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The Writing's on the Wall: Using Multimedia Presentation Principles from the Museum World to Improve Law School Pedagogy

Cecilia A. Silver*

ABSTRACT

Law school pedagogy is a relic. Nearly 150 years after Christopher Langdell pioneered the case method, the typical doctrinal course remains predominantly a verbal domain, featuring lectures, Socratic dialogue, and final exams. But the visual disconnect between legal education and legal practice does students a disservice. Under the proliferating influence of laptops, iPads, smartphones, and Zoom, students now read, work, and study electronically more than they ever have before. So instead of business as usual, it's time to embrace "visualization"—using multimedia to enhance, or even supplant, the near-exclusive reliance on language—to build a more vibrant and inclusive learning environment.

Law schools should emulate museums. Having long understood the need to appeal to a diverse audience to convey an educational message, museums are old hands at leveraging the power of multimedia to teach visitors in an enjoyable, entertaining, equitable way.

This Article calls for professors to take cues from museums to curate students' classroom experiences. By integrating five high-impact, low-friction strategies borrowed from the museum world, we can upgrade our classroom presentations and remove the barriers to entry long associated with hidebound, text-based law.

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INTRODUCTION

As experts at harnessing the power of multimedia for pedagogical purposes, museums have long integrated images, text, and digital components to entice and educate visitors with a multisensory experience. Modern-day museums' mission is "to steward the products of the past into the unfolding present"¹ and "change attitudes, modify behavior, and increase the availability of knowledge."² Many Americans consider museums the most trustworthy source of information, ahead of local papers, nonprofit researchers, the U.S. government, and academics.³ But to fulfill their goals, to communicate effectively, and to cultivate that trust, museums have long understood that they are "in the business of packaging experience."⁴ Law professors are, too.

1. Robinson Meyer, *The Museum of the Future Is Here*, ATL (Jan. 20, 2015), <https://bit.ly/3CqIPi8> [<https://perma.cc/4C27-UZEP>].

2. DAVID DEAN, MUSEUM EXHIBITION: THEORY AND PRACTICE 3 (2002) (ebook).

3. *Museum Facts & Data*, AM. ALL. OF MUSEUMS, <https://bit.ly/3CVEyTS> [<https://perma.cc/96XV-47U8>] (last visited Oct. 27, 2021).

4. LESLIE BEDFORD, THE ART OF MUSEUM EXHIBITIONS: HOW STORY AND IMAGINATION CREATE AESTHETIC EXPERIENCES 116 (2014) (internal quotations omitted).

Under the proliferating influence of laptops, iPads, smartphones, and Zoom, we now read, work, and even study electronically more than we ever have before.⁵ And that's just in our professional lives. Add to that the endless array of on-demand programming at our fingertips. So, rather than asking how we can help law students overcome the seemingly pernicious effects of technology, we should instead consider how to embrace these technological developments to build a more vibrant and inclusive learning environment.⁶ It's time to welcome "visualization"—using images, photographs, diagrams, and video to enhance, or even supplant, our near-exclusive reliance on language.⁷ Visuals are here to stay,⁸ so "the question becomes how the law can best accommodate them, along with words spoken and written."⁹ An interdisciplinary approach, drawing on art historical principles, is essential.¹⁰

5. Elizabeth G. Porter, *Taking Images Seriously*, 114 COLUM. L. REV. 1687, 1719 (2014) [hereinafter Porter, *Taking Images Seriously*].

6. See Lauren A. Newell, *Redefining Attention (and Revamping the Legal Profession?) for the Digital Generation*, 15 NEV. L.J. 754, 806 (2015) (urging the legal profession to adapt to new technologies to best prepare students for when they—the so-called "Digital Generation"—are in charge).

7. Gerlinde Berger-Walliser, Thomas D. Barton & Helena Haapio, *From Visualization to Legal Design: A Collaborative and Creative Process*, 54 AM. BUS. L.J. 347, 347 (2017); see also Richard K. Sherwin, *Visual Literacy for the Legal Profession*, 68 J. LEGAL EDUC. 55, 55 (2018) ("Swept along on a digital tide, words, sounds, and images easily and often flow together.").

8. This Article does not wade into the vast waters of scholarship cautioning about the genuine risks that visuals pose to legal decision-making or bemoaning the lack of images in trial and appellate briefs and judicial opinions. Instead, to get a lay of the legal land on these topics, consult Steve Johansen & Ruth Anne Robbins, *Art-iculating the Analysis: Systemizing the Decision to Use Visuals as Legal Reasoning*, 20 J. LEGAL WRITING INST. 57, 66–68 (2015) (creating a taxonomy for analytical visuals to determine when to deploy them in legal documents); Porter, *Taking Images Seriously*, *supra* note 5, at 1695–98 (imploping the profession to incorporate visuals into brief and opinion-writing while raising concerns about how to interpret them fairly because we perceive images as inherently more trustworthy than text); Richard A. Posner, *Judicial Opinions and Appellate Advocacy in Federal Courts—One Judge's View*, 51 DUQ. L. REV. 3, 23 (2013) (encouraging advocates to use visuals in their briefs to make their arguments more concretely and directly); Rebecca Tushnet, *Worth a Thousand Words: The Images of Copyright*, 125 HARV. L. REV. 683, 688–89, 694 (2012) (noting that "courts don't like to think about images and have few tools to deal with them") [hereinafter Tushnet, *Worth a Thousand Words*].

9. NEAL FEIGENSON & CHRISTINA SPIESEL, *LAW ON DISPLAY: THE DIGITAL TRANSFORMATION OF LEGAL PERSUASION AND JUDGMENT* xii (2009); see also Elizabeth G. Porter, *Imagining Law: Visual Thinking Across the Law School Curriculum*, 68 J. LEGAL EDUC. 8, 9 (2018) (proclaiming that "it's time, thoughtfully, to integrate visual literacy and visual advocacy into the law school curriculum") [hereinafter Porter, *Imagining Law*].

10. See Sherwin, *supra* note 7, at 61 ("[O]ur visual literacy toolkit must come to include insights from such diverse disciplines as advertising, anthropology, art history, psychology, and rhetoric."); Richard K. Sherwin, Neal Feigenson &

This Article calls for professors to take inspiration from museums to make our students' learning experiences more visual, vivid, and varied. Part I recounts the museum's transformation from worldly warehouse to pedagogical powerhouse. Part II describes the current state of the legal classroom with its overdependence on verbal discourse. Part III makes the case for a multimedia approach to learning, seeing what lessons we can glean to make legal education more dynamic and user-friendly. And Part IV offers five easy-to-implement techniques we can borrow from the museum world to upgrade our classroom presentations.

I. A BRIEF HISTORY OF MUSEUMS: FROM CABINETS OF CURIOSITIES TO TEMPLES OF ENLIGHTENMENT

The museum as we know it—an edifying force and cultural stalwart—is a recent phenomenon. Per the American Heritage Dictionary, a “museum” is “an institution for the acquisition, preservation, study, and exhibition of works of artistic, historical, or scientific value.”¹¹ But this current charge and focus emerged just over 200 years ago.¹²

Its roots are religious. Derived from the Latin *mouseion*, signifying a temple dedicated to the nine Muses who served as inspiration for aesthetic creation, the term “museum” has always connoted a place of veneration.¹³ In fact, the first museums trace back to Greek temples, which housed votive offerings of statues, paintings, and gold, silver, or bronze objects to attract worshippers.¹⁴ Churches and monasteries throughout Western Europe fur-

Christina Spiesel, *Law in the Digital Age: How Visual Communication Technologies Are Transforming the Practice, Theory, and Teaching of Law*, 12 B.U. J. SCI. & TECH. L. 227, 237 (2006) (advocating for an interdisciplinary approach, incorporating insights “from a variety of scholarly domains, including cognitive psychology, cultural anthropology, sociology, linguistics, art history, media studies, film studies, and advertising”).

11. Stephanie Eva Koester, *Interactive Multimedia in American Museums*, in ARCHIVES AND MUSEUM INFORMATICS TECHNICAL REPORT 1, 4 (Archives & Museum Informatics 1993); see also JOHN H. FALK & LYNN D. DIERKING, THE MUSEUM EXPERIENCE REVISITED 111–12 (2013) (declaring that the “common denominator of museums is making a unique contribution to the public by collecting, preserving, and interpreting the things of this world”); AM. ASS’N OF MUSEUMS, EXCELLENCE AND EQUITY: EDUCATION AND THE PUBLIC DIMENSION OF MUSEUMS 7 (2008) (characterizing museums as “institutions of public service and education, a term that includes exploration, study observation, critical thinking, contemplation, and dialogue”) [hereinafter EXCELLENCE AND EQUITY].

12. GEORGE E. HEIN, LEARNING IN THE MUSEUM 3 (1998).

13. Koester, *supra* note 11, at 4.

14. *Id.*

thered the concept by acquiring and displaying religious relics and icons.¹⁵

The modern museum also originated in the collections of the wealthy. Affluent Romans showed paintings and sculptures in their homes.¹⁶ During the Crusades, aristocrats accumulated plundered artifacts for their troves of objects.¹⁷ Connoisseurs created cabinets of curiosities, or “wonder rooms,” as an attempt to categorize the “oddities” in their possession.¹⁸ These early collections were formed to study and share with other members of the elite, leading to the perception that art and scholarship were suited only to a “closed circle, namely society’s ‘upper crust.’”¹⁹

Today’s museum, displaying objects for enlightening and entertaining the public, is a product of the 18th Century.²⁰ Beginning in the 1700s, access to artistic and historical collections increased as monarchies were overthrown and churches opened their monasteries.²¹ The museum then transformed into a significant public institution in the 19th Century.²² Museums developed in tandem with the birth of the nation-state in response to the recognition that the government was responsible for the welfare of its citizens.²³ Indeed, Napoleon bolstered the Louvre collections through his conquests because he was obsessed with “the museum as an instrument of national glory.”²⁴ Napoleon’s example, in turn, inspired other European nations to devise similar plans for their museums.²⁵

With the advent of the national museum came the desire to invite—and attract—the populace to admire the objects.²⁶ In this patriotic spirit, museums adopted display techniques to help the lay person understand and appreciate the collections: “labels, docents,

15. *Id.* at 5.

16. *Id.*

17. *Id.*

18. *Cabinet of Curiosities*, BRITISH LIBR., <https://bit.ly/3m5ZDEi> [<https://perma.cc/HQ4S-VD9C>] (last visited Oct. 27, 2021).

19. Koester, *supra* note 11, at 5.

20. HEIN, *supra* note 12, at 3; *see also* BEDFORD, *supra* note 4, at 22–23 (citation omitted) (“[T]he creation of the Public Museum was an expression of the eighteenth-century spirit of enlightenment which generated enthusiasm for equality of opportunity in learning . . . museums and exhibitions . . . were—and are—designed to educate.”).

21. Koester, *supra* note 11, at 5.

22. HEIN, *supra* note 12, at 3.

23. *See id.* (attributing to French scholar René Huyge the observation that museums and encyclopedias appeared on the scene around the same time).

24. Koester, *supra* note 11, at 5–6.

25. *Id.*

26. *Id.*

and guide-books became standard informational tools.”²⁷ The role of curator as “bridge builder”²⁸ and guardian of the collection emerged.²⁹ The museum as educator was born.

Since the dawn of the public museum, education was recognized as a “crucial museum function.”³⁰ Traditionally “storehouses” for objects of artistic, historical, natural, or cultural significance³¹ “equivalent to cultural memory banks,”³² few people went to exhibitions before 1800.³³ But by 1900, museums became “places for artistic enlightenment and education.”³⁴ Curatorial and display practices were grounded in the belief that people could—and should—commune with the objects as a way to educate themselves.³⁵ Museums offered a “cafeteria-style” display for visitors to serve themselves information from the buffet of objects they found appealing.³⁶ To make the artifacts more appetizing and cater to visitors’ needs, the curator’s goal became making the past understandable in relation to the present.³⁷ Now, hundreds of millions of people visit museums each year,³⁸ prompting Hans Ulrich Obrist, re-

27. *Id.*

28. Lou Stoppard, *Everyone’s a Curator Now*, N.Y. TIMES (Mar. 3, 2020), <https://nyti.ms/3nAokJF> [<https://perma.cc/465G-6XMV>].

29. See Stuart Jeffries & Nancy Groves, *Hans Ulrich Obrist: The Art of Curation*, GUARDIAN (Mar. 23, 2014, 11:59 AM), <https://bit.ly/3zTAscF> [<https://perma.cc/VE9N-ET5F>] (portraying the profession of curating as preserving, or safeguarding, the heritage of works; selecting new works; connecting the works to history; and arranging or displaying the works); ASS’N OF ART MUSEUM CURATORS, PROFESSIONAL PRACTICES FOR ART MUSEUM CURATORS 7 (2007) (creating guidelines for curatorial duties and listing the curator’s chief responsibility as “the care, presentation, interpretation, and acquisition of works of art in the collection.”) [hereinafter PROFESSIONAL PRACTICES].

30. HEIN, *supra* note 12, at 3; see also Shari Tishman, *Learning in Museums*, HARV. GRADUATE SCH. OF EDUC. (Sept. 4, 2005), <https://bit.ly/3GryYeq> [<https://perma.cc/VVH9-EB7M>] (“Whether intentionally or not, museums embody views about what’s worth learning, and the way that artworks, objects, and historical material are presented—from exhibitions to architecture to wall texts—embody views about how learning happens.”).

31. Koester, *supra* note 11, at 4.

32. DEAN, *supra* note 2, at 1.

33. Jeffries & Groves, *supra* note 29.

34. Koester, *supra* note 11, at 6.

35. *Id.*; see also Tishman, *supra* note 30 (observing that even though museums have always been designed with edification in mind, historically, museums’ education departments have been the only places where visitors’ learning is considered explicitly).

36. Koester, *supra* note 11, at 6.

37. *Id.*; see also PROFESSIONAL PRACTICES, *supra* note 29, at 8 (listing the goals of any exhibition as “expanding public understanding of the subject and enhancing the quality of the visitor’s experience”).

38. See Statista Research Department, *Museums in the U.S.—Statistics & Facts*, STATISTA (Feb. 5, 2021), <https://bit.ly/2ZuUQEv> [<https://perma.cc/JVU6->

nowned curator and co-director of the Serpentine Galleries in London, to ordain museum attendance “a mass medium and a ritual.”³⁹

Museums realize their full educational potential by embracing their role as storytellers.⁴⁰ To create compelling narratives, curators produce both didactic and constructivist exhibitions.⁴¹ In the didactic approach, the curator has the ultimate control over the arc of the narrative, with visitors more passively absorbing the displays. Didactic exhibitions usually proceed sequentially, telling a story with a specific theme that purports to be true.⁴² Marking a shift towards museum-goers actively engaging in learning, the newer, constructivist⁴³ approach envisions an exhibit that has many entry points, provides no specific path, presents different perspectives, and allows experiential opportunities.⁴⁴ But no matter the method, “[e]xhibition design is . . . [m]ost importantly, in service to the visitors.”⁴⁵ All exhibitions are “goods of research, organized and designed to communicate ideas”⁴⁶ and engage the visitor in a learning experience that involves contemplating and making sense of the in-

UQZF] (estimating that approximately 850 million people visited museums in 2019).

39. Jeffries & Groves, *supra* note 29; see also *Quotes About Museums*, ART QUOTES, <https://bit.ly/3uoDZ1B> [<https://perma.cc/2H9D-Z4TZ>] (last visited Oct. 27, 2021) (quoting contemporary video artist Bill Viola as equating people’s “experiences in art museums today [with those] that they used to have in church”).

40. POLLY MCKENNA-CRESS & JANET A. KAMIEN, *CREATING EXHIBITIONS: COLLABORATION IN THE PLANNING, DEVELOPMENT, AND DESIGN OF INNOVATIVE EXPERIENCES* 115 (2013).

41. Fashioning an exhibition involves big-picture decisions about purpose, content, structure, target audience, and communication approach. Then specific choices are made about storylines, media, and the actual objects. See MIT, *MULTIMEDIA IN MUSEUMS*, at § 1 (1995) (ebook), <https://bit.ly/3mfbWOu> [<https://perma.cc/4XEZ-P3ZY>] [hereinafter *MULTIMEDIA IN MUSEUMS*].

42. HEIN, *supra* note 12, at 29.

43. Constructivism is a learning theory based on the work of child development psychologists Jean Piaget and Lev Vygotsky, positing that knowledge is best acquired through a process of reflection and active construction in the mind. In practice, constructivism is associated with a “hands-on” style of learning. See generally Bekki Brau, *Constructivism*, in *THE STUDENTS’ GUIDE TO LEARNING DESIGN AND RESEARCH* (Royce Kimmons ed., 2018) (ebook), <https://bit.ly/39Q2s6J> [<https://perma.cc/H3C6-GEV9>] (providing a primer on the history and application of constructivism).

44. HEIN, *supra* note 12, at 35.

45. MCKENNA-CRESS & KAMIEN, *supra* note 40, at 133.

46. Shamsidar Ahmad, Mohamed Yusoff Abbas, Mohamed Zafrullah Mohamed Taib & Mawar Masri, *Museum Exhibition Design: Communication of Meaning and the Shaping of Knowledge*, 153 *PROCEDIA—SOC. & BEHAVIORAL SCIS.* 254, 255 (2014); see also HANS ULRICH OBRIST, *WAYS OF CURATING* 39 (2016) (“Collection-making . . . is a method of producing knowledge.”).

formation presented.⁴⁷ To do so, museums aim to foster an inclusive environment, encouraging self-directed, voluntary learning at all levels of capability, mastery, and interest.⁴⁸

To further their educational mission, museums discovered that providing entertainment and enjoyment would increase audience size and generate adequate funding⁴⁹ to sustain themselves.⁵⁰ So by the 1990s, museums began shifting from focusing on objects and subject matter to emphasizing audiences.⁵¹ Curators were entrusted to set up an “extraordinary experience.”⁵²

Swayed by the idea that effective learning can only occur if visitors are enjoying themselves,⁵³ museums have appropriated many innovations and techniques, including audiovisual shows and simulations, to convert the hallowed museum into a popular mode of entertainment.⁵⁴ Former Secretary of the Smithsonian Institution

47. FALK & DIERKING, *supra* note 11, at 105; *see also* G. WAYNE CLOUGH, *BEST OF BOTH WORLDS: MUSEUMS, LIBRARIES, AND ARCHIVES IN A DIGITAL AGE* 71 (2013) (asserting that the goal of museums should be to support learning through prolonged and meaningful visitor engagement).

48. *See* EXCELLENCE AND EQUITY, *supra* note 11, at 13–14 (urging museums to account for different levels of visitor knowledge and curiosity in devising exhibits); *see also* PROFESSIONAL PRACTICES, *supra* note 29, at 9 (“[C]urators must accept the responsibility of addressing different audiences . . . whether a scholarly audience of their peers or a broader public without specialized knowledge of their field.”).

49. Unlike most of the world where national governments support museums, American museums keep their doors open by “cobbling together a mosaic of funding sources,” chiefly through government grants, private donations, earned revenue (admission fees, programs, gift shop purchases, rentals), and investment income. The majority of museums—like most cultural institutions—are nonprofits. Ford W. Bell, *How Are Museums Supported Financially in the U.S.?*, EMBASSY OF THE UNITED STATES (2012), <https://bit.ly/3kZyB1O> [<https://perma.cc/6Z6V-SQSP>]; *see also* AM. ALL. OF MUSEUMS, *supra* note 3 (noting that museums contribute over \$50 billion to the economy each year).

50. Koester, *supra* note 11, at 6.

51. SMITHSONIAN INSTITUTION, *THE MAKING OF EXHIBITIONS: PURPOSE, STRUCTURE, ROLES AND PROCESS* 3 (2002); *see also* BETH HANSEN, *GREAT EXHIBITS! AN EXHIBIT PLANNING AND CONSTRUCTION HANDBOOK FOR SMALL MUSEUMS* 136 (2017) (beseeching museums to consider how the exhibit will look from the visitor’s point of view).

52. Jeffries & Groves, *supra* note 29.

53. *See* Excellence and Equity, *supra* note 11, at 11 (“[E]ducation—the commitment to presenting objects and ideas in an informative and stimulating way . . .”).

54. *See* Daniel Grant, *Pandemic Pushes Museums Deeper Into Digital Age*, WALL ST. J. (July 31, 2020, 8:00 AM), <https://on.wsj.com/3F1AN0H> [<https://perma.cc/85L8-CK8H>] (“[M]useums increasingly are behaving almost like media-production companies, seeking to tell the stories behind their collections and exhibits in ways that entertain, as well as educate.”); *see also* Ahmad, Abbas, Taib & Masri, *supra* note 46, at 257 (listing different “aptitudes” and strategies museums draw from to enhance exhibition design).

G. Wayne Clough believes the “key to making this dramatic transformation work is [] stick[ing] to the fundamentals of good learning and education.”⁵⁵ Indeed, museums now use technology to highlight an object’s significance by providing contextual, historical, or theoretical information, to complement—and strengthen—the visitor’s experience.⁵⁶ Unlike schools and libraries that primarily traffic in words and two-dimensional images,⁵⁷ museums are leaning into their expertise—three-dimensional objects—and integrating an array of multimedia to make the entire museum-going experience three-dimensional as well.⁵⁸

Media-filled exhibitions represent a strategy for “creating museum-comfort today for tomorrow’s museum-going public.”⁵⁹ Museums now can connect with visitors both within and outside their walls⁶⁰ through an increasingly robust and diverse set of tools—the objects themselves, the written word (banners, brochures, lots and lots of labels), and digital devices (handheld audio guides, touchscreens).⁶¹ The digital revolution makes museum learning “transferable and transportable.”⁶²

Today’s museums have a heavy lift: they must encompass a broad spectrum of elements and integrate them in novel ways to stimulate engagement, fulfill the audience’s needs, and make the experience participatory, all while furthering the museum’s mission

55. CLOUGH, *supra* note 47, at 71.

56. See Koester, *supra* note 11, at 4 (describing various approaches museums take to better communicate with visitors); see also CLOUGH, *supra* note 47, at 10 (stating that technology is “at its best” when it helps us “comprehend the world”); VINCE DZIEKAN, VIRTUALITY AND THE ART OF EXHIBITION: CURATORIAL DESIGN FOR THE MULTIMEDIAL MUSEUM 63 (2012) (noting the shift in displays from static to dynamic).

57. FALK & DIERKING, *supra* note 11, at 112.

58. In the most literal sense, “multimedia” refers to any combination of two or more media used to present information. Museums offer inherently multimedia experiences since the visitor is confronted with several media, such as paintings, animals, informational labels, or historical artifacts, to communicate the overall message. See Koester, *supra* note 11, at 9, 14.

59. FALK & DIERKING, *supra* note 11, at 119.

60. The coronavirus pandemic hastened this transformation. See Grant, *supra* note 54.

61. See, e.g., FALK & DIERKING, *supra* note 11, at 109 (cataloguing the variety of means museums use to communicate and engage with visitors); EXCELLENCE AND EQUITY, *supra* note 11, at 13–14 (summarizing how museums interact with their audiences before, during, and after their museum encounter, including through the digitization of their collections).

62. Gail Dexter Lord & Barry Lord, *Foreword* to MANUAL OF DIGITAL MUSEUM PLANNING xiii, xiii (Ali Hossaini & Ngaire Blankenberg eds., 2017).

to commemorate, educate, and inspire.⁶³ Vivid, multimedia-rich exhibitions lighten the load.

II. LAW SCHOOL PEDAGOGY: A RELIC

“Law has been trapped in a stylistic straitjacket.”⁶⁴ Nearly a century and a half after Harvard Law School Dean Christopher Langdell pioneered the case method, the typical first-year doctrinal course remains a predominantly verbal domain, featuring lectures, Socratic dialogue, and final exams.⁶⁵ But “[s]tudies show it, professors know it: the Socratic Method is not enough.”⁶⁶ While other logocentric professions like journalism, medicine, and business have embraced multimedia communications,⁶⁷ the law “doesn’t think much about [images] at all, privileging the text when the two come into conflict.”⁶⁸

Trial lawyers are a notable exception in recognizing that visuals are a vital tool. They have long understood that using display tech-

63. See SMITHSONIAN NATIONAL AIR AND SPACE MUSEUM, EXHIBITION PLAN AND GUIDING PRINCIPLES 10 (2017) (articulating the aims of the Smithsonian Museum) [hereinafter EXHIBITION PLAN]; see also EXCELLENCE AND EQUITY, *supra* note 11, at 11 (proclaiming in its Report for the New Century that museums espouse the belief that they “should communicate the essence of ideas, impart knowledge, encourage curiosity, and promote esthetic sensibility”).

64. Porter, *Taking Images Seriously*, *supra* note 5, at 1690.

65. See, e.g., Simon Canick, *Infusing Technology Skills into the Law School Curriculum*, 42 CAP. U. L. REV. 663, 673 (2014) (noting that classroom technology, to the extent it is used at all, appears in the form of the occasional PowerPoint deck and syllabi posted on a course management platform); Samantha A. Moppett, *Control-Alt-Incomplete? Using Technology to Assess “Digital Natives,”* 12 CHI-KENT J. INTELL. PROP. 77, 79 (2013) (observing that law school assessment methods have remained static despite “fundamental differences” in today’s law students); Diana R. Donohoe, *An Autobiography of a Digital Idea: From Waging War Against Laptops to Engaging Students with Laptops*, 59 J. LEGAL EDUC. 485, 487 (2010) (stating that, in most law courses, the professor controls the class through lecture and question-and-answer sessions).

66. Heather Garretson, Tonya Krause-Phelan, Jane Siegel & Kara Zech Thelen, *The Value of Variety in Teaching: A Professor’s Guide*, 64 J. LEGAL EDUC. 65, 65 (2014).

67. See Porter, *Taking Images Seriously*, *supra* note 5, at 1699, 1711 (decrying the “[l]inear, print-based legal reasoning” that persists as the “enduring, signature style of legal practice”); see also Mitzi Baker, *How VR Is Revolutionizing the Way Future Doctors Are Learning About Our Bodies*, UNIV. CAL. S.F. (Sept. 18, 2017), <https://bit.ly/3zXBPao> [<https://perma.cc/Y9NM-3R2A>] (reporting that medical schools now integrate virtual reality technology into their curricula to supplement lectures and simulate treating patients in a controlled environment); Vincent R. Johnson, *Audiovisual Enhancement of Classroom Teaching: A Primer for Law Professors*, 37 J. LEGAL EDUC. 97, 98–99 (1987) (relaying that medical schools regularly use computer animations, simulations, and videos, and top business schools require their students to use the same display technology currently used in the business world).

68. Tushnet, *Worth a Thousand Words*, *supra* note 8, at 686.

nology⁶⁹ helps juries make otherwise boring, complicated information more imaginable, proximate, and memorable.⁷⁰ Indeed, photographs, videos, and infographics may now be defining pieces of evidence.⁷¹ Even *The Bluebook*, the venerated (and dreaded) citation how-to manual for the last 100 years, acknowledged the growing trend of incorporating photographs and illustrations into legal writing by creating a new rule for its 21st edition, released in 2020.⁷² But, as Professors Elizabeth G. Porter and Kathryn A. Watts lament, “[i]n almost every context outside of trial, law is a typographic, semantic field. Legal textbooks rarely contain images; statutes and regulatory codes are overwhelmingly textual; and litigation documents, legal scholarship, and judicial opinions are, almost by definition, exclusively textual.”⁷³

Why is the legal academy so beholden to the reign of words? Why do images play a “miniscule role”⁷⁴ in law school? Like philos-

69. The term “display technology” generally refers to the use of video, audio, animation, and PowerPoint presentations. Fred Galves, *Will Video Kill the Radio Star? Visual Learning and the Use of Display Technology in the Law School Classroom*, 2004 U. ILL. J. L. TECH. & POL’Y 195, 196 (2004). Throughout this Article, I use “display technology,” “visuals,” and “multimedia” interchangeably.

70. *See id.* at 206, 208 (describing attorneys’ use of display technology at trial to explain their case theories and versions of facts to juries); *see also* Porter, *Taking Images Seriously*, *supra* note 5, at 1699 (commenting that “trial practice is at the forefront of digital communication,” and “extensive research has proven [visuals’] capacity to efficiently and powerfully convey even complex information”).

71. *See, e.g., Scott v. Harris*, 550 U.S. 372, 383–84 (2009) (finding no Fourth Amendment violation where it was “clear from the videotape that [the fleeing motorist] posed an actual and imminent threat” to others); *see also* Naomi Jewel Mezey, *Teaching Images*, 68 J. LEGAL EDUC. 74, 76–81 (2018) (teaching visual literacy in Civil Procedure using the dash cam video from *Scott v. Harris* to assess disputes of material fact in the summary judgment context).

72. *See* THE BLUEBOOK: A UNIFORM SYSTEM OF CITATION R. 18.8, at 184–85 (Columbia L. Rev. Ass’n et al. eds., 21st ed. 2020) (establishing a rule for how to cite photographs and illustrations); *see also* Porter, *Imagining Law*, *supra* note 9, at 8–9 (remarking that, “[j]ust like everything else, written law—despite a long tradition of black-and-white stodginess—is going multimedia” and advocating for the integration of visual learning and analysis into doctrinal, clinical, and writing courses).

73. Elizabeth G. Porter & Kathryn A. Watts, *Visual Rulemaking*, 91 N.Y.U. L. REV. 1183, 1197 (2016); *see also* Ellie Margolis, *Is the Medium the Message? Unleashing the Power of E-Communication in the Twenty-First Century*, 12 LEGAL COMM’N & RHETORIC 1, 15 (2015) (declaring that despite the widespread changes technology has brought to many areas of law practice, there has been “very little innovation in the world of written law”); Richard Posner, *Effective Appellate Brief Writing*, A.B.A., <https://bit.ly/2Wu9hI3> [<https://perma.cc/3CPM-KFAS>] (last visited Oct. 1, 2021) (“Some lawyers seem to think a word is worth a thousand pictures. The reverse, of course, is true. *Seeing* a case makes it come alive.”).

74. Porter, *Taking Images Seriously*, *supra* note 5, at 1780 (observing that, except for empirical charts and occasional graphics, legal scholarship rarely capital-

opher Walter Benjamin's fear of "mechanical reproduction," there is a fear in the scholarly community that technology will somehow "cheapen" the vaunted original.⁷⁵ With the greater investment in classroom technology, some faculty feel pressured to adopt a "glitzy" style of teaching that is not pedagogically warranted and does not improve the level of instruction.⁷⁶ And there is a concern that multimedia presentations will entice the eye and mind away from the more rigorous, substantive legal arguments that have characterized the profession.⁷⁷ Some faculty accuse new methods of "dumbing down" education, dismissing PowerPoint slides, video clips, and audio files as "pandering" to a generation reared on a diet of Internet razzle-dazzle.⁷⁸ Also, "[i]mages are associated with emotion and irrationality,"⁷⁹ which is anathema to the cool, logical power of words.⁸⁰ But as explored in Part III(A), while words are the "tools of the legal trade," words paired with images possess tremendous communicative power.⁸¹

izes on the power of images to explain and persuade); *see also id.* ("From first-year classes until graduation, law school is a black-and-white, print-based affair . . .").

75. Maxwell L. Anderson, *Introduction* to *THE WIRED MUSEUM: EMERGING TECHNOLOGY AND CHANGING PARADIGMS* 11, 20 (Katherine Jones-Garmil ed., 1997).

76. *See* Canick, *supra* note 65, at 675 (noting doctrinal professors' wariness to incorporate technology into the traditional lecture-style, Socratic classroom). The coronavirus pandemic has since compelled many professors to include technology in their repertoire as courses moved online.

77. *See* Porter, *Taking Images Seriously*, *supra* note 5, at 1696, 1774 (bemoaning the lack of visual literacy training or canons to provide lawyers with "rules of thumb" to combat skeptics of multimedia-based arguments); *see also* James Parry Eyster, *Lawyer as Artist: Using Significant Moments and Obtuse Objects to Enhance Advocacy*, 14 J. LEGAL WRITING INST. 87, 92 (2008) ("Lawyers are not generally fond of images. Words are their trade.").

78. *See* Deborah J. Merritt, *Legal Education in the Age of Cognitive Science and Advanced Classroom Technology*, 14 B.U. J. SCI. & TECH. L. 39, 40 (2008) (mentioning law faculty's resistance to incorporating visuals into their teaching).

79. Porter, *Taking Images Seriously*, *supra* note 5, at 1691.

80. *See* FEIGENSON & SPIESEL, *supra* note 9, at 4 ("Law, like most other disciplines or practices that aspire to rationality, has tended to identify that rationality (and hence its virtue) with texts rather than pictures . . . to the point that it is often thought that thinking in words is the only kind of thinking there is.").

81. *See, e.g.,* Lemora Ledwon, *Understanding Visual Metaphors: What Graphic Novels Can Teach Lawyers About Visual Storytelling*, 63 DRAKE L. REV. 193, 200-01 (2015) (explaining that cognitive science indicates that people are more likely to remember information featuring both words and images); Hillary Burgess, *Deepening the Discourse Using the Legal Mind's Eye: Lessons from Neuroscience and Psychology That Optimize Law School Learning*, 29 QUINNIPIAC L. REV. 1, 74 (2011) (reporting that the traditional legal curriculum tends to underuse meaningful visual learning aids contrary to educational psychologists' research showing that visual aids create "faster, deeper, and longer learning"); *see also* Juliet Huck, *Visual Aids in Court: How Fast Can You Make a Point to Jurors?*

As with any new technique or technology, incorporating new media has always created a tension between the scholars and practitioners who see opportunities for enhanced representational abilities and easier access and those concerned about distraction and the potential for manipulation.⁸² Digital visuals and multimedia just happen to be the new kids on the law block.⁸³ Delivering better presentations and creating a more technologically savvy classroom experience is not only about “making things pretty,” it’s about recognizing how to better communicate with students and how conscious—and oftentimes simple—presentation and design choices can help us do so.⁸⁴

Because we live in a visually oriented and technology-driven society, classroom teaching should adapt to the new realities of our fast-paced culture, which present more opportunities for diversified, cooperative learning.⁸⁵ As addressed in Part III(B), current law students come from an interactive age flooded with visual images—the internet, television, movies, social media—and expect law schools to infuse the curriculum with familiar multimedia.⁸⁶

27 LAWYER'S PC 7, 7 (2009) (“Words are a lawyer’s stock in trade, but the task for lawyers is not just to talk or write. The job is to communicate.”).

82. See Christopher J. Buccafusco, *Gaining/Losing Perspective on the Law, or Keeping Visual Evidence in Perspective*, 58 U. MIAMI L. REV. 609, 617 (2004) (applying theories of Visual Cultural Studies to the interpretation of evidence); see also Porter, *Taking Images Seriously*, *supra* note 5, at 1752 (flagging the “genuine risks” using images in advocacy poses to the structure and content of legal decision-making because we “read” images differently than text—“more quickly, with heightened (perhaps exaggerated) confidence in our understanding and with more emotion”).

83. See FEIGENSON & SPIESEL, *supra* note 9, at 201 (discussing how the law can best accommodate visuals and raising concerns about their potential for influence, deception, and manipulation in the courtroom).

84. See JONATHAN SCHWABISH, *BETTER PRESENTATIONS: A GUIDE FOR SCHOLARS, RESEARCHERS, AND WOKS* 22 (2017) (suggesting how to develop clearer, more sophisticated, and visually captivating presentations); Adam L. Rosman, *Visualizing the Law: Using Charts, Diagrams, and Other Images to Improve Legal Briefs*, 63 J. LEGAL EDUC. 70, 70 (2013) (“[L]aw schools would do well to incorporate instruction in visual presentation.”).

85. See, e.g., Newell, *supra* note 6, at 812–15 (predicting that the traditional case method of teaching “will likely have to share the stage” with multimedia pedagogical methods as the Digital Generation heads to law school); Julian Hermida, *The Use of TV Shows in the Classroom*, 2005 LAW TEACHER 6, 6 (assessing *mens rea* through viewing *Seinfeld* and *Friends* episodes depicting criminal events); William C. Bradford, *Reaching the Visual Learner: Teaching Property Through Art*, 2004 LAW TEACHER 13, 13 (using a series of paintings the author’s wife created to spur a discussion of property law issues).

86. See Donohoe, *supra* note 65, at 513 (proposing that professors modify their pedagogy to better engage students and developing an interactive, digital coursebook, resulting in a more active, exciting, and enriching classroom experience).

The visual disconnect between legal education and legal practice does our students a disservice. First, we need to keep up with the Joneses by equipping our students to succeed by preparing them for the conditions they'll likely encounter in practice.⁸⁷ Students should become familiar with the increasing use of pictures, video, and audio, no matter the type of law they ultimately practice.⁸⁸ Moreover, law professors share many of the same communication goals as trial attorneys—making their presentations comprehensible, digestible, and indelible.⁸⁹ So it is time for law professors to serve as models of the profession they are training their students to enter.

Just as a curator combines subject-matter expertise with visual flair to best connect with museum visitors, a professor's *raison d'être* is to impart information and ideas in a way that students can understand. Including technology and multimedia displays in the classroom can make a good teacher an even better one.⁹⁰

III. THE CASE FOR MULTIMEDIA

Having long understood the need to appeal to a diverse audience to convey an educational message, museums are old hands at leveraging the power of multimedia to teach their visitors in an enjoyable, entertaining, equitable way. “Bringing subject matter to

87. See, e.g., Moppett, *supra* note 65, at 102 (ruing that law schools have “generally failed” to appreciate the impact of technology and calling on legal educators to integrate technology into the curriculum to better prepare students to efficiently and effectively use technology in practice); Galves, *supra* note 69, at 195–96 (noting that legal educators are “generally falling behind the legal profession” in the use of display technology to “teach” effectively).

88. See Rebecca Tushnet, *Sight, Sound & Meaning: Teaching Intellectual Property with Audiovisual Materials*, 52 ST. LOUIS U. L.J. 891, 900 (2008) (commenting that even though intellectual property professors are particularly well-suited to harness the power of audiovisual materials in the classroom, practitioners are “far ahead” of professors on this score) [hereinafter Tushnet, *Sight, Sound & Meaning*].

89. See Galves, *supra* note 69, at 207, 209 (drawing parallels between trial attorneys and professors, with both striving to promote their audience's comprehension, retention, and application of complex legal and factual information); see also Brian Glassman, *In the Mind's Eye: Visual Lessons for Law Students*, 23 PERSPECTIVES 25, 27 n.26 (2014) (positing that if lawyers are using display technology at trial to educate in the courtroom, law professors also should be using images to educate in the classroom).

90. See Galves, *supra* note 69, at 198 (advocating for law professors to use images and text to supplement visually what the professor is saying orally in class); see also Tushnet, *Sight, Sound & Meaning*, *supra* note 88, at 904 (advising law professors to consider “going beyond the blackboard” given the advantages using visuals provides in other types of teaching and law practice).

life, in a tangible way, is what museum exhibitions excel at doing.”⁹¹ Indeed, museums inherently offer a multimedia experience, with visitors gathering information by both looking at things and reading about them.⁹² Museums are also particularly adept at designing visitor experiences that stimulate active learning and personal agency, two hallmarks of effective learning.⁹³ And by making information available in multiple formats, museums empower visitors to choose whatever helps them learn best.⁹⁴

Law schools should emulate museums. Multimedia is really just a communication system, a way to deliver information in intuitive, interactive, multisensory ways by integrating disparate interpretive material like sound, images, videos, and text.⁹⁵ So instead of shying away from multimedia, professors should seize the opportunity it presents to be multimodal.⁹⁶

Let’s look at how museums successfully create engaging, educational exhibitions to expand the suite of techniques we use to help our students learn. And in the process, we can achieve the goal of making our content more dynamic, memorable, accessible, and inclusive.

A. *The Smart Choice: Cognitive Science Favors a Multimedia Approach*

The mind is like a well-endowed museum, only a small fraction of its holdings on view at any one time.

—James Richardson, poet and Professor of English and Creative Writing at Princeton University⁹⁷

Museums have long understood that visitors need a context to appreciate—and remember—the wealth of objects on display. How

91. DEAN, *supra* note 2, at 6.

92. MULTIMEDIA IN MUSEUMS, *supra* note 41.

93. Tishman, *supra* note 30.

94. See Koester, *supra* note 11, at 9 (describing museums as interactive by allowing visitors to explore in a non-linear manner and choose whatever media resonates with them).

95. *Id.* at 14; see also MULTIMEDIA IN MUSEUMS, *supra* note 41 (suggesting that multimedia material can provide context and enable a visitor to understand and appreciate an exhibit more fully).

96. “Multimodal instruction” refers to teaching that uses multiple means of communicating a course’s learning objectives. See Burgess, *supra* note 81, at 46 (drawing on neuroscientific and psychological findings to create a better legal learning experience).

97. *Quotes and Sayings about Museums*, INSPIRINGQUOTES.US, <https://bit.ly/3ustNoK> [<https://perma.cc/9PX2-LWZE>] (last visited Oct. 27, 2021).

information is delivered is tied to transference⁹⁸—how visitors process and retain that information.⁹⁹ To that end, museums are building technology into their physical spaces.¹⁰⁰ By their nature, multimedia technologies are engaging, suggesting that visitors' extended exposure to exhibits may lead to increased knowledge.¹⁰¹ Recognizing that images and videos capture attention more than pure text,¹⁰² curators deploy visual elements to attract—and hold—the visitor's attention so their educational message can be transmitted.¹⁰³

Borrowing from cognitive schema theory,¹⁰⁴ museums are masters at building frameworks so that visitors' encounters with objects

98. As people learn, they layer new knowledge onto their existing knowledge, which is referred to as “transference” in the education field. Transference bolsters retention of new material because “the mechanical underpinnings of long-term memory formation are deeply based on connecting pre-existing neural pathways in new ways.” Shaun Archer, James Parry Eyster, James J. Kelly, Jr., Tonya Kowalski & Colleen F. Shanahan, *Reaching Backward and Stretching Forward: Teaching for Transfer in Law School Clinics*, 64 J. LEGAL EDUC. 258, 265 (2014); see also HOW PEOPLE LEARN: BRAIN, MIND, EXPERIENCE, AND SCHOOL: EXPANDED EDITION 51 (John D. Bransford, Ann L. Brown & Rodney R. Cocking eds., 2000) (citation omitted) (defining transfer as “the ability to extend what has been learned in one context to new contexts”).

99. Flora E.S. Kaplan, *Exhibitions as Communicative Media*, in MUSEUM, MEDIA, MESSAGE 37, 37 (Eilean Hooper-Greenhill ed., 1995).

100. CLOUGH, *supra* note 47, at 4.

101. Hadwig Kräutler, *Observations on Semiotic Aspects in the Museum Work of Otto Neurath: Reflections on the ‘Bildpädagogische Schriften’ (writings on visual education)*, in MUSEUM, MEDIA, MESSAGE 59, 60 (Eilean Hooper-Greenhill ed., 1995); see also Eilean Hooper-Greenhill, *Museums and Communication: An Introductory Essay*, in MUSEUM, MEDIA, MESSAGE 1, 4 (Eilean Hooper-Greenhill ed., 1995) (commenting that interactivity gives visitors greater control and options for exploration, which translates into increased fun and learning).

102. Marco Mason, *Visitor Experience Design*, in MANUAL OF DIGITAL MUSEUM PLANNING 245, 255 (Ali Hossaini & Ngaire Blankenberg eds., 2017); see also EDWARD TUFTE, VISUAL EXPLANATIONS: IMAGES AND QUANTITIES, EVIDENCE AND NARRATIVE 48 (1997) (emphasizing that visual appeal and “good design” focus “absolute attention on data”).

103. DEAN, *supra* note 2, at 104; see *id.* at 7 (“When a person’s attention is captured, study occurs.”); see also Lea B. Vaughn, *Feeling at Home: Law, Cognitive Science, and Narrative*, 43 MCGEORGE L. REV. 999, 1003 (2012) (“Brain science suggests that the first task is to grab someone’s attention because better attention always equals better learning.”).

104. Cognitive schema theory focuses on the active construction of knowledge by creating structures around which information can be assimilated and stored in long-term memory. The schema should also represent the pathway by which material is retrieved from long-term memory (where the brain stores information) into working memory (where the brain uses information to complete a task). See Sharon J. Derry, *Cognitive Schema Theory in the Constructivist Debate*, 31 EDUC. PSYCH. 163, 167 (1996) (defining *schema* as a “general term connoting virtually any memory structure” and describing the interaction between long-term and working memory).

form coherent, lasting impressions.¹⁰⁵ Instead of a jumble of isolated artifacts and facts, exhibitions associate objects according to a pattern (for example, thematic or chronological) to promote both short-term understanding and long-term memory.¹⁰⁶ As cognitive psychologist Allan PAVIO and educational psychologist RICHARD MAYER explain, people possess dual information-processing channels—the auditory/verbal and the visual/pictorial.¹⁰⁷ These separate (but interacting) channels are both used to take in sensory inputs and to process them in working memory.¹⁰⁸ Working memory has a limited capacity; researchers believe that people can store roughly seven stimuli in the verbal function of working memory and roughly four stimuli in the visual function.¹⁰⁹ As an example, despite relying on different senses, reading a text and listening to a lecture constitute similar modes of learning because both tax the verbal function of working memory processes.¹¹⁰ So if information is presented in ways that invoke both channels, we can hold more information in working memory than we otherwise could if we merely targeted the auditory/verbal channel via words spoken and written.

What's more, cognitive science indicates that if information is coded redundantly—with both words and images—people are more likely to remember that information.¹¹¹ People learn better when information is presented visually as well as verbally because when both pictures and words are displayed, people can maximize their working memory capacity, constructing mental models of the information in both their visual and verbal channels and building connections between them.¹¹² The verbal and visual functions can work

105. DEAN, *supra* note 2, at 28; *see also* HANSEN, *supra* note 51, at 41 (“Words work better with supporting visuals and vice versa.”).

106. DEAN, *supra* note 2, at 28.

107. FEIGENSON & SPIESEL, *supra* note 9, at 77.

108. *See* MERRITT, *supra* note 78, at 47 (noting that the brain can expand working memory by drawing on its separate auditory and visual channels to “process information synergistically”).

109. BURGESS, *supra* note 81, at 29.

110. *Id.* at 46.

111. LEDWON, *supra* note 81, at 201; *see also* GALVES, *supra* note 69, at 218 (“Feeding complex information to the mind through imagery and sound is key because sight and hearing are most effective when used in tandem.”).

112. *See* JOHANSEN & ROBBINS, *supra* note 8, at 102 (“[V]isuals should work in tandem with the text. The visuals prime the reader, orienting her to the textual analysis and thus making that analysis clearer and more accessible.”); FRED GALVES, *Where the Not-So-Wild Things Are: Computers in the Courtroom, the Federal Rules of Evidence, and the Need for Institutional Reform and More Judicial Acceptance*, 13 HARV. J.L. & TECH. 161, 186 (2000) (citation omitted) (“This is true because verbal conversation is not the primary method by which human beings gather information—sight is.”); *see also* WILLIAM C. COSTOPOULOS, Commentary, *Persuasion in the Courtroom*, 10 DUQ. L. REV. 384, 406 (1972)

in concert, allowing students to better understand a concept and retain information longer.¹¹³ Indeed, psychologist Richard Mayer, whose research lies at the intersection of cognition, instruction, and technology, dubs this phenomenon “The Multimedia Principle.”¹¹⁴ Think back to elementary school show-and-tell presentations: even children learn that clear, effective, memorable communications should tap into both the visual and verbal channels of working memory.¹¹⁵

Integrating visuals, then, gives professors more avenues into a student’s brain. There’s a good reason people say “let’s sketch it out” or “picture this.”¹¹⁶ We remember images better than text, a phenomenon known as the “picture superiority effect.”¹¹⁷ And audiences perceive visuals as inherently more “truthy” than verbal media.¹¹⁸ Armed with this knowledge, professors can feature a meaningful visual alongside their verbal commentary to serve as a “chunking”¹¹⁹ technique, helping students process a large amount of information that otherwise would engulf their working memory.¹²⁰ It’s for this very reason that Professor Deborah J. Merritt recommends using PowerPoint slides because displaying graphics expands working memory and aids comprehension of complicated material, “advanc[ing] the cognitive science principles that are es-

(presenting study results finding that humans accomplish 85% of their learning through visual sight, while hearing and all other senses account for only 10% and 5%, respectively).

113. See Burgess, *supra* note 81, at 29 (citing studies that have shown better understanding when students need to focus on a visual to integrate it with verbal information).

114. SCHWABISH, *supra* note 84, at 57.

115. Galves, *supra* note 69, at 218.

116. See Jay A. Mitchell, *Whiteboard and Black-Letter: Visual Communication in Commercial Contracts*, 20 U. PA. J. BUS. L. 815, 822 (2018) (urging law schools to use visuals to supplement or explain text and promote understanding of complex contractual relationships).

117. Porter, *Taking Images Seriously*, *supra* note 5, at 1753.

118. See Michael D. Murray, *The Ethics of Visual Legal Rhetoric*, 13 LEGAL COMM’N & RHETORIC 107, 123 (2016) (remarking that audiences see images—photographs and videos, in particular—as persuading without overt appeals to rhetoric) [hereinafter Murray, *Ethics*].

119. “Chunking,” a term borrowed from cognitive psychology, refers to grouping complex information into categories or schemas so that individual pieces are more easily remembered. See Burgess, *supra* note 81, at 29.

120. Laura P. Graham, *Generation Z Goes to Law School: Teaching and Reaching Law Students in the Post-Millennial Generation*, 41 U. ARK. LITTLE ROCK L. REV. 29, 82 (2018); see also Rosa Kim, *Lightening the Cognitive Load: Maximizing Learning in the Legal Writing Classroom*, 21 PERSPECTIVES 101, 101 (2013) (commending multimedia teaching because research suggests that students process complex concepts more readily if they receive information both visually and aurally).

sential to good learning.”¹²¹ So introducing images or videos can both activate the visual component and alleviate students’ cognitive load while expanding the number of new legal concepts a student can concentrate on.¹²²

Beyond the in-class concern of enlarging students’ working memory to process information, teaching effectively requires professors to help boost their students’ long-term recollection—for exams, for the bar, for practice. Here, too, visualization fits the bill. People learn better, or encode information more easily, when they imagine it in an interactive, visual manner.¹²³ In fact, Greek rhetoricians have long used the technique called “walk through the house,” an example of the concept of *loci*.¹²⁴ One envisions a house or room and mentally explores its contents, relating details with each room.¹²⁵ This form of association allows a student to recollect visually the various components of their argument.¹²⁶ In a sense, strolling through a museum is the three-dimensional, real-life version of “walk[ing] through the house.”

Visuals possess “near instantaneous cognitive and communicative power”¹²⁷—generating a sense of immediacy and immersion,¹²⁸

121. Merritt, *supra* note 78, at 51.

122. Burgess, *supra* note 81, at 27.

123. See Glassman, *supra* note 89, at 26 (observing that since humans take in most information visually, instruction should capitalize on this method of learning).

124. *Loci* is an ability to remember based on location. According to myth, the Greek poet Simonides invented the technique (also called the memory palace, memory theater, or mind palace) to enhance his recall. See Sarah Zielinski, *The Secrets of Sherlock's Mind Palace*, SMITHSONIAN MAG. (Feb. 14, 2014), <https://bit.ly/3mjuO30> [<https://perma.cc/Q7BM-BRD7>] (chronicling the history of *loci* to commit vast swaths of text to memory, including its current popularity in international memory competitions); see also Scott Fraley, *A Primer on Essential Classical Rhetoric for Practicing Attorneys*, 14 LEGAL COMM'N & RHETORIC 99, 111 (2017) (suggesting that rhetorical practice grounded in classical techniques can enhance persuasion and reinforce information).

125. Fraley, *supra* note 124, at 111.

126. *Id.*

127. Michael D. Murray, *Visual Rhetoric: Topics of Invention and Arrangement and Tropes of Style*, 21 J. LEGAL WRITING INST. 185, 185 (2016); see also Porter, *Imagining Law*, *supra* note 9, at 9 (lauding visuals as an “efficient and effective” tool to teach law students because “[p]eople grasp images much more quickly than they grasp text”).

128. See Buccafusco, *supra* note 82, at 630 (referencing new media scholars Jay David Bolter and Richard Grusin’s concept of “transparent immediacy,” a style of visual representation where the goal is to make the viewer forget the presence of the medium itself).

speeding comprehension and retention.¹²⁹ Based on cognitive science, adding them to the law school classroom is a no-brainer.

B. The Customer Is Always Right: Audiences Expect and Enjoy Multimedia

As educational institutions, museums cannot exhibit in a vacuum; rather, they must attend and adapt to the ways visitors engage with and absorb content.¹³⁰ So, in fashioning an exhibition, curators need to understand their audience and then select the appropriate media and mode of communication.¹³¹

Depending on their goals, museums rely on, and mix, four didactic modes: contemplation, comprehension, discovery, and interaction.¹³² Most common in art museums, contemplation centers on the individual perception of specific works accompanied by open-ended graphics on the walls and audio guides to prompt reflection and provide greater depth.¹³³ Often found in archaeology and ethnographic museums, comprehension prizes relationships between objects in context; images join words on the wall to promote visitors' thematic understanding.¹³⁴ Discovery, generally used in natural history and science museums, allows visitors to explore objects at their own pace, consulting full catalogue entries on a computer screen or laminated card should they desire additional information.¹³⁵ Lastly, interaction, typically used in children's museums, offers visitors hands-on experiences by pushing a button to illuminate a map or lifting a panel to find the answer to a question.¹³⁶

Multimedia is the common thread. Including multimedia enables visitors to examine carefully, compare critically, proceed systematically, and participate directly.¹³⁷ In fact, multimedia can

129. Michael D. Murray, *The Sharpest Tool in the Toolbox*, 68 J. LEGAL EDUC. 64, 65 (2018) (citing Stephen M. Kosslyn, Thomas M. Ball & Brian J. Reiser, *Visual Images Preserve Metric Spatial Information: Evidence from Studies of Image Scanning*, 4 J. EXPERIMENTAL PSYCH. 47, 57–59 (1978)) [hereinafter Murray, *The Sharpest Tool*].

130. EXHIBITION PLAN, *supra* note 63, at 10; *see also* David Vuillaume, *What About the Need for New Media Technologies in Museums*, in THE MUSEUM IN THE DIGITAL AGE: NEW MEDIA AND NOVEL METHODS OF MEDIATION 65, 70 (Régine Bonnefoit & Melissa Rérat eds., 2017) (“[A curator] needs to consider the range of visitors’ possible information needs.”).

131. Kaplan, *supra* note 99, at 37.

132. Ahmad, Abbas, Taib & Masri, *supra* note 46, at 257–58.

133. *Id.* at 257.

134. *Id.* at 257–58.

135. *Id.* at 258.

136. *Id.*

137. *See* Howard Besser, *The Transformation of the Museum and the Way It’s Perceived*, in THE WIRED MUSEUM: EMERGING TECH. & CHANGING PARADIGMS

allow visitors to control the sequence, pace, and presentation of information,¹³⁸ personalizing the exhibition. Shari Tishman, Lecturer at the Harvard Graduate School of Education and a Senior Research Associate at Harvard's Project Zero, hails the "discretionary quality of experience . . . a signature feature of learning in museums."¹³⁹ And increasing the number of media in an exhibition translates into more ways to display—and receive—content, expanding its communicative reach.¹⁴⁰

Successful displays also call on visitors to be actively involved.¹⁴¹ As philosopher Karl Popper rhapsodized, "our minds are not buckets which become filled with sensory data as we passively acquire knowledge from the outside world, rather they are search lights seeking out meaning in the things we observe and experience."¹⁴² Interactive media's presence in the museum transforms learning from "a passive, read the book, or listen to the lecture approach, to a much more active, learner-paced and discovery-based

153, 166 (Katherine Jones-Garmil ed., 1997) (touting multimedia for giving visitors agency and adding a new dimension to otherwise static exhibitions).

138. MULTIMEDIA IN MUSEUMS, *supra* note 41; *see also* Silvia Filippini-Fantoni & Jonathan P. Bowen, *Mobile Multimedia: Reflections from Ten Years of Practice*, in DIGITAL TECHNOLOGIES AND THE MUSEUM EXPERIENCE: HANDHELD GUIDES AND OTHER MEDIA 79, 81 (Loïc Tallon & Kevin Walker eds., 2008) (collecting essays about how handheld technologies can create a more in-depth, varied experience for the viewer) [hereinafter DIGITAL TECHNOLOGIES]; FALK & DIERKING, *supra* note 11, at 119 (recognizing that the addition of media and technology into museums has created opportunities both for varying degrees of depth of information and options that facilitate individual flexibility and choice); Tishman, *supra* note 30 ("In museums, visitors are free to move about at their own pace and to set their own agendas.").

139. Tishman, *supra* note 30.

140. Vuillaume, *supra* note 130, at 70; *see also* Rosemary Flanders, *Early Museums and Nineteenth-Century Media*, in MUSEUM, MEDIA, MESSAGE 72, 74 (Eilean Hooper-Greenhill ed., 1995) (observing that technology, with its ability for customization and capacity to provide greater amounts of information, complements an exhibition's objects by enhancing their interpretive and educational potential); JEANETTE HAUCK BOOTH, GERALD H. KROCKOVER & PAULA R. WOODS, CREATIVE MUSEUM METHODS AND EDUCATIONAL TECHNIQUES 44 (1982) (reflecting that media devices "add a new dimension" to interpreting objects in museums by making it easier to explain a complicated premise).

141. *See* DEAN, *supra* note 2, at 118 ("Ask or tell the reader to do or look for something. People prefer to be involved."); Mihaly Csikszentmihalyi & Kim Hermanson, *Intrinsic Motivation in Museums: Why Does One Want to Learn?*, in PUBLIC INSTITUTIONS FOR PERSONAL LEARNING 67, 74 (1995) (citation omitted) ("Successful displays tend to be those that ask visitors to commit themselves to make guesses, to evaluate, to respond—and then provide information by which the visitors can compare their responses to some other standard.").

142. Koester, *supra* note 11, at 16.

educational experience.”¹⁴³ The visitor, in effect, becomes both performer and observer.¹⁴⁴

To best incorporate multimedia displays into the museum experience, they should be integrated seamlessly and organically, echoing how people use technology in their lives.¹⁴⁵ The pervasiveness of visual communication has changed our expectations about what information looks like and how quickly we should be able to get it.¹⁴⁶ Indeed, because people are so accustomed to the blitz of visual, aural, and written information bombarding them daily through television, print, and the internet, they anticipate—and accept—a multimedia, visual approach to presenting information.¹⁴⁷ Participants in museum association interviews confirm that visitors increasingly expect multimedia in every environment they encounter.¹⁴⁸

Law school is no different. While professors have always grappled with commanding the attention of distracted, multitasking students, they now must contend with the “digital” or “on demand” generation,¹⁴⁹ whose attention spans hover around 90 seconds.¹⁵⁰ Growing up plugged into technology in virtually all facets of their lives, today’s law students are comfortable with multimedia

143. *Id.* at 22.

144. OBRIST, *supra* note 46, at 17; *see also* FALK & DIERKING, *supra* note 11, at 123 (“[T]he greatest promise of digital technologies is not how they ‘deliver’ information but their capacity to place the visitor increasingly in control of his own visit experience.”).

145. Besides paying careful attention to creating a physically inviting space through lighting, color, placement of objects, and readability of text, curators also aim to acknowledge the diverse personal and sociocultural backgrounds and interests visitors bring. *See* Lisa Wright, *New Frontiers in the Visitor Experience*, in *MANUAL OF DIGITAL MUSEUM PLANNING* 109, 109 (Ali Hossaini & Ngairé Blankenberg eds., 2017); FALK & DIERKING, *supra* note 11, at 31.

146. FEIGENSON & SPIESEL, *supra* note 9, at 2; *see also* Donohoe, *supra* note 65, at 491 (dubbing current students the “instant information generation” given the immediate availability of on-demand television and the internet).

147. Koester, *supra* note 11, at 12.

148. *Id.*

149. While there is no universal definition, the literature generally agrees that the “Digital Generation” comprises students born after 1980. *See, e.g.*, John Sonsteng, Samuel Heacox, Hannah Holloran & Cara Moulton, *Teaching the Art of Effective Advocacy in the 21st Century: A Paradigm Shift*, 44 *MITCHELL HAMLINE L. REV.* 163, 174–76 (2018) (characterizing the “digital” or “on demand” generation as those born after 1980); Graham, *supra* note 120, at 37, 49 (citation omitted) (classifying members of Gen Z as students born between 1995 and 2010, the first to enter adolescence with access to smartphones); Newell, *supra* note 6, at 795 (declaring that a hallmark of the Digital Generation is having incorporated various media into class projects and presentations since grade school).

150. Huck, *supra* note 81; *see also* Graham, *supra* note 120, at 52 (citing research suggesting that attention spans are even shorter—roughly eight seconds).

presentations.¹⁵¹ But beyond familiarity, these students want their professors to understand their backgrounds and learning ethos.¹⁵²

To this cohort acculturated to multimedia displays, “images are the vernacular of modern communication.”¹⁵³ Indeed, students who express a visual learning preference¹⁵⁴ are a growing percentage of the student population.¹⁵⁵ So instead of business as usual, professors should adjust by delivering information that resonates with our technologically and visually fluent students.

Akin to the evolution of the museum from purely educational enterprise to place of enjoyment, education is linked to entertainment for today's students. “They experienced education from the vantage point of a consumer and [feel] entitled to an educational experience that [speaks] to them in accessible, even entertaining ways.”¹⁵⁶ But more than pure amusement, students benefit from a

151. See Moppett, *supra* note 65, at 99–100 (observing that twenty-first century students “grow[] up digital”); Kari Mercer Dalton, *Bridging the Digital Divide and Guiding the Millennial Generation's Research and Analysis*, 18 BARRY L. REV. 167, 168–69 (2012) (remarking that current students have an “aptitude for technology because it is a natural language for them.”).

152. See Galves, *supra* note 69, at 202 (“Modern students will expect their educators to understand the environment from which the students come.”).

153. Porter, *Taking Images Seriously*, *supra* note 5, at 1693; see also FEIGENSON & SPIESEL, *supra* note 9, at 2 (“Digital visuals have become a kind of vernacular which everyone can understand.”).

154. Students often come to law school believing they have a particular “learning style” keyed to the VARK sensory modalities for learning. See NEIL FLEMING & CHARLES BONWELL, *HOW DO I LEARN BEST? A STUDENT'S GUIDE TO IMPROVED LEARNING 1–2* (2019) (administering a questionnaire to determine whether a student's learning style is visual, aural, read/write, or kinesthetic). In fact, 90 percent of a group surveyed in 2017 by the Center for American Progress believed in learning styles. Greg Toppo, “‘Neuromyth’ or Helpful Model?” *INSIDE HIGHER ED* (Jan. 9, 2019), <https://bit.ly/3GwmjH9> [<https://perma.cc/4HBC-6P43>]. But within the cognitive psychology community, the notion of students having specific learning styles is an example of a “neuromythology”—an enduring idea despite little evidence supporting it. *Id.* Instead, we—and our students—should more properly characterize these inclinations as “expressed learning preferences.” See Olga Khazan, *The Myth of “Learning Styles,”* *ATL* (Apr. 11, 2018), <https://bit.ly/2WAq5wT> [<https://perma.cc/3DA8-UQEQ>] (debunking the theory of learning styles and instead calling them “preferences”). And, consistent with the recommendations made throughout this Article, learning luminary Howard Gardner, the Harvard Graduate School of Education professor who popularized the idea of multiple intelligences in the 1980s, encourages educators to individualize instruction as much as possible and present important materials in several ways. Toppo, *supra*.

155. See Glassman, *supra* note 89, at 27 (using paintings to better engage visually oriented learners and impart legal writing lessons such as the importance of structure, craftsmanship, and simplicity); see also Newell, *supra* note 6, at 823 (noting that today's law students are accustomed to getting information quickly and prefer that information to come in the form of graphics instead of text).

156. Dalton, *supra* note 151, at 175.

pleasurable approach to the material. By simulating the entertaining, educational methods in students' daily lives and pre-law studies, less class time can be spent on information transfer.¹⁵⁷ There's also a sense of camaraderie. When pictures and words are projected onto a single screen for the whole class to see, the students share a common visual focus, participating in the visual activity much as they might take in a movie.¹⁵⁸

Interactive multimedia presentations also appeal to current students because they give them agency. Just as multimedia in the museum setting affords visitors control over their experience, offering a menu of multimedia options for students to choose from allows them to customize “what, when, and how they learn.”¹⁵⁹ “Research demonstrates that when people have some degree of personal agency—some range of choice about the shape and direction of their own learning activities—learning tends to be more meaningful and robust.”¹⁶⁰ Besides putting students in charge of their own learning, posting a podcast,¹⁶¹ videos, or other images,

157. See Galves, *supra* note 69, at 198 (praising a pedagogical approach that combines visual and verbal communication to promote transfer and free up time to teach students how to better conduct a legal analysis); see also Burgess, *supra* note 81, at 4–5 (“[B]y incorporating visual aids . . . law professors can cover more topics at a deeper level such that law students can better retain their learning and transfer their learning to novel situations.”); Merritt, *supra* note 78, at 46 (citation omitted) (illustrating a legal concept with jokes, anecdotes, videos, and images can improve learning when directly related to the point being taught).

158. FEIGENSON & SPIESEL, *supra* note 9, at 79.

159. Donohoe, *supra* note 65, at 488–89; Tishman, *supra* note 30.

160. Tishman, *supra* note 30.

161. The term “podcast,” a portmanteau of “iPod” and “broadcast,” refers to a digital media file that can be listened on a portable media player, computer, or tablet. Podcasts have now become the mechanism of choice for distributing audio content and commentary. See Kathleen Elliott Vinson, *What's on Your Playlist? The Power of Podcasts as a Pedagogical Tool*, 2009 U. ILL. J.L. TECH. & POL'Y 405, 409, 413 (2009) (commending podcasts as promoting student-centered learning by allowing students to listen when they are ready to learn, as many times as needed, and at their own pace); see also Carrie Ryan, *Why Are Podcasts Gaining in Popularity?*, FORBES (Oct. 12, 2018, 1:53 PM), <https://bit.ly/3A79df4> [<https://perma.cc/6TX3-ZYD7>] (remarking that the format of podcasts allows a “deeper dive” into many subjects in a “very accessible medium”); Marcia L. McCormick, *From Podcasts to Treasure Hunts—Using Technology to Promote Student Engagement*, 58 ST. LOUIS U. L.J. 127, 134 (2013) (observing that the “beauty of an audio podcast” is that students can listen to them at their leisure, such as while exercising or commuting, to reinforce learning); James B. Levy, *Escape to Alcatraz: What Self-Guided Museum Tours Can Show Us About Teaching Legal Research*, 44 N.Y.L. SCH. L. REV. 387, 400, 428 (2001) (suggesting using a pre-recorded, self-guided audio tour inspired by a visit to Alcatraz to inject excitement into legal research instruction and allow students to familiarize themselves with the law library at their own pace).

where students encounter and review material on their own terms, fosters reflection and encourages deeper learning.¹⁶²

Beyond traditional classroom applications, multimedia helps maximize learning in the remote environment. With the greater struggle to forge connections online, using audio files, videos, and images can elicit emotional responses from students, leading to greater retention of and engagement with the material.¹⁶³ In fact, as Professor Katherine Franke attests, she relies on multimedia to “break up the ‘heads in boxes,’” resulting in more dynamic discussion.¹⁶⁴ Projected visuals also “stem the erosion of interest that occurs when students are fixed to one spot for [50] minutes or more.”¹⁶⁵ And especially in the Zoomverse, multimedia displays shift students’ focus away from the professor by relegating them to a postage stamp on the screen, making them a true “guide on the side” instead of the all-knowing “sage on the stage.”

All in all, students crave visually oriented, multimedia presentations to create a more exciting, entertaining, enriching experience. Fortunately, “[l]aw school classrooms, and law school students, are stuffed with multimedia potential. We can and should unlock it.”¹⁶⁶

162. See, e.g., Zahr K. Said & Jessica Silbey, *Narrative Topoi in the Digital Age*, 68 J. LEGAL EDUC. 103, 105 (2018) (“[T]he ability for audiences to control consumption and engage for hours, if not days, with the story and characters is an intensely immersive and private experience.”); FEIGENSON & SPIESEL, *supra* note 9, at 84 (noting that, in the trial context, using diagrams or reviewing photographs “allows the audience to proceed through the explanation at its own pace, even to go back and examine an earlier step more closely”).

163. See Renée Nicole Allen, Jennifer Baum, Catherine Baylin Duryea, Robert Ruescher, Courtney Selby, Eric Shannon, Jeff Sovern & Rachel Smith, *Recommendations for Online Teaching* 6, 15, 22 (St. John’s Sch. L. Legal Stud., Working Paper No. 20-0012, 2020) (recommending the use of visuals, videos, and audio files to engage students in large-format, legal writing, and upper-level classes); see also Porter & Watts, *supra* note 73, at 1190 (endorsing visuals because they “instantly and memorably convey emotion, from pathos to humor.”).

164. *Socratic Zooming: Faculty Weigh in on Teaching Remotely*, COLUM. L. SCH. (Apr. 27, 2020), <https://bit.ly/3offp2h> [<https://perma.cc/X8FJ-5TRF>]; see also Allen, Baum, Duryea, Ruescher, Selby, Shannon, Sovern & Smith, *supra* note 163, at 6 (“Giving students something to look at besides a talking head may help.”).

165. Craig T. Smith, *Synergy and Synthesis: Teaming “Socratic Method” with Computers and Data Projectors to Teach Synthesis to Beginning Law Students*, 7 J. LEGAL WRITING INST. 113, 124 (2001) (citation omitted); see also Allen, Baum, Duryea, Ruescher, Selby, Shannon, Sovern & Smith, *supra* note 163, at 8 (advising professors to toggle between different visual tools or activities to maintain engagement, particularly in the remote world where professors lack sensory clues for when students’ attention is drifting).

166. Porter, *Imagining Law*, *supra* note 9, at 14.

C. *One Size Does Not Fit All: Accessibility Promotes Inclusivity*

While every museum cannot be all things to all people, museums, consistent with their missions, must ensure that they are accessible to include everyone.¹⁶⁷ The “key is variety—people learn in different ways and come with different levels of knowledge and diverse backgrounds.”¹⁶⁸ Indeed, the goal of technology and multimedia is to give more points of access to appeal to—and involve—the general population.¹⁶⁹ So to accomplish this worthy objective, museums “enable meaning making via diverse communication tools.”¹⁷⁰

A multimedia strategy also accounts for cultural differences and preferences for learning. As an example, according to Leslie Bedford, former director of the acclaimed Bank Street College museum leadership program, Western cultures are “ocular-centric,” prizing sight and the visual, while Arab cultures tend to be audio-centric, sharing knowledge through oral story traditions.¹⁷¹ Information can be presented through images, text, video, audio guide, or a combination of means, giving viewers a choice that best suits their cultural predilections and educational needs.¹⁷² Multimedia is the great equalizer.

In the law school arena, using multimedia can empower a wider assortment of stakeholders and activate more platforms to engage all voices, not merely those few privileged students who are well-equipped to traverse the logocentric terrain of law. Given our image-saturated world, adding visuals “feels natural—easy, straightforward, accessible.”¹⁷³ But just including visuals is not

167. EXCELLENCE AND EQUITY, *supra* note 11, at 10.

168. EXHIBITION PLAN, *supra* note 63, at 9.

169. See Steve Lohr, *Museums Morph Digitally*, N.Y. TIMES (Oct. 23, 2014), <https://nyti.ms/3A67XIY> [<https://perma.cc/9R63-RQEY>] (chronicling museums’ efforts to incorporate and take advantage of technology).

170. Ngaire Blankenberg, *Museum Learning in the Digital Age*, in MANUAL OF DIGITAL MUSEUM PLANNING 77, 81 (Ali Hossaini & Ngaire Blankenberg, eds., 2017); see also BEDFORD, *supra* note 4, at 12 (“[T]he existence of explicit strategies [] can help visitors inhabit a foreign culture.”); EXHIBITION PLAN, *supra* note 63, at 9 (prescribing a variety of presentation formats—text, visual, audio, tactile—to accommodate a broad range of learning styles and “engage as many senses as possible”).

171. BEDFORD, *supra* note 4, at 112; see also *id.* at 29 (“[A] constructivist approach to teaching, including through the medium of exhibitions, requires employing different strategies for different learners . . .”).

172. Koester, *supra* note 11, at 62.

173. Porter, *Imagining Law*, *supra* note 9, at 11; see also Johansen & Robbins, *supra* note 8, at 60 (“Research in neuroscience reveals what we already knew intuitively: visual or graphic representations resonate with readers.”); Porter, *Taking Images Seriously*, *supra* note 5, at 1694 (“Images are efficient, accessible, and mem-

enough. Rather, to fulfill our pedagogical goal of making legally complex concepts more approachable, we should use a potpourri of teaching practices, which is “the most effective way to enhance law-school learning.”¹⁷⁴ By presenting information in a range of formats to reach a broader audience, we acknowledge—and can energize—our heterogeneous student population.

Besides varying teaching delivery methods to cater to different students' expressed learning preferences, a more pressing reason to embrace multimedia presentations is to avoid alienating students with learning disabilities.¹⁷⁵ While not mandated by the Americans with Disabilities Act,¹⁷⁶ many professors' lack of adaptation to the disparate needs of incoming law students may thwart a student's learning potential, resulting in a disadvantage.¹⁷⁷

But these changes are about more than just accommodating students with disabilities; it's about supporting diversity and ensuring access for all.¹⁷⁸ Indeed, this concept, known as “universal de-

orable, . . . They also engage readers, particularly [21st] century readers, to whom legal writing is a vast black-and-white desert.”).

174. Garretson, Krause-Phelan, Siegel & Thelen, *supra* note 66, at 65 (recommending introducing exercises based on songs, videos, PowerPoint slides, and images to invigorate students and inject variety into the classroom); *see also* Bradford, *supra* note 85, at 13 (warning that students who find traditional law school teaching methods “unsatisfactory” not only learn less but may suffer motivational problems more than peers).

175. *See* LaToya Jones Burrell, *So What's Next? Life After the Americans with Disabilities Amendment Act of 2008 for the Learning Disabled Law Student*, 41 S.U. L. REV. 59, 81–82 (2013) (encouraging law professors to incorporate different teaching mechanisms into their course pedagogy so as not to create barriers for learning disabled students); M.H. Sam Jacobson, *Learning Styles and Lawyering: Using Learning Theory to Organize Thinking and Writing*, 2 J. ASS'N LEGAL WRITING DIRECTORS 27, 71 (2004) (“The most significant gain . . . from incorporating all modes of absorbing information into one's teaching . . . is that no learner is excluded . . .”).

176. 42 U.S.C. § 12101, *et seq.*

177. Burrell, *supra* note 175, at 81.

178. Paul Harpur & Michael Ashley Stein, *Universities as Disability Rights Change Agents*, 10 NE. U. L. REV. 542, 554 (2018). While accessibility, universal design, and differentiated instruction are related, often overlapping concepts, they are not identical, interchangeable terms. Accessibility requires that systems be developed or augmented so that a person with a disability is “afforded the same opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use.” *Resolution Agreement*, U.S. DEP'T OF EDUC.: OFF. FOR CIV. RTS. (Feb. 28, 2013), <https://bit.ly/3ouMca8> [<https://perma.cc/PL54-AXGW>]. In the teaching context, universal design means creating flexible instructional materials to reduce learning barriers from the outset by including alternatives to minister not only to students with disabilities, but those with different abilities and capabilities. Differentiated instruction is a pedagogical approach that modifies content and processes to address each student's varying needs, readiness, and interest. But despite these distinctions, all

sign,” is premised on the idea that environments (virtual or physical) can be conceived from the outset to suit all comers so that any impairments are no longer impediments.¹⁷⁹ Content should be presented in different ways so that it can be read aloud, enlarged, or adjusted to meet the needs and preferences of different users.¹⁸⁰ For example, while subtitles on videos accommodate hearing-impaired students, they also can help students with no hearing difficulties view content in a noisy location or without disturbing those around them.¹⁸¹ Good design and good processes not only enhance effectiveness by improving accessibility but also “strengthen . . . the legal system as a whole”¹⁸² by sending the message that we are committed to everyone understanding the content of our communications. We should strive to remove the barriers to entry long associated with hidebound, text-based law. A multimedia approach can begin to make the walls come tumbling down.

IV. FROM THE MUSEUM TO THE CLASSROOM: FIVE SPECIFIC STRATEGIES FOR CURATING EFFECTIVE LEARNING EXPERIENCES

Having commended the educational benefits of taking the multimedia, visually oriented tack championed—and exemplified—by museums, this Article now offers five high-impact, low-friction ways to improve the law school classroom through layered modalities, advance organizers, storytelling, labels, and color.

A. *Layering Modalities*

The surest way to make a law school course more rewarding is to express information in different formats to both reach and ap-

share a common goal: helping students learn and achieve the most they can by calibrating instruction instead of forcing students to fit into the mold of a single, rigid curriculum. See Areej Alsalamah, *Differences Between Differentiated Instruction and Universal Design for Learning*, 6 INT’L J. FOR RSCH. EDUC. 8, 10 (2017).

179. See Susan David deMaine, *From Disability to Usability in Online Instruction*, 106 LAW LIBR. J. 531, 546 (2014) (considering accessibility in the online world and applying the principles of universal design).

180. *Accessibility Principles*, W3C WEB ACCESSIBILITY INITIATIVE, <https://bit.ly/3otNfk5> [<https://perma.cc/8XX3-8H75>] (May 10, 2019) (advising pairing text with images, videos, and audio files and describing data represented on charts, diagrams, and illustrations to ensure an equivalent user experience).

181. See deMaine, *supra* note 179, at 546 (noting that settings guided by universal-design tenets ensure that environments are “so usable that everyone benefits”).

182. Berger-Walliser, Barton & Haapio, *supra* note 7, at 352 (adhering to the precepts of design thinking to create “user-centered” documents and examining the use of images in business documents and in statutes, rather than in advocacy).

peal to more students.¹⁸³ Giving the audience at least two options for understanding a presentation helps hammer home the message.¹⁸⁴ Recognizing that we generally remember 25 percent of what we see, 40 percent of what we see and hear, and 75 percent of what we see, hear, and do, the benefits of interactive, multisensory presentations are apparent.¹⁸⁵ Multimedia communication reinforces the message, leading to more extensive learning experiences and a deeper level of understanding and critical thinking.¹⁸⁶ So, just as museums do, we should activate all the senses to communicate meaningfully with our students.¹⁸⁷

Everyone learns better when material is absorbed in more than one modality and provided multiple times because when stronger pathways to the information are created, the more efficient the recall.¹⁸⁸ As famed data visualization expert Edward Tufte counsels: “Magicians rarely perform the same trick twice in front of the same audience because they are aware that repetition helps people learn, remember, and understand. Unlike magicians, you should give your

183. See generally *supra* Part III; see also Berger-Walliser, Barton & Haapio, *supra* note 7, at 374 (“Layering responds to differing needs of different users It also can express information in different formats—for example, graphic images, words, [sounds, and shapes]—that appeal to different learning styles, or that accommodate users with disabilities.”).

184. TUFTE, *supra* note 102, at 69; see also Lisa T. McElroy & Christine N. Coughlin, *The Other Side of the Story: Using Graphic Organizers to Counter the Counter-Analysis Quandary*, 39 BALT. L. REV. 227, 239 (2010) (recommending the use of several different teaching methods to reach students with different strengths on a deeper level); Donohoe, *supra* note 65, at 504 (“Students can pick and choose strategies that speak to them; if they do not understand the video content, [they can read about it.]”).

185. Koester, *supra* note 11, at 23; see also Blankenberg, *supra* note 170, at 89 (extolling the virtues of interactive, multimedia exhibitions because they support embodied learning, using the human body in the cognitive process, resulting in longer-lasting memory and better knowledge retention); Tishman, *supra* note 30 (noting that research shows active learning promotes deeper engagement and retention of knowledge); Anne Fahy, *New Technologies for Museum Communication*, in MUSEUM, MEDIA, MESSAGE 82, 89 (Eilean Hooper-Greenhill ed., 1995) (“Interactive devices enhance experience to promote deeper learning.”).

186. See DIGITAL TECHNOLOGIES, *supra* note 138, at 82 (citing a study finding that incorporating multimedia helps viewers retain about three times as much information than relying on just one channel or mode); see also Koester, *supra* note 11, at 22 (confirming that “multimedia provides the opportunity to absorb information through a number of media, where each stimulus can fortify the same message”).

187. See BOOTH, KROCKOVER & WOODS, *supra* note 140, at 108 (suggesting that museums “broaden the sensory palate” to engage with visitors); see also DEAN, *supra* note 2, at 134 (“The combination of graphic representation, verbal information, and interactive response stimulates participation and generates interest.”).

188. Burgess, *supra* note 81, at 38; Jacobson, *supra* note 175, at 37.

audience a second chance Repeated variations on the same theme will often clarify and develop an idea.”¹⁸⁹ It should come as no surprise, then, that several studies showed an 89 percent improvement in learning when pictures were paired with text compared with text alone.¹⁹⁰ Another study even found a whopping 98 percent of students increased their learning by marrying text and visuals instead of relying purely on words.¹⁹¹ It’s no wonder many successful students’ study outlines assume a multimedia stance, replete with colorful graphics and flowcharts to complement textual explanations.

But some restraint is warranted. We need to exercise moderation; the classroom should not become a multimedia free-for-all. Otherwise, in attempting to make our classrooms more media rich, we run the risk of undermining our own efforts by having each element vie with others for the students’ attention.¹⁹² “More is not always better: [students] can get overwhelmed by content heavy media.”¹⁹³ Rather, visual aids should be deployed with the same care and precision as words to convey a sense of credibility.¹⁹⁴

Multimedia should be used purposefully and pointedly so that it does not inadvertently detract from the quality of the presentation or overwhelm the audience. Professors should assess the gestalt of their class plan to integrate apt visuals at appropriate points to assist students in understanding the content.¹⁹⁵ Multimedia that does not support the students’ “perception, reception, and cognition of the message” is gratuitous at best, distracting at worst.¹⁹⁶ Visuals should complement, not duplicate, the verbal component of

189. TUFTE, *supra* note 102, at 68.

190. SCHWABISH, *supra* note 84, at 57.

191. Burgess, *supra* note 81, at 47 (citation omitted).

192. See FALK & DIERKING, *supra* note 11, at 128 (warning that while incorporating new media provides greater levels of choice, it also poses a greater challenge by “creating even more noise in an already noisy environment”).

193. Mason, *supra* note 102, at 255.

194. Rosman, *supra* note 84, at 80; see also FALK & DIERKING, *supra* note 11, at 272 (reminding that multimedia is not a “panacea and is effective only when its use is well thought out and the integrity of the content is maintained”).

195. See Sherwin, Feigenson & Spiesel, *supra* note 10, at 235 (advising advocates to think through their theories of the case to deploy visuals at the right spots during their presentations).

196. Murray, *The Sharpest Tool*, *supra* note 129, at 67; see also DIGITAL TECHNOLOGIES, *supra* note 138, at 88–89 (noting that, in the museum context, the main concerns with multimedia are cognitive load impeding comprehension and the “lure of the screen” distracting from the core content, the objects).

a class because a visual that merely repeats the text or lecture increases cognitive load with redundant information.¹⁹⁷

Visuals should make a point “more concrete, coherent, comprehensible, or memorable” than reading the text or listening to the class discussion alone would be for the student.¹⁹⁸ As Abstract Expressionist painter Ab Reinhardt quipped, “As for a picture, if it isn’t worth a thousand words, the hell with it.”¹⁹⁹ Whiz-bang graphics that do not serve a legitimate pedagogical purpose by relating to the theme of the class or a specific topic being taught belong in auxiliary material or should be cut completely.²⁰⁰

So, while this Article sings the praises of a multimedia approach relying heavily on visuals, include only those elements that help the audience follow, understand, and recall the core pedagogical message.²⁰¹ Because, at bottom, multimedia does not fundamentally alter education; it just improves the professor’s ability to accomplish a particular objective and enriches the students’ experience.

B. *Advance Organizers*

Another strategy to borrow from the museum playbook is to create a conceptual framework through advance organizers—using text, graphics, video, or audio at the beginning of a class or new unit of study. This pedagogical practice makes the structure of a lesson explicit, with the goal of relating what we already know to the new content being presented.²⁰² Much like a good movie trailer, an ad-

197. Burgess, *supra* note 81, at 54–55; *see also* Johansen & Robbins, *supra* note 8, at 91 (“[I]mages are at their best when they supplement a text, to distill or reinforce legal analysis.”).

198. Burgess, *supra* note 81, at 54; *see also* CLOUGH, *supra* note 47, at 137 (“Digital technology should first and foremost enhance and reinforce the in-person [] experience.”).

199. TUFTE, *supra* note 102, at 119.

200. *See, e.g.*, HANSEN, *supra* note 51, at 50 (instructing that any idea that does not directly relate to the “big idea” be placed in supplemental material); Galves, *supra* note 69, at 247 (suggesting that professors ask whether everything displayed “will help make individuals better students and better future lawyers” and, if not, relegate that information to assigned reading or omit it altogether); TUFTE, *supra* note 102, at 49 (“[I]nformation displays should serve the analytic purposes at hand.”).

201. *See* NANCY DUARTE, *RESONATE: PRESENT VISUAL STORIES THAT TRANSFORM AUDIENCES* 179 (2010) (providing guidance on how to give more dynamic presentations); *see also* Smith, *supra* note 165, at 123 (counseling that carefully selected images can provide a visual focus and context for Socratic questioning, allowing students to follow the dialogue more easily).

202. *See generally* David Ausubel, *The Use of Advance Organizers in the Learning and Retention of Meaningful Verbal Material*, 51 J. EDUC. PSYCH. 267–72

vance organizer previews what's to come and interests the audience in seeing more.

Advance organizers like an overview sign or introductory panel at the entrance of an exhibition erect an intellectual structure. Because a conceptual framework facilitates information integration, a good exhibition situates visitors by informing them what they are going to see and what the exhibition's intention is.²⁰³ When visitors are more comfortable with an exhibition's organization, they are better equipped to engage with it, and therefore, better able to learn.²⁰⁴

Besides providing organizational cues, advance organizers present and associate objects to form a larger picture.²⁰⁵ Broader-level themes help visitors conceptualize related material by unifying a group of objects.²⁰⁶ Indeed, the "task of curating is to make junctions,"²⁰⁷ drawing logical connections to help visitors better understand the objects and transcend their individual, specific characteristics.²⁰⁸

In the classroom setting, advance organizers prime students' learning by tying what they already know to what they're about to learn. By bridging students' prior knowledge with the new information being presented, advance organizers provide contextual and organizational support;²⁰⁹ they "become the Velcro on which the new material can stick."²¹⁰ Primary and secondary school teachers

(1960) (advancing a theory that, to learn meaningfully, students need to be able to relate new knowledge to old information).

203. See *supra* Part III(A); see also 12 John H. Falk & Martin Storksdiack, *Learning Science from Museums*, 12 HISTÓRIA, CIÊNCIAS, SAÚDE—MANGUINHOS 117, 124–25 (2005) (commenting that since visitors "assume that the designers of the museum were trying to communicate something to them[,] they appreciate knowing 'what is expected of them'" so that they can more easily "construct meaning").

204. HEIN, *supra* note 12, at 139; see also MULTIMEDIA IN MUSEUMS, *supra* note 41 (finding that providing a "clear conceptual frame of reference" improves visitors' capacity to enjoy and understand the exhibition).

205. DIGITAL TECHNOLOGIES, *supra* note 138, at 102; see also DZIEKAN, *supra* note 56, at 100 (remarking that the spatial arrangement of objects "propel[s] the curatorial narrative forward").

206. DEAN, *supra* note 2, at 111.

207. OBRIST, *supra* note 46, at 1.

208. See FALK & DIERKING, *supra* note 11, at 120 (recognizing the importance of placing objects in their appropriate historical or cultural context to enhance visitor understanding).

209. See Jacobson, *supra* note 175, at 47 (observing that, for adult learners, experiences need to be placed in context and connected with prior experiences).

210. *Id.* at 49.

have long used advance organizers and visual mnemonic devices as multisensory techniques to improve recall.²¹¹

Advance organizers also can help orient students by serving as a roadmap.²¹² The audience should know beforehand what you're going to cover so that they have a frame of reference and know what to expect.²¹³ As legal typographer Matthew Butterick reminds, "You may know your argument inside out, but no one else does."²¹⁴ Bad headings aren't signposts—they're roadblocks. In fact, my own students are quite familiar with my mantra, "context before details," a well-worn refrain I invoke both to organize my own class materials and remind them to provide a framework for their audience before supplying specifics. Breaking syllabi into discrete modules, plotting a course's progression visually, including a roadmap slide in a presentation, or jotting down an agenda on the blackboard can guide students through the day's learning.

Lastly, advance organizers can elucidate a complex mass of material. In particular, graphic organizers, where symbols illustrate the relationships between concepts, allow students to visualize how seemingly disparate facts or ideas are connected.²¹⁵ Indeed, visualization studies show that the "most reliable methods" for improving students' grasp of complicated legal concepts are "adjunct aids" like advance organizers.²¹⁶ They allow students to "develop a holistic understanding that words cannot convey . . . clarify[ing] concepts into a simple meaningful display . . . promot[ing] recall and retention of learning through synthesis and analysis."²¹⁷ By diagramming these linkages, students can then develop alternative structures for

211. William Wesley Patton, *Opening Students' Eyes: Visual Learning Theory in the Socratic Classroom*, 15 LAW & PSYCH. REV. 1, 4 (1991).

212. See Rory D. Cosgrove, *Effect of Digital Technology on Reading and Writing Appellate Briefs*, CARNEY BADLEY SPELLMAN (Feb. 16, 2018), <https://bit.ly/3lmXEMr> [<https://perma.cc/XSE6-9JB7>] (advocating using headings and sub-headings in briefs to remind the reader of their place in a document).

213. See TUFTE, *supra* note 102, at 68 (suggesting that presenters should tell the audience at the beginning what the problem is, why it's important, and what the solution is); see also SCHWABISH, *supra* note 84, at 136 ("The more prepared your audience is for how you are going to deliver your message, the better they will follow along.").

214. MATTHEW BUTTERICK, *TYPOGRAPHY FOR LAWYERS: ESSENTIAL TOOLS FOR POLISHED AND PERSUASIVE DOCUMENTS* 90–91 (2d ed. 2015).

215. See Burgess, *supra* note 81, at 32, 44 (recommending graphic organizers to scaffold students' learning by relating new information to the whole topic through "graphical overviews or explicit visual connections"); see also Mitchell, *supra* note 116, at 824 (calling for the use of visuals in contracts because lawyers are tasked with describing complex commercial relationships and busy businesspeople are tasked with comprehending them).

216. Berger-Walliser, Barton & Haapio, *supra* note 7, at 373.

217. *Id.*

identifying—and understanding—how the units of a course fit into the doctrine as a whole.²¹⁸

C. *Storytelling*

Weaving stories into the law school classroom is another museum-proven approach.²¹⁹ More than just places that safeguard and interpret objects, museums are places that collate and share human experiences. Indeed, “[e]xhibitions are about storytelling.”²²⁰ The value of the curator, then, lies in “how well the stories can be told.”²²¹ Multimedia helps the cause.

As with advance organizers, a narrative provides a thematic, cohesive way of organizing information.²²² Research shows that information received in story form is more easily absorbed and recollected;²²³ “stories will stick with people.”²²⁴ In fact, we’re “hard-wired to listen to and process stories.”²²⁵ Because stories create anticipation and can trigger emotions, they increase the audience’s attention, making it easier for them to relate to you and remember your content.²²⁶

218. See, e.g., McElroy & Coughlin, *supra* note 184, at 239 (citation omitted) (praising graphic organizers because they allow students to “visualize relationships, steps, or chronology by showing the spatial relationship between the ideas”); Benjamin V. Madison, III, *The Elephant in Law School Classrooms: Overuse of the Socratic Method as an Obstacle to Teaching Modern Law Students*, 85 U. DET. MERCY L. REV. 293, 312 (2008) (stressing the importance of using organizational structures to help students assess how material fits into the greater context of a course to enhance macro-understanding).

219. See, e.g., RUTH ANNE ROBBINS, STEVE JOHANSEN & KEN CHESTEK, *YOUR CLIENT’S STORY: PERSUASIVE LEGAL WRITING 3* (2d ed. 2019) (teaching law students that stories are effective means for communicating and advocating on behalf of clients). This Article acknowledges the deep contributions to the topic of storytelling from legal, psychological, and neurobiological circles and does not attempt to swim in the applied legal storytelling sea.

220. Wright, *supra* note 145, at 109; see also DZIEKAN, *supra* note 56, at 96 (characterizing exhibitions as “unfolding narrative[s]”).

221. DZIEKAN, *supra* note 56, at 53 (citation omitted).

222. See Kaplan, *supra* note 99, at 37 (encouraging using a storyline for context and as a means of storing information in an organized manner); see also BEDFORD, *supra* note 4, at 58 (“Because narrative provides a sense of causation, it also contributes to a feeling of order in an essentially chaotic universe.”).

223. BEDFORD, *supra* note 4, at 60, 62, 64.

224. SCHWABISH, *supra* note 84, at 22.

225. Michael D. Murray, *Mise en Scène and the Decisive Moment of Visual Legal Rhetoric*, 68 KAN. L. REV. 241, 257 (2019); see also Murray, *Ethics*, *supra* note 118, at 126 (commenting that people receive, process, and make sense of information better when it is delivered in the form of a story).

226. SCHWABISH, *supra* note 84, at 22; see also BEDFORD, *supra* note 4, at 13 (“[S]torytelling [is an] obvious way to engage people in the kind of internal conversation that . . . ha[s] to occur for an exhibit to even begin to matter to the visitor.”); GRAHAM BLACK, *TRANSFORMING MUSEUMS IN THE TWENTY-FIRST CENTURY* 91

Stories are opportunities to create empathy, helping us imagine what someone else thinks or feels. Not surprisingly, the most memorable exhibitions are those that strike a human chord, resonating with what we believe and feel to be true.²²⁷ For example, at “Remember the Children: Daniel’s Story,” the primary exhibition geared to children and families at the United States Holocaust Memorial Museum in Washington, D.C., visitors experience how the Holocaust unfolded in Nazi Germany from Daniel’s perspective.²²⁸ Visitors read diary entries, listen to radio announcements, see photographs from the family album, and touch Daniel’s teddy bear.²²⁹ Through this multimedia, multisensory display, visitors are immersed in Daniel’s world and can better grasp the atrocities of the Holocaust.

The law is filled with stories—the litigants’, the framers’, Congress’s, judges’, our own as professors, to name a few. While the emphasis is (rightly) on teaching students how to extract rules from individual cases and synthesize them to form an understanding of the legal landscape, we should take care not to gloss over the human side of the law. As seasoned attorneys know, legal analysis is much more about evaluating how law applies in different factual scenarios and then tying those stories to the client’s situation.²³⁰ Also, the stories illustrated by the facts of each case²³¹ or the history of how the legislature passed a statute not only captivate students but are powerful interpretive tools, allowing students to

(2012) (recommending a story or “content hook” to resonate with visitors’ experiences to ensure they are engaged and interested in the exhibition).

227. BEDFORD, *supra* note 4, at 127.

228. *Remember the Children: Daniel’s Story*, U.S. HOLOCAUST MEM’L MUSEUM, <https://bit.ly/3AWqvMU> [<https://perma.cc/9YBP-6X32>] (last visited Jan. 9, 2021).

229. *Id.*

230. ROBBINS, JOHANSEN & CHESTEK, *supra* note 219, at 54–56.

231. For example, who were Mildred and Richard Loving, and how did they come to be involved in *Loving v. Virginia*, 388 U.S. 1 (1967), the litigation that struck down laws prohibiting interracial marriage? Why was the little pink house in *Kelo v. City of New London*, 545 U.S. 469 (2005), disassembled and relocated if the state won the right to tear it down as part of its economic development plan? In law school, nearly everything taught comes from the Court’s opinions. But there is a lot of fascinating fodder for discussion outside the record, from the stories of the participants (how did they get involved? where are they now?) to how the media covered the cases before and after the decision. See Dr. JoAnne Sweeny & Dan Canon, *The Language of Love v. Beshear: Telling a Client’s Story While Creating a Civil Rights Narrative*, 17 LEGAL COMM’N & RHETORIC 129, 136–41 (2020) (introducing the various same-sex plaintiffs and telling their disparate stories in the marriage equality cases that ultimately culminated in *Obergefell v. Hodges*, 576 U.S. 644 (2015)).

better compare to a hypothetical set of facts or parse the legislature's language.

Multimedia makes legal stories multidimensional. For instance, Professor Rebecca Tushnet regularly incorporates images, videos, and sound clips into her intellectual property classes both to engage her students and allow them to benefit from seeing, watching, and hearing the subjects of the cases they studied.²³² And Professors Stephen E. Henderson and Joseph Thai display dash cam videos, play cell phone footage, and show movie and TV clips to inject humor and the human into discussions of race in their criminal law classrooms.²³³ So instead of skipping over or merely describing the relevant facts, professors should add another museum staple—spinning multimedia stories—to encourage empathy and better connect with students.

D. Labels

Another effective way to infuse the law school classroom with some museum-inspired oomph is through the effective use of eye-catching labels and headings. In museums, labels are a visually attractive way of quickly communicating basic information, thematically orienting the viewer.²³⁴ The text serves the narrow purpose of accompanying the visuals; anything more should be conveyed in another way such as through a brochure or handout.²³⁵

Because labels “are identifiers and specifiers,”²³⁶ they are a powerful tool for professors to improve students' ability to remember information and focus their attention. In the classroom, professors should use text—on PowerPoint slides and even the blackboard—along with visuals to explain and “chunk” related ideas,²³⁷ improving recall by linking ideas with key words and reinforcing the important points through repetition.²³⁸

232. Tushnet, *Sight, Sound & Meaning*, *supra* note 88, at 891–92.

233. Stephen E. Henderson & Joseph Thai, *Teaching Criminal Procedure: Why Socrates Would Use YouTube*, 60 ST. LOUIS U. L.J. 413, 445–62 (2016).

234. DEAN, *supra* note 2, at 114; *see also* EXHIBITION PLAN, *supra* note 63, at 8, 10 (describing labels as a component in providing a “minimum takeaway” for the visitor).

235. *See* Dean, *supra* note 2, at 115 (recommending distributional materials such as brochures, pamphlets, or catalogues for the placement of text that does not elucidate the object being emphasized in the exhibition).

236. *Id.* at 110.

237. Joe Fore, *Encourage Students to Eliminate the Brown M&Ms from Their Legal Writing*, 25 PERSPECTIVES 18, 21 (2016).

238. *See* Jacobson, *supra* note 175, at 62 (favoring including labels and headings to provide visual cues for improved learning).

In both the museum and scholastic context, labels should be crafted with the audience in mind—text copy should be crisp and concise, not written “as a forum for the verbal virtuosity of the staff.”²³⁹ To accomplish this goal, labels should be “specific, memorable, concise, ‘Twitter-like’ headlines”²⁴⁰ to capture the audience’s attention because, according to type experts Erik Spiekermann and E.M. Ginger, “[a]nyone looking at a printed message will be influenced within a split second of making eye contact.”²⁴¹ Labels should strike a conversational tone and use vivid language to create images in the audience’s mind;²⁴² the goal is to “make verbs visible.”²⁴³ Well done, labels and visuals have a symbiotic relationship, clarifying and reinforcing concepts for both museum-goers and students.

E. Color

Finally, professors can enhance the quality of the classroom experience through the purposeful use of color. “Color is a great equalizer. Everyone knows color. Everyone has experienced color. Everyone feels comfortable with color. Color is simultaneously simple and complex; children learn to identify color and interact with it at a very early age.”²⁴⁴

Museums have long understood that carefully chosen colors help set the tone and theme of an exhibition, affecting mood, perception, and time logged.²⁴⁵ In fact, a study by Professor Jan L. Plass, the Paulette Goddard chair in Digital Media and Learning Sciences at NYU’s Steinhardt School of Culture, Education, and

239. DEAN, *supra* note 2, at 110.

240. SCHWABISH, *supra* note 84, at 17.

241. *Id.* at 51.

242. *See, e.g.*, BEDFORD, *supra* note 4, at 105 (endorsing colorful phrasing to capture visitors’ attention); MCKENNA-CRESS & KAMIEN, *supra* note 40, at 127 (encouraging using active voice, strong verbs, and short, manageable segments of text in labels).

243. TUFTE, *supra* note 102, at 55.

244. Jonathan Ratliff, *The Exploration of Color Theory in Museum Education Using Works Found in the J.B. Speed Museum’s Collection 1* (May 2009) (M.A. thesis, University of Louisville) (ThinkIR) (showing how a museum educator can use color to engage diverse audiences through a tour of the J.B. Speed Museum).

245. *See, e.g.*, Amy Elizabeth Gorton, *Is Wall Color Significant to Museum Visitors? Exploring the Impact Wall Color in an Exhibit Has on the Visitor Experience 15* (2017) (M.A. thesis, University of Washington) (ResearchWorks) (noting that vibrancy, which includes the atmospheric element of color, was the “greatest factor” affecting cognitive engagement in museum visitors, including how much time they spent in the galleries and how intrigued they were); *id.* at 6 (“[W]all color is not a secondary thought when designing an exhibit.”).

Human Development, showed that an attractive visual design—through layout, colors, and imagery—can help evoke positive emotions and foster learning.²⁴⁶ Echoing this observation, Maureen Stone, a pioneer in the area of color research and author of *A Field Guide to Digital Color*, highlights color’s ability to, when “used well[,] . . . enhance and clarify a presentation. Color used poorly can obscure, muddle, and confuse.”²⁴⁷

Consistency in color also creates visual coherence and reduces cognitive overload.²⁴⁸ It affects the way we see and process information; color can improve our ability to remember words and pictures, especially in adult learners.²⁴⁹ Particularly for students with a visual learning preference, color can help organize or categorize concepts.²⁵⁰ So, inspired by the color wheel, colors should be combined in a visually appealing, intentional, cohesive way: either monochromatic (shades of the same hue), complementary (opposite hues on the color wheel, such as yellow and violet), analogous (the three colors directly next to one another on the color wheel, like red, red-orange, and orange), or achromatic (white, black, or grey).²⁵¹ And to ensure the presentation is accessible and comprehensible to all, avoid colorblind-unfriendly combinations like red-green, green-brown, green-blue, blue-grey, blue-purple, green-grey,

246. SCHWABISH, *supra* note 84, at 29; *see also* DEAN, *supra* note 2, at 31, 111 (prescribing bright colors and high contrast for exhibitions).

247. SCHWABISH, *supra* note 84, at 29.

248. *See* deMaine, *supra* note 179, at 555 (stressing that the use of color needs to “carry through all materials” to ensure consistent design); *see also* Merritt, *supra* note 78, at 56 (recommending that professors use a small number of complementary colors to reduce visual distractions and prevent cognitive overload).

249. *See* Oluwakemi Olurinola & Omoniyi Tayo, *Colour in Learning: Its Effect on the Retention Rate of Graduate Students*, 6 J. EDUC. & PRAC. 1, 2, 4–5 (2015) (emphasizing that color allows learners to have a “richer learning experience”).

250. *See, e.g.*, Joseph Regalia, *An Eye for Legal Writing: Five Ways Visuals Can Transform Your Briefs and Motions*, LAW PROFESSOR BLOGS NETWORK: APP. ADVOC. BLOG (May 25, 2019, 6:07:15 AM), <https://bit.ly/3ibUVno> [<https://perma.cc/KG5P-BSNR>] (advocating using color to group information based on similarities and contrasts); Jacobson, *supra* note 175, at 34–35 (suggesting that color can help students identify parts of a brief or document and code similar ideas).

251. SCHWABISH, *supra* note 84, at 42–44.

and green-black.²⁵² But no matter the palette, there should be sufficient contrast to make it easier for students to read your content.²⁵³

CONCLUSION

Museums have morphed from static repositories into entertaining, educational, multimedia-suffused venues. As authorities on melding multiple media and modalities, these instructional institutions offer several strategies to make the learning experience more vibrant and welcoming for everyone. Visuals can ignite the imagination, convey abstract concepts, speed comprehension, and aid retention. So let's take our cue from museums to better entice, engage, enlighten, and embrace our diverse student bodies. The writing's on the wall.

252. See Rachel Cravit, *How to Use Color Blind Friendly Palettes to Make Your Charts Accessible*, VENNGAGE (Aug. 21, 2019), <https://bit.ly/2YckU74> [<https://perma.cc/S6ER-MAZJ>]. Roughly 8.5 percent of the population has color vision deficiency ("CVD"), colloquially referred to as "colorblindness." *Id.* CVD occurs when the "retina fails to properly respond to variations in wavelengths of light, which enable people to see different colors." *Id.* As a result, those with CVD have difficulty distinguishing colors. *Id.*

253. *Id.*; SCHWABISH, *supra* note 84, at 45.
