle but distinct reminder to courts that images advocate a viewpoint and are not mere neutral depictions of reality. Identifying information would "frame" images, revealing them as an artificial construct and "cu[ing] the reader that they are artifacts to be interpreted." This frame may reduce the pernicious but seductive effect of naïve realism, particularly but not only for photographic images.

Courts may also wish to promulgate rules that exclude certain categories of visual evidence as being more prejudicial than probative at the pleading and summary judgment stages. For example, it may be reasonable to exclude gruesome personal-injury or crime-scene photos, or personal snapshots like those in *Gordon v. DreamWorks Animation SKG*, *Inc.* This is not to argue that gruesome images are unpersuasive. To the contrary, in the words of several prominent historians, "[G]ruesome photographs have played a key role in influencing the great debates of the time "438 Yet gruesome images do not add greatly to allegations of liability and raise the possibility of infecting the decisionmaking process with unnecessary and perhaps unconscious emotional bias. 439

B. Courts Should Develop Canons of Visual Interpretation

In addition to formal rules ensuring that images are readable and fair, courts should develop interpretive traditions for multimedia legal discourse. Canons of statutory interpretation provide a common, "off-the-rack" framework for giving meaning to ambiguous language. Analogously, canons of visual interpretation might provide agreed-upon departure points for analyzing the meaning of images in legal discourse—"shared conventions for understanding [images] in context."⁴⁴⁰ Statutory canons also serve as explicit (if contested) recognition of the limits of courts' institutional competence in particular settings.⁴⁴¹ In this context, too, visual canons will serve that purpose: They will provide an institutionalized reminder to courts of the risks inherent in visual advo-

^{437.} Feigenson & Spiesel, supra note 41, at 10.

^{438.} Brief Amici Curiae of Historians of Art & Photography in Support of the Petitioners at 3, Scott v. Saint John's Church in the Wilderness, 133 S. Ct. 2798 (2013) (No. 12-1077), 2013 WL 1412096, at *3.

^{439.} See supra notes 323–327 and accompanying text (discussing risk of implicit bias associated with image-driven argument).

^{440.} John F. Manning, What Divides Textualists from Purposivists?, 106 Colum. L. Rev. 70, 79 (2006).

^{441.} See generally, e.g., Jeremy Waldron, Law and Disagreement 211–312 (1999) (arguing courts should abandon judicial review).

cacy and will provide a framework in which courts can openly acknowledge such risks. In their critique of *Scott v. Harris*, Kahan and colleagues argue that judges should "pause to consider whether what strikes them as an 'obvious' matter of fact might in fact be viewed otherwise by a discrete and identifiable subcommunity." Courts use canons precisely to institutionalize such pauses—to nudge lawyers and courts into moments of heightened awareness about the limits of textual communication. Analogous canons may heighten institutional awareness about the limits of visual communication.

The first proposed canon of visual interpretation is the "nonplainmeaning rule." The traditional plain-meaning canon of statutory interpretation instructs courts to "follow the plain meaning of a text, except when doing so would require an absurd result."443 This plain meaning rule comes as close as possible to representing the current prevailing interpretive method for images in law, which is succinctly summarized by Justice Stewart's famous aphorism: "I know it when I see it." 444 Modern textualism acknowledges another layer to the plain meaning rule, by requiring that interpreters seek to determine the assumptions—perhaps unstated—"shared by the speakers and the intended audience" of a communication when finding its plain meaning. 445 But in the realm of the visual, where interpretation can seem largely or wholly organic, it is tempting to return to an unadorned, relatively naïve view of visual plain meaning—a view that does not acknowledge the unspoken arguments or narratives an image tells. The first canon of visual interpretation is thus simple but counterintuitive: Images lack plain meaning, and therefore courts should be explicit about the background source of any meaning with which they endow an image.

This Article's second proposed canon of visual interpretation addresses the interrelationship between multimedia advocacy and traditional decisionmaking structures. The second canon holds that the presence of visual media should not alter the standard of review or burdens of proof on a party. This is a simple rule, but again, it is a nudge toward complex interpretation of visuals. In the absence of such a canon, courts may believe that visual evidence obviates traditional structures. For example, the traditional rule is that when a court considers a motion for summary judgment, facts and reasonable inferences should be viewed in the light most favorable to the nonmoving party. 446 In *Scott v. Harris*, the

^{442.} Kahan et al., supra note 45, at 899.

^{443.} See William N. Eskridge et al., Cases and Materials on Legislation app. B, at 19 (4th ed. 2007).

^{444.} Jacobellis v. Ohio, 378 U.S. 184, 197 (1964) (Stewart, J., concurring).

^{445.} Frank H. Easterbrook, What Does Legislative History Tell Us?, 66 Chi.-Kent L. Rev. 441, 443 (1990).

^{446.} Fed. R. Civ. P. 56(c); see, e.g., United States v. Diebold, Inc., 369 U.S. 654, 655 (1962) ("On summary judgment the inferences to be drawn from the underlying facts

Court found that the availability of the police dashboard video nullified the rule. Finding the plaintiff's version of the facts to be "utterly discredited by the record," the Court held that the court of appeals "should have viewed the facts in the light depicted by the videotape." While application of this proposed interpretive canon would likely not have altered the result in *Scott*, it would have required the Court to attempt to articulate a view of the video in the light most favorable to the fleeing driver. Similarly, in other cases, an explicit emphasis on the fact that an image does not erode legal standards might limit the likelihood that trial courts will invade the jury's terrain and the parallel likelihood that an appellate court might be tempted not to defer to a trial court's factual findings.

C. Courts and Other Parties Should Consider Their Own Use of Images

While traditional court rules and canons might—rather simply—ameliorate risks of multimedia advocacy among litigants, there are few hard limits on the use of images by others, including by courts, legal databases, and scholarly journals. But these other institutions should also respond to the increasing use of images to disseminate the law.

As an initial matter, notwithstanding Judge Posner's colorful example of a more vibrant judicial discourse, there are good reasons for courts to exercise restraint in their use of images in judicial opinions. Courts, like litigants, should specify the origin of any image embedded into an opinion and explicitly state any modification made to an image. In that way, the parties to a case—as well as later litigants relying on precedent—would have a more complete understanding of the role that an image plays in a decision. For example, they would know whether the image came from the record, and, if it did, by which party it was introduced. They would also have an accurate sense of the court's involvement in the creation or editing of an image. Such a disclosure requirement might provide a healthy disincentive to judges to creating their own visual evidence, as Judge Posner did in *Sandifer I*. Such transparency may also assist appellate courts to review any staged visual argument with heightened skepticism.

Although there might be rare instances where it would be appropriate for a court to reach beyond the record to locate an image for a judicial opinion, judges should think carefully before embedding into opinions images that are only tangentially related to the subject matter of the case—particularly images that are not part of the record and that reflect pop-culture sensibilities as much as, or more than, legal principles. As isolated curiosities, judicial opinions containing images of Miss

contained in such materials must be viewed in the light most favorable to the party opposing the motion.").

^{447.} Scott v. Harris, 550 U.S. 372, 380-81 (2007).

Wiggles or Bob Marley might be only mildly offensive. But such practices should not become the norm. There is, and should be, a line between respectful legal analysis and the cynical wit or celebrity fawning of a blog post. As it becomes ever easier to drop and drag an image into a legal document, judges—like litigants—should be wary of using images in opinions to garner publicity or merely a cheap laugh.

In addition to courts and litigants, legal scholars should also continue to expand their use of and access to visual argument both in their writing and in their teaching. Currently, except for empirical charts and occasional graphics, legal scholarship rarely harnesses the power of images to explain and to persuade. Already there are some significant exceptions to this logocentrism. Judith Resnik and Dennis Curtis's canonical book Representing Justice analyzes the iconography of justice through the lens of courtroom and other public art and architecture. 448 Rebecca Tushnet's scholarship on copyright and the First Amendment makes powerful use of images. 449 And Scott Dodson and Colin Starger recently published a scholarly article on federal civil pleading in video form. 450 But these exceptions are notable for their rarity. Even online journals tend, beneath a colorful banner, to be composed of lengthy articles containing almost entirely text. Indeed, within law schools generally, images play a miniscule role. Typically, the law curriculum focuses on textual analysis to the exclusion of any attention to visual literacy. It is even unusual for law-school instructors to capture the power of images in order to communicate legal concepts in the classroom.⁴⁵¹ From first-year classes until graduation, law school is a black-and-white, print-based affair with the (literally glaring) exception of law-school marketing departments. But many of the interpretive problems associated with images in

^{448.} Resnik & Curtis, Representing Justice, supra note 19; see also Judith Resnik & Dennis Curtis, Inventing Democratic Courts: A New and Iconic Supreme Court, 38 J. S. Ct. Hist. 207 (2013) (inviting "consideration of how the designers of [the Supreme Court's] building—and others before them—used imagery to inculcate norms about what judges should do").

^{449.} See Tushnet, Worth a Thousand Words, supra note 17, at 694 ("Images seem especially dangerous because their power is irrational."); see also Rebecca Tushnet, More Than a Feeling: Emotion and the First Amendment, 127 Harv. L. Rev. 2392 (2014) (featuring images including still shot from Hyundai Super Bowl commercial featuring Louis Vuitton–covered basketball). For another excellent recent example appearing online, see Charles E. Colman, Trademark Law and the Prickly Ambivalence of Post-Parodies, 163 U. Pa. L. Rev. Online 11 (2014), http://www.pennlawreview.com/online/163-U-Pa-L-Rev-Online-11.pdf (on file with the *Columbia Law Review*) (using wide range of images to illustrate transformation of brands into parodies).

^{450.} For a new and interesting exception, see Dodson & Starger, supra note 174, (linking to video article visually analyzing Supreme Court pleading doctrine).

^{451.} For a primer on using technology to "see the subject matter of the cases rather than just reading verbal descriptions," see generally Rebecca Tushnet, Sight, Sound, and Meaning: Teaching Intellectual Property with Audiovisual Materials, 52 St. Louis U. L.J. 891 (2008).

judicial documents are less pressing in the context of scholarship, teaching, and textbooks, where knowledge rather than persuasion is the dominant goal, and there is less risk that visual manipulation will cause individual harms. As Charles Warren's use of a "photostat copy" of the Judiciary Act almost ninety years ago demonstrates, images can bring arguments to life in a way that unadorned text cannot. The *Green Bag*—which is the amicus brief of law journals, influential and yet an outsider in some respects—is a laudable exception to traditional typographic legal scholarship. The scholarship.

Finally, legal databases should follow the lead of HeinOnline and newcomers such as Fastcase and begin to embrace the profound communicative power of images in written law. As a starting point, databases should include images wherever they appear in legal documents, from briefs and articles to judicial opinions; they should also work toward supporting image searches. ⁴⁵⁴ Because images are meaningful elements of legal documents—whether briefs, opinions, or scholarship—replications of such documents that omit images damage the usefulness and integrity of the text. In order to work with images, lawyers and courts must be able to see them; sophisticated analysis of blank space is not possible.

CONCLUSION

Other professions, from journalism to science, have embraced image-saturated communication. Outside of trial, however, law has largely turned inward in the face of the digital age, refining and reifying its typographic, formalist templates. Lawyers have harnessed new technology to cite more sources, draft longer documents, conduct more discovery, and pay ever-more-detailed attention to precedent. None of these practices has harnessed the power of visual persuasion. To the contrary, whether in legal education, legal documents, or legal databases, law frequently deletes what few images do appear, treating them as irrelevant or as low-culture fodder for the (usually hypothetical) jury. Only now are image-saturated media challenging the hegemony of the written word in law. Images are seeping—unacknowledged and unregulated—into legal documents in a dizzying array of cases and courts. No longer confined to appendices, images are taking center stage in legal argument and legal

^{452.} See supra notes 98, 306 and accompanying text (discussing images' efficiency at conveying information).

^{453.} See generally Green Bag, http://www.greenbag.org/ (last visited Aug. 5, 2014) (showcasing articles illustrated with images).

^{454.} See What Is HeinOnline?, HeinOnline, http://home.heinonline.org/about/what-is-hein-online/ (on file with the *Columbia Law Review*) (last visited Sept. 10, 2014) ("[A]ll charts, graphs, tables, pictures, hand written notes, photographs, and footnotes appear where they belong!").

decisions, reinforcing textual arguments, and conveying implicit messages that support litigation narratives.

Preoccupied with the impact of technology on trial, scholars and courts have barely glanced at the phenomenon of multimedia advocacy in writing. Yet multimedia advocacy has been a staple element of trial practice for over a century. Thus far, the predictions that technology such as videotaped depositions or immersive technology would revolutionize trial practice have been overblown. Trial courts have stable, if imperfect, tools for regulating visual media presented to a jury. Moreover, only a tiny fraction of cases ever reach trial. In contrast, imagesaturated argument made to a judge, not a jury, is a huge change. Beneath the pandas and the ostriches, the maps and the mug shots, multimedia argument represents an analytical shift toward a more persuasive, more colorful, but potentially more problematic style of written advocacy. It may challenge the role of the trial judge, the appellate judge, and the very notion of the distinction between factfinding and legal analysis. And it threatens to alter—perhaps cheapen—the legal vernacular.

As of now, written law is unprepared for this change. In comparison with the finely calibrated tools and rich traditions with which we interpret and argue about language, our profession has no comparable sophistication in the realm of the visual. Nevertheless, this Article argues, it is time for legal discourse to cautiously embrace the powerful—and inevitable—influence of visual media. Rather than ignoring the visual, we should regulate it, through formal and rhetorical techniques analogous to those we have long ago developed for text. Image-driven advocacy will only increase over time. The question is how to create traditions that will allow the law to harness its visual power without sacrificing the virtues of our more staid traditional discourse.