ARTICLE

LAW IN THE DIGITAL AGE: HOW VISUAL COMMUNICATION TECHNOLOGIES ARE TRANSFORMING THE PRACTICE, THEORY, AND TEACHING OF LAW

RICHARD K. SHERWIN[*], **NEAL FEIGENSON**[**], **& CHRISTINA SPIESEL**[***]

TABLE OF CONTENTS

I. INTRODUCTION

Law has always followed significant changes in mind and culture. Our era is no exception. Law today has entered the digital age. 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. The theory and teaching of law must also adapt to these altered conditions. This is not simply a matter of surface rhetoric or style. What is at stake is nothing short of a paradigm shift in the way we think about how legal meanings are made, disseminated, and construed.

For decades, it has been generally understood in the human sciences[1] that interpretations of truth and falsity and judgments of liability and guilt are

[*] Professor of Law, New York Law School.

[**] Professor of Law, Quinnipiac University School of Law.

[***] Adjunct Professor of Law, New York Law School and Quinnipiac University School of Law and Senior Research Associate, Yale Law School.

[1] Paul Ricoeur notes the distinction between knowledge in the natural sciences as opposed to the human sciences as follows: "For in natural knowledge, man grasps only phenomena distinct from himself, the fundamental 'thingness' of which escapes him. In the human order, on the other hand, man knows man; however alien another man may be to us, he is not alien in the sense of an unknowable physical thing. The difference of status between natural things and the mind dictates the difference of status between explanation and understanding. Man is not radically alien to man because he offers signs of his own existence. To understand these signs is to understand man." PAUL RICOEUR, HERMENEUTICS AND THE HUMAN SCIENCES 49 (John B. Thompson ed. & trans. 1981).

socially constructed and, to a significant degree, culturally contingent.[2] Many other disciplines, including the philosophy of science,[3] the philosophy of language,[4] and linguistics,[5] also recognize that meaning depends on context and that truth depends on the ways in which it is represented. New studies of the physiology of perception indicate that even our most basic contacts with reality are socially mediated and constructed.[6] In short, across many disciplines, scholars have sought to explain how knowledge is locally constructed through both culturally embedded practices[7] and diverse techniques of investigation and representation.[8] So too in Anglo-American legal studies, many have recognized that legal meaning is produced by the ways law is practiced,[9] and that rhetoric in its many guises is constitutive of, rather than opposes, truth.[10]

Nevertheless, the cultural shift from an objectivist to a constructivist approach to human knowledge has not been anxiety-free.[11] Many participants in and observers of the legal system continue to experience uneasiness with the semioticians' wisdom that "it's all signs."[12] They fear that embracing this constructivist insight would undercut confidence in the capacity of legal

[2] *E.g.*, MAX BLACK, MODELS AND METAPHORS: STUDIES IN LANGUAGE AND PHILOSOPHY (1962); Ricoeur, *supra* note 1, at 239-243 (Noting that, "in the sense of being free from presuppositions[,] . . . hermeneutics itself puts us on guard against the illusion or pretension of neutrality.").

[3] *E.g.*, BRUNO LATOUR, PANDORA'S HOPE: ESSAYS ON THE REALITY OF SCIENCE STUDIES (1999).

[4] *E.g.*, J. L. AUSTIN, HOW TO DO THINGS WITH WORDS (J. O. Urmson, ed. 1962); LUDWIG WITTGENSTEIN, PHILOSOPHICAL INVESTIGATIONS (G. E. M. Anscombe, trans. 3d ed. 1968) (1953).

[5] *E.g.*, EVE SWEETSER, FROM ETYMOLOGY TO PRAGMATICS (1990).

[6] *E.g.*, Gregory S. Berns et al., *Neurobiological Correlates of Social Conformity and Independence During Mental Rotation*, 58 BIOLOGICAL PSYCHIATRY 245 (2005), available at http://journals.elsevierhealth.com/periodicals/bps; *see also infra* note 56 and accompanying text.

[7] *E.g.*, CLIFFORD GEERTZ, LOCAL KNOWLEDGE (1983); BRUNO LATOUR, SCIENCE IN ACTION (1987); BRUNO LATOUR & STEVE WOOLGAR, LABORATORY LIFE (1986); RICHARD SHWEDER, THINKING THROUGH CULTURES (1991).

[8] *E.g.*, PETER GALISON, IMAGE AND LOGIC (1997); IAN HACKING, REPRESENTING AND INTERVENING (1983).

[9] *E.g.*, KARL LLEWELLYN, THE COMMON LAW TRADITION: DECIDING APPEALS (1962); *see also infra* notes 134-141 and accompanying text on cultural legal studies scholarship.

[10] *E.g.*, Richard K. Sherwin, *Dialects and Dominance: A Study of Rhetorical Fields in the Law of Confessions*, 136 U. PA. L. REV. 729 (1988); Richard K. Sherwin, *Law Frames: Historical Truth and Narrative Necessity in a Criminal Case*, 47 STAN. L. REV. 1 (1994).

[11] *E.g.*, RICHARD J. BERNSTEIN, BEYOND OBJECTIVISM AND RELATIVISM (1983).

[12] *E.g.*, THOMAS A. SEBEOK, SIGNS: AN INTRODUCTION TO SEMIOTICS (1994).

proceedings, such as trials, to yield provable truths about the world.[13] An unbridgeable gap between what legal decision makers believe they need to know and what, on reflection, they seem able to know causes real concern for many. Within this late modern (or postmodern) mindset, there is a heightened sense of inhabiting a universe of representations that seems to turn the urge for real world knowledge back upon itself, as if in an endless regression, like some spectacular baroque tapestry or infinite arabesque endlessly folding in upon itself.[14]

This vertiginous sense of a lack of grounding has intensified in the digital

[13] *See, e.g.*, ROBERT P. BURNS, A THEORY OF THE TRIAL ch. I "The Received View of the Trial" 11 (1999) ("The Received View understands the trial as a necessary institutional device for actualizing the Rule of Law in situations where there are disputes of fact. The trial allows punishments to be imposed or civil wrongs to be righted only after a careful factual analysis of what actually occurred, *specifically structured for the application of an established legal rule to the exclusion of other possible norms*." (emphasis in the original)); *see also* Charles Nesson, *The Evidence or the Event? On Judicial Proof and the Acceptability of Verdicts*, 98 HARV. L. REV. 1357, 1359 (1985) (discussing the need for acceptable verdicts based on an acceptably proven understanding of reality) ("The aim of the factfinding process is not to generate mathematically 'probable' verdicts, but rather to generate acceptable ones.").

[14] *See* Richard K. Sherwin, *Anti-Oedipus, Lynch: Initiatory Rites and the Ordeal of Justice*, in LAW ON THE SCREEN 106, 126 (Austin Sarat et al. eds., 2005) ("[L]ike arabesques endlessly improvis[ed] [in] monadic design, baroque ornamentation proliferated [in a] dizzying, decentering, even nauseating, . . . spatial onslaught."). *See also* HEINRICH WOLFFLIN, RENAISSANCE AND BAROQUE 34 (Kathrin Simon trans., 1964) (noting that the baroque seeks to stimulate the imagination through infinite figurations); GILLES DELEUZE, THE FOLD: LEIBNIZ AND THE BAROQUE 3 (Tom Conley trans., 1993) ("[T]he Baroque differentiates its folds in two ways, by moving along two infinities, as if infinity were composed of two stages or floors: the pleats of matter, and the folds of the soul."). The notion that we live in a universe of endless representations is experienced by some not as a source of anxiety but rather as an opportunity for freedom and self-realization. *See, e.g.*, VILÉM FLUSSER, THE SHAPE OF THINGS: A PHILOSOPHY OF DESIGN 65 (Anthony Mathews trans., 1999) ("What the cultural revolution now under way is all about is that we have gained the ability to set alternative worlds alongside the one taken by us as given."); ROBERT JAY LIFTON, THE PROTEAN SELF: HUMAN RESILIENCE IN AN AGE OF FRAGMENTATION 1 (1993) ("We are becoming fluid and many-sided. Without quite realizing it, we have been evolving a sense of self appropriate to the restlessness and flux of our time."). *See also* THE MATRIX (Warner Studios 1999) (echoing the cyber-romantic credo that "anything is possible," we hear Neo, the film's main protagonist, announce the cyber-utopia that is to come: "I'm going to show these people what you don't want them to see. I'm going to show them a world without you, a world without rules and controls, without borders or boundaries, a world where anything is possible. Where we go from there is a choice I leave to you."). For a critique of cyberculture's utopian strands, *see, e.g.*, KEVIN ROBINS, INTO THE IMAGE: CULTURE AND POLITICS IN THE FIELD OF VISION (1996).

age. Digital technologies allow the pictures[15] and words from which meanings are composed to be seamlessly modified and recombined in any fashion whatsoever, while the Internet allows practically anyone, anywhere, to disseminate meanings just about everywhere. The Enlightenment-era insistence upon essentialist foundations (whether exemplified by Locke's empiricism, Kant's rational categories, or other totalizing epistemologies) is being challenged by digital experience, which has helped to inspire an alternative model of knowledge and reality as a centerless and constantly morphing network of relations.[16]

[15] Throughout this article we use "picture" to refer to any material visual representation and "image" to refer to any immaterial visual referent (inspired by a picture, text, another image, or anything else). For instance, we might speak of the "image" of the *Mona Lisa* deployed in the Prince spaghetti sauce advertisements in a campaign designed by M&R Hess in the mid-1980s. HessDesignWorks.com, Mona Lisa's, Original & Chunky, http://www.hessdesignworks.com/Mona%27s.html (last visited June 14, 2006). Their design presented a pair of "pictures": one, the "regular" *Mona Lisa*, the other, the "chunky" version. On February 8, 1999, the *New Yorker* featured a picture of Monica Lewinsky as Mona Lisa that must have been read by those who saw the Prince advertisement as (among other things) a comment about the young woman's weight. The cover of the June 2005 *AARP Bulletin* similarly harks back both to Leonardo's masterpiece and the Prince campaign with a picture of an aged, heavy Mona Lisa in the style of Fernando Botero (who made his own version of the DaVinci in 1977). Following our terminology, the "picture" is the AARP cover; the DaVinci reference, the Botero reference, and the Prince advertisement campaign are all "images" to which the "picture" alludes (or which the "picture" evokes). Many variant uses of "image," "picture," "visual representation," and the like may be found in the literature; ours is consistent with that of visual theorist W. J. T. Mitchell. W. J. T. MITCHELL, ICONOLOGY (1986); W. J. T. MITCHELL, PICTURE THEORY 4 n.5 (1994); *see also infra* Part III.

[16] *See* Richard Rorty, *Foreword*, in GIANNI VATTIMO, NIHILISM & EMANCIPATION: ETHICS, POLITICS, & LAW xvii (2004) ("[T]he Internet provides a model for things in general – thinking about the World Wide Web helps us to get away from Platonic essentialism, the quest for underlying natures, by helping us to see everything as a constantly changing network of relations.") In audio form this model may be best represented in audio form by "the Mix" (*see, e.g.*, PAUL D. MILLER, a/k/a DJ SPOOKY, RHYTHM SCIENCE (2004)), and in visual form by the complex and ever changing network of relations known as the World Wide Web (*see infra* notes 112-130 and accompanying text). Of course, computer scientists and engineers who help make digital experience possible might share a different perspective. For them, cyberculture is enabled by technology that relies on mathematical and other scientific reasoning which may be regarded as a thoroughly Enlightenment (or Cartesian) enterprise. *See, e.g.*, VILÉM FLUSSER, TOWARDS A PHILOSOPHY OF PHOTOGRAPHY 68 (Anthony Mathews trans., 2000) ("[Apparatuses] are omniscient and omnipotent in their universes. For in these universes, a concept, an element of the program of the apparatus, is actually assigned to every point, every element of the universe. This can be seen most clearly in the case of computers and their universes.")

The task before us is to make sense of the practice of law in this non-essentialist, screen-dominated, and pervasively visual digital era. How might legal decision makers, legal academics, and the interested public come to understand what is already recognized in many other fields, namely, that representations can thoroughly mediate knowledge without seeming to dissolve that knowledge into mere adversarial contentions?[17] Securing this realization makes way for the next query, one that typifies a more self-reflexively constitutive outlook,[18] namely: What kinds of knowledge and meaning are created, and with what outcomes, when they are visually and digitally constructed in particular ways?[19]

Many practicing lawyers are already deeply engaged by these questions.[20] They have to be. Lawyers know that winning cases means persuading their audiences to believe in their stories of what happened and their understandings of the legal significance of particular events and actions, and they know that to be successful they must understand the tools of communication at their (and their adversaries') disposal – in particular, the visual and multimedia tools that digital technologies provide. They also know that they must comprehend the effects those tools can have on audiences' perceptions, thoughts, and emotions. Law teachers, on the other hand, are only gradually catching on to the range of

[17] The split between "true" knowledge (as the product of universal Reason or essentialist categories) and "mere" eloquence (as the historically contingent offshoot of the art of persuasion or digital aesthetics) recapitulates the perennial quarrel between ancients and moderns, which is to say, between the scientific rationality of philosophical dialectics and the "techné" or craft of rhetoric. *See, e.g.*, NANCY S. STRUEVER, THE LANGUAGE OF HISTORY IN THE RENAISSANCE 5-39 (1970). To the extent that law and truth are rooted in contingent (historical) social practices, however, the continued applicability of rhetoric to the study and practice of law remains assured. *Id*. at 180 (linking the "rhetorical emphasis on language" to the "social use of language"). From this standpoint, the ethical capacity to distinguish between hypocrisy and truth depends not on "scientific capacity," but rather on the "linguistic virtuosity" of the vigilant and virtuous (Struever's "urbane") individual. *Id*. at 192. *See also* PETER GOODRICH, LEGAL DISCOURSE 97 (1987) ("The enduring value or applicability of rhetoric as a discipline is to be gauged . . . in exact proportion to its ability to analyse and codify the public and political dimensions of institutional discursive practice."). *See* BARBARA HERRNSTEIN SMITH, CONTINGENCIES OF VALUE 183 (1988) ("'Relativism' in the sense of a conception of the world as continuously changing, irreducibly various, and multiply configurable does not conceive of itself as a logical deduction, or as an inescapable conclusion . . . [but rather] as the contingent product of many things: *contingent* in the sense that it is a function not of 'the way the world is' but of the states of numerous particular systems interacting at a particular time and place." (emphasis in original)).

[18] *See* ERNST CASSIRER, LANGUAGE AND MYTH 9 (Susanne K. Langer trans., 1946) (referring to this outlook in terms of the symbolic "construction of spiritual reality").

[19] *Cf.* JAMES BOYD WHITE, WHEN WORDS LOSE THEIR MEANING 266 (1984).

[20] *See infra* Part II.

implications flowing from the ensuing changes in mind, culture, and technology.[21] Legal theorists have also been slow to address in a focused and systematic way the new realities of law in the digital age.[22]

In this article we seek to provide an overview of what is happening to law and the legal meaning making process in the domain of practice, and what this visual/digital transformation requires of those who would theorize and teach law under new cultural, cognitive, and technological conditions. In short, we seek to construct a new framework for understanding the transformed practice of law in the digital age. Part II spells out in more detail what the new domain of visual and digital legal practice looks like. Part III offers a jurisprudential method for exploring law's visual and digital mediation. Part IV begins to address how legal education needs to be retooled to equip law students for practice in a digital environment. Part V assesses the impact of the visual digital revolution in a broader context and considers the challenges that lie ahead.

II. RE-ENVISIONING LEGAL PRACTICE

Here are some scenes from contemporary legal practice:

- In a recent class action against some of the world's largest tobacco companies, plaintiffs' lawyers contended that the defendant companies were being deceitful when they denied knowledge of the addicting properties of nicotine. At trial a simple computer

[21] Some in the legal academy are well aware of the need to teach law students about the new technologies. *See, e.g.*, Fredric I. Lederer, *Courtroom Technology and Its Educational Implications*, 8 VA. EDUC. & PRAC. 3 (1998); Courtroom 21: A Court Technology Education and Demonstration Project, http://www.wm.edu/law/courtroom21/ (last visited Aug. 5, 2005); *see also* Kenneth J. Hirsh & Wayne Miller, *Law School Education in the 21st Century: Adding Information Technology Instruction to the Curriculum*, 12 WM. & MARY BILL RTS. J. 873, 874 (2004). However, To the best of our knowledge no one has yet written about the broader psychological, rhetorical, and cultural implications of the legal uses of these technologies.

[22] To be sure, legal scholars have been thinking hard about a broad range of issues arising from the adaptation of substantive law to new digital technologies, such as computers and the generation and governance of cyberspace or the Internet, and the impact of digital information technology on law practice. *See, e.g.*, JAMES BOYLE, SHAMANS, SOFTWARE, & SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY (1996); LAWRENCE LESSIG, CODE (1999); RICHARD SUSSKIND, TRANSFORMING THE LAW: ESSAYS ON TECHNOLOGY, JUSTICE AND THE LEGAL MARKETPLACE (2000); Yokhai Benkler, *Coase's Penguins, or Linux and* The Nature of the Firm, 112 YALE L. J. 369 (2002); Paula Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L. J. 1575 (2002). However, the realities we have in mind here range far beyond legal issues regarding intellectual property and the applicability of traditional doctrinal categories and principles to the virtual realities of cyberspace.

simulation demonstrated how ammonia molecules had been added to cigarettes for the sole purpose of facilitating the rapid intake of nicotine. The color-coded images made plain that the tobacco companies had designed their product as a maximally efficient nicotine delivery system.

- In its highly publicized 2002 prosecution of Michael Skakel for the 1975 murder of Martha Moxley, lawyers for the State of Connecticut used an interactive CD-ROM to display all of their demonstrative evidence throughout the trial, including photographs of the neighborhood and crime scene, diagrams of the locations at which real evidence had been found, and an audiotape of a telephone interview Skakel had given to a journalist in the late 1990s. During closing argument, the prosecution replayed excerpts from the audiotape and simultaneously projected a transcript of Skakel's words onto a screen for jurors to follow. In the closing's most dramatic moment, jurors heard Skakel describe the panic he felt when Martha's mother asked him about her daughter the morning after the murder – and simultaneously saw on the screen a photograph of Martha's lifeless body next to the transcript of Skakel's words.[23]
- For an insider trading case against the investment firm Kidder, Peabody and its former executive and corporate takeover wizard Martin Siegel, lawyers for the plaintiff Maxus Corporation (which eventually purchased the target company) prepared a video for closing argument that incorporated animated graphics, archival photographs, excerpts from videotaped depositions, and other materials to show that Siegel had conspired with Ivan Boesky to drive up the target's stock price. Siegel's repeated refusal to testify at his deposition – he took the Fifth Amendment over 600 times – was captured by nine sequential clips of Siegel looking down at a prepared text. As one clip followed another on the screen they took the shape of a three-by-three grid reminiscent of the popular TV game show "The Hollywood Squares." When the grid was complete, the audience both saw and heard the simultaneous Siegels turning the Fifth Amendment right to refuse to testify into a self-protective mantra.[24]

[23] Transcript of closing argument, Connecticut v. Skakel, No. FST CR00-135792T (Conn. Super. Ct., J.D. of Norwalk/Stamford June 3, 2002). *See* Brian Carney & Neal Feigenson, *Visual Persuasion in the Michael Skakel Trial: Enhancing Advocacy through Interactive Media Presentations*, 19 CRIM. JUSTICE 22, 23 (2004).

[24] Avi Stachenfeld & Christopher Nicholson, *Blurred Boundaries: An Analysis of the Close Relationship Between Popular Culture and the Practice of Law*, 30 U.S.F. L. REV.

Lawyers, as rhetoricians, have always known that effective persuasion requires speaking in terms that their audiences understand. They are now adapting to a culture in which audiences are accustomed by their everyday work and leisure experiences with television, movies, print media, and computers to rely on multimedia information. Adding to their traditional demonstrative arsenal of maps, diagrams, models, and photographs, lawyers (and the litigation consultants who help them) are now introducing new kinds of visual and multimedia displays. They assemble video previews of the strengths of their cases and show them to opposing counsel in the hope of obtaining favorable settlements.[25] They shoot and edit day-in-the-life movies of accident victims for personal injury cases[26] and compile video montages of murder victims' lives to be used as victim impact evidence in sentencing proceedings.[27] Software programs like Sanction and Trial Director enable them to replay video depositions for judge and jury and simultaneously to display deponents' words on a scrolling transcript.[28] Advocates digitally enhance photographs and create overlays of different forensic images using Photoshop® software.[29] They use computer animations to illustrate expert witnesses' reconstructions of crimes and accidents.[30] To set the scene for eyewitness testimony they can use "virtual reality views" – seamless, 360-degree representations of a scene, composited from digital photographs, with which witnesses can interact, moving in any direction and zooming in or out as desired.[31] To build opening statements and closing arguments around

903, 910 (1996); Kurt Eichenwald, *Kidder is Settling Maxus Suit*, N.Y. TIMES, October 12, 1992, at D1 ("Kidder, Peabody & Company has agreed to pay $165 million to the Maxus Energy Corporation to settle a lawsuit in which the Texas oil company contended that it was damaged by the insider trading of a former Kidder executive.").

[25] *See, e.g.*, JOHN A. TARANTINO, PERSONAL INJURY FORMS: DISCOVERY & SETTLEMENT § 506 (2004) (on use of settlement videos); Videotape: How to Use Video Settlement Brochures (Bill Buckley 1986) (on file with the authors).

[26] *See, e.g.*, GREGORY P. JOSEPH, MODERN VISUAL EVIDENCE § 4.06 (1997); Videotape: How to Use Day-in-the-Life Videos (Bill Buckley 1986) (on file with the authors).

[27] *E.g.*, Hicks v. State, 940 S.W.2d 855 (Ark. 1997) (upholding admission of 14-minute video consisting of approximately 160 photographs spanning victim's life); Salazar v. State, 90 S.W.3d 330 (Tex. Crim. App. 2002) (overturning trial court's admission of 17-minute video montage of photographs of victim's life, nearly half of which depicted the victim as an infant or small child, and which was set to background music including "My Heart Will Go On" from the movie *Titanic*).

[28] Verdict Systems LLC, *Sanction* (CD-ROM 2006); Indata Corporation, *Trial Director* (CD-ROM 2006).

[29] *See* State v. Swinton, 847 A.2d 921 (Conn. 2004).

[30] *See, e.g.*, JOSEPH, *supra* note 26, at §§ 8.01-8.06.

[31] *See, e.g.*, Jeremy Barnett, *The United Kingdom*, 12 WM. & MARY BILL RTS. J. 687,

multimedia displays that integrate text, photos, video clips, original graphics, and sound files, lawyers need not rely on the sorts of sophisticated consultants who produced the arguments in the three case examples above. They can do it themselves with PowerPoint®.[32]

The ongoing transformation of law practice by digital visual and multimedia technologies can be gauged in part by the growing numbers of high-tech courtrooms,[33] legal visual consultants,[34] and instructional materials for lawyers.[35] But even more importantly, the proliferation of digital and visual tools is profoundly changing the way litigators approach their jobs. First, the ability to put so much of their thinking into visual form leads lawyers to strategize their cases differently. When lawyers visualize a case, different possible relationships between elements can emerge that remain invisible when those same elements are described only verbally. This is because visual spatial arrangements are different from linear linguistic sequences.[36] For example, one can talk about information channels in a complex corporate hierarchy, but a box-and-line chart showing who communicated with whom can make instantly intelligible the paths of information and influence. Second, the process of assembling and designing the visual presentations to be shown during negotiations, arbitration proceedings, or trials forces lawyers to prepare their

693-94 (2004) (discussing use of "virtual reality" in Bloody Sunday Inquiry) (*see infra* notes 130-31 and accompanying text (Part III(iv)); Darius Whelan, "The Bloody Sunday Tribunal," an exhibit at first International Conference on Visual Literacy, Cork, Ireland, (April 14-15, 2005); e-mail from Brian Carney, President, WIN Interactive, to Neal Feigenson (February 8, 2005) (on file with author).

[32] *See, e.g.*, Deanne C. Siemer & Frank D. Rothschild, *PowerPoint® 2002 for Litigators* (2002).

[33] Elizabeth C. Wiggins, *What We Know and What We Need to Know About the Effects of Courtroom Technology*, 12 WM. & MARY BILL RTS. J. 731 (2004); ELIZABETH C. WIGGINS, MEGHAN A. DUNN, & GEORGE CORT, FEDERAL JUDICIAL CENTER SURVEY ON COURTROOM TECHNOLOGY (Dec. 2003), http://www.fjc.gov/public/pdf.nsf/lookup/cttech03.pdf/$file/cttech03.pdf.

[34] Reliable, comprehensive data on this are difficult to locate, but indirect evidence comes from the increase in the number of trial consultants generally, some of whom offer visual production services. *See* AMY J. POSEY & LAWRENCE S. WRIGHTSMAN, TRIAL CONSULTING (2005); GRETA RUSANOW, KNOWLEDGE MANAGEMENT AND THE SMARTER LAWYER (2003).

[35] *See, e.g.*, MICHAEL R. ARKFELD, THE DIGITAL PRACTICE OF LAW (2001); ANN E. BRENDEN & JOHN D. GOODHUE, PERSUASIVE COMPUTER PRESENTATIONS: THE ESSENTIAL GUIDE FOR LAWYERS (2001); G. CHRISTOPHER RITTER, CREATING WINNING TRIAL STRATEGIES AND GRAPHICS (2004); Siemer & Rothschild, *supra* note 32.

[36] Think of this as the visual equivalent of the statement often made by writers that they find out what they are thinking in the act of writing. (We have more to say about visualization and visual thinking *infra* Part III.)

cases earlier and more thoroughly than they would otherwise. Advocates must think through their theories of the case in the beginning so that they can plan for, design, and integrate apt visuals at the right spots in their presentations.[37] Third, as scientific and other complex evidence plays an ever-larger role in legal disputes, the move to the visual enables lawyers and their expert witnesses to teach their cases more effectively to judges and juries. By using pictures as well as words, lawyers can present their cases in ways that interact more effectively with their audiences' diverse styles of learning.[38] This enhanced capacity for visual representation fosters in practitioners a mind-set of "lawyer-as-instructor" which may, over time, effectively compete with the more pejorative popular images of the lawyer as "hired gun" and unethical manipulator.[39]

These developments make it incumbent upon us to ask: How and what exactly do juries and judges learn when lawyers use digital and visual media to present evidence and argument? And how does the shift to these media affect the way that lawyers and their audiences reconstruct reality for the purpose of rendering legal judgment? In the next part we outline a new approach to understanding how legal meanings are made and understood in a pervasively visual digital era.

III. RE-ENVISIONING LEGAL THEORY

Today, it is well accepted that our sense of history, like our sense of memory and self-identity, is in large measure the result of composing and telling stories.[40] Just as it is through stories that we construct the meaning of individual and collective experience, so also it is through stories that we are

[37] Carney & Feigenson, *supra* note 23, at 34.

[38] *See, e.g.*, Richard E. Mayer, *Systematic Thinking Fostered by Illustrations in Scientific Text*, 81 J. EDUC. PSYCHOLOGY 240 (1989); Richard E. Mayer & Richard B. Anderson, *The Instructive Animation: Helping Students Build Connections Between Words and Pictures in Multimedia Learning*, 84 J. EDUC. PSYCHOLOGY 444 (1992); *see generally* HOWARD GARDNER, MULTIPLE INTELLIGENCES (1993).

[39] Of course, new digital communication technologies also open up new opportunities for questionable practices which need to be understood and effectively countered. A major goal of our jurisprudential and pedagogic program (*see infra* Parts II and III) is precisely to make lawyers more astute observers and critics of their adversaries' digital and visual presentations.

[40] Richard K. Sherwin, *Picturing Justice: Images of Law & Lawyers in the Visual Media*, 30 U.S.F. L. REV. 891 (1996); *see also* ANTHONY AMSTERDAM & JEROME BRUNER, MINDING THE LAW (2000); DAN P. MCADAMS, THE STORIES WE LIVE BY (1993); NARRATIVE PSYCHOLOGY: THE STORIED NATURE OF HUMAN CONDUCT (Theodore R. Sarbin ed., 1986) (collection of essays exploring the meaning of story-telling).; ROY SCHAFER, RETELLING A LIFE (1992); DONALD P. SPENCE, NARRATIVE TRUTH AND HISTORICAL TRUTH (1982).

moved to blame or exonerate others.[41] But as Robert A. Ferguson noted more than twenty years ago, "we can only tell the stories we know" – and know how to tell.[42] Storytelling in popular culture today is increasingly visual. Digital pictures, conveyed through television, movies, videos, CD-ROMs, DVDs, the Internet, and traditional print media, have come to dominate our entertainments, our politics, our news, and our methods of education, and now they are infusing law practice as well.[43] Pictures are considered by some as more real than technologically unmediated reality.[44] It should not prove surprising, then, that it is the play of pictures invoking other pictures (together with other, more implicit meanings) that we see when lawyers visually reconstruct reality in the courtroom.[45] Yet legal scholars have been less quick than their counterparts in other academic fields to heed the implications of the cultural shifts to the visual and the digital.[46] Consequently, they have not yet adequately addressed such urgent questions as: What sort of knowledge and meanings do lawyers construct when they picture reality for judges and jurors? How do lawyers using digital visual displays lead legal decision makers and the public to take up desired meanings and participate in the reconstruction of one story, one version of reality, rather than another?

These questions, of course, are another way of posing the pivotal query that guides Aristotle's approach to rhetoric, namely: What are the available means

---

[41] *E.g.*, Nancy Pennington & Reid Hastie, *The Story Model for Juror Decision Making*, in INSIDE THE JUROR 192, 193 (Reid Hastie ed., 1993).

[42] Robert A. Ferguson, *Story and Transcription in the Trial of John Brown*, 6 YALE J.L. & HUMAN. 37, 37 (1994).

[43] *See supra* notes 22-39 and accompanying text.

[44] *See* JEAN BAUDRILLARD, FATAL STRATEGIES (Philip Beitchman and W. G. J. Niesluchowski trans., Jim Fleming ed. 1990); JEAN BAUDRILLARD, THE GULF WAR DID NOT TAKE PLACE (Paul Patton trans., 1995).

[45] *E.g.*, Philip N. Meyer, *"Desperate for Love": Cinematic Influences upon a Defendant's Closing Argument*, 18 VT. L. REV. 721, 746-47 (1994); RICHARD K. SHERWIN, WHEN LAW GOES POP (2000).

[46] Of course exceptions do exist, including Jennifer Mnookin's exemplary work on the history and theory of demonstrative evidence. Jennifer L. Mnookin, *The Image of Truth: Photographic Evidence and the Power of Analogy*, 10 YALE J.L. & HUMAN. 1 (1998); Jennifer L. Mnookin & Nancy West, *Theaters of Proof: Visual Evidence and the Law in* Call Northside 777, 13 YALE J.L. & HUMAN. 329 (2001). For a recent attempt to integrate visual theory into the study of visual evidence, see Christopher J. Buccasfusco, *Gaining/Losing Perspective on the Law, or Keeping Visual Evidence in Perspective*, 58 U. MIAMI L. REV. 609 (2004). There is also a burgeoning literature on law and film. *See, e.g.*, DAVID BLACK, LAW IN FILM (1999); LEGAL REELISM: MOVIES AS LEGAL TEXTS (John Denvir ed., 1996); LAW'S MOVING IMAGE (Leslie Moran et al. eds., 2004); LAW ON THE SCREEN (Austin Sarat et al. eds., 2005).

of persuasion in the face of a given legal conflict or controversy?[47] What story forms and what images, expressing what analogies, metaphors, and symbols, are best suited to win the hearts and minds of a given audience at a given point in time? On which sources (*topoi*) should the advocate draw and how should the presentation be styled to be most persuasive? How should the advocate deflect an adversary's rhetorical strategy? One way or another, everything we discuss here has to do with rhetoric, because each discipline or field of knowledge that we engage says something different about the means, modalities, and effects of persuasion, the discerning use of which is the rhetorician's job to practice and teach.

We may accept as a useful point of departure Aristotle's teaching that it is the rhetorician's main task to identify the available means of persuasion in a given context. Today, however, we need a more expansive restatement of this task, one that incorporates insights into the meaning making process from a variety of scholarly domains, including cognitive psychology, cultural anthropology, sociology, linguistics, art history, media studies, film studies, and advertising. Indeed, interdisciplinarity is the sign of our times. The widespread recognition that meanings are socially (as well as psychologically and culturally) constructed entails an increasing need for multiple systems of interpretation. Meaning making and understanding become more complex precisely because no single interpretive frame or expert discourse can be taken for granted, and because each interpretive tool foregrounds different elements of the object of study. Visual communication seems especially well-suited to an interdisciplinary approach. Our culture is flooded with images whose import may be simultaneously overdetermined and indeterminate, whose layers of significance can be teased apart only by using a variety of interpretive tools. In the domain of law, legal pragmatism, with its "lesson of tentativeness," as Richard Posner has noted, similarly encourages recourse to multiple tools from a variety of disciplinary toolboxes.[48]

On pragmatic grounds, therefore, as well as in response to new developments in theory, our method of inquiry into law in the visual and digital age is constructivist and multi-perspectival. We explore how the meanings that are made when advocates argue or judges and jurors decide, like the meanings that emerge from any other activities in a culture, are built from

[47] ARISTOTLE, RHETORIC I. ii. 1 at 15 (John Henry Freese trans., Harvard University Press 1926).

[48] *See* RICHARD POSNER, LAW, PRAGMATISM, AND DEMOCRACY 34, 84 (2003) ("[Legal pragmatism] relies on advances in economics, game theory, political science, and other social-scientific disciplines rather than on unexamined political preferences and aversions to take the place of legal formalism."). Our multidisciplinary toolkit shares some items with Posner's (e.g., cognitive and social psychology) but goes well beyond it; *see infra* text accompanying note 134.

the participants' perceptual, cognitive, emotional, and technological resources.[49] Advocates draw, largely intuitively, from a toolbox of such resources when they conceive and design their evidence and arguments; their audiences implicitly rely on the same tools when they take up the advocates' messages. We aim to make these tools and their contextual uses explicit. We present no totalizing or "essentializing" first principles, recognizing the constructivist premise that both knowledge and the means of knowing are immanent, contingent, and contextually sensitive.

We offer below four sets of interdisciplinary insights into law's visual and digital meaning-making practices today. This illustrative (but hardly exhaustive) set of tools includes: the neurobiology and psychology of vision; cognitive psychology and narrative theory; media studies and reality judgments; and the cultural psychology of digital experience. No one tool or insight explains everything, but each advances the understanding of how advocates and their audiences make meanings. Taken together, these multiple tools and insights from a variety of disciplines establish a network of overlapping and mutually informative methods of analysis and persuasion. This network constitutes the more expansive domain of rhetoric in the digital age. Singly and jointly applied, these rhetorical tools advance the advocate's twin goals of credibly representing reality while persuasively activating decision makers' memories, emotions, and beliefs in their pursuit of judgment.

(i) Vision science and visual thinking: Why pictures matter. When judges and jurors scrutinize photographs, videos, computer animations, and other graphic materials (such as charts, graphs, and maps) used as demonstrative evidence as they strive to reach decisions, they are doing something very different from what they are doing when they listen to testimony or read documents. When they look at pictures they are reading a different kind of text[50] which comes with its own methods of decoding, history(ies), and ways of resonating with the rest of our culture. To appreciate how profoundly the visual turn is affecting law, therefore, we must first understand a bit about vision and visuality – what is distinctive about visual perception and visual thinking, and why visual displays can exert an especially strong influence on legal judgment.

We begin with the biology and neuropsychology of vision.[51] In spite of the

[49] Richard K. Sherwin, *Nomos and Cinema*, 48 U.C.L.A. L. REV. 1519, 1528 (2001); *see also* sources cited *supra* note 7.

[50] We use "text" to refer "not only to written materials but also to painting, architecture, information systems, and to all attempts at *representation* whatever form they may take." DICTIONARY OF POSTMODERN THOUGHT 390 (Stuart Sim ed., 1998). On our working definition of "picture" as opposed to "image," *see supra* note 23.

[51] For good general sources, see, for example, STEPHEN M. KOSSLYN, IMAGE AND BRAIN (1994); STEPHEN E. PALMER, VISION SCIENCE (1999).

apparently seamless unfolding of the external world through visual perception, people actually construct their ideas about the world through discrete bits of information that they assemble into visual images. With a speed that makes the process seem automatic, people arrive at a conscious sense of continuous perceptions. But that is not the way things are before the brain composes the coherence of perceived reality.[52] To make order out of what might otherwise be a chaos of perceptions, people resort to rapid sortings of data, marking their relative importance so that they may rely on their perceptions to make quick judgments. This capacity to sort perceptions and register their emotional significance rapidly allows people to know when to fight and when to flee,[53] when they need to pay focused attention and when they can afford to be lost in thought. At least some of the emotional associations that a visual perception acquires attach well before anything like conscious processing occurs,[54] which can lead to stereotyped thinking that goes unnoticed by the rationalizing cortex.[55]

Visualization and visual thinking are not only quick but also highly malleable. Basic perceptual judgments are prone to social influence. For example, people are likelier to see two similar objects as the same if told that others have seen them that way.[56] Verbal information can remold visual

[52] *See* ANN MARIE SEWARD BARRY, VISUAL INTELLIGENCE: PERCEPTION, IMAGE, AND MANIPULATION IN VISUAL COMMUNICATION (1997); DONALD D. HOFFMAN, VISUAL INTELLIGENCE: HOW WE CREATE WHAT WE SEE (1998); Leif H. Finkel, *The Construction of Perception*, in INCORPORATIONS 393, 400 (Jonathan Crary & Sanford Kwinter eds., 1992); ZENON W. PLYSHYN, SEEING AND VISUALIZING: IT'S NOT WHAT YOU THINK (2006). Some of what cognition contributes to perception is indicated by visual illusions in which people see what literally isn't there, or by their perception of a continuous visual field despite the blind spot (where the optic nerve meets the retina, the eye has no rods or cones to receive stimuli). *See, e.g.,* RICHARD L. GREGORY, EYE AND BRAIN: THE PSYCHOLOGY OF SEEING (5th ed., 1997); PALMER, *supra* note 51, at 7-9, 33-34. Note generally the parallel to the digital world, which is made up of discrete bits of information rather than the analog world of our experiences of it. *See infra* Part III(iv). Saccadic eye movements are another example of intelligent (*i.e.*, goal-oriented and problem-solving) but entirely subconscious behavior. *See* PATRICIA SMITH CHURCHLAND, BRAIN-WISE: STUDIES IN NEUROPHILOSOPHY 50-51 (2002).

[53] *See* JOSEPH LEDOUX, THE EMOTIONAL BRAIN (1996).

[54] *Id.*

[55] *See, e.g.*, John Dovidio & Samuel Gaertner, *Stereotypes and Evaluative Intergroup Bias*, in AFFECT, COGNITION, AND STEREOTYPING 167 (Diane Mackie & David Hamilton eds., 1993); Susan T. Fiske, *Stereotyping, Prejudice, and Discrimination*, in 2 HANDBOOK OF SOCIAL PSYCHOLOGY 357 (Daniel T. Gilbert, Susan T. Fiske, & Gardner Lindzey eds., 4th ed. 1998); *see also* Mahzarin R. Banaji & Anthony G. Greenwald, "Implicit Association Test," https://implicit.harvard.edu/implicit/demo (last visited Aug. 15, 2006).

[56] Berns et al., *supra* note 6. Participants were given a visual thinking task: They were shown paired pictures of configurations of connected square blocks and asked to determine

interpretation and memories. In one well-known experiment, participants shown a film of an automobile accident who were asked how fast the cars were going when they "smashed" into one another gave higher estimates of speed than participants who saw the identical film but were asked how fast the cars were going when they "collided with" one another – and, one week later, were likelier to recall having seen broken glass in the film, even though none was present.[57] Captions guide the interpretation of pictures[58] and suggestive questioning can induce not merely biased but entirely false visual memories.[59]

Visual thinking is malleable because the images that people think with "are not stored as facsimile pictures of things, or events, or words, or sentences."[60] There is no one place in the brain in which internal representations of visual percepts or mental imagery "come together."[61] When people need to think imagistically in response to a given task, they do not simply retrieve intact the appropriate images from their neurological library. Consequently, the beliefs and judgments that people may articulate in response to tasks eliciting visual thinking are not simple read-offs from some internal visual or quasi-visual mental reality,[62] any more than their beliefs and judgments about the world in general are simply read-offs from external reality. Rather, people *(re)construct* the mental images they use in their thinking as required by the task and the situation.[63] A more apt metaphor for the mind than a library (or some

whether the two were identical or mirror images of one another. To do this, participants had to mentally rotate one of the pictures and decide whether the rotated image matched the other. In undertaking this task, participants were prone to social influence. They gave more incorrect answers when informed of incorrect answers that a group of fellow participants – actually experimental confederates – had given. Moreover, fMRI scans showed that the brains of participants in the social influence condition tended to be activated in same areas used for visual processing. Researchers interpreted these findings to suggest that social influence works by affecting the perceptions themselves and not by inclining participants to adjust their reports of what they had perceived to match what they were told the others had seen. *Id*. at 251

[57] Elizabeth F. Loftus & John C. Palmer, *Reconstruction of Automobile Destruction: An Example of the Interaction Between Language and Memory*, 13 J. VERBAL LEARNING & VERBAL BEHAVIOR 585 (1974).

[58] *See, e.g.*, PALMER, *supra* note 51, at 597-601; Karen Slattery, *Visual Information in Viewer Interpretation and Evaluation of Television News Stories*, 10 J. VISUAL LITERACY 26, 27 (1990).

[59] *See, e.g.*, D. Stephen Lindsay, *Recovered-Memory Experiences*, in RECOVERED MEMORIES OF CHILD SEXUAL ABUSE 142 (Sheila Taub ed., 1999).

[60] ANTONIO R. DAMASIO, DESCARTES' ERROR 100 (1994).

[61] Finkel, *supra* note 52, at 400.

[62] M. R. BENNETT & P. M. S. HACKER, PHILOSOPHICAL FOUNDATIONS OF NEUROSCIENCE 128-43, 192-93 (2003); *see also* WITTGENSTEIN, *supra* note 3, ¶¶ 154, 180.

[63] Recent findings in neuroscience show that people generally do not and need not build

equivalent "container") might be that of a short-order cook – and not one who dishes up just ham and eggs, but an artful French chef who can nearly instantly combine neural ingredients to create a sumptuous repast to order.[64]

In light of these features of visual perception and thinking, consider some of the ways in which pictures, in contrast to purely verbal communications, can affect legal decision makers' thinking and judgments:[65]

- Pictures of all kinds, still or moving – from diagrams to documentary photography – tend to have a greater impact than non-visual expressions of the "same" information because pictures tend to be more vivid.[66]
- Visual displays can convey more information than words alone and enable viewers to understand more. For example, spatial arrays, graphs, and diagrams can show relationships between data that would remain obscure if the data remained in tabular notational form.[67] Similarly, computer animated reconstructions of events can represent with clarity and precision small but legally significant changes within a given period of time (such as the relative positions and speeds of vehicles prior to a collision).[68] These factual details

complete mental representations of their present situations, but instead "selectively represent the world on a need-to-know footing." To function in the world – for instance, to move, reach, and grasp – people depend on their brains to generate "maps-on-demand" that process sensory information and translate it into neural programs that guide appropriate motor structures and hence effective behavior. CHURCHLAND, *supra* note 5252, at 309, 318.

[64] *See* David F. Marks, *On the Relationship Between Imagery, Body, and Mind*, in IMAGERY: CURRENT DEVELOPMENTS 1, 6 (Peter J. Hampson, David F. Marks, & John T. E. Richardson eds., 1990) ("Perceiving and imaging are not merely processes of identification brought about by looking and listening but active performances in which specific intentions, purposes, and actions need to be fulfilled"); *see also* J. J. GIBSON, THE ECOLOGICAL APPROACH TO VISUAL PERCEPTION 253 (1979), discussed in Sharon Helmer Poggenpohl & Dietmar R. Winkler, *Diagrams as Tools for Worldmaking*, 26 VISIBLE LANGUAGE 253-57 (1992).

[65] For a more detailed discussion, *see* Richard K. Sherwin, *Law in Popular Culture*, in THE BLACKWELL COMPANION TO LAW AND SOCIETY 95, 99-100 (Austin Sarat ed., 2004).

[66] *See, e.g.,* Brad E. Bell & Elizabeth F. Loftus, *Vivid Persuasion in the Courtroom*, 49 J. PERSONALITY ASSESSMENT 659 (1985); Maryanne Martin & Rachel Williams, *Imagery and Emotion: Clinical and Experimental Approaches*," in IMAGERY: CURRENT DEVELOPMENTS 268, 268 (Peter J. Hampson, David F. Marks, & John T. E. Richardson eds., 1990) ("The more imageable the material, the better the recall.") (citing work of Paivio).

[67] *See, e.g.*, STEPHEN M. KOSSLYN, ELEMENTS OF GRAPH DESIGN (1994); *see also generally* EDWARD R. TUFTE, THE VISUAL DISPLAY OF QUANTITATIVE INFORMATION (1983); EDWARD R. TUFTE, ENVISIONING INFORMATION (1990); EDWARD R. TUFTE, VISUAL EXPLANATIONS (1997).

[68] *See, e.g.*, Meghan A. Dunn, "The Effects of Computer Animation on Mock Jurors'

might remain difficult for a decision maker to imagine and thus harder to understand if left to verbal descriptions alone.[69]

- Photorealistic pictures tend to arouse cognitive and emotional responses similar to those aroused by the real thing. For example, an IMAX movie of a roller-coaster ride can induce vertigo in viewers who would remain unruffled by a verbal description.[70]
- Unlike words, which are obviously constructed by the speaker and thus are understood to be at one remove from the reality they describe, photorealistic photographs, videos, and film can appear to be caused by the external world[71] without the taint of human mediation or authorial interpretation.[72] Consequently, they tend to

Decision Making," poster presented at the annual conference of the Society for Personality and Social Psychology, San Antonio, TX (Feb., 2001) (copy on file with authors); Saul M. Kassin & Meghan A. Dunn, *Computer-Animated Displays and the Jury: Facilitative and Prejudicial Effects*, 21 LAW & HUMAN BEHAVIOR 269 (1997).

[69] Computer animations can also depict objects or events that are simply too small, too large, or too ephemeral to be seen at all without technological intervention; *see infra* text following note 81. On the other hand, some research has shown that computer animations may not assist legal decision making where audiences are able to visualize events adequately on the basis of verbal information and non-moving diagrams alone (*see* Dunn, *supra* note 68; Robert B. Bennett, Jr., Jordan H. Leibman, & Richard E. Fetter, *Seeing is Believing, Or Is It? An Empirical Study of Computer Simulations as Evidence*, 34 WAKE FOREST L. REV. 257 (1999)). In addition, animations may sometimes be instructionally inferior to static diagrams because animations make greater demands on viewers' processing capacities (*see* Richard Lowe, *Extracting Information from an Animation During Complex Visual Learning*, 14 EUR. J. PSYCHOL. EDUC. 225 (1999)).

[70] Tom Gunning, *An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator*, in VIEWING POSITIONS: WAYS OF SEEING FILM 114 (Linda Williams ed., 1995), explains how audiences for Lumiere's *Arrival of a Train at the Station* were simultaneously terrified by the impression that the train was headed straight for them and pleased by their appreciation of film's trompe l'oeil capabilities. For research indicating that photographs can provoke emotional responses similar to those aroused by the real thing that in turn affect legal judgments, *see* 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 & HUMAN BEHAVIOR 485 (1997).

[71] Sometimes referred to as *indexicality*; *see* PAUL MESSARIS, VISUAL PERSUASION xvi (1997).

[72] *See* Mnookin, *supra* note 46, at 16-17 (referring to O. W. Holmes's description of the photograph as "a mirror with a memory"); *cf.* early photographer William Henry Fox Talbot's description of it as the "pencil of nature." WILLIAM HENRY FOX TALBOT, THE PENCIL OF NATURE (1844). And yet, people's ability to understand what they see even in photorealistic pictures, as opposed to nature, depends critically on their awareness that every picture is a *representation*: It is bounded, separated from reality by something that cues the reader that it is a text (*see supra* note 70) to be read. We can call this boundary a *frame*, but

be accepted as highly credible evidence of the reality they depict, even though they lack the other sensory modalities that the viewer would encounter in real life.[73]

- Unlike the linear communication of words, which must be taken in sequentially, much of a still picture's meaning can be grasped all at once. It takes a lot less time and mental effort to see a picture than to read a thousand words.[74] This allows decision makers to take in more information and to develop a better understanding of the case – or at least to feel that they have done so.[75]
- When people take in pictures that look real, they tend to believe that they have gotten all there is to get. Consequently, they are disinclined to pursue the matter further. This sense of communicative efficacy is even stronger in time-based media such as film, video, and computer animation, which offer the eye rapid visual sequences. These tend to disable critical thinking because viewers are too busy attending to the picture immediately before their eyes to reflect on those that have gone before.[76] As a result,

---

by that we do not mean what is commonly thought of as a decorative device for hanging pictures. Being aware of the frame and its implications includes recognizing, first, that every picture that people make is an *abstraction* from nature: A part of the possible perceptual field has been selected; the totality of sensory data has been reduced to one or two dimensions (sight, or sight and sound); and extraneous elements have usually been eliminated so that the signal is (relatively) clear (*cf.* Tufte, *supra* note 67). Understanding the picture requires identifying and appreciating the significance of each of these abstractions. Second, viewers need to be aware that every picture comes framed *cognitively and emotionally*, loaded with meanings that derive from that genre of representation (*e.g.*, photography, video) and people's past experiences with it (through their previous encounters with examples of that genre) as well as from the creator's specific compositional choices using the medium in which the work is realized.

[73] Digital photography and video, however, make this claim highly problematic, as WILLIAM J. MITCHELL, THE RECONFIGURED EYE (1994), and many others have observed; *see infra* notes 113-121 and accompanying text.

[74] *See, e.g.*, STEPHEN M. KOSSLYN, ELEMENTS OF GRAPH DESIGN 10 (1994).

[75] What viewers tend to take in rapidly is the organization of the whole and the meaning associated at that level – think of how the phrase "get the picture" is used colloquially in other contexts. By comprehending the gestalt, viewers may feel that they have understood what they need to know even though they have not bothered to explore the relations between all the parts of the picture.

[76] *See* BARRY, *supra* note 52, at 32, 46 (human attention is shaped by evolution to be captured by movement). The more realistic and engrossing the visual display, the more pronounced this effect is likely to be: For instance, the "sensory richness" of virtual reality "tend[s] to tie up mental capacity, reducing what is available for assessing the reality of an object or event." Michael A. Shapiro & Daniel G. McDonald, *I'm Not a Real Doctor, But I*

compared to words, visual communications tend to generate less counterargument and hence more confidence in the judgments they support.

- When pictures are used to communicate propositional claims, at least some of their meaning always remains implicit. Pictures cannot be reduced to explicit verbal propositions.[77] In this respect, pictures are well-suited to leaving intended meanings unspoken, as would-be persuaders may prefer to do – especially when evidentiary rules or social conventions forbid making a given claim explicitly.[78]
- Finally, pictures, more so than words, convey meaning through associational logic, which operates largely subconsciously through its emotional appeal.[79] Thus, a person may be aware that a picture is strongly linked to an emotional response without knowing or understanding what the connection is.[80] And when the emotional underpinnings of judgment remain outside of awareness, they are less susceptible to effective critique and counterargument.[81]

Play One in Virtual Reality: Implications of Virtual Reality for Judgments About Reality, 42 J. COMMUNICATION 94, 108 (1992).

[77] *See, e.g.*, JAMES ELKINS, THE DOMAIN OF IMAGES 68-74 (1999) (discussing NELSON GOODMAN, LANGUAGES OF ART (1976) and the *density* of pictorial symbol systems in contrast to verbal and notational symbol systems). While there may be no "grammar" of images, there are rules for resolving conflicts between visual cues (*see* HOFFMAN, *supra* note 52). In addition, time-based visual media – such as comics, graphic novels, films, and video – can be thought of as having a grammar of sorts because the sequence qualifies how each frame is read and visual devices are used to build continuity across frames. A final qualification is that certain specialized kinds of pictures, for instance, those consisting of mathematical diagrams with conventional notations, may be more or less reducible to explicit propositions (*but cf.* ELKINS, *supra*, at 75).

[78] Visual displays can do this much better than words precisely because, not being themselves propositional, less of what they mean is anchored in what they "say." To put it another way, visuals preserve plausible deniability. For example, the "Willie Horton" ad run by the Republicans during the 1988 presidential campaign didn't *say*, "If you vote for Michael Dukakis, your wife or daughter may be raped by a scary black ex-con." The ad didn't have to, because it plainly implied the threat without having to articulate it. Note also, however, that by leaving more meaning implicit, those who rely on pictures to communicate may run a greater risk that their audiences will not take up the intended meaning or, conversely, will take up meanings different from those intended.

[79] Martin & Williams, *supra* note 66, at 268.

[80] *See, e.g.*, ROBIN ANDERSEN, CONSUMER CULTURE & TV PROGRAMMING 72-85 (1995) (on emotional impact of advertisements); *see also* LEDOUX, *supra* note 53 (on subconscious emotional influence).

[81] Several psychologists and philosophers have recently emphasized that intuitive

Now let us consider some illustrations of how skillful advocates take advantage of these attributes of visual communication to help their audiences reconstruct reality. Recall the class action against the big tobacco companies to which we alluded at the outset of Part II. How better to convince jurors that the defendants wanted to keep their customers "hooked" on tobacco than to show how the addiction process actually works? That is precisely what the plaintiffs' evidentiary graphic did. Images of vividly colored ammonia molecules closely interacting with nicotine inside a cigarette made the product engineering process clear. Subsequent images of key "nicotine binding sites" in the brain completed the picture. Taken together, these instructive, easy to grasp, and highly memorable visual displays quickly and effortlessly conveyed complex technical information that went to the heart of the plaintiffs' claim: the defendants' denials were groundless. Their product, in essence a highly efficient nicotine delivery system, was manifestly designed to induce addiction – just as the plaintiffs' trial experts said. Having now seen for themselves the defendants' product in action, what more could the jurors want? Words alone could hardly offset the immediate and enduring impact that this kind of visual persuasion exerts on decision makers' thinking and judgment.

Or consider again the criminal case that we also introduced at the outset of Part II. During the State of Connecticut's closing argument in the trial of Michael Skakel for the murder, twenty-seven years before, of fifteen-year-old Martha Moxley, jurors heard and saw Skakel's own words appear on the screen before them. As Skakel uttered the word "panic," jurors instantly saw Martha Moxley's lifeless body appear on the screen as it lay at the crime scene. Of course Skakel experienced a "feeling of panic" when Martha's mother asked him the next morning if he had seen Martha the night before. The picture of Martha's battered, lifeless body explains the implicit meaning of his words. The viewer immediately makes the connection: Skakel, upon awakening, must have recalled with horror what he had done the night before. Because the screen-based emotional response and the reality-based response are comparable, the viewer's emotional reaction to the picture of Moxley's body is readily transferred to Skakel. The viewer "knows" what he is reacting to. And the viewer's revulsion at what Skakel had done readily casts an image of guilt in the viewer's mind. This instantaneous understanding elides the passage of time – between the murder and the morning after (in 1975), and between the time when Skakel uttered these words (in 1997) and the time that they were

emotional responses tend to drive people's moral (and legal) judgments, in part because people's later conscious cognitive processing tends to rationalize decisions already reached rather than to subject them to truly critical scrutiny. *See, e.g.*, Jonathan Haidt, *The Emotional Dog and its Rational Tail: A Social Intuitionist Approach to Moral Judgment*, 108 PSYCHOLOGICAL REVIEW 814 (2001); Jonathan Haidt, *The Emotional Dog Does Learn New Tricks: A Reply to Pizarro and Bloom*, 110 PSYCHOLOGICAL REVIEW 197 (2003).

replayed at the trial itself (in 2002). Distance in time and space matters not, for everything takes place in the emotionally salient, temporally flattened *now* of viewing the screen. And because this understanding is immediate, credible, and seemingly complete, the viewer experiences little reason to question what he knows. The defense counsel's purely verbal counter-narrative[82] is unlikely to explain Skakel's panic as convincingly because it lacks the cognitive and emotional salience of the prosecution's montage. Seeing is believing – or more precisely, belief is more solidly constructed through visual understanding prompted by visual displays.

We have discussed how, as a function of brain physiology and sensory perception, people construct their worlds – both their inner worlds and what they encode about the world outside. We have also noted that visual perception and visual thinking do not occur in a vacuum, separated from other parts of mental life. Traditionally, pictures used in law have been conceived as mere illustrations of words. We believe that a more sophisticated approach will better inform advocates' choices about what and how much to show, and what and how much to tell. The conjunctions between pictures and other forms of communication and between visual and verbal thinking, however, also make it important to understand a little more about the various cognitive and narrative frameworks that shape and inform legal advocacy. It is to this topic, therefore, that we turn next.

(ii) Cognitive frameworks and narrative theory. People's beliefs and judgments may be more or less firmly tethered to perceived reality, but they always exceed it. To understand a conversation, to make a prediction, or to assign blame, people always do just what they do in response to pictures[83]: they "go beyond the information given," in Jerome Bruner's famous phrase.[84] That is, they interpret and draw inferences from new data in light of their habits of thinking and feeling, their largely intuitive conceptions of how the world works and how things go.

Cognitive and social psychology help to identify and explain the stuff from which beliefs are made. Psychology outlines the stereotypes that people use to classify and judge others; it uncovers the stock scripts that guide expectations about others' behavior and tag deviations as worth accounting for.[85] It

[82] The defense contended that when Skakel said he felt "panic" upon meeting Martha's mother, he was thinking that he might have been seen masturbating in a tree outside Martha's bedroom window the night before. Brief of Defendant-Appellant at 60, State v. Skakel, 888 A.2d 985 (Conn. 2006) (S.C. 16844) (Brief filed November 24, 2003).

[83] *See supra* note 72.

[84] JEROME BRUNER, BEYOND THE INFORMATION GIVEN: STUDIES IN THE PSYCHOLOGY OF KNOWING (Jermy M. Anglin ed.,1973).

[85] JEROME BRUNER, ACTS OF MEANING (1990); ROGER C. SCHANK & ROBERT P. ABELSON, SCRIPTS, PLANS, GOALS AND UNDERSTANDING: AN INQUIRY INTO HUMAN

describes how everyday cognition conserves scarce mental resources by using mental heuristics or rules of thumb to reach quick answers that are often good enough, but sometimes seriously mistaken.[86] Psychology also shows how people's emotions, while highly variable and seemingly irreducible to any empirical calculus, interact with their perceptions and cognitions to guide judgment and behavior.[87] Other disciplines also strive to articulate the unspoken grounds of comprehension and belief. Studies in the philosophy of language, linguistics, and cultural anthropology, for instance, indicate the implicit understandings that people must share in order to make sense of one another's words.[88]

Of the manifold ways in which humans organize and make sense of their experiences, none may be more important than narrative. "It seems almost as if humankind is unable to get on without stories," write Anthony Amsterdam and Jerome Bruner toward the beginning of their masterly discussion of the subject.[89] Stories do much more than tell what happened, although that in itself is no small thing. They "give comfort, inspire, provide insight; they forewarn, betray, reveal, legitimize, convince. You can declare your love by telling just the right story at the right time; you can be Iago and create mad suspicion; you can spur Billy Budd to strike Claggart dead."[90] A culture's stories – recounted in religious scripture and popular novels, depicted in movies and on television, or enacted in video and computer games – present heroes, villains, and everyone in between confronting conflicts and one other, and thereby teach us, the audience, how we should feel and what we should do about our own and others' comparable plights.

Lawyers and law are, of course, immersed in stories, from the client's first account of events in the lawyer's office, to the versions the lawyers tell each other during settlement negotiations, to the narratives constructed for judge and jury at trial, to the accounts designed for television news and other mass media. Each telling is molded as much by perceived audience expectations, conventions of genre and professional practice, and constraints of time and

KNOWLEDGE STRUCTURES (1977).

[86] *See, e.g.*, GERD GIGERENZER, PETER M. TODD, & THE ABC RESEARCH GROUP, SIMPLE HEURISTICS THAT MAKE US SMART (1999); THOMAS GILOVICH, HOW WE KNOW WHAT ISN'T SO: THE FALLIBILITY OF HUMAN REASON IN EVERYDAY LIFE (1991); RICHARD NISBETT & LEE ROSS, HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT (1980).

[87] *See, e.g.*, DAMASIO, *supra* note 60; EMOTION AND SOCIAL JUDGMENTS (Joseph P. Forgas ed., 1991); FEELING AND THINKING (Joseph P. Forgas ed., 2000).

[88] *See, e.g.*, CULTURAL MODELS IN LANGUAGE AND THOUGHT (Dorothy Holland & Naomi Quinn eds., 1987); GEORGE LAKOFF, WOMEN, FIRE, AND DANGEROUS THINGS: WHAT CATEGORIES REVEAL ABOUT THE MIND (1987).

[89] AMSTERDAM & BRUNER, *supra* note 40, at 114.

[90] *Id.* at 115.

medium as by correspondence to any unnarrated reality. A persuasive legal story must be as consistent as possible not only with the evidence and the judge and jury's understandings of the relevant law, but also with those audiences' senses, developed through lifetimes of exposure to their culture, of "how stories like that go."[91]

It is the choice of a particular story (and the mode of telling) as befits the circumstances that tends to capture legal belief and motivate audiences to take the action the advocate desires: acquit or convict, award damages or deny recovery. The story that works best may be as relatively mundane as a personal injury lawyer's allusion to *Rocky*[92] to depict an accident victim struggling to overcome his undeserved suffering.[93] Or it may be as transcendent as the story of the founders of the American polity, used by Gerry Spence to cast his white separatist client Randy Weaver as the heroic defender of Jeffersonian liberty against governmental tyranny.[94]

Or, drawing once again from one of the case examples offered earlier in Part II, consider the narrative strategy that Maxus's lawyers developed for their case against Kidder, Peabody and Martin Siegel.[95] The case, in a nutshell, was that Maxus, a company in the oil business, had hired prestigious New York investment banker Martin Siegel and his firm Kidder, Peabody to prepare the takeover of Natomas, another company. After each meeting Siegel held with Maxus officials, the price of Natomas's shares went up. Maxus claimed that Siegel had passed along inside information to Kidder executive Ivan Boesky, who then invested in the target company, driving up its stock prices, so that when Maxus eventually acquired Natomas it had to pay hundreds of millions of dollars more than it otherwise would have. How can a lawyer invoke the audience's intuitive beliefs so as to convert a complex commercial dispute involving massive amounts of circumstantial evidence into a simple, credible, compelling story line that would point the jury to the desired verdict?

The solution was to *visually emplot* the case as a struggle between Us and Them, the familiar local guy versus the big bad Other – an archetypal conception of how conflict is structured, and who should win, that goes back to

---

[91] *See* Pennington & Hastie, *supra* note 41.

[92] ROCKY (United Artists 1976).

[93] Neal R. Feigenson, *The Rhetoric of Torts: How Advocates Help Jurors Think About Causation, Reasonableness, and Responsibility*, 47 HASTINGS L. J. 61 (1995).

[94] Spence developed this narrative in response to the state's claim that Weaver murdered a federal marshal who had come onto Weaver's property to arrest him for unlawfully selling a sawed-off shotgun, months earlier, to an undercover agent who also (albeit unsuccessfully) had solicited Weaver's services as a covert government agent. RICHARD K. SHERWIN, WHEN LAW GOES POP 56-58 (2000); *see* GERRY SPENCE, FROM FREEDOM TO SLAVERY 1-48 (1995).

[95] *See supra* note 24 and accompanying text.

the biblical tale of David and Goliath.[96] Maxus's closing argument video starts by locating the parties on a map of the United States. Its disproportionate enlargement of Texas, shaped and colored to evoke the state's highly popular flag, encouraged the Texan jurors to identify with a home-grown plaintiff and, conversely, drawing on implicit social stereotypes, to distance themselves from the defendants – those "outsiders" from New York. To enhance the effect, at one point jurors saw the state of Texas suddenly snap out of the graphic display as if it were shooting a line (or a lasso?) around New York.[97] In short, the visual argument that Maxus's lawyers used to construct the legal conflict deployed a story frame that anyone familiar with our culture's core moral tales (or the local culture's implicit folk knowledge) could immediately recognize and understand. Marty Siegel, the unscrupulous outsider, is recognizably the "bad guy" in a visually narrated scenario that manifestly prompts the jury's sympathy and animosity along well-established lines.

(iii) Mediated belief: Popular visual culture and reality judgments. In contemporary culture, most people get their facts primarily from popular visual media. Television and the Internet provide more people with news about the world, as well as information about law and politics, than do traditional print media.[98] Television in particular seems to open an audiovisual "window onto reality."[99] Yet "[t]he medium is the message," as Marshall McLuhan famously

[96] 1 Samuel 17:1-58.

[97] Notably, this visual feature of the map graphic reflects the video makers' purposeful exploitation of a highly popular television commercial that had been receiving a good deal of air play at the time of the trial in Texas. In the ad, cowboys around a campfire learn – much to their distress – that the salsa that they have been eating with their dinner wasn't local (as was the advertised brand). "Hmmm, made in New *York* City," the hapless cook reads from the salsa jar label. "New York City?!!" cry the outraged cowboys in unison. "Get the rope!" In the final scene, we see the cook lying hogtied beside the campfire with the cowboys now happily consuming what is presumably the proper local brand – the advertiser's. According to the designers of the Maxus visuals, the map graphic was meant to resonate with the salsa ad: the image of Texas lassoing New York State invites a rapid, unconscious association to the TV ad's irate cowboys "lassoing" the hapless cook for importing a "foreign" and manifestly undesirable product from New York. Stachenfeld & Nicholson, *supra* note 24, at 908-09. For more on the role of popular culture in the generation of subconscious inferences and stereotypes, *see infra* notes 98-111 and accompanying text.

[98] Annys Shin, *Newspaper Circulation Continues to Decline*, BIZREPORT, May 3, 2005, http://www.bizreport.com/
news/8894/ ("The decline [in newspaper circulation in the six months ending March 31, 2005] continued a 20-year trend in the newspaper industry as people increasingly turn to other media such as the Internet and 24-hour cable news networks for information.")

[99] *E.g.*, W. James Potter, *Perceived Reality in Television Effects Research*, 32 J. BROADCASTING & ELECTRONIC MEDIA 23 (1988); Shapiro & MacDonald, *supra* note 76.

proclaimed back in 1964.[100] McLuhan's critical insight was that we must disabuse ourselves of the naïve notion that the mass media operate like an empty pipe (or, in the case of television, like a window) through which information passes. In fact, different media exert different kinds of influences on the messages they convey. For example, print culture usually operates in a field of concepts and categories.[101] Television, by contrast, excels in depicting personal dramas, offering viewers story lines and character types that are familiar and immediately accessible. Television achieves unique emotional power and intimacy by way of the close-up, which brings viewers directly into the emotional field of the characters on the screen.[102] This is hardly a matter of mere aesthetics. Dramatizing the personal tends to obscure the general. By presenting social problems in terms of personal history and individual character development, television resists the more abstract dimension of sociopolitical complexity, which is notoriously difficult to dramatize in visual form.[103]

People's media-spawned expectations are guided by the visual codes not only of television but also film, especially major Hollywood movies. The visual codes that come from popular culture become a part of people's visual common sense, which is to say, they are unconsciously assimilated. People understand cross-cutting and parallel editing. They do not need anyone to explain these storytelling devices. The camera is inside the audience's heads, and they are prepared to reconstruct reality in accordance with the perceptual

[100] MARSHALL MCLUHAN, UNDERSTANDING MEDIA 7 (1964).

[101] *See, e.g.*, WALTER J. ONG, ORALITY AND LITERACY (1982); *cf.* Susan Aylwin, *Imagery and Affect: Big Questions, Little Answers*, in IMAGERY: CURRENT DEVELOPMENTS, *supra* note 64, at 247, 251 ("Verbal representation [in the mind] yields associations which indicate that it is specialized for representing hierarchical conceptual structures.").

[102] The size of the television screen and its location in rooms small enough for it to be seen clearly, whether a living room or a bar, mean that close-ups are especially powerful because of the viewing distance as well as the intimacy of the medium.

[103] *See, e.g.*, W. LANCE BENNETT, NEWS: THE POLITICS OF ILLUSION 48-58 (3d ed. 1996). Other features of (commercial) television, such as the perceived need to entertain and the generally short time limits within which most news stories are presented, also contribute to the avoidance of complexity. *See, e.g.*, *id.* at 52-64; NEIL POSTMAN, AMUSING OURSELVES TO DEATH (1985). Conversely, print media coverage of social problems can also tend to oversimplify through dramatization. *See, e.g.*, Robert A. Stallings, *Media Discourse and the Social Construction of Risk*, 37 SOCIAL PROBLEMS 80 (1990). Note also, however, that television drama has become a longer, more complex form as viewers of series find themselves encountering characters over the weeks (and even years) of broadcast; series writers count on the audience knowing things about the characters from past scripts. *Cf.* STEVEN JOHNSON, EVERYTHING BAD IS GOOD FOR YOU: HOW TODAY'S POPULAR CULTURE IS ACTUALLY MAKING US SMARTER (2005). By comparison, the stories told in court may seem short and, because of hearsay rules, lacking in characterological detail.

and cognitive codes they have internalized.

People also generally suppose that they know reality when they see it, that they can, by and large, distinguish humbug from the genuine article. They kick the tires and don't take any wooden nickels. And when people "suspend disbelief" to indulge in a novel, a film, or a television drama, they like to think they do so "willingly." Yet, considerable psychological research shows that it is not so easy to know what to believe, or when. Credulity, not skepticism, is the default mode. When people readily understand something they are inclined to believe it.[104] Disbelief must be effortfully engaged; it is what people do when they critically assess what they have already provisionally accepted as true.[105]

The visual mass media provide people not only with most of their facts but also with most of their fictions. Indeed, people's world-knowledge draws upon a mixture of fictional and non-fictional sources,[106] and they are not always able to differentiate real from fictional sources of remembered information.[107] The striking irony is that facts can seem more "factual" the more like fiction they become. This happens because people generally are less motivated to process fictional information systematically than factual information.[108] When an audience unwittingly responds to a factual presentation as if it were fiction, the default mode – credulity – kicks in. Critical analysis, not disbelief, gets suspended. Effective critique requires not only knowledge of the requisite tools of critical analysis but also the energy and inclination to undertake it. By contrast, stored-away fictions effortlessly come to mind when a familiar narrative genre, or character or situation type, stimulates people's recollection. That is part of what is going on when a trial lawyer compares a witness or a defendant to a well-known character from *The Godfather*, *Natural Born Killers*, or *The Sopranos*.[109] If the comparison sticks, the jury tends to fill in the rest of the story, including character traits unmentioned at trial, even if they are fictional.

The codes and content of modern visual storytelling, from television dramas and news shows to advertisements and feature films, have infiltrated the

[104] Daniel T. Gilbert, *How Mental Systems Believe*, 46 AMERICAN PSYCHOLOGIST 107 (1991).

[105] Deborah A. Prentice, Richard J. Gerrig, & Daniel Bailis, *What Readers Bring to the Processing of Fictional Texts*, 4 PSYCHONOMIC BULLETIN & REVIEW 416 (1997).

[106] Deborah A. Prentice & Richard J. Gerrig, *Exploring the Boundary Between Fiction and Reality*, in DUAL-PROCESS THEORIES IN SOCIAL PSYCHOLOGY 529 (Shelley Chaiken & Yaacov Trope eds., 1999).

[107] *E.g.*, Marcia K. Johnson & Carol L. Raye, *Reality Monitoring*, 88 PSYCHOLOGICAL REVIEW 67 (1981).

[108] Prentice & Gerrig, *supra* note 106, at 544.

[109] *See* SHERWIN, *supra* note 45, at 16-17.

courtroom, so that fact and fiction, information and entertainment, work hand in hand in the production of legal truth. For example, a closing argument video in a lawsuit against Price Waterhouse, which at the time of the trial was the largest accounting firm in the world, begins with documentary shots of the largest ocean liner of its time, the reputedly unsinkable Titanic, which did indeed sink. The video then seamlessly shifts to clips from *A Night to Remember*, the 1958 feature film about the Titanic in which indifferent officers and a preoccupied captain appear to recklessly disregard a telegram warning about the presence of icebergs in the ship's vicinity. The plaintiff's visual summation then cross-cuts those clips with a stream of re-enactments and other scenes describing how the defendant sank the plaintiff's takeover deal by carelessly failing to spot faulty loan practices by the bank the plaintiff acquired.[110] The upshot is clear: being the largest in the world is no safeguard against negligence.

Or consider once again, this time from a popular cultural perspective, the Maxus insider trading case against Kidder, Peabody. In the visual graphic used by plaintiffs in their closing argument, the jurors saw defendant Marty Siegel perched in a three-by-three grid reminiscent of the tic-tac-toe board featured in the television game show, "The Hollywood Squares." When the nine Siegels are seen and heard simultaneously "taking the Fifth," the effect is highly comical. The viewer laughs at the incongruous sight of a once esteemed Wall Street investment banker cast in a TV game show that typically featured celebrity has-beens desperate to revitalize their careers (or at least make a buck). That this response, and the normative associations that it carries, is being triggered by an iconic game show, however, remains implicit, unarticulated, and hence unavailable to critical reflection. The humor on display is disarming, but there is a more serious intent at work here. The visualization of the incanting Siegels diminishes him by implicitly portraying him as just another celebrity has-been,[111] but it demonizes him as well. The humorous gloss of Siegel ensconced in all nine squares distracts the decision maker from a legally impermissible inference that may also be taking place: namely, the association of Siegel with other so-called "Fifth Amendment criminals" who hide the truth of their misdeeds behind a wall of silence. Of course, to say that this apparently innocuous visual display penalizes the defendant for exercising his constitutional privilege against compelled self-incrimination not only seems counterintuitive from the standpoint of ordinary

[110] The trial judge's admission of this video was reversed on appeal. Standard Chartered PLC v. Price Waterhouse, CV No. 88-34414 (Super. Ct., Maricopa Co., AZ, 1989), *rev'd*, 945 P.2d 317, 359 (Ariz. Ct. App. 1996). *See* SHERWIN, *supra* note 45, at 272 nn.39-40; Rorie Sherman, *And Now, the Power of Tape*, NAT'L L. J., February 8, 1993, at A1.

[111] It also diminishes him by reducing his appearance to a mere replicable unit (and impliedly, one that can be reproduced without limit).

common sense (after all, the video clips accurately depict what Siegel said at his deposition), but also spoils the simple fun of the display. In sum, the viewer gets the message because the visual code of a popular television game show icon is instantly recognizable, and the critical bite of an impermissible (albeit unconscious) inference remains hidden. To preserve the joke the viewer is disinclined to analyze it critically.

To acknowledge that Maxus's "Hollywood Squares" display constructs its visual argument in the form of a shrewd joke is to reassert one of the points we have been making: this seemingly simple visual display is decidedly not a mere illustration of ideas that could just as well be expressed verbally. To analyze its rhetoric, we have drawn on the psychology of visual perception, the social psychology of mental frameworks, narrative theory, and the conflation of fact and fiction in contemporary culture and the human mind. In the next section we add one more set of conceptual and rhetorical tools, an essential part of the multidisciplinary network of insights that lawyers need in order to understand law in the digital age.

(iv) Digital culture/digital mind. Good tools serve the purposes for which they were initially designed, but they also suggest additional, often unexpected uses and lead to new forms of understanding that inspire the building of yet other tools. Consider, for example, the computer mouse invented by Douglas Engelbart and his team at the Stanford Research Institute. In 1968, they demonstrated a networked computer system that had the rudiments of two-dimensional display editing, flexible view control, on-screen video teleconferencing – and a mouse.[112] Anyone using a computer now knows how to use a mouse to navigate and enter commands. Forty years ago, however, these functions were not yet the highly developed technologies with which we are familiar today. But they projected a vision of human-computer interaction that inspired innumerable subsequent innovations, from the graphical user interface (which permits people to use multiple applications at the same time) to full-fledged hypermedia.[113] Just as those technical ideas were seeded in a professional community and eventually grew into unexpected, even astonishing fruit, exposure to and use of digital technologies is already generating new behaviors and new patterns of thought in the law.

Advanced digital imaging capacities are now widespread.[114] In the past, a

[112] STIM, MouseSite, http://sloan.stanford.edu/mousesite/ (last visited Aug. 23, 2006).

[113] They also prepared the ground for computer-mediated revampings of human relations a quarter-century before Tim Berners-Lee invented the World Wide Web (*see, e.g.*, Doug Engelbart 1968 Demo, http://sloan.stanford.edu/mousesite/1968Demo.html (last visited Aug. 24, 2006)).

[114] "Recent InfoTrends/CAP Ventures forecasts show that U.S. consumer digital camera penetration will reach 55% and shipments of around 25 million in 2005, growing to 81% and about 21 million units shipped in 2010. Camera phone penetration will grow from 31%

lawyer might order a graphic from a designer and have no real idea how it was made. Now that same lawyer probably owns a digital camera and can upload and make simple edits (like cropping or adjusting the orientation or the contrast between light and dark). Excel® makes it easy to graph data; word processing programs make it easy to design pages and incorporate pictures and tables into texts. Other readily available software allows people to lay out entire books and to create simple animations. In short, what used to be the specialized knowledge of graphic designers using tools affordable only by those with professional commitments is now available to all computer users at consumer prices for use at home or at work, as freeware, or as software running on computers in schools, libraries, and copy shops.

The same is true for moving images. Almost anyone can make them – even still cameras and cell phones are now capable of making short video clips – and anyone can modify anything they or anyone else has made.[115] Good hands and expensive tools are no longer needed. Pointing and clicking have become physical habits; seeing pictures as potential material and not just as someone's property is one of the new mental habits. Repurposing others' visual work is not something new. Artists have been quoting each other and learning by copying from the beginning. Now, however, it can be done with "original" digital data. Anyone, even lawyers, can do it, and their art can be published on the Internet and disseminated globally at virtually no cost.

The ubiquity of surveillance and amateur video cameras in conjunction with a broad range of readily available and easy to use image-editing tools have

---

and just over 36 million units shipped to 86% and nearly 80 million units shipped over the same period." *InfoTrends/CAP Ventures Study Shows Digital Photo Printing Market at a Crossroads: Growth or Decline?,* InfoTrends, June 21, 2005, http://www.infotrends-rgi.com/home/Press/itPress/2005/6.21.05.html.

[115] Apple, whose "Rip, Mix, Burn" ad campaign (*see* http://www.theapplecollection.com/Collection/AppleMovies/mov/concert_144a.html (last visited Aug. 24, 2006)), gave the title to habits rapidly spreading through computer users because they are able to rip (copy), mix (re-edit), and burn (put on a disk or other media) their own creations, has itself now been subjected to a mixing of quite another kind. George Masters, a teacher who loves his iPod, made his own ad during after hours from work and posted it to his blog for comment. Viewership and downloads exploded and it wound up in Wired Magazine. *See* Leander Kahney, *Home-Brew IPod Ad Opens Eyes,* WIRED, Dec. 13, 2004, http://www.wired.com/news/mac/0,2125,66001,00.html. What is a company to do when its customer speaks back in this way?

Or consider this digital visual information exchange: After Baltimore drug dealers produced a DVD called "Stop Snitching," in which they threatened to kill anyone who testified against them, the Baltimore Police Department responded with their own DVD, "Keep Talking," which mentioned the arrests of three dealers featured in the gang's video. Gary Gately, *Police Counter Dealers' DVD With One of Their Own*, N.Y. TIMES, May 11, 2005, at A12.

given rise to many more kinds of demonstrative evidence. This was dramatically illustrated in the cases arising out of the New York Police Department's mass arrests of protesters outside the 2004 Republican National Convention, in which dozens of amateur videos were introduced to refute (and in a few cases, to confirm) police claims that the protesters had behaved illegally.[116] But the widespread experience of modifying and manipulating pictures has even deeper cultural and cognitive significance. The typical lawyer may not be adept at using advanced professional editing software like Adobe Photoshop, but in all likelihood, he or she will have heard of "photoshopping" as a verb referring to altering a picture.[117] This neologism expresses a dramatically altered relationship to the photograph. Today, in an era when digital pictures are infinitely malleable, when, in the words of William Mitchell, "the referent has come unstuck," [118] people may have to give up their naïve sense of the photorealistic picture as metonymic truth.[119] In exchange, they will gain an understanding of the picture as a *construct*, a text[120] to be actively construed rather than a window onto the world that merely needs to be looked through.[121]

---

[116] Jim Dwyer, *Videos Challenge Hundreds of Convention Arrests*, N.Y. TIMES, Apr. 12, 2005, at A1. Still more recently, Newark residents awakened by the sound of a car crash used the digital displays on their cell phones to determine that the police took twice as long to arrive at the accident scene as the police claimed (Jennifer Medina & John Holl, *3 People Die in Fierce Collision of 2 S.U.V.'s*, N.Y. TIMES, Aug. 22, 2005, at B3). Such events also exemplify the expanding role of digital communication technologies, including cell phones and video cameras, in political activism. On this subject, see the documentary film by Katerina Cizek and Peter Wintonick, *Seeing is Believing: Handicams, Human Rights, and the News* (2002). On the political dislocations created by ubiquitous photoimaging in public spaces, see ARIELLA AZOULAY, DEATH'S SHOWCASE: THE POWER OF IMAGE IN CONTEMPORARY DEMOCRACY 287 (Ruvik Danieli trans., Massachusetts Institute of Technology 2001).

[117] Adobe, like Xerox, is troubled by having its brand name turned into a verb. *See* Adobe Systems Incorporated Terms of Use, http://www.adobe.com/misc/trade.html#photoshop (last visited Aug. 16, 2006).

[118] MITCHELL, THE RECONFIGURED EYE, *supra* note 78, at 31. For a thorough review of the changing status of the photograph as it moved from being an analog medium to a digital medium, readers should read Mitchell's entire chapter, which covers a variety of issues of legal interest.

[119] *Id.* at 26-58.

[120] On pictures as texts, *see supra* note 55. *See id.* at 119; ANN KIBBEY, THEORY OF THE IMAGE: CAPITALISM, CONTEMPORARY FILM, AND WOMEN 12-18 (2005);.

[121] *See* FRED RITCHIN, IN OUR OWN IMAGE: THE COMING REVOLUTION IN PHOTOGRAPHY 124 (1999) ("Photography, for 150 years basically a perceptual medium, can now become a largely conceptual one as well.")

Legal "texts" in the more literal sense of the word are also problematized in the digital

So far we have addressed changes in the pictorial texts themselves. The Internet has also profoundly changed people's relationship to the screen on which those texts are seen. On cinema screens, people became accustomed to seeing their dreams writ large while sitting with others in a dark, cavernous room. Television, by contrast, with its comparatively small screen, brought news of the world and entertainment into the intimate sphere of the household, becoming a character in family life, a familiar. Personal computer screens differ from both.[122] Unlike televisions, where groups can gather around for common experience and comment, personal computers are more often in places where people use them alone, and their interactions with others are through the machine rather than across the table or down the couch. However, people also respond to what they see on screens in many ways that are similar to how they respond to social encounters in real life.[123] And at the same time,

age, and in particular, in the age of the Internet. The Internet is creating a new mass digital culture increasingly made up of hybrid texts – and hypertexts – which promote a different form of reading than, say, the traditional law book, in which any graphic or pictorial material is comfortably situated as an illustration, encapsulated by its labeling. A hybrid text, made of words and pictures (or other combinations of media), is what people see every time they open a browser to explore the World Wide Web. Legal texts like statutes, judicial opinions, and law review articles have been online since the mid-1970s (F. Allan Hanson, *From Key Words to Key Numbers: How Automation Has Transformed the Law*, 94 LAW LIB. J. 563, 573 (2002)), and already come packaged with abstracts, hyperlinked cross-references, symbols coded to elicit different kinds of attention from readers, and various explanatory materials. How will such texts be modified to accommodate the expectations of lawyers and a public who have internalized new habits of reading word/picture hybrids? When a trial turns on the presentation of digital visual material, what will be the "official" text be?

[122] The new screen that arrived with the personal computing revolution entered both workplaces and private spaces with unprecedented rapidity. In 1950, 8.8 percent of American households owned a television; by 2005, 98 percent of households did. Susan Ashworth, *TV Facts Then & Now*, DIGITAL WORLD, available at http://www.pcworld.com/news/article/0,aid,118945,00.asp (Feb. 2005). This progression seems modest when compared to similar statistics for the World Wide Web. Before the Web was a public space, in 1969, there were about eight hosting servers. In 2005 the number of servers is approaching one billion (Robert H. Zakon, *Hobbes' Internet Timeline*, HOSTS, http://ww.zakon.org/Robert/internet/timeline (last visited Apr. 17, 2006), and the number of web sites, one hundred million. The number of users of the Internet, a prior creation that enables the existence of the World Wide Web, doubled every one hundred *days* between 1994 and 1997. Some comparisons: it took thirty-eight years for radio to reach fifty million listeners; television took thirteen years, and the Internet only four ("The Exponential Growth of the Internet," http://www.unc.edu/depts/jomc/academics/dri/011/growth.html) (citing U.S. Department of Commerce statistics).

[123] *See* BYRON REEVES & CLIFFORD NASS, THE MEDIA EQUATION: HOW PEOPLE TREAT COMPUTERS, TELEVISION, AND NEW MEDIA LIKE REAL PEOPLE AND PLACES (1996).

people expect to *do things*, to be engaged, with what they see on the screen.[124]

Participating in mediated digital environments is, of course, what computer gaming is all about. Multiplayer on-line games such as "Second Life" provide complete social environments for their participants.[125] Successful play, moreover, involves not just interacting with other players within a framework of rules and protocols, but remaking one's digital world by reprogramming it. Increasingly, prospective jurors (and not only younger ones) may come to court with the expectation not only that witnesses and lawyers will navigate multimedia presentations via pointing and clicking (as in the Skakel case), but also that they will themselves be allowed to participate in the recreation of legal reality.

Lawyers are already beginning to cater to people's expectation that, in the digital era, information is something that they can and should be able to seek out and interact with rather than something that they passively receive. Consider the virtual reality view, a seamless, 360-degree representation of a scene composited from digital or digitized photographs. Users navigate the scene, moving in any direction and zooming in or out as desired. American lawyers have used virtual reality views in a handful of cases as illustrative aids to clarify eyewitness testimony.[126] Across the Atlantic, an even more complex "virtual reality system" has been used by witnesses before the Bloody Sunday Tribunal, established in 1998 to reexamine the facts of the 1972 killing of thirteen Irish citizens by British soldiers in the streets of Derry. Interacting with computer-generated views of various locations in Derry, witnesses have been able to revisit scenes from any angle and draw arrows on the screen to describe the events and movements they recalled. In some instances the virtual reality system has enabled the Tribunal to confirm that it was physically possible for witnesses to have seen what they remembered seeing, given the layout of the city and the witnesses' locations at the time.[127]

Or consider the Soham double homicide case in Great Britain. The defendant stood accused of the murder of two young girls.[128] The

[124] Indeed, for some the engagement with the machine and the virtual worlds it yields can become an obsession. *See, e.g.*, SHERRY TURKLE, LIFE ON THE SCREEN (1995). Note that this interactivity is not confined to computer screens; digital technology in the form of movies on DVD has made it possible for viewers to interact as never before with what they see on their television screens.

[125] Linden Research, Inc. *Second Life* (CD-ROM 2003).

[126] E-mail from Brian Carney, President, WIN Interactive, to Neal Feigenson (Feb. 8, 2005) (on file with author).

[127] The Bloody Sunday Inquiry, http://www.bloody-sunday-inquiry.org.uk (last visited Apr. 17, 2006); *see also* Bennett, *supra* note 107; Whelan, *supra* note 36.

[128] *Prosecution Key Points: Day One*, BBC NEWS, Nov. 6, 2003, http://news.bbc.co.uk/1/hi/england/3243025.stm.

government's case was circumstantial. At its heart were the sweater fibers from the clothing worn by the two young female victims at the time of their disappearance and death. The jurors not only got to see those fibers in open court; the judge also gave them a DVD to play during their deliberations.[129] As a result, in the course of reconstructing for themselves the story of the case, the jurors were able to move freely among the digital evidence contained on the disc, which included images of the fibers, the sweaters they came from, the crime scene, the girls' route home, videotaped witness testimony, and other evidentiary material. This kind of free-ranging interactivity with digital evidence may foreshadow how legal meanings will be made in the digital era. Lawyers may have to rethink their rhetorical strategies, making space for their audiences to enter, and allowing them to feel that they are helping to construct the case along with counsel.[130]

Re-envisioning legal theory in the digital age turns our attention both to new sources of meaning and to new meaning-making practices. Nearly a quarter of a century ago, Robert Cover wrote:

> We inhabit a *nomos* – a normative universe. We constantly create and maintain a world of right and wrong, of lawful and unlawful . . . . No set of legal institutions or prescriptions exists apart from the narratives that locate it and give it meaning. For every constitution there is an epic, for each decalogue a scripture. Once understood in the context of the narratives that give it meaning, law becomes not merely a system of rules to be observed, but a world in which we live.[131]

Law is a world in which we live. But to live in a nomos we need a corpus of inherited texts and a common set of interpretive practices. Out of these materials and practices we sustain and revise institutions, paradigms for behavior, and patterns of discourse. A stable society agrees upon (at least to a

---

[129] The prosecution team considered 6,820 statements, 7,341 exhibits and hundreds of hours of video footage and media coverage. The police enquiry generated approximately 24,000 documents. *Soham Murder Case: Huntley and Carr Guilty*, THE CROWN PROSECUTION SERVICE, Dec. 17, 2003, http://www.cps.gov.uk/news/pressreleases/archive/139_03.html.

[130] In this essay we have largely assumed the continuation of current legal procedures, but of course it is possible that the digital visual turn will lead to radical changes in those procedures. *See, e.g.*, Gordon Bermant, *Courting the Virtual: Federal Courts in an Age of Complete Inter-Connectedness*, 25 OHIO N.U. L. REV. 527 (1999) (discussing virtual proceedings); Paul D. Carrington, *Virtual Civil Litigation: A Visit to John Bunyan's Celestial City*, 98 COLUM. L. REV. 1516, 1524 (1998) (describing trials consisting entirely of previously prepared digital visual presentations, in which "trial advocacy will more closely resemble the work of the Hollywood film producer and less that of the Hollywood actor").

[131] Robert M. Cover, Nomos *and Narrative,* 97 HARV. L. REV. 4, 4-5 (1983).

significant extent, although not without controversy and debate[132]) a shared repertoire of moves, "a lexicon of normative action,"[133] that it recombines and supplements to meet the needs of changing times.

The specific challenge that we face today is to translate, under new cultural and technological conditions, the complexity of multidisciplinary discourse into legal rhetoric and practice within the specific constraints and demands of legal argumentation. To accomplish this task we need a toolkit for cultural description and analysis, and for effective argumentation and legal problem solving. That is what our constructivist approach is intended to offer.

This approach has multiple roots, including legal realism, legal pragmatism, critical legal studies, law and literature, law and norms theory, and the more recent genre of cultural legal studies.[134] A common denominator among these diverse approaches to legal studies is multidisciplinarity. Notably, cultural studies, out of which the cultural legal studies movement emerged, has been providing scholars outside the legal academy with interdisciplinary tools since the late 1970s.[135] Cultural studies focuses on the production, circulation, and assimilation of symbolic forms. It is largely concerned with how institutions and local practices generate social meanings.[136]

---

[132] *See, e.g.*, JOHN RAWLS, POLITICAL LIBERALISM 133-72 (1993) (describing the notion of an "overlapping consensus" whereby people may disagree on particulars but reach consensus at a higher level of abstraction); *see also* BRUCE A. ACKERMAN, SOCIAL JUSTICE AND THE LIBERAL STATE 358-59 (1980); EMILE DURKHEIM, SOCIOLOGY AND PHILOSOPHY 92 (D.F. Pocock trans., The Free Press 1974) (noting that "ideals could not survive if they were not periodically revived" through religious or secular feasts and ceremonies); VICTOR TURNER, DRAMAS, FIELDS, AND METAPHORS 50-56 (1974) (describing the ritualized renewal of social meaning and deep cultural values through the performative dialectic of "social structures" and "communitas").

[133] Cover, *supra* note 135, at 9. *See also* WERNER JAEGER, PAIDEIA: THE IDEALS OF GREEK CULTURE xiv, xxvi (1939) ("[T]he basis of education is a general consciousness of the values which govern human life. . . . The Greek trinity of poet, statesman, and sage embodied the state's highest ideal of leadership.").

[134] *See generally,* ROSEMARY J. COOMBE, THE CULTURAL LIFE OF INTELLECTUAL PROPERTIES (1998); PAUL W. KAHN, THE CULTURAL STUDY OF LAW (1999); *Law and the Order of Culture,* 30 REPRESENTATIONS (1990); LAW IN THE DOMAINS OF CULTURE (Austin Sarat & Thomas R. Kearns eds.,1998); Guyora Binder & Robert Weisberg, *Cultural Criticism of Law*, 49 STAN. L. REV. 1149 (1997); Susan S. Silbey, *Making a Place for Cultural Analyses of Law*, 17 LAW & SOC. INQUIRY 39 (1992); Symposium, *A New Legal Realism? Cultural Studies and the Law*, 13 YALE J.L. & HUMAN. 3 (2001).

[135] *See, e.g.,* STUART HALL ET AL., POLICING THE CRISIS: MUGGING THE STATE, AND LAW AND ORDER (1978); RAYMOND WILLIAMS, PROBLEMS IN MATERIALISM AND CULTURE (1980).

[136] *See generally* Terence Turner, *Anthropology and Multiculturalism: What Is Anthropology That Multiculturalists Should Be Mindful of It?*, 8 CULT. ANTHROP. 411 (1993).

Cultural legal studies adopts this focus, seeking to go beyond appellate case law, statutory interpretation, and social policy, the dominant topics of law teaching and academic writing, in order to more broadly encompass legal meaning making practices throughout society.[137] Simply stated, the central question that cultural legal studies asks is: What are the popular cultural codes, the familiar schemas and scripts, the common vocabularies of motive and intentionality, and the hierarchy of beliefs and values that are in play within a given site of legal conflict? As Barbara Yngvesson has written, "'[t]he spirit of law' . . . is not simply invented at the top but is transformed, challenged, and reinvented in local practices that produce a plural legal culture in contemporary America."[138] Whether it is starting rumor campaigns to contest corporate control over cultural symbols,[139] getting a court clerk to admit a story of abuse as a legal claim,[140] or resisting mediators who construct images of problems in therapeutic as opposed to legal terms,[141] these practices at the local level constitute the "microphysics of power" (to use a Foucauldian phrase). Cultural legal studies' multidisciplinary microanalyses of concrete legal practices counterbalance, without eradicating the need for, critical theory. By proffering localized strategies of rhetorical affirmation and belief, they complement the prevailing ethos of suspicion that marked (and ultimately undercut) critical legal studies.

The constructivist approach that we have outlined in this essay extends prior theory in several directions. First, we invite an even more broadly interdisciplinary (and thus arguably more fully pragmatic) method. The cluster of conceptual tools that we have discussed and applied above is merely illustrative of a much more comprehensive lawyer's toolkit, a yet-to-be-written rhetorical handbook for the digital age. Second, we expand the search for the constitutive elements of legal consciousness – which is to say, the cultural materials out of which legal meanings are shaped, disseminated, and absorbed – to explicitly encompass the quotidian world of graphic design, film, television, and the Internet, among other digital and multimedia resources. Third, and perhaps most importantly, we urge the study, from multiple perspectives and with an eye toward their theoretical, pragmatic, and pedagogical ramifications, of the manifestations of legal consciousness in the visual and digital media that have come to pervade the practice of law.

---

[137] Sherwin, *supra* note 50, at 17.

[138] Barbara Yngvesson, *Inventing Law in Local Settings: Rethinking Popular Legal Culture*, 98 YALE L.J. 1689, 1693 (1989).

[139] *See* Coombe, *supra* note 138 at 143-65.

[140] *See* Yngvesson, *supra* note 142 at 1700-01.

[141] Susan S. Silbey & Sally E. Merry, *Mediator Settlement Strategies*, 8 LAW & POL'Y 7, 10 (1986).

With the ascendancy of electronic monitors both inside the courtroom and out, students, teachers, and practitioners of law must be able to account for the everyday associations that decision makers bring to the screen. They must also be able to accommodate the familiar programs and information schemas that viewers absorb from computers at home and in the office. By the same token, they will also need to come to grips with changing expectations among decision makers who have grown accustomed to surfing screen data for themselves. As computer users internalize the thinking tools provided by software in conjunction with Internet-bred habits of data searching via free association, adjustments may be needed in legal communication and advocacy. In short, legal education must adapt to the contingencies of technology and the emerging vernacular of digital culture and the digital mind.[142] We therefore turn to that part of our approach which addresses the study of law in a visual and digital culture.

IV. RE-ENVISIONING LEGAL EDUCATION

To be prepared to enter the new landscape of professional practice, law students have to do far more than become acquainted with the new visual technologies being used in the law today. They need to understand how new (and more established) visual technologies change the ways that their users and their audiences think. They need to develop a critical visual intelligence that enables them to anticipate the cognitive and emotional effects of visual and multimedia displays and to respond to their adversaries' visual and multimedia presentations. They need to become conversant with the expanded toolkit of conceptual and technological resources that we have described above, not simply in order to communicate and persuade more effectively, but also because this multidisciplinary toolkit is precisely what will inform their appreciation of how visual displays can affect legal thinking, judgment, and meaning-making as a whole. In short, they need to become visually literate.

Since 2000, the authors of this essay have been teaching a course that introduces upper-level law students to the knowledge and skills needed to practice law in the digital age.[143] We believe that the pedagogic vision behind our course is suggestive of what needs to be undertaken to bring legal

[142] *See generally* LESSIG, *supra* note 22.

[143] For a more detailed discussion of the course we teach, *see* Christina O. Spiesel, Richard K. Sherwin, & Neal Feigenson, *Law in the Age of Images: The Challenge of Visual Literacy*, in CONTEMPORARY ISSUES OF THE SEMIOTICS OF LAW 231 (Anne Wagner, Tracy Summerfield, & Farid Benavides eds., 2005). We have also been teaching workshops to practicing lawyers that are guided by the same pedagogic ideas. *See also* Neal Feigenson and Christina Spiesel, *Teaching Visual Rhetoric to Law Students*, in VISUAL PRACTICES ACROSS THE UNIVERSITY (James Elkins ed., forthcoming 2006).

instruction into the digital multimedia age.

At its core, visual literacy means being able to identify the meanings that pictures leave unsaid and to translate those perceptions into words. We provide our students with a conceptual frame consisting of the interdisciplinary approach described in Part III, but we do not simply present bodies of knowledge and expect our students to apply that knowledge to legal visual displays. Visual literacy cannot be learned from a handbook. It is a matter of connoisseurship. Students must become conscious of their own responses to pictures, attend to others' responses, and discern the cultural meanings that are circulated when a picture is understood to refer implicitly to other pictures, other words, and other media.

Students can develop these skills only through experience in interpreting and making visual displays. When students are provided with many opportunities to interpret visual displays, they not only become conscious of their own responses, but also learn how to articulate those responses in order to make them accessible to others. Just as writing is taught along with reading, so making visual arguments is as critical as interpretation to the development of visual literacy. Only by making pictures can students understand the range of visual (and verbal) rhetorical choices available to them, and when they do, they are no longer held captive by the idea of the legal picture as mere illustration or metonym for reality. Instead, they grasp it as a construction, *their* construction, suitable for reframing as desired within the context of their case strategy, informed by the multidisciplinary toolkit we provide.

Law students come to law school with a readiness for this kind of instruction. Almost all enter with extensive experience in watching: they have been going to the movies, watching television, playing video games on their PCs or gaming hardware, and surfing the Web. Some have even been going to museums and galleries to see art. They have acquired detailed knowledge of the visual codes embedded in these cultural products. But they have rarely been asked to discuss their own responses. Their knowledge is unavailable to them because it has largely not been examined.

The combination of interpreting and making that students need to hone their responses to legal visual displays is not likely to have been cultivated in their previous education. Even if students have studied art history, they have most likely simply studied the views of authorities on the works under scrutiny rather than articulating their own responses.[144] Moreover, art history and cultural studies as academic subjects rarely provide any experiences in making

[144] Art history itself has had difficulty in embracing the large expanse of visual culture outside of the masterworks that are part of the Western canon – cultural studies has taken up that slack – although that has been changing in the last twenty years or so. *See, e.g.,* Elkins, *supra* note 82, at 68; DAVID FREEDBERG, THE POWER OF IMAGES xix (1989); PICTURING SCIENCE, PRODUCING ART (Caroline A. Jones & Peter Galison eds., 1998).

visual things. The arts curricula that stress making things, on the other hand, are by and large aimed at training future professional artists. They are organized to produce a progressive development of certain technical skills instead of the viewing and thinking habits that lawyers need in their own professional practice: the ability to respond intelligently to pictures in the moment, relying on their own judgment rather than on "authoritative" readings by others.[145]

Becoming receptive to the range of responses that people have to pictures, thereby discovering the ways in which different people's responses might overlap and identifying the elements in the picture that provoke those responses, may seem to parallel on the level of pictures the verbal thinking habits that Richard Fischel and Jeremy Paul examine in *Getting to Maybe*,[146] their study of how law students can best learn to think like lawyers. There is, however, a big difference between the discipline of words in legal education and the sporulation of pictorial meaning. The traditional inputs of legal education – casebooks, other texts, and the authoritative speech of the professor – are all verbal, as are the traditional outputs: the student's understanding as expressed in classroom discussion, exams, and other written work. Even if one agrees with Elizabeth Mertz[147] that much of legal education consists in mastering new ways of reading, the fundamental problem for law students studying responses to pictures (or their own internal mental imagery) is, as we have observed, that images must be translated into words to become socially available. They may not be aware that in that translation there is always a slippage, a loss of data.

In order to keep students aware of this process, while fostering their abilities to recognize and articulate their engagement with pictures, the classroom must be reconfigured. Our pedagogic toolkit, like the conceptual toolkit described in Part III above, is varied.[148] We incorporate many features of traditional

[145] Practicing lawyers rarely have time to research the pictures that they and others make, and in any event, most legal visuals are one-of-a-kind pictures, made for the occasion and lacking any critical bibliography. Lawyers must therefore be prepared to exercise their own judgment under time pressure rather than rely on authoritative readings – quite different from the discipline of art history or, for that matter, from the legal convention of arguing from precedent.

[146] RICHARD MICHAEL FISCHL & JEREMY PAUL, GETTING TO MAYBE (1999).

[147] Elizabeth Mertz, *Recontextualization As Socialization: Text and Pragmatics in the Law School Classroom* (Am. B. Found., Working Paper No. 9418, 1993).

[148] The idea of the pedagogic toolkit is anticipated by James Eagar, *The Right Tool for the Job: The Effective Use of Pedagogical Methods in Legal Education*, 32 GONZ. L. REV. 389 (1996). There is enough discussion in the academy these days about legal pedagogy to have generated a ninety-nine page bibliography just on specific classroom methodologies with fairly restrictive selection criteria. *See* Arturo López Torres & Mary Kay Lundwall,

doctrinal and clinical teaching methods but combine them in new ways and modify them to suit the overall goal of developing visual literacy. For instance, as in the traditional Socratic method, we ordinarily launch discussion and analysis by posing questions. Unlike that method as usually practiced, however, we do not argue with the responses to pictures that students offer. Responses to pictures are not arguable in the same way that responses to legal texts are. Absent an extensive tradition of critical interpretation and without readings that have been applied over time, there can be no appeal to more authoritative texts or to any consensus of scholars.[149] As in the problem method, we create hypothetical cases as the context for the students' major course projects. The cases require them to use a variety of legal sources as well as diverse background materials, and they are expected to identify and explore issues just as they would in a traditional law school class. What they spot, however, is as likely to be a communicative or rhetorical issue as a strictly legal one. As in the simulation method, students are expected to do a version of actual legal work (making a piece of demonstrative evidence or a visual final argument, respectively), but instead of engaging in a full role-play (e.g., performing a negotiation or portion of a mock trial), students step out of role and explain to their classmates their rhetorical choices, the thinking behind the visuals they constructed.[150] Relatedly, although students do see examples of professional legal visuals used in actual cases, it is their own work (on major course projects and several smaller visual exercises) that provides the primary picture texts for classroom response and discussion.[151] Finally, we do not use

Moving Beyond Langdell II: An Annotated Bibliography of Current Methods for Law Teaching,35 GONZ. L. REV. 1 (1999).

[149] A fortiori, we rarely lecture because it tends to make students passive in relation to the material and, unlike other subjects, there are no textbooks or treatises for the students to fall back on to learn what they need to about visual thinking.

[150] An important benefit in taking students out of role (and a fortiori, in not converting the course to a clinical experience in which students represent real clients in real matters) is that much of the learning occurs when student work goes well beyond the bounds of admissibility (even granted that the admissibility of visual displays for which a proper foundation has been laid is frequently an open-ended judgment call, requiring the court to balance probative value against risk of prejudice and confusion under Fed. R. Evid. 403 or the state law equivalent). Rather than being an occasion for a poor grade, such work often prompts the most productive kind of discussion: Why would the display probably not be admissible in court? What was the student attempting to accomplish with that display, and how might the student achieve the same rhetorical goals while staying within the limits of admissibility?

[151] Eagar, *supra* note 152, at 411-12, writes that audio-visual materials are likely to be welcomed as supplements to the classroom materials, but he envisions them as being brought in by the professor as part of the lecture or discussion planning – once again, a top-down approach.

pre-designed legal instruction software packages. Students' only instruction in technology per se arises from their use of it to realize their ideas in their own projects.[152] In the course of their work, they discover what software like PowerPoint lets them do and what it does not; they become aware of the software's implicit point of view in dialogue with their own rhetorical goals.

In a visual literacy class, if the professor tries to constrain the meaning of pictures (or picture-making technologies) for the student, the game is lost. Students will be unwilling to share their perceptions and will not have the opportunity to hear the variety of responses so crucial to their learning experience. The alternative to professorial control, however, is not the overturning of the entire methodology of legal education. It is to redesign the classroom on the model of the focus group. In focus groups, student-participants share their own responses to pictures, share speculations on how meanings might shift with subtle changes in the picture, and discuss the picture's intended audience(s). The aim is not to train design professionals. It is to train future lawyers who will know to pay attention to all of the elements that visual media put in play and who will be much better at strategizing and designing their cases by thinking visually and, when desired, at using the services of design professionals to accomplish their goals.[153] Practice in working in collaborative environments will also enhance students' readiness for the legal workplace, where they will often work with teams of lawyers, staff, and (sometimes) legal consultants.[154]

In sum, we contend that when it comes to visual literacy and persuasion, the

[152] To bring students up to speed on the advanced digital video editing software (Final Cut Pro or Premiere®) that they use to create their final projects (closing argument videos), we provide individual workshops that cover only the simplest aspects of editing. Any other guidance we offer is in response to students' own requests for assistance in realizing their own editing ideas. We do not impose any overall approach to the software.

[153] All of the legal visual professionals with whom we have spoken have testified that it is much better to think about visualizing the case as the case is developed rather than to think about visuals later as add-ons to a verbally developed strategy. These comments come partly from the designer's understanding that the thinking in the design can help the thinking with the case, even suggesting avenues of investigation, and also from the knowledge that a compelling design can take time to develop. *See supra* text accompanying notes 38-42.

[154] Without quarreling with the conclusions of the MacCrate Report (Task Force on Law Schools and the Profession: Narrowing the Gap, *Legal Education and Professional Development – An Educational Continuum* A.B.A. SEC. LEGAL EDUC. & ADMISSIONS TO THE BAR, (1992)), we observe that the Report simply does not address the kinds of concerns we have raised in this essay. Visual literacy might well be included among the practical skills that the authors of the Report enumerated, but it is (as we hope to have shown) an entirely distinct skill set. Moreover, issues of professionalism, ethics, and other topics that the Report addresses play out in distinctive ways in the context of visual communication and advocacy.

structure of authority in the classroom must change. It must be decentered in order to facilitate a creative process that works more from the bottom up (and out) than from the top down. The growing use of new visual technologies even in traditional classrooms is readying the ground for this change. While law students still use colored marking pens to analyze their study materials,[155] and will probably continue to do so because such visual mapping is useful, they will soon be reading hybrid texts where they move from time-based linear thinking (i.e., one word unfolding after another) to visual collages in which meanings are laid out spatially as well as temporally and the cues to reading those meanings are very different.[156] Students already do something like this when a professor projects a transparency or PowerPoint graphic, or charts a legal transaction with a marker on a whiteboard; they attend to the spoken words of the lecture while reading the graphic representation and writing their own notes. We suggest that students will do this even more frequently without the participation of a professor's voice to organize the relationships. The visual and digital turns combine in transforming the process of education into something more (inter)active, placing more responsibility on the student to seek out and reconfigure the words and pictures needed to accomplish the task at hand.

Discussions of vision, visuality, and visual culture abound in the non-legal academy today,[157] but tend to miss the point that pictures are not just about aesthetics. People outside the law school environment who learn of our teaching often remark, "Oh, you are teaching art to law students." The answer to that is a resounding "*no*." We are teaching visual thinking and visual rhetoric; we are teaching about visual texts and how they can be used to convey information as well as arguments. We teach how lawyers can deploy visual culture as well as verbal culture to make their points. That people

[155] ROBERT H. MILLER, LAW SCHOOL CONFIDENTIAL 133 (2004); SCOTT TUROW, ONE L 56 (1977).

[156] Many law students already do this during class, but not entirely with regard to the class's ostensible subject matter (much to the chagrin of some professors. *See, e.g.*, John Schwartz, *Professors Vie with Web for Class's Attention*, N.Y. TIMES, Jan. 2, 2003, at A1). Students scan online news, IM their classmates, and play games while sometimes also scrolling through class notes and case briefs in an attempt to maintain sufficient contact with the professor's presentation. One goal for law teachers is to capture more of students' technological savvy and viewing and reading habits and redirect them toward the course subject matter. *See also supra* note 125 (discussing hybrid legal texts).

[157] Readers interested in sampling the rich literature in this area might enjoy THE VISUAL CULTURE READER (Nicholas Mirzoeff ed,, 1998). The authors recently participated in the first International Conference on Visual Literacy, held at University College, Cork, Ireland on April 14-15, 2005. A conference and exhibition volume, to be edited by James Elkins, is forthcoming.

respond as they do betrays a confusion – that picturing can be thought of only as art itself, opening the door to forbidden pleasures in the severe realm of the law. To the contrary, lawyers and law students need to understand that making pictures, just like writing, can be an effort to think aloud[158] or to communicate for specific purposes. Picturing, like speaking or writing, is performative,[159] and recognizing that is especially crucial in law, where justice depends on the rhetoric lawyers deploy to persuade judges and juries.

Our pedagogy, like our overall approach to the role of visuals in law, implicates the complex relationship between words and pictures throughout our culture's history. This topic is dense because of the enduring and ever-changing contest between the two modalities,[160] and because of ambiguity in the meaning of "to see" that goes all the way back to the Greek opposition of "insight" to perception, generally to the denigration of the latter.[161] Space limitations prohibit us from doing more here than simply taking note of this rich historical subject. Our ambition is limited to the hope that we have shown how words and pictures can be understood as complementary ways of talking about and doing things in the world, and how law students can be given the experiences from which that understanding can be cultivated further. As the world of law, both in and out of court, is increasingly made available through visually designed digital environments – texts subsumed within framing pictures, displayed on electronic screens – this understanding becomes more necessary than ever.

V. THE CHALLENGES AHEAD

The meanings that hold a world together must be actively experienced, performed, and thereby re-enacted, at least on occasion, so that the wellsprings of commitment may be refreshed. This meaning making and meaning conserving process is the primary function of law. As James Boyd White has written, law is best understood as a constitutive rhetoric:

> The law establishes roles and relations and voices, and it gives us as speakers the materials and methods of a discourse. It is a way of creating a rhetorical community over time. It is this discourse, working in the social context of its own creation, this language in the fullest sense of the term, that *is* the law. It makes us members of a common world.[162]

---

[158] *See supra* text following note 161.

[159] *See* J. L. AUSTIN, *supra* note 4.

[160] *See generally* MITCHELL, ICONOLOGY, *supra* note 15.

[161] For an incisive discussion of this and anti-ocularism in contemporary thought generally, *see* MARTIN JAY, DOWNCAST EYES: THE DENIGRATION OF VISION IN TWENTIETH-CENTURY FRENCH THOUGHT (1994).

[162] White, *supra* note 19, at 266 (emphasis in original).

We believe that this constructivist ("rhetorical") model of law remains apt, in both theory and practice.[163] Its emphasis on "talk" and the written word, however, needs to be updated. The domain of legal discourse must be expanded to include the digital capacity to generate, alter, and disseminate visual representations on the screen. And the study of law as a constitutive rhetoric must now encompass the various ways in which this digital capacity affects the legal meaning making process. In what ways has the conflict of interpretations, that mainstay of the common law tradition, been recast by the advent of digital technology?

In our view, retooling 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. The task is to make sense of the nature and practice of law in a non-essentialist, screen-dominated, and pervasively visual environment. What kinds of knowledge and meaning are created, and with what outcomes, when knowledge and meaning are visually and digitally constructed in particular ways? And what are the implications for the search for truth and the perennial clashes between knowledge and eloquence, rational dialectics and rhetoric, ethical obligation and aesthetic pleasure (*aesthesis*), and belief and disenchantment in the current digital age?[164]

For example, as more people, practiced in the techniques of digital production, come to realize the manifold ways in which perceived realities may be constructed or changed, a new skepticism may emerge. Will people sense ever-greater disjunctions between representations and reality, and if so, how will legal advocates reassert the authority of truth claims? Conversely, how will law in the age of digital visual displays cope with the mind's default

[163] For a brilliant defense of law as constitutive rhetoric, see Anthony T. Kronman, *Rhetoric*, 67 U. CIN. L. REV. 677 (1999).

[164] Our focus in this article has been on pictures and images *in* law that create challenges for decision making, judgment, and belief *in* legal theory and practice. There is a small but growing literature that explores what pictures *of* the law reveal about how the law is regarded at the time the pictures are produced. Older works tended to project images of law as a sacred, protected space where meanings could be authoritatively constrained. The widespread entry of all kinds of picturing into this space (and the projection, via videotape and television, of portions of that space that had not previously been thus depicted, e.g., selected trials and jury deliberations) may call into question the mythic roots of society's ideas of justice. *See, e.g.*, Dennis E. Curtis & Judith Resnik, *Images of Justice*, 96 YALE L.J. 1727 (1987); Martin Jay, *Must Justice Be Blind? The Challenge of Images to the Law*, in LAW AND THE IMAGE 19-35 (Costas Douzinas & Lynda Nead eds., 1999); Ana Laurel Nettel *The Power of Image and the Image of Power*: *The Case of Law*, 21 WORD & IMAGE 136 (2005).

capacity for acceptance and belief?[165] Will new levels of visual and media literacy meet the demands of critically confronting persuasive images on the screen? Or will the digital engineering of belief and judgment tighten its grip on the mind?[166] Will people's capacity to distinguish between fiction and reality simply diminish?[167]

As legal scholars pursue the interpenetrations of law and culture in the digital and visual era, basic questions about the continued vitality of democratic principles are bound to emerge with new vigor. Lawyers' increasing use of visual and multimedia displays may have a profound democratizing effect. Complex events and relationships and their legal significances may become more, not less, intelligible to attentive jurors and the public, reducing the appeal of verbal obfuscations. Finders of fact may become more fully engaged in thinking through the issues if they understand the evidence better. And as access to and familiarity with the means of visual production become more widespread, the power to make and disseminate images and thus to participate in the creation of cultural meanings, legal and otherwise, will also be more widely shared.[168]

Or the prospects for a legal culture in which visual rhetoric predominates may be less sanguine. Contemporary advertising, "the most successful rhetorical enterprise on the planet,"[169] has been described as what Aristotle labeled *epideictic* rhetoric.[170] Unlike deliberative and forensic rhetorics, the traditional province of lawyers, epideictic rhetoric does not set forth propositional arguments building logically to a conclusion, but instead aims to move the audience to reaffirm common values they all presumably share. In the case of product advertising, the values are those particular ones with which

---

[165] *See supra* text accompanying notes 108-09.

[166] As leading scholars of advertising and public relations imply. *See, e.g.*, STUART EWEN, PR! A SOCIAL HISTORY OF SPIN (1996); JAMES B. TWITCHELL, ADCULT USA (1996).

[167] *See* RITCHIN, *supra* note 125, at 7-23.

[168] *See* VATTIMO, *supra* note 16, at xvii, 10 ("From the beginning the metaphysical attempt to grasp the *arché,* the first principle, was inspired by the will to dominate the totality of things."). Note the normative implication, then, of the post-metaphysical turn: The shift to a matrix of interpretations removes the political shadow of totalized norms or meanings. As Vattimo puts it, "thought has no source of legitimation beyond the effective aperture of Being within which it finds itself thrown." *Id.* at 11. As Ricoeur put it, we are left with no more (and no less) than "a conflict of interpretations." The ceaseless competition among localized interpretations becomes the renewed basis for a liberal, tolerant, and democratic society. RICOEUR, *supra* note 1, at 48

[169] Stephen McKenna, *Advertising as Epideictic Rhetoric*, in RHETORIC, THE POLIS, AND THE GLOBAL VILLAGE 103, 103 (C. Jan Swearingen & Dave Pruett eds., 1998).

[170] *See, e.g.,* JOANNE MORREALE, A NEW BEGINNING: A TEXTUAL FRAME ANALYSIS OF THE POLITICAL CAMPAIGN FILM 93-100 (1991); McKenna, *supra* note 173, at 105-08.

the advertiser hopes to associate the product, as well as the more general value of happiness-through-consumption, implicated with a quasi-religious confidence.[171] Political campaign films, similarly, may celebrate "tradition, hope, productivity, defense, patriotism, innocence" or any number of other presumably shared values, evoking these values through imagistic, associational logic.[172] To be sure, skillful legal advocates have always engaged in epideictic discourse as well: recall, for instance, Gerry Spence's celebrations of individual freedom in the face of government tyranny as a way to persuade Ruby Ridge jurors to acquit his client.[173] But what happens if, through increasing use of pictures and associational logic, legal discourse takes on even more of the character of epideictic rhetoric – at the expense of logic and critical analysis? Will the consequence for legal argument (not to mention public discourse as a whole) be a decline in rational deliberation and decision making or simply a shift in the conventional criteria for proof and persuasion? We do not yet know the answers to these questions, but we believe that the questions must be asked.

To what extent will the power that attaches to legal meanings stream down from an elite group of culture producers, and to what extent will it percolate up and out from the needs, desires, and imaginings of the public at large? The answer to this used to be relatively simple: those with power were able to exercise significant control. The Internet has changed this dynamic. The story of Marcus Arnold, the fifteen-year-old who became the Internet's highest-rated legal advice giver, provides an intriguing, albeit inconclusive, indicator.[174] Marcus believed that he had learned enough law from watching television to give legal advice without conducting actual research. Notably, after his age and modus operandi became known, his popularity was undiminished. Is this a tribute to Marcus's communicative skills (as well as a slap at the profession's communicative failings)? Does it portend the ascendancy of a populist ("know-nothing") legal culture which operates to the detriment of counterintuitive legal expertise? Again, these are the sorts of questions that we believe legal scholars and lawyers, practicing and aspiring, ought to be asking. We count among the virtues of the pedagogy that we described earlier its capacity to help make law students more cognizant of these issues and to equip them with more of the tools they need to search for answers.

We believe that our emphasis on the visual mediation of legal thinking and

[171] McKenna, *supra* note 173, at 105-06; *see also* KIBBEY, *supra* note 124, at 10-20.

[172] *See* MORREALE, *supra* note 174, at 3 (describing how Ronald Reagan's campaign film *A New Beginning* served as a display of his "rhetoric: discourse characterized by optimistic, upbeat, patriotic themes that emphasized a renewed sense of national identity and unity.")

[173] *See supra* note 99 and accompanying text.

[174] *See* MICHAEL LEWIS, NEXT: THE FUTURE JUST HAPPENED 90-109 (2001) (describing the story of Marcus Arnold).

legal judgment, our constructivist method for understanding, and our pedagogy offer an affirmative response to questions that ultimately go to the heart of both law and democracy in the digital visual era. Pictures are silent until people speak about them, and when people do, they begin to compare perspectives and construct socially available meanings. Learning how to respond critically to pictures and to articulate individual responses is, therefore, essential to understanding how visual meanings are constructed and what beliefs pictures engender (or suppress) in particular situations. An ethos emerges out of the collective practice of making, reflecting, and remaking – modeled in our classrooms, but applicable by extension to other collectives, whether the deliberating jury or the debating blogosphere.[175] It is the ethos of the autocatalyzed, self-sustaining group, a process in which each participant inspires and teaches others with ever less explicit guidance from "above," with the eventual result being the generation of a shared group culture. We do not know how this experience will carry over into the larger and more complex world of professional practice, but we believe that using the multidisciplinary tools we have described in this essay to make and critique images empowers people to become more active participants in both popular and legal culture. We also believe that lawyers who are able to navigate the new currents that pervade our social and cultural lives as well as our lives in the law will become better guides in the face of a crucial, and shared, rhetorical challenge: whether it is more prudent to exercise belief or suspicion under specific conditions.[176]

Meeting this challenge will require a new intellectual framework for law, one that incorporates not only the familiar word-and-text mode of legal thinking but also the pervasively visual, hypermediated, and digital mode that increasingly characterizes the practice of law today. In short, the imperative that legal scholars face is to rethink the theory and practice of law in and through the visual. Thus we may begin to come to grips with the various ways in which visual communication technologies are transforming the practice, theory, and teaching of law in the digital age.

[175] As of March 2006, it is estimated that there are over 27 million blogs on the Web, with the number doubling every five and a half months. Peter Jaret, *Dear Web Log: Hated the Shampoo, Loved the Soap*, N.Y. TIMES, Mar. 23, 2006, at G3.

[176] *See* Richard K. Sherwin, *A Matter of Voice and Plot: Belief and Suspicion in Legal Storytelling*, 87 MICH. L. REV. 543 (1988).