

**FLIPPED OUT, PLUGGED IN, AND WIRED UP:
FOSTERING SUCCESS FOR STUDENTS WITH ADHD IN
THE NEW DIGITAL LAW SCHOOL**

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TO: Incoming Law Student, Class of 2020
FROM: Future Professor
SUBJECT: Welcome!
ATTACHMENT: digitallawschool.doc

Welcome to the law school of the future (well, truth be told, it's already here). You've most likely had experience with online learning, but law school is a different animal with new challenges. Get ready, because your legal education is arriving via a wireless connection and electronic discussion board. Being one of many law students with Attention Deficit Hyperactivity Disorder, you may find it difficult to effectively juggle the many pieces to this new learning puzzle. (Check your course Blackboard site. Take the online quiz. Watch lecture videos. Listen to a podcast. Post your discussion board entry.) You may find that learning the law is easy compared to keeping track of where, when, and how to find it. Rest assured, we haven't forgotten about you, and we can help. At least we'll try.

I. INTRODUCTION

Two things are certain in the not-so-certain state of law schools today. The first is that students receive more legal education online than ever before.¹ The second is that the number of law students with a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD)² has increased. This

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¹ See, e.g., *Concord Law School in Brief*, KAPLAN U., <http://www.concordlawschool.edu/choose-a-law-school.aspx> [https://perma.cc/KD5N-MEMS].

² Kate Ashford, *What's the Difference Between ADD and ADHD?*, PARENTS, <http://www.parents.com/health/add-adhd/difference-between-add-and-adhd>

(continued)

Article examines the important intersection—indeed, the potential clash—between the two, and offers the first qualitative research study of law students with ADHD in online learning environments.

The “virtual” law school train may not have arrived yet, but it has departed the station full steam ahead. An exclusively online law degree, albeit from unaccredited institutions, has been available for years,³ and with increasing pace and support from the American Bar Association (ABA), the principal accreditation body for United States law schools, accredited law schools are experimenting with different variations of online programs.⁴ This Article examines the widening trend to incorporate more web-based platforms and online learning⁵ tools into the curriculum at accredited law schools, moving slowly but surely towards an environment where a significant percentage of a student’s legal education is delivered online. Gone are the days when a course management system such as TWEN or a “flipped” video lecture supplemented the brick-and-mortar

[<https://perma.cc/734K-L3FZ>]. In some instances, there may be a distinction between a diagnosis of ADHD and the now outdated term ADD (Attention Deficit Disorder), but the difference is not significant to the analysis in this Article and the two will be referred to as “ADHD.”

³ See, e.g., Andrew S. Rosen, *Concord University School of Law’s On-Line Law Degree Program*, 15 ST. JOHN’S J. LEGAL COMMENT. 311, 313 (2001) (describing one of the more familiar unaccredited JD programs in California, now known as Concord Law School of Kaplan University).

⁴ Some of the more recent announcements of innovative online programs at accredited United States law schools include those at Mitchell Hamline, Syracuse, Loyola University Chicago, and Vermont Law School. *ABA Approves Variance Allowing William Mitchell to Offer ‘Hybrid’ On-Campus/Online J.D. Program*, STAN. GRADUATE SCH. EDUC., <http://edf.stanford.edu/readings/aba-approves-variance-allowing-william-mitchell-offer-%E2%80%98hybrid%E2%80%99-campus-online-jd-program> [<https://perma.cc/7MNJ-CY8B>]; *Syracuse Law to Develop a New Hybrid J.D. Program*, SYRACUSE L., <http://onlinelaw.syr.edu> [<https://perma.cc/2JG9-3GXM>]; *Introducing Loyola’s Weekend JD Program*, LOY. U. CHI. SCH. L., <http://www.luc.edu/law/degrees/jurisdoctor-part-time> [<https://perma.cc/9GLF-X25L>]; *Reduced Residency Juris Doctor (RRJD)*, VT. L. SCH., <http://www.vermontlaw.edu/academics/degrees/reduced-residency-jd> [<https://perma.cc/643C-G2CE>].

⁵ As further explained in Part II, I use the broad term “online learning” throughout this Article to refer generally to the spectrum of educational methods by which content is delivered via the Internet, not only courses that are 100% online. See I. Elaine Allen & Jeff Seaman, *Online Report Card: Tracking Online Education in the United States*, ONLINE LEARNING SURV. 7 (Feb. 2016) [hereinafter *Allen & Seaman Online Report Card*], <http://onlinelearningsurvey.com/reports/online-report-card.pdf> [<https://perma.cc/7F9V-RCJH>]; Michael Corry & Angela Carlson-Bancroft, *Transforming and Turning Around Low-Performing Schools: The Role of Online Learning*, 11 J. EDUCATORS ONLINE 1, 8 (2014), www.thejeo.com/Archives/volume11number2/corrycarlsonbancroft.pdf [<https://perma.cc/XYM9-VHWW>] (discussing how “online learning” is also referred to as “distance learning,” “virtual learning,” “cyber learning,” and “e-learning.”).

classroom. Now, often times it is the in-person classroom instruction that supplements the more substantial online delivery of content to a student with a laptop, at a location and time of his or her choosing, with the law professor miles away.

At the same time, the number of students with a diagnosis of ADHD matriculating to law school has increased.⁶ Putting aside the often-heated debate regarding why this has occurred, the growing numbers are indisputable at the K-12, college/university, and law school levels.⁷ It is now a virtual certainty that students with cognitive disabilities such as ADHD will be a part of almost every law school course, whether in an actual classroom or online.⁸ Indeed, at first blush, online options are likely to appear especially appealing for students with disabilities who may seek alternative learning environments and greater flexibility.⁹

Law faculty, administrators, and disability service professionals should be concerned about these two pieces to today's legal education puzzle for a few reasons. First, the online course platforms that enjoy such endless enthusiasm have the potential to wreak havoc for this growing subset of our student body.¹⁰ Second, the skills online learning requires for success, such as self-motivation and self-regulation, often times are the very skills students with ADHD lack.¹¹ Third, the results of the interviews discussed in the research component of this Article reveal that students with ADHD have real concerns: while online learning may offer some benefits, the challenges and extra hoops through which students must jump to access, organize, and absorb substantive content can be overwhelming.¹² Finally, while law schools work to provide mandated web-based accommodations

⁶ See *infra* Section III.B.

⁷ Alan Schwarz, *Idea of New Attention Disorder Spurs Research, and Debate*, N.Y. TIMES (Apr. 11, 2014), http://www.nytimes.com/2014/04/12/health/idea-of-new-attention-disorder-spurs-research-and-debate.html?_r=0 [https://perma.cc/BX7F-8UQ5] (referring to ADHD as the “diagnosis de jour” of recent years); see also Maggie Koerth-Baker, *The Not-So-Hidden Cause Behind the A.D.H.D. Epidemic*, N.Y. TIMES (Oct. 15, 2013), <http://www.nytimes.com/2013/10/20/magazine/the-not-so-hidden-cause-behind-the-adhd-epidemic.html> [https://perma.cc/3AB2-UL5G] (discussing likely sociological factors behind the “explosion in rates of diagnosis” of ADHD).

⁸ See *infra* Section III.B.

⁹ See Kathryn E. Linder et al., *Whose Job Is It? Key Challenges and Future Directions for Online Accessibility in US Institutions of Higher Education*, 30 OPEN LEARNING 21, 21 (2015) (noting that although online courses may be attractive to students with disabilities, they may also end up being a barrier for these students if they are unable to access content and receive individual accommodations).

¹⁰ See *infra* Parts IV, V.

¹¹ See *infra* Part IV.

¹² See *infra* Part V.

for students with physical disabilities, such as loss of hearing or vision, momentum for web “eQuality”¹³ for students with cognitive disabilities in online learning environments is right around the corner.¹⁴

The dialogue about online learning in law schools is popular and robust. It is also incomplete and unfinished. For example, article after article touts the “new and glittery”¹⁵ advantages of technology-enhanced instruction, flipped classroom techniques, and blended course design.¹⁶ This Article adds a cautionary dimension to the online learning push by inserting into the conversation consideration for the growing number of students with cognitive disabilities and the unique challenges these students may face in the variety of online course platforms.

Part II of this Article defines the course formats on the online learning spectrum.¹⁷ It summarizes past online educational experiences of today’s incoming law students and describes the current online learning landscape in accredited law schools in the United States.¹⁸ Part III shifts gears and provides an overview of the ADHD condition and the substantial growth in the number of students with this diagnosis at various educational levels over the past ten to fifteen years.¹⁹ Part IV begins to examine the clash between online learning and ADHD, providing an overview of the

¹³ PETER BLANCK, eQUALITY: THE STRUGGLE FOR WEB ACCESSIBILITY BY PERSONS WITH COGNITIVE DISABILITIES 1 (2014); Joseph W. Madaus et al., *The Online and Blended Learning Experience: Differences for Students with and Without Learning Disabilities and Attention Deficit/Hyperactivity Disorder*, 1 INT’L J. FOR RES. LEARNING DISABILITIES 21, 22 (2012) (noting that “although people with cognitive disabilities are the largest single group of people with disabilities worldwide, their access needs tend to be overlooked by web designers,” often due to a greater focus on access for individuals with physical disabilities).

¹⁴ See *infra* Section VI.A (summarizing statutory and regulatory framework surrounding the likely legal obligation to accommodate students with legally qualifying disabilities in online learning environments).

¹⁵ *Why Tablets Are a Key Learning Tool in Special Education*, TAB TIMES (June 9, 2014), <http://www.tabtimes.com/why-tablets-are-key-learning-tool-special-education-15013> [<https://perma.cc/E5ZT-7ATZ>].

¹⁶ See generally JAY CAULFIELD, HOW TO DESIGN AND TEACH A HYBRID COURSE: ACHIEVING STUDENT-CENTERED LEARNING THROUGH BLENDED CLASSROOM, ONLINE AND EXPERIENTIAL ACTIVITIES (2011); Samantha A. Moppett, *Control-Alt-Incomplete? Using Technology to Assess “Digital Natives,”* 12 CHI.-KENT J. INTELL. PROP. 77 (2013); Paul L. Caron & Rafael Gely, *Taking Back the Law School Classroom: Using Technology to Foster Active Student Learning*, 54 J. LEGAL EDUC. 551 (2004); Abigail Cahak, Note, *Beyond Brick-and-Mortar: How (Cautiously) Embracing Internet Law Schools Can Help Bridge the Legal Access Gap*, 2012 U. ILL. J.L. TECH. & POL’Y 495 (2012); Alex Berrio Matamoros, *Answering the Call: Flipping the Classroom to Prepare Practice-Ready Attorneys*, 43 CAP. U. L. REV. 113 (2015).

¹⁷ See *infra* Part II.

¹⁸ See *infra* Section II.B.

¹⁹ See *infra* Part III.

opportunities and challenges students with ADHD may have in this environment.²⁰ Part V describes the methodology and discusses the results of the qualitative student research performed for this Article.²¹ Part VI discusses whether schools must accommodate students with disabilities in online learning environments, and concludes with recommendations at the institutional and individual instructor level regarding how to best support students with ADHD in online learning environments.²²

II. ONLINE LEARNING

Picture a seesaw at the local playground. At one end is the traditional, in-person classroom experience most law faculty experienced when we received our legal education. At the other end, a course conducted entirely over the Internet, where the professor and students never set foot in the same zip code, much less the same building. Scattered down the seesaw between the two ends are varied course formats that combine aspects of face-to-face instruction with online delivery of content. Based on their prior educational experiences, students will now enter law school expecting to receive instruction all along the seesaw.²³ Colleges and universities may have been the first out of the starting blocks in the online learning race, but law schools are picking up the pace.²⁴

A. Variety of Online Learning Course Formats

1. Face-to-Face

The first step in defining the course formats along the seesaw is to start with what has been the traditional format in legal education: the in-person,

²⁰ See *infra* Part IV.

²¹ See *infra* Part V.

²² See *infra* Part VI.

²³ See Kristin B. Gerdy et al., *Expanding Our Classroom Walls: Enhancing Teaching and Learning Through Technology*, 11 LEGAL WRITING 263, 265 (2005) (“[S]tudents will enter law school expecting, if not demanding, that professors incorporate technology into their courses.”); W. Warren H. Binford, *Envisioning a Twenty-First Century Legal Education*, 43 WASH. U. J.L. & POL’Y 157, 170 (2013) (“[I]ncoming students are digital natives who rightfully expect we will adapt our teaching methods and resources to educate them using [commonplace] tools”); Joan MacLeod Heminway, *Caught in (or on) the Web: A Review of Course Management Systems for Legal Education*, 16 ALB. L.J. SCI. & TECH. 265, 283 (2006) (“Many 21st Century law students expect the use of technology in legal education because they grew up with technology and use it in nearly every aspect of their daily lives.”).

²⁴ U.S. DEP’T OF EDUC., EVALUATION OF EVIDENCE-BASED PRACTICES IN ONLINE LEARNING: A META-ANALYSIS AND REVIEW OF ONLINE LEARNING STUDIES 1 (2010) [hereinafter DOE META-ANALYSIS] (“Institutions of higher education and corporate training were quick to adopt online learning.”).

physical, face-to-face classroom experience most often involving the Socratic method.²⁵ In this setting, a professor delivers instruction either orally or in writing to students physically present in a classroom setting.²⁶ While the lecture mixed with Socratic dialogue format has not been immune from criticism in the past, as of late it finds itself front and center at the unpopular table.²⁷ Many have questioned the method's role in engaging and teaching law students in the context of increasing desire for legal education to offer more practice-based, experiential opportunities for students.²⁸

2. *Web-facilitated*

The closest sibling to face-to-face instruction is “web-facilitated” instruction.²⁹ Web-facilitated courses use online technology to supplement an instructor's delivery of educational content to students that still occurs in a physical classroom.³⁰ For example, an instructor structures a course

²⁵ As of approximately twenty years ago, the overwhelming majority of first-year law professors reported using the Socratic Method. See Steven I. Friedland, *How We Teach: A Survey of Teaching Techniques in American Law Schools*, 20 SEATTLE U. L. REV. 1, 28 (1996).

²⁶ *Allen & Seaman Online Report Card*, *supra* note 5, at 7.

²⁷ More recent attacks on this law school tradition continue decades of critique. See Suzanne Dallimore, *The Socratic Method—More Harm than Good*, 3 J. CONTEMP. L. 177, 181 (1977) (“[T]he over-use of the Socratic method may tend to encourage laziness on the part of both students and professors.”); Donald G. Marshall, *Socratic Method and the Irreducible Core of Legal Education*, 90 MINN. L. REV. 1, 2 (2005) (reporting that use of Socratic Method declined in context of second and third year courses and also overall).

²⁸ See, e.g., Robin A. Boyle, *Employing Active-Learning Techniques and Metacognition in Law School: Shifting Energy from Professor to Student*, 81 U. DET. MERCY L. REV. 1, 3 (2003) (noting that many students require more active learning beyond that offered by traditional Socratic lecture); Peter Sankoff, *Taking the Instruction of Law Outside the Lecture Hall: How the Flipped Classroom Can Make Learning More Productive and Enjoyable (for Professors and Students)*, 51 ALBERTA L. REV. 891, 895 (2014) (arguing that “talking head” lectures are an ineffective tool for engaging law students, no matter how “gifted” an orator the professor might be).

²⁹ *Allen & Seaman Online Report Card*, *supra* note 5, at 7.

³⁰ In a web-facilitated course, up to one-third of course content is delivered online, although the primary means of delivery is face-to-face instruction. *Id.* at 7. As discussed *infra* Section II.C, the revised ABA accreditation standards adopt a similar definition of a “distance education course” in the context of credit determinations: “one in which students are separated from the faculty member or each other for more than one-third of the instruction and the instruction involves the use of technology to support regular and substantive interaction among students and between the students and the faculty member, either synchronously or asynchronously.” AM. BAR ASS'N, 2015–2016 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 19 (2015) [hereinafter ABA STANDARDS], http://www.americanbar.org/groups/legal_education/resources/standards.html [<https://perma.cc/L2PB-A4V9>].

management system such as BlackBoard or TWEN to post course materials and conduct supplemental electronic discussions or exercises.³¹ Or, an instructor occasionally posts or e-mails students a link to a video document presentation using screencasting software such as Panopto or Jing.³² The common thread in this familiar course format is that the online technology is not intended to replace in-person classroom time.³³

3. *Flipped Classroom*

The “flipped” classroom model is sandwiched on the seesaw between a web-facilitated course and a hybrid course, discussed next. It has been one of the trendiest buzzwords in the recent conversation about use of online resources in education, and the basic premise is simple.³⁴ A professor moves the delivery of some content online; most often it is lecture materials such as a podcast or PowerPoint presentation.³⁵ Students then access that information outside of the classroom.³⁶ The in-class time that would have been consumed with that lecture is then available for more

³¹ See, e.g., William R. Slomanson, *Blended Learning: A Flipped Classroom Experiment*, 64 J. LEGAL EDUC. 93, 102 (2014) (discussing a list of management systems available to deliver out-of-class content).

³² *Id.*

³³ Tools in this category are also referred to as “technology-enhanced.” Gerald F. Hess, *Blended Courses in Law School: The Best of Online and Face-to-Face Learning?*, 45 MCGEORGE L. REV. 51, 55 (2013) (describing instructional technology both in and out of the classroom such as clickers, use of student laptops, and Computer Assisted Legal Instruction (CALI) lessons); Caron & Gely, *supra* note 16, at 551 (noting the “explosive growth in the use of technology in the classroom” and the “wide array of technological bells and whistles” law professors now use); Binford, *supra* note 23, at 177 (urging development of digital coursework such as the popular program “Core Grammar for Lawyers”).

³⁴ Cynthia J. Brame, *Flipping the Classroom*, VAND. U. CTR. FOR TEACHING (2013), <https://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom> [<https://perma.cc/3BK8-RUNP>].

³⁵ Anne E. Mullins, *The Flipped Classroom: Fad or Innovation?*, 92 OR. L. REV. ONLINE 27, 27 (2014).

³⁶ See, e.g., Matt Hlinak, *Flipping and Moocing Your Class or: How I Learned to Stop Worrying and Love MOOC*, 33 J. LEGAL STUD. EDUC. 23, 24–29 (2016); JONATHAN BERGMANN & AARON SAMS, *FLIP YOUR CLASSROOM: REACH EVERY STUDENT IN EVERY CLASS EVERY DAY* 13 (2012).

active,³⁷ post-lecture use of the material: for example, longer discussions, interactive simulations, and group exercises.³⁸

4. *Blended, or Hybrid*

The seesaw continues its tip in the other, more online, direction. A blended course, also called a hybrid, is one that combines in-person and online delivery of content to students.³⁹ The make-up of that combination varies; anywhere from 30–79% of the course content is delivered online (the larger the percentage delivered online, the larger the corresponding reduction in physical class meeting time).⁴⁰ Importantly, and in contrast to web-facilitated courses, use of online tools in a hybrid course do replace classroom time.⁴¹

Use of web-based instruction in a hybrid course format can take different forms. It is often synchronous, where communication with students occurs in real time to approximate a face-to-face conversation, such as through the use of Skype or “live” online office hours. Or, communication can be asynchronous, where interaction with students occurs at different times based on convenience and individual scheduling, such as through e-mail or discussion board entries.⁴²

³⁷ For a detailed discussion of active learning principles in the law school context, see generally Gerald F. Hess, *Principle 3: Good Practice Encourages Active Learning*, 49 J. LEGAL EDUC. 401 (1999); Michael Hunter Schwartz, *Teaching Law By Design: How Learning Theory and Instructional Design Can Inform and Reform Law Teaching*, 38 SAN DIEGO L. REV. 347 (2001).

³⁸ See, e.g., Matamoros, *supra* note 16, at 118; Sankoff, *supra* note 28, at 899, 902 (describing use of introductory evidence law video “capsules”). Sankoff notes that students can access such “capsules” of information both prospectively and retroactively, and Matamoros recognizes that students can watch short lecture videos at a time “more conducive” to their learning. As further discussed in Section V.B this flexibility may benefit a student with ADHD.

³⁹ Hess, *supra* note 33, at 52; Heather Staker & Michael B. Horn, *Classifying K-12 Blended Learning*, INNOSIGHT INST. 2 (May 8, 2012), <http://www.christenseninstitute.org/wp-content/uploads/2013/04/Classifying-K-12-blended-learning.pdf> [https://perma.cc/JUU4-WN97]; Joseph A. Rosenberg, *Confronting Clichés in Online Instruction: Using a Hybrid Model to Teach Lawyering Skills*, 12 SMU SCI. & TECH. L. REV. 19, 21 (2008).

⁴⁰ Allen & Seaman Online Report Card, *supra* note 5, at 7.

⁴¹ *Id.*

⁴² See Andrew I. Hashey & Skip Stahl, *Making Online Learning Accessible for Students with Disabilities*, 46 TEACHING EXCEPTIONAL CHILD. 70 (2014) (describing forms of online communication).

5. *Online Course*

An online course is “one in which at least 80% of the course content is delivered online.”⁴³ Students have little or no opportunity for face-to-face instruction or, for that matter, any interaction whatsoever with a professor for questions, discussion, or some plain old enjoyable, personal small talk. Interaction with peers is also most often limited to electronic discussion boards or group wikis; a smile or roll of the eyes from a classmate in the seat next to you has been transformed into an emoji in a text message or simple “lol.” Online courses often have no required in-person meeting times at any common physical location, and delivery of content, assessment, and feedback are exclusively—or almost exclusively—accomplished via the Internet.⁴⁴

6. *Open Online Courses*

The final format is at the extreme end of the seesaw, far removed from the face-to-face classroom. Massive Open Online Courses (MOOCs) are open educational platforms delivered via the Internet.⁴⁵ Their “massive”-ness comes from the design and intent to enroll a large audience of students, up to the tens of thousands.⁴⁶ They are “open” and “online” because any person with an internet connection can enroll (usually free of charge) and, being a “course,” students can expect the usual assignments

⁴³ *Allen & Seaman Online Report Card*, *supra* note 5, at 7. Online learning finds its home in the broader, and older, category of distance learning generally. See DOE META-ANALYSIS, *supra* note 24 (explaining that distance learning “encompasses earlier technologies such as correspondence courses, educational television and videoconferencing”); Robert J. Salzer, *Juris Doctor.com: Are Full-Time Internet Law Schools the Beginning of the End for Traditional Legal Education?*, 12 *COMMLAW CONSPICUOUS* 101, 101 (2004) (defining distance learning as “the process of extending learning, or delivering instructional resource-sharing opportunities, to locations away from a classroom, building or site, to another classroom, building or site by using video, audio, computer, multimedia communications, or some combination of these with other traditional delivery methods”).

⁴⁴ *Allen & Seaman Online Report Card*, *supra* note 5, at 7.

⁴⁵ A MOOC is “a course of study made available over the Internet without charge to a very large number of people.” OXFORD DICTIONARIES, *MOOC*, http://www.Oxforddictionaries.com/us/definition/american_english/MOOC [<https://perma.cc/FEP4-SZ7S>]; see also David Pundak, *Accreditation of MOOCs*, 17 *EUR. J. OPEN, DISTANCE & E-LEARNING* 116, 116 (2014), <http://www.eurodl.org/?p=archives&year=2014&halfyear=2&article=653> [<https://perma.cc/T256-3XWW>]. For a recent list of MOOC courses, often offered by leading institutions regarding managing private companies such as Coursera, edX, P2PU, and Udacity, see MOOC LIST, <https://www.mooc-list.com> [<https://perma.cc/9RMJ-6F5U>].

⁴⁶ Pundak, *supra* note 45, at 117; Nathan Heller, *LaptopU: Has the Future of College Moved Online?*, *NEW YORKER* (May 20, 2013), <http://www.newyorker.com/magazine/2013/05/20/laptop-u> [<https://perma.cc/96DG-W37B>].

and tests often administered by a lead lecturer and their assistants.⁴⁷ Although the initial MOOC hype of years past has diminished,⁴⁸ the debate about their potential and initiatives for open online collaborative learning is as robust as ever.⁴⁹ As one scholar mused, instead of students “having to put up with crummy teachers,” why not let everyone “learn from the best”?⁵⁰

B. *Experience of Incoming Law Students*

We hear plenty about today’s Millennial law students, and tomorrow’s Generation Z law students: how growing up “digital” shapes their learning and should shape, some say, our teaching.⁵¹ It is safe to say that incoming

⁴⁷ Pundak, *supra* note 45, at 117.

⁴⁸ See *Allen & Seaman Online Report Card*, *supra* note 5, at 38 (noting that a smaller segment of institutions experimenting with or planning MOOCs); Steve Kolowich, *The MOOC Hype Fades*, in *3 Charts*, CHRON. HIGHER EDUC. (Feb. 5, 2015), <http://chronicle.com/blogs/wiredcampus/the-mooc-fades-in-3-charts/55701> [<https://perma.cc/E7QB-NEKK>] (noting increased skepticism regarding success of widespread MOOC platforms).

⁴⁹ See, e.g., Stephen Bainbridge, *Law School Classes: How Big is Too Big?*, PROFESSORBAINBRIDGE.COM (Feb. 14, 2014), <http://professorbainbridge.com/professorbainbridge.com/2013/02/law-school-classes-how-big-is-too-big.html> [<https://perma.cc/6RD9-C64X>] (discussing the possibility that students watch online videos from the “best” law lecturers); Stephen F. Diamond, *Should Law Schools Go MOOC?*, STEPHEN-DIAMOND.COM (July 19, 2013), <http://stephen-diamond.com/2013/07/19/future-of-american-law-school-should-they-go-MOOC> [<https://perma.cc/VBW7-RZLG>] (discussing massive online law lectures paired with “hands on modules”); Philip G. Schrag, *MOOCs and Legal Education: Valuable Innovation or Looming Disaster?*, 59 VILL. L. REV. 83, 89–92 (2014) (describing enthusiasm for MOOCs).

⁵⁰ Courtney Boyd Myers, *Clayton Christensen: Why Online Education Is Ready for Disruption, Now*, NEXT WEB (Nov. 13, 2011), <http://thenextweb.com/insider/2011/11/13/clayton-christensen-why-online-education-is-ready-for-disruption-now/#gref> [<https://perma.cc/C7ZG-NAJ3>]; see also *Allen & Seaman Online Report Card*, *supra* note 5, at 35 (describing agreement among academic leaders that open educational resources have potential to reduce costs and save time in development of new courses).

⁵¹ The term “Millennials” describes individuals born around 1980. Andrew Kohut et al., *Millennials, A Portrait of Generation Next: Confident. Connected. Open to Change.*, PEW. RES. CTR. 4 (Feb. 2010), <http://assets.pewresearch.org/wp-content/uploads/sites/3/2010/10/millennials-confident-connected-open-to-change.pdf> [<https://perma.cc/5YWJ-9PNC>]. The next wave, “Generation Z,” refers to individuals born around the mid-1990’s. Alex Williams, *Move Over, Millennials, Here Comes Generation Z*, (Sept. 18, 2015), http://www.nytimes.com/2015/09/20/fashion/move-over-millennials-here-comes-generation-z.html?_r=0 [<https://perma.cc/R6FE-ZU8M>] (relaying student comment that “[g]eneration Z takes in information instantaneously . . . and loses interest just as fast.”); Allen Moye, *Standing on Quicksand: Why Law Students Need New Survival Skills for an Evolving Legal Landscape*, (Apr. 25, 2011), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1822664 [<https://perma.cc/5EEQ-87AK>] (describing this “constantly connected” generation that desires a more collaborative learning experience).

law students have online experience.⁵² Indeed, it would be a mighty challenge to find a student in the world who is not on Instagram or getting a ride home by accessing the Uber app.⁵³ But, will the law students of the future have had experience *learning* online? Yes. A lot.

The number of students learning online is growing at the K-12 level and in higher education.⁵⁴ For example, elementary students complete subtraction exercises after school from a home computer or tablet.⁵⁵ Middle school students watch an introductory Kahn Academy United States History video before taking part in a group exercise during social studies class.⁵⁶ And high school students may be assigned an electronic study pack on cell biology from Scitable.⁵⁷ However, the trend stretches even wider than the use of these types of tools. A growing number of K-12 students are now educated exclusively through the Internet.⁵⁸ Companies such as K12 and Connections Academy are pairing with public and private school districts to offer virtual schooling options, ranging from a select class or two to a completely full-time, online K-12 education.⁵⁹

This picture is largely replicated at the college and university level. As of the 2013–14 academic year, 70.7% of degree granting institutions in the United States reported offering some form of “distance learning,” and the

⁵² Moyer, *supra* note 51, at 44 (detailing practices and habits of Millennials, including that three-quarters have social networking profiles); Camille Broussard, *Teaching with Technology: Is the Pedagogical Fulcrum Shifting?*, 53 N.Y.L. SCH. L. REV. 903, 913 (2009) (“digital natives have always used ‘Google’ as a verb.”).

⁵³ See, e.g., Williams, *supra* note 51.

⁵⁴ Staker & Horn, *supra* note 39, at 1 (discussing online learning innovations in the K-12 setting); DOE META-ANALYSIS, *supra* note 24, at xi (describing online learning at the K-12 level as “one of the fastest growing trends in educational uses of technology.”); Hashey & Stahl, *supra* note 42, at 70.

⁵⁵ See, e.g., SPLASH MATH, <https://www.splashmath.com> [<https://perma.cc/2PSP-9HYZ>].

⁵⁶ See KHANACADEMY, <https://www.khanacademy.org/humanities/history/history-survey/us-history/v/us-history-overview-1-jamestown-to-the-civil-war> [<https://perma.cc/H3RF-7CXL>].

⁵⁷ NATURE EDUC., <http://www.nature.com/scitable> [<https://perma.cc/2CY2-PV6S>]. Mobile devices also play a significant role in this landscape: 75% of high school students use mobile devices to access class information, while 22% use them to view instructor videos. See *The New Digital Learning Playbook: Understanding the Spectrum of Students’ Activities and Aspirations*, PROJECT TOMORROW (2014), http://www.tomorrow.org/speakup/SU13DigitalLearningPlaybook_StudentReport.html [<https://perma.cc/BB4V-8FZQ>].

⁵⁸ See Allen & Seaman *Online Report Card*, *supra* note 5, at 9–10.

⁵⁹ As of the 2014–2015 school year, thirty states, plus Washington, D.C., offer fully online statewide schools, and approximately 315,000 K-12 students took all of their courses online in 2013–2014, reflecting a 6.2% growth from the previous year. See EVERGREEN EDUC. GROUP, <http://www.kpk12.com/states> [<https://perma.cc/SGW7-2W75>].

number of students taking distance learning courses has grown by the millions over the past decade or so.⁶⁰ The proportion of higher education students taking at least one online course has steadily increased over the past several years, although the growth has varied between private and public institutions.⁶¹ As of the 2014–15 academic year, over half of academic leaders in higher education report that online learning is now “critical” to their school’s success.⁶²

C. Today’s Online Legal Education Landscape

Next to its K-12 and collegiate counterparts, legal education may have once been dubbed the “holdout” in the online education explosion.⁶³ That is no longer the case. Law schools deliver content online, and that should surprise few.⁶⁴ What may astound, however, is the pace and fervor with which they are doing so.⁶⁵ In the midst of the evolving discussion about the future of legal education, online learning’s “inevitability [as] . . . part of the instructional mix”⁶⁶ seems, well, inevitable.

First, what are legal educators doing? Almost every law school course is now web-facilitated in some manner, and an increasing percentage of schools offer some courses in a blended or fully online format.⁶⁷ We are

⁶⁰ See I. Elaine Allen & Jeff Seaman, *Grade Level: Tracking Online Education in the United States*, ONLINE LEARNING SURV. 9 (Feb. 2015) [hereinafter *Grade Level*], <http://www.onlinelearningsurvey.com/reports/gradelevel.pdf> [<https://perma.cc/MUN2-KWRB>].

⁶¹ *Id.* at 12–13. See also Kelsey Sheehy, *Online Course Enrollment Climbs for the 10th Straight Year*, U.S. NEWS & WORLD REP. (Mar. 8, 2016, 6:20 AM), <http://www.usnews.com/education/online-education/articles/2013/01/08/online-course-enrollment-climbs-for-10th-straight-year> [<https://perma.cc/46DE-BGQV>]; THE WORKING GRP. FOR DISTANCE LEARNING IN LEGAL EDUC., DISTANCE LEARNING IN LEGAL EDUCATION: A SUMMARY OF DELIVERY MODELS, REGULATORY ISSUES, AND RECOMMENDED PRACTICES 10 (2013) [hereinafter DELIVERY MODELS], https://www2.stetson.edu/atc/wp-content/uploads/2013/11/Distance_Learning_in_Legal_Ed.pdf [<https://perma.cc/AUW5-6CE2>] (“stream” of distance education developments in higher education “has become a torrent”).

⁶² Allen & Seaman *Online Report Card*, *supra* note 5, at 21.

⁶³ Moye, *supra* note 51, at 6 (noting that legal academia has been “slow to adapt and use technology.”); WORKING GRP. ON DISTANCE LEARNING IN LEGAL EDUC., DISTANCE LEARNING IN LEGAL EDUCATION: DESIGN, DELIVERY & RECOMMENDED PRACTICES 10 (2015) [hereinafter DESIGN & DELIVERY], http://www.wgdllc.com/files/2015/12/WorkingGroupDistanceLearningLegalEducation2015_PDF.pdf [<https://perma.cc/3MKL-BUCK>] (“Legal education has been slower to adopt distance approaches than many other fields”).

⁶⁴ See Moye, *supra* note 51, at 56.

⁶⁵ Max Huffman, *Online Learning Grows Up—and Heads to Law School*, 49 IND. L. REV. 57, 58 (2015).

⁶⁶ DELIVERY MODELS, *supra* note 61, at 12.

⁶⁷ See Huffman, *supra* note 65, at 64–69 (summarizing “promises” of online learning for law schools).

posting, blending, flipping, streaming, digitizing, webcasting, and Hanging out⁶⁸ like never before.⁶⁹ There is excitement surrounding online collaborations among students such as the LawMeets⁷⁰ initiative, among faculty such as the LegalED⁷¹ platform, and among students, faculty, and practitioners such as the Law Without Walls project.⁷²

Second, why are they doing it? One reason is that the ABA has made it easier to do so.⁷³ The ABA does not accredit any all-online J.D. programs,⁷⁴ but the 2014 revised Accreditation Standard 306 allows a student to take up to fifteen distance-education credits with no cap on how many of those credits may be earned in a given semester after the first year.⁷⁵ This means that a professor can use up to one-third of class time—previously allotted for in-person classroom instruction—for online learning, as any use of the “blended” tools noted above does not trigger the ABA’s “distance education” stamp, so long as two-thirds of instruction remains in the classroom.⁷⁶ For example, if a Criminal Law course traditionally occurs once a week for 12 weeks, then that professor can choose not to hold an in-person class session up to four times. Instead, the professor may require the students listen to a video lecture or complete an online module and electronic quiz.

⁶⁸ See GOOGLE HANGOUTS, <https://hangouts.google.com> [<https://perma.cc/59J9-7Z9L>].

⁶⁹ See *supra* note 16 (listing a sampling of articles that describe and encourage use of online tools and technology in law schools).

⁷⁰ LAWMEETS, <http://www.lawmeets.com/law-schools> [<https://perma.cc/J7LE-B8PT>].

⁷¹ LEGAL ED, <http://legaledweb.com> [<https://perma.cc/87ZP-4NWQ>].

⁷² LAW WITHOUT WALLS, <http://lawwithoutwalls.org> [<https://perma.cc/XE7B-CVEJ>].

⁷³ Compare AM. BAR ASS’N, 2013–2014 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS (2013), with AM. BAR ASS’N, 2016–2017 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS (2016). See also Lorna Collier, *New Partially Online Law Degree May Open Door to Similar Programs*, U.S. NEWS & WORLD REP. (June 25, 2014, 8:30 AM), <http://www.usnews.com/education/online-education/articles/2014/06/25/new-partially-online-law-degree-may-open-door-to-similar-programs> [<https://perma.cc/6CDU-FZMQ>].

⁷⁴ Rosen, *supra* note 3, at 311. For years, accredited law schools have developed non-J.D. online programs such as tax LL.M.s. See Michele R. Pistone & John J. Hoeffner, *No Path but One: Law School Survival in an Age of Disruptive Technology*, 59 WAYNE L. REV. 193, 236 (2013) (listing Alabama, Georgetown, NYU, and BU as offering such programs online).

⁷⁵ See AM. BAR ASS’N, 2014-2015 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 19 (2014). Fifteen allowable distance education credits is up from the previous twelve, and previously the ABA imposed a cap at four distance education credits per semester. *Id.* Standard 306 specifies that no distance education credits may be earned until a student completes twenty-eight credit hours, thus prohibiting distance education courses during the first year. *Id.*

⁷⁶ *Id.*

Related ABA action and commentary continues to signal a green light for law schools to explore online learning initiatives.⁷⁷ For example, in 2013 the ABA approved a first-of-its-kind variance from its earlier set of distance education restrictions and allowed William Mitchell College of Law (now Mitchell Hamline) to offer an accredited hybrid J.D. degree.⁷⁸ Students enrolled in this and similar programs set foot on the physical law school campus only ten or so times in four years.⁷⁹ That fact alone demonstrates that the times aren't "a changing"—they've changed.⁸⁰

The loosened ABA distance learning restrictions will help fuel the online learning fire, but the spark will soon roar for other reasons. Legal educators look to online learning tools in the midst of the push for practical skills training opportunities for students and a more diversified curriculum.⁸¹ Flipping a lecture or posting content and quizzes online for students to read and complete outside of the classroom can free up in-person classroom time to actively train students, for example, in a group simulation or mock client interview setting.⁸² Some educators view online

⁷⁷ For example, in 2012, the ABA Task Force on Future of Legal Education recommended that "[l]aw schools should make use of technology to innovate and improve pedagogy." *Task Force on the Future of Legal Education Discussion Items on Delivery and Regulation Dec. 14, 2012 Meeting*, A.B.A., http://www.americanbar.org/content/dam/aba/administrative/professional_responsibility/taskforcecomments/discussion_items_on_del_and_reg_122012.authcheckdam.pdf [https://perma.cc/A53P-WY83]; see also Michele R. Pistone & Michael B. Horn, *Disrupting Law School: How Disruptive Innovation Will Revolutionize the Legal World*, CLAYTON CHRISTENSEN INST. FOR DISRUPTIVE INNOVATION 22 (Mar. 2016), <http://www.christenseninstitute.org/wp-content/uploads/2016/03/Disrupting-law-school.pdf> [https://perma.cc/62GD-S6V9] ("The ABA's recent decisions about online learning may provide an additional tailwind in favor of moving forward in these ways and pushing law schools to think more seriously about how they use assessment and the advantages of a more modular curriculum.").

⁷⁸ *Counsel Grants Variance to William Mitchell College of Law*, A.B.A., http://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/council_reports_and_resolutions/2013_william_mitchell_hybrid_variance_announcement.authcheckdam.pdf [https://perma.cc/5LAX-PP2N].

⁷⁹ See *supra* note 4 and accompanying text (providing examples of part online programs at other accredited law schools such as Syracuse University and the "weekend" J.D. at Vermont Law School).

⁸⁰ BOB DYLAN, *THE TIMES THEY ARE A-CHANGIN'* (Warner Bros. Inc. 1963).

⁸¹ AM. BAR ASS'N, *THE RELEVANT LAWYER: REIMAGINING THE FUTURE OF THE LEGAL PROFESSION* 224 (Paul A. Haskins ed., 2015) (noting liberalization of "law school accreditation standards to allow law schools to experiment more with different curricula and cost structures").

⁸² Cf. Tahirih Lee, *Technology-Based Experiential Learning: A Transnational Experiment*, 64 J. LEGAL EDUC. 455, 473 (2015) (describing an international trade simulation conducted at Florida State University College of Law with the Shanghai Institute of Foreign Trade involving an online platform and weekly live video conferences).

education not as something law schools may do, but something they must do for economic survival, given the increasing pressure regarding the cost of legal education, and competition from less-expensive, alternative, and—not surprising—often online competition.⁸³

The diverse rationales in support of online learning are complex. Future research and scholarship will evaluate the quality of online education, which is not the subject of this Article. For example, does it adequately prepare students for the bar exam compared to in-person instruction? Are students more or less prepared for actual law practice compared to in-person instruction? While expansion and evaluation of online programs in legal education and higher education more generally remain ongoing,⁸⁴ one thing is clear: the pace with which schools are using technology to deliver substantial portions of legal education online is “relentless and unprecedented.”⁸⁵

III. LAW STUDENTS WITH ADHD

Part II summarized the online environment within which tomorrow’s law students will learn.⁸⁶ Part III describes a select segment of who these students will be (students with ADHD), and describes the general

⁸³ *Id.* at 471 (“Distance courses are viewed primarily as a way to curtail the costs of legal education.”); Pistone & Hoeffner, *supra* note 74, at 199–200 (recognizing that as support for distance learning increases, “the chance that the regulatory moat protecting law schools will be left undisturbed will decrease—all else remaining equal.”); Thomas L. Friedman, *The Professors’ Big Stage*, N.Y. TIMES (Mar. 5, 2013), http://www.nytimes.com/2013/03/06/opinion/friedman-the-professors-big-stage.html?_r=2 [https://perma.cc/JB6L-DPBE] (noting universities must continue to blend technology to “improve education outcomes in measurable ways at lower costs.”). Professor Michelle Pistone, the founder of LegalED and member of the Distance Learning in Legal Education Working Group, warns of the vulnerability of traditional schools when pitted against more convenient, online education alternatives. Pistone & Hoeffner, *supra* note 74, at 237–39. (“Quality is only one of many competing values,” not “an unbeatable trump card for law schools”). *Id.* at 237.

⁸⁴ See, e.g., Anna Ya Ni, *Comparing the Effectiveness of Classroom and Online Learning: Teaching Research Methods*, 19 J. PUB. AFF. EDUC. 199, 204–12 (2013) (discussing research study comparing online and classroom teaching of public administration programs).

⁸⁵ Pistone & Hoeffner, *supra* note 74, at 258; see also Jeffrey A. Van Detta, *The Law School of the Future: How the Synergies of Convergence Will Transform the Very Notion of “Law Schools” During the 21st Century from “Places” to “Platforms,”* 37 U. LA VERNE L. REV. 103, 107 (2015) (“Law schools will no longer be ‘places’ in the sense of a single faculty located on a physical campus. In the future, law schools will consist of an array of technologies and instructional techniques brought to bear, in convergence, on particular educational needs and problems.”).

⁸⁶ See *supra* Part II.

characteristics of the condition.⁸⁷ Part III further details the increasing number of students with ADHD at the K-12, college, and law school levels, and previews the potential challenges for a student with ADHD in a demanding law school environment.⁸⁸

A. Overview of ADHD

“[I]t’s like having a race-car brain. Your brain goes faster than the average brain. Your trouble is putting on the brakes.”⁸⁹

ADHD is a neuro-biological developmental disorder of impaired executive functions.⁹⁰ It significantly affects self-control, behavior, cognition and planning, and centers on the part of the brain that handles prioritizing, planning, executing and completing, focusing on detail, and controlling impulsivity.⁹¹ Symptoms of ADHD include extreme difficulty concentrating, paying attention, staying organized, and remembering details.⁹² Significant impairments with respect to three characteristics mark a diagnosis of ADHD: inattention (also referred to as distractibility), impulsivity, and hyperactivity.⁹³ A diagnosis of ADHD is one of three subtypes, depending on the individual nature of impairment: ADHD predominantly inattentive type (ADHD-1), ADHD predominantly

⁸⁷ See *infra* Section III.A.

⁸⁸ See *infra* Sections III.B, III.C.

⁸⁹ EDWARD M. HALLOWELL & JOHN J. RATEY, *DELIVERED FROM DISTRACTION: GETTING THE MOST OUT OF LIFE WITH ATTENTION DEFICIT DISORDER* 23 (2005).

⁹⁰ AM. PSYCHIATRIC ASS’N, *DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS* 59 (5th ed. 2013) [hereinafter *DSM*] (describing characteristic of attention deficit disorder as being “easily distracted by extraneous stimuli”); *Attention-Deficit/Hyperactivity Disorder (ADHD): Symptoms and Diagnosis*, CDC (Oct. 5, 2016), <http://www.cdc.gov/ncbddd/adhd/diagnosis.html> [https://perma.cc/KR8K-JQEV] (describing symptoms of a “persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development”).

⁹¹ Many of the common characteristics of an individual with ADHD have been used more generally to characterize the Millennial generation as a whole. Even the National Football League has taken note. See Kevin Clark, *The NFL Team that is Solving Millennials*, WALL STREET J. (June 16, 2015, 3:49 PM), <http://www.wsj.com/articles/the-nfl-team-that-is-solving-millennials-1434484144> [https://perma.cc/J4C6-WBSL] (describing “sweeping changes” in San Francisco 49ers training camp such as shorter meeting blocks and electronic alerts geared toward Millennials’ “shorter attention spans”).

⁹² See *DSM*, *supra* note 90, at 61; Barry Skoff, *Executive Functions in Developmental Disabilities*, 14 *INSIGHTS ON LEARNING DISABILITIES* 1, 4–5 (2004).

⁹³ *About ADHD*, NAT. RESOURCE CTR. ON ADHD 1–2 (2015), <http://www.chadd.org/Portals/0/Content/CHADD/NRC/Factsheets/aboutADHD.pdf> [https://perma.cc/2WUP-HQN7].

hyperactive-impulsive type (ADHD-HI), or ADHD combined type (ADHD-C).⁹⁴ No matter the subtype, individuals with a diagnosis of ADHD experience symptoms at differing degrees of severity and consistency.⁹⁵ While an individual with mild ADHD may function easily in everyday life, others with severe ADHD often experience significant obstacles in personal, employment, social, and academic settings.⁹⁶ Individuals with ADHD often show signs or receive diagnoses of other disorders such as depression or anxiety, potentially causing their ADHD-related problems to become more complex or severe.⁹⁷

Individuals with ADHD often have difficulty with several executive functions.⁹⁸ Impairments of executive function can impact students in the context of setting goals and executing strategies to meet those goals, both short- and long-term.⁹⁹ This aspect of an ADHD diagnosis affects the scheduling and monitoring part of the brain, not an individual's basic cognitive skills and abilities.¹⁰⁰

A diagnosis of ADHD often triggers a negative impression whereas the more positive, "zesty"¹⁰¹ side of the collection of symptoms is often downplayed or outright ignored.¹⁰² Individuals with ADHD usually exhibit several desirable personality traits such as creativity and "original, out-of-the-box thinking."¹⁰³ Such qualities can, of course, be an asset in an educational environment where students with ADHD often display an intense interest in learning particular subjects.¹⁰⁴ More generally, students with a disability in the context of higher education may have more discipline and desire to succeed, given the hurdles they have faced and

⁹⁴ *Id.*

⁹⁵ *Id.* at 2.

⁹⁶ *Id.* at 1. Significant impairments may include, for example, losing a job, experiencing excessive distress in a marriage, facing financial trouble due to impulsive spending, or being placed on academic probation because of failing grades in college. *Id.* See also *infra* Part IV (describing potential challenges for a student with ADHD in a learning environment).

⁹⁷ *About ADHD*, *supra* note 93, at 3.

⁹⁸ Executive function refers to the "variety of functions within the brain that activate, organize, integrate, and manage other functions." ATTENTION-DEFICIT DISORDERS AND COMORBIDITIES IN CHILDREN, ADOLESCENTS, AND ADULTS 11 (Thomas E. Brown ed., 2000).

⁹⁹ See Robin A. Boyle, *Law Students with Attention Deficit Disorder: How to Reach Them, How to Teach Them*, 39 J. MARSHALL L. REV. 349, 354–55 (2006) (noting that students with ADD may have difficulty being active and engaged learners because they struggle with making connections between prior knowledge and new material).

¹⁰⁰ See Skoff, *supra* note 92, at 4–5.

¹⁰¹ HALLOWELL & RATEY, *supra* note 89, at 4.

¹⁰² *Id.* at 4–5.

¹⁰³ *Id.*

¹⁰⁴ Boyle, *supra* note 99, at 351–52.

self-awareness they have developed necessary to advocate on their own behalf.¹⁰⁵

B. Increasing Number of Students with ADHD

Just as the rise in online learning tracks the K-12, college/university, and law school levels, so too does the rise in the number of students with a diagnosis of ADHD.¹⁰⁶ Although the exact numbers vary and are difficult to back with precision, the data and general sentiment about where those numbers are headed is clear: they are headed up.¹⁰⁷

Diagnoses of ADHD in children are generally reported to have exploded in the United States during the 1990s and 2000s.¹⁰⁸ A comparison of data from the Centers for Disease Control and Prevention from 2003 to 2011 shows an increase in the number of children ages 4–17 diagnosed with ADHD: from 7.8% (2003) to 9.5% (2007) to 11.0% (2011).¹⁰⁹ Results from a 2011–12 National Survey of Children’s Health estimate that 1 in 5 high school boys and 1 in 11 high school girls have

¹⁰⁵ Jennifer Jolly-Ryan, *Disabilities to Exceptional Abilities: Law Students with Disabilities, Nontraditional Learners, and the Law Teacher as a Learner*, 6 NEV. L.J. 116, 131 (2005) (“[D]isabilities often result in exceptional abilities.”).

¹⁰⁶ See, e.g., STEPHEN P. HINSHAW & RICHARD M. SCHEFFLER, *THE ADHD EXPLOSION: MYTHS, MEDICATION, MONEY AND TODAY’S PUSH FOR PERFORMANCE* xxvi (2014).

¹⁰⁷ Tracking the number of individuals with any disability depends, of course, on self-reporting and given the spectrum of varied ADHD diagnoses, failure to self-identify or a tendency to over-identify both affect bottom line statistics. See LEAH M. CHRISTENSEN, *LEARNING OUTSIDE THE BOX: A HANDBOOK FOR LAW STUDENTS WHO LEARN DIFFERENTLY* 19–20 (2011) (recognizing that while the overall number of people with disabilities is growing, obtaining actual numbers of students with disabilities is difficult if not impossible); Susan David deMaine, *From Disability to Usability in Online Instruction*, 106 L. LIBR. J. 531, 532 n.2 (2014) (“Given stigmas surrounding disability, the actual number of students with some level of disability [in law school] is likely higher.”). Moreover, this Article sets aside the robust medical, societal, psychological, and economic debate as to why rates of diagnosis have increased. Do more individuals actually have ADHD, or are students, doctors, parents, and professionals simply more eager to diagnosis “it” as such? For further reading on this debate, see generally HINSHAW & SCHEFFLER, *supra* note 106. See also Koerth-Baker, *supra* note 7 (“It’s easy to . . . speculate how ‘A.D.H.D.’ might have become a convenient societal catchall for what happens when kids are expected to be miniature adults.”). For purposes of this online learning research, I accept that a student’s diagnosis is medically supported.

¹⁰⁸ See HINSHAW & SCHEFFLER, *supra* note 106, at xxvi (“The number of ADHD diagnoses in America has been climbing at a pace inviting wonder, concern, and skepticism.”).

¹⁰⁹ *Key Findings: Trends in the Parent-Report of Health Care Provider-Diagnosis and Medication Treatment for ADHD: United States, 2003–2011*, CDC (Dec. 10, 2014), <http://www.cdc.gov/ncbddd/adhd/features/key-findings-adhd72013.html> [https://perma.cc/7JRF-3Z7V].

received a diagnosis of ADHD, and the percentage of children ages 4–17 who take medication for ADHD increased by almost one-third in only four years, from 2007 to 2011.¹¹⁰ Though prevalence rates are inexact, virtually all available statistics reflect a “clear upward trend”¹¹¹ and a simple “yes” answer to the question of whether rates of ADHD are increasing.

What is more, disabilities such as ADHD usually “do not melt away with age.”¹¹² More than 75% of individuals diagnosed with ADHD as children will continue to experience significant symptoms into their adult years.¹¹³ It is no surprise, then, that statistics reveal a similar growth in increased diagnoses and treatment of ADHD as those students transition from the elementary school level at which they are often first diagnosed.¹¹⁴ For example, in 2000, 6.7% of college and university students in the United States were diagnosed with ADHD.¹¹⁵ In 2008, that percentage more than doubled to 19.1%.¹¹⁶ The increase in individuals diagnosed with ADHD after the 4–17 age range was recognized and addressed in the most recent edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5), in which the ADHD section was revised with new descriptions of ADHD symptoms at older ages and adoption criteria for diagnosing ADHD in adults.¹¹⁷

Focus the lens towards legal education and a similar picture results. As a whole, students with disabilities continue to appear in law school in

¹¹⁰ *Id.*

¹¹¹ *ADHD Throughout the Years*, CDC (Oct. 5, 2016), <http://www.cdc.gov/ncbddd/adhd/timeline.html> [<https://perma.cc/D523-KJRQ>].

¹¹² Susan Johanne Adams, *Because They're Otherwise Qualified: Accommodating Learning Disabled Law Student Writers*, 46 J. LEGAL EDUC. 189, 194 (1996) (contrasting learning disabilities with “puppy fat and acne” in that they must be “recognized and tackled, or bright students run a considerable risk of failure and frustration”).

¹¹³ See *About ADHD*, *supra* note 93, at 1.

¹¹⁴ “The prevalence of ADHD in high school and college students has steadily increased in recent years, resulting in a greater interest in ADHD research and increased awareness of the symptoms and burden of ADHD in the general population.” Anthony L. Rostain & J. Russell Ramsay, *College and High School Students with Attention-Deficit/Hyperactivity Disorder: New Directions in Assessment and Treatment*, in AM. COLL. HEALTH ASS'N PROF'L DEV. PROGRAM, USE AND MISUSE OF STIMULANTS: A GUIDE FOR SCHOOL HEALTH PROFESSIONAL 7, 7 (Rosemary Hodgson ed., 2006).

¹¹⁵ U.S. GOV'T ACCOUNTABILITY OFF., GAO-10-33, HIGHER EDUCATION AND DISABILITY: EDUCATION NEEDS A COORDINATED APPROACH TO IMPROVE ITS ASSISTANCE TO SCHOOLS IN SUPPORTING STUDENTS 38 (2009).

¹¹⁶ *Id.*

¹¹⁷ See DSM, *supra* note 90, at 59–60. The prior edition, DSM-IV, was published in 2000.

significant numbers.¹¹⁸ While numerical precision remains difficult, the overall growth trend is reflected in enrollment, the increasing accommodations students are requesting and schools are providing, and recent initiatives involving lawyers with disabilities at the professional post-law school graduate setting.¹¹⁹ The ABA does not require a law school to track or report disabilities by type or category; rather, the ABA Annual Questionnaire only asks a school to report the number of students for whom it has provided accommodations.¹²⁰ In sum, there is little doubt that “[t]here are many more students with disabilities in law school today.”¹²¹

C. Potential Challenges for a Law Student with ADHD

In any academic setting, a student with ADHD may face hurdles. But the intense demands of a law school curriculum combined with internal pressure at the graduate school level to avoid special treatment can create a troubling recipe.¹²² “Slower adaptation”¹²³ to the individual learning structure of law school courses is likely, and much of the group support and student resources found at the undergraduate level are absent.¹²⁴ Even

¹¹⁸ See deMaine, *supra* note 107, at 532 (“The number of law students with sensory, motor, and cognitive impairments is increasing.”); CHRISTENSEN, *supra* note 107, at 19 (“You Are Not Alone: The Increasing Number of Law Students with Learning Disabilities.”).

¹¹⁹ The ABA reports a “steady” increase in the number of students at ABA accredited schools requesting accommodations as of 2011. AM. BAR ASS’N, COMM’N ON MENTAL & PHYSICAL DISABILITY LAW, ABA DISABILITY STATISTICS REPORT 1 (2011), http://www.americanbar.org/content/dam/aba/uncategorized/2011/20110314_aba_disability_statistics_report.authcheckdam.pdf [<https://perma.cc/4GBG-8MZU>]; see also Terry Carter, *The Biggest Hurdle for Lawyers with Disabilities: Preconceptions*, A.B.A. J. (June 1, 2015, 5:50 AM), http://www.abajournal.com/magazine/article/the_biggest_hurdle_for_lawyers_with_disabilities_preconceptions [<https://perma.cc/FJF5-U8KQ>] (“The fastest-expanding and sharpest-edged issue for diversity in the legal profession concerns mental disabilities, such as ADD, bipolar disorder and depression.”).

¹²⁰ Laura Rothstein, *Forty Years of Disability Policy in Legal Education and the Legal Profession: What has Changed and What Are the New Issues*, 22 AM. U. J. GENDER SOC. POL’Y & L. 519, 601 n.416 (2014).

¹²¹ *Id.*

¹²² Susan Johanne Adams, *Leveling the Floor: Classroom Accommodations for Law Students with Disabilities*, 48 J. LEGAL EDUC. 273, 296 (1998) (noting that students with learning disabilities may attend law school determined to be “normal” and avoid stigma); Alfreda A. Sellers Diamond, *L.D. Law: The Learning Disabled Law Student as a Part of a Diverse Law School Environment*, 22 S.U. L. REV. 69, 77 (1994) (“Many learning disabled law students feel the need to hide.”).

¹²³ Rostain & Ramsay, *supra* note 114, at 15.

¹²⁴ See Adams, *supra* note 122, at 295–96.

without the potential challenges online learning environments pose, hurdles these students once cleared may be insurmountable.

Depending on the nature of a student's ADHD and treatment plan, his or her law school performance may reflect a "discrepancy between aptitude and achievement."¹²⁵ That is, what the student is capable of doing is not what the student actually does. This pattern tracks what often occurs once an individual with ADHD reaches adulthood: obstacles and daily functioning gets more demanding and individuals "hit a ceiling" such that their usual coping mechanisms are no longer effective.¹²⁶

Law school can be the fuel that brings out the full ADHD fire because the ability of a student to compensate may fade in light of the pace and demands of a professional learning environment.¹²⁷ For many students, law school is their first real experience with independent learning: large amounts of reading assignments, less day-to-day instruction, and minimal instructor-provided, explicit guidance regarding on what material the student will ultimately be tested and graded.¹²⁸ Law students with ADHD are more likely to struggle to find the planning, organizational, and time-management skills necessary to succeed with the "long-term" and "large-scale" assignments that comprise the traditional law school coursework.¹²⁹

IV. ONLINE LEARNING AND ADHD

*"A screen packed with information can be intimidating for anyone; for a person with cognitive impairments it is overwhelming."*¹³⁰

All students get distracted and all students may be challenged in an online learning environment. But, for students with ADHD, distraction and challenge have the potential to become outright impairment.

¹²⁵ Jolly-Ryan, *supra* note 105, at 137–38 (quoting Suzanne Wilhelm, *Accommodating Mental Disabilities in Higher Education: A Practical Guide to ADA Requirements*, 32 J. LEGAL EDUC. 217, 229 (2003)) (discussing dyslexia and ADD as two common learning disabilities and noting that law students with learning disabilities often have a higher aptitude than reflected in their grades).

¹²⁶ Melinda Beck, *Mind Games: Attention-Deficit Disorder Isn't Just for Kids. Why Adults Are now Being Diagnosed, Too*, WALL STREET J. (Apr. 6, 2010, 12:01 AM), <http://www.wsj.com/articles/SB10001424052702304620304575165902933059076> [<https://perma.cc/23G8-XHBA>].

¹²⁷ *See, e.g.*, Boyle, *supra* note 99, at 355 (summarizing problems students may face beyond the more structured elementary school context).

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ R. Scott Grabinger et al., *Supporting Learners with Cognitive Impairments in Online Environments*, 52 TECHTRENDS 63 (2008).

The problems lurking in an online learning environment for a student with ADHD are best understood by contrasting two different demands placed upon a student: content and process.¹³¹ Content demands involve mastering the “meaning or message” of substantive concepts an instructor presents.¹³² What is interstate commerce? What are the elements of a battery? What is the purpose of a rule application paragraph in a legal memorandum? In contrast, process demands refer to the “methods and actions in which the student must engage to access course matter.”¹³³ Where and how do I enter my discussion board post? Which undated podcast is assigned this week? Why isn’t the “interstate commerce” video lecture included within the “Commerce Clause” module on my course Blackboard site?

The process demands triggered by an online platform tend to be more significant than those from traditional face-to-face instruction. Which classroom is my Constitutional Law class in today? Where did I leave my casebook? Do you have an extra copy of the syllabus?¹³⁴ As the chart below demonstrates, these “novel demands of a virtual classroom”¹³⁵ cut to the heart of many of the executive functioning skills students with ADHD often lack:

¹³¹ Lyman L. Dukes III et al., *Making Blended Instruction Better: Integrating the Principles of Universal Design for Instruction into Course Design and Delivery*, in 31 ACTION IN TEACHER EDUCATION 38, 39 (2009).

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*; Madaus et al., *supra* note 13, at 22 (“Given that one of the hallmarks of students with LD [Learning Disability] or ADHD is weaknesses in executive functioning skills, the self-management demands of such courses are likely to create new learning challenges . . .”).

Online Learning Demand	Skill Required
Confusing layout & course navigation	Ability to divide attention among tasks and focus on discrete pieces of information
Constant information overload	Organization and scheduling; purposeful study strategies
Minimal instructor guidance; indirect and often delayed responses	Self-motivation and problem-solving
Unclear course requirements and expectations	Goal-setting and planning
Large amounts of content provided at once, as a whole	Self-regulated learning and metacognition
Asynchronous environments	Task and time management
Anonymity and often isolated learning	Independent ability to focus and control impulsivity and distraction Self-advocacy

To be sure, these skills would benefit any law student in a traditional, in-person Socratic course. Yet, these qualities are more than a mere “plus” in an online environment—they are a necessity.¹³⁶ Indeed, at the undergraduate level of the law school where I teach, the school cautions students to be diligent in staying on top of requirements in hybrid or online courses, and encourages students considering whether to take such courses to complete a self-assessment with questions prompting reflection on these attributes and skills: “I am able to manage and stay focused on my

¹³⁶ *Grade Level*, *supra* note 60, at 6 (reporting that 68.3% of college and university academic leaders believe that “[s]tudents need more discipline to succeed in an online course than in a face-to-face-course.”).

assignments,” “I set goals and have a high degree of initiative,” “When it comes to learning and studying, I am a self-directed person.”¹³⁷

The literature predicts an uphill battle for students with cognitive disabilities such as ADHD in online learning environments in light of the need for self-motivation, self-awareness, and monitoring.¹³⁸ For example, the authors of one qualitative study of a small group of college students with learning disabilities reported that students did not understand expectations on course discussion boards and experienced issues with computer-based testing.¹³⁹ Another interview study of ten college students with learning disabilities or ADHD reported that although online courses provided helpful flexibility and convenience, the students had trouble with issues such as a lack of explicit instructor direction and poor course organization and navigability.¹⁴⁰

This Article is the first examination of law students with ADHD in online learning environments. The online education literature “is lacking regarding individuals with cognitive impairments.”¹⁴¹ The time to explore law students’ experiences is now, while “[t]he field of distance education in law is still young.”¹⁴²

V. STUDENT RESEARCH STUDY

This section describes the methodology, results, and limitations of my qualitative research project involving law students with ADHD. At the outset, I acknowledge that countless variables exist for students with cognitive disabilities, and I did not endeavor to mirror them. One size certainly does not fit all, or even most. Instead, I used semi-structured interviews of a small sample¹⁴³ of students at my institution, Suffolk

¹³⁷ SUFFOLK U., https://suffolk.co1.qualtrics.com/jfe6/form/SV_8pPIBjs9evOM81T [<https://perma.cc/FY7H>].

¹³⁸ Dukes III et al., *supra* note 131, at 40.

¹³⁹ Andrew Simoncelli & Janice M. Hinson, *College Students’ with Learning Disabilities Personal Reactions to Online Learning*, 38 J. C. READING & LEARNING 49, 51–62 (2008).

¹⁴⁰ See Madaus et al., *supra* note 13, at 25, 29.

¹⁴¹ Christy G. Keeler & Mark Horney, *Online Course Designs: Are Special Needs Being Met?*, 21 AM. J. DISTANCE EDUC. 61, 62 (2007).

¹⁴² DESIGN & DELIVERY, *supra* note 63, at 11.

¹⁴³ A small sample size is not “atypical for a qualitative research study.” Leah M. Christensen, *Legal Reading and Success in Law School: The Reading Strategies of Law Students with Attention Deficit Disorder (ADD)*, 12 SCHOLAR 173, 185 n.60 (2010). A detailed discussion of qualitative research procedures is beyond the scope of this Article, but see generally GARY KING ET AL., *DESIGNING SOCIAL INQUIRY: SCIENTIFIC INFERENCE IN QUALITATIVE RESEARCH* (1994).

University Law School, with two goals in mind: first, obtain a more robust understanding of these students' experiences in online learning environments; second, use any consistent themes and findings to form suggestions and provide guidance for development and implementation of online courses.

A. Methodology

My foremost concern when recruiting student participants was respect for confidentiality, anonymity, and privacy. I extended an invitation to participate in the research study to enrolled law students (day and evening) through a weekly newsletter sent via e-mail by, and with approval from, the Dean of Students. I did not initiate direct contact with any enrolled student to ask for participation, although I spoke with the school's student president of the Disability Law Advocates organization and asked if she would be interested in forwarding the newsletter invitation to students in that organization (which she did). I contacted, via email, one alumnus who was involved with the same student organization to inform her of the study. All other students contacted me and all interview procedures, including informed consent, were conducted with Institutional Review Board (IRB) approval.

I conducted individual interviews of six students using a combination of scripted and open-ended follow up questions. For example, I asked each student if he or she had ever received accommodations in law school. Depending on the response, I inquired as to what those accommodations were and whether the student ever considered accommodations in the context of an online course or platform such as Blackboard. I conducted one interview over the phone and the others in person in my private office at the law school. With each student's permission, I audio recorded the interview and took notes. I structured the interview to cover three basic topics: (1) individual online learning background (what classes the student has taken or tools used, etc.); (2) the student's disability (timing and circumstances of diagnosis, management of his or her ADHD, etc.); and (3) the student's experiences in online learning environments (helpful aspects, challenges, particular examples or events, etc.). I told the students that I was not only interested in courses conducted exclusively online (indeed, the students had minimal law school experience in that context,¹⁴⁴ though several had taken a hybrid or fully online course in college), but

¹⁴⁴ The fact that the interviewees did not have substantial experience with fully online courses in law school is discussed later as one limitation of this study. See *infra* Section V.B.

that I would also use the term “online learning” to capture web-facilitated courses as well.

Students’ last names were not recorded and each audio recording and page of notes was assigned a random number instead of a first name for purposes of anonymous data collection and record keeping. The students’ real names have not been used in this Article, and at times I adjusted the name of a particular course if the student expressed even the slightest concern about potential disclosure of identifying information. After each interview, I reviewed the recording and my notes several times to extract main ideas, key quotes, and themes.

Basic descriptive information about the participants in the study is listed below. Each student self-identified as having a diagnosis of ADD or ADHD. In lieu of providing a detailed summary of each interview, I describe the students’ answers in the context of common themes in the Results section that follows.

Student #1 – Molly, a 1L day student.

Student #2 – Alex, a 1L day student.

Student #3 – Helen, a 4L joint JD/MS in Finance student.

Student #4 – Britta, a L’15 law school graduate.

Student #5 – Sasha, a 3L day student.

Student #6 – Marcus, a 2L evening student.

1. Results

Several themes emerged from the student interviews. This collection of shared experiences and perspectives supports my hypothesis that across the spectrum of online learning environments, law students with ADHD enjoy some benefits, but they also face significant challenges.

2. Flexibility and Opportunity to Self-Pace

All of the students mentioned flexible access to course materials as an advantage to online learning, both with regard to time and place. For example, Britta described the convenience of being able to stop for quick breaks during her online bar preparation class videos, but noted that sometimes the temptation of many small breaks can “turn a three hour lecture into an eight hour activity.” Sasha, who also has a visual processing disorder, regularly listened to “supplemental” Panopto lectures provided by her Tax professor, during evenings from her home when she found a particular topic confusing. When her “brain [is] on a tangent,”

Alex often pauses and rewinds Panopto videos or CALI (Computer-Assisted Legal Instruction)¹⁴⁵ lectures to review covered material.

3. *Information “Overload”*

“Everything in moderation” was the students’ feedback on professors’ use of online materials. Students became overwhelmed when professors provided a large amount of instructional material through postings or via e-mail. Sasha noted that it sometimes feels “abusive” when a professor recognizes a class is behind, decides to “just upload it,” and has students teach the material to themselves instead. Sasha described a time during her 2L year when her professor went out of the country for the second half of the semester, and simply posted videos for the students to watch at their own leisure or in a designated classroom. Another professor in an International Law course e-mailed Sasha’s class several articles, links, and postings almost every weekend. This was difficult for Sasha, who said she works in “long hauls . . . all or nothing,” so jumping to newly added Blackboard postings or *Wall Street Journal* articles “adds a lot to the basic first step” of trying to complete the “usual” coursework.

4. *Length of Assignments/Segments*

Students mentioned the length of a particular online lesson or information source as a potential barrier to its success and usefulness as a learning tool. Several used phrases such as, “the shorter, the better.” For example, evening student Marcus described videos “in shorter bursts” as helpful, but would tend to be “hypervigilant” and start to notice silly details when trying to watch something longer. Molly found it nearly impossible to listen to one voice for an hour on a computer, especially when the more formal tone and presentation style delivered in an online lecture makes the professor seem “like a stranger.” Molly found that librarian research videos as short as five or so minutes required less of an effort for her to focus and made it easier for her to grasp the concepts. Similarly, Alex commented that getting motivated to watch a 75–90 minute video lecture with slides that the professor suggested to use “as needed” was “tricky.” Recent graduate Britta recalled a 1L experience when her Constitutional Law professor e-mailed PowerPoint files weekly, each containing hundreds of slides. One slide deck was so large that no student in the class was able to open it, and so the professor had to re-send a modification. Overall, the detail in the slides was far too much to be of any reasonable help.

¹⁴⁵ See CALI, <https://www.cali.org> [<https://perma.cc/BMV4-FPJZ>].

5. *Clarity of Instruction and Expectations*

At different times, each student described something along the lines of “law school is hard enough” without adding “all of this [technology] to it.” Molly said that prioritizing among hornbooks, study guides, and class notes is tricky and when electronic files are posted or e-mailed, some context would be helpful to know if, for example, a particular document is for class or just “enjoyment” (as many seem to be). She needs help making connections among all the material, a sentiment joint JD/MS in Finance student Helen echoed when she said an introduction and context was important to help her group online postings and decipher how they fit together: “how [online postings] are given to me matters.” Several students mentioned not being able to ask immediate clarification questions as a downside to online videos or lectures. In the context of the numerous electronic materials posted or e-mailed in her International Law course, Sasha remarked that it would have been helpful to know if they were simply an “FYI” on an interesting topic or for a class discussion on a particular date. On a positive note, she described lecture videos that a Tax professor e-mailed when several classes were cancelled due to a snowstorm as “useful.” The videos allowed her to view hypothetical tax computations on a “virtual” whiteboard and not feel as overwhelmed having to catch up from missed classes.

6. *Technology Tools*

Seemingly small things such as colors or labels mattered to the students, as did larger tools such as screen readers and captions. When I mentioned screen readers that read aloud information from a file, Britta exclaimed, “I wish I had that!” and said it would have been easier to maintain focus on large reading assignments if she could listen to them. Helen always uses captioning and Marcus described it as helpful for his focus. Molly found the scrolling captions in research videos in her Legal Writing course useful to “frame” what the speaker was saying, especially if a lecture was presented solely via audio means. When asked about captions, Alex said she “love[s]” them during times she is especially distracted, as long as they do not cover up an image or appear in a distracting manner. Alex further explained that the labels of files are confusing when they lack detail as to what a particular post or e-mailed file contains. She receives hundreds of e-mails a day, so it is difficult to prioritize which ones to open and which ones to focus on. Molly said that too much of the information on the PowerPoint slides confuses and distracts her. Likewise, so do the PowerPoint slides with too many pictures. Therefore, in an ideal world for Molly, the PowerPoint would

include numerous slides, but with far less detail on each. When I followed up by asking about any particular instances of difficulty, she said bright colors and contrast help her focus but “fancy fonts can be distracting.” Marcus remembered an instance during a PowerPoint presentation when he focused the entire time on the professor’s choice of adding red font on a white background, instead of on the content. Two students noted difficulty acclimating to different platforms such as Blackboard and Campus Cruiser, but had an overall positive experience once they got “used to it.”¹⁴⁶

7. *Accommodations*

The students were surprised at my mention of accommodations in an online learning environment. Britta received extra time on most of her law school exams, but when asked whether she ever requested accommodations for a Blackboard quiz, she said no. Had she known such accommodations were a possibility, she likely would have asked for the accommodations because more time would have been helpful. All of the students said they would be more likely to request accommodations—or at least discuss what available accommodations might be—if they were explicitly told accommodations might be available in certain contexts, such as extra time on Blackboard quizzes or video captioning.

8. *Connection and Engagement*

Several students mentioned that a personal classroom environment helps them manage distractibility and lack of focus. For example, Molly relies on questions in class (her own and others) and “personal communication” to follow a discussion. Answers to e-mail questions are obviously not instantaneous, she noted, and she is less likely to e-mail questions than raise her hand or talk to her professor after class. Molly, who has also been diagnosed with depression, described “social cues” that help her stay centered during class: the professor’s reactions, expressions, and praise. She took a fully online class in college and found it “more isolating” and “more like a chore” because she could not connect with other students and missed the in-person interaction. When I asked Molly if, hypothetically, she had to take the Evidence course fully online as a 2L, she expressed hesitation and said an online course “feels robotic and optional,” and she would “do everything [she] could not to take an online class in law school.” Similarly, Helen described herself “like a mouse” online because she goes a bit silent and does not feel comfortable. She

¹⁴⁶ See BLACKBOARD, <http://www.blackboard.com> [<https://perma.cc/HR6Y-CTEU>]; CAMPUS CRUISER, http://prod.campuscruiser.com/PageServlet?pg=home_welcome&cp=154 [<https://perma.cc/R4W6-XDVS>].

thrives on the in-person, physical reactions that give her confidence. For example, in her online business school course she rarely posts to the discussion board, but participates often in her in-person law school courses and excels at group work. Britta noted it was “easier to stay motivated in a physical classroom” and believes medication would be more important for her in an online setting. She regretted enrolling in an online bar preparation course and said it was far easier to procrastinate and lose focus. Evening student Marcus likes classes where attendance is mandatory, and worried about how he would “create the structure” necessary for him to do well in an online law school class.

B. Limitations

The primary limitation of this research is that the majority of students’ experience with online learning environments fell on the web-facilitated end of the seesaw described earlier in this Article.¹⁴⁷ In other words, the students had not been enrolled in fully online courses in law school. Given the momentum fueling the increase in online learning in legal education, I would expect a different demographic were I to replicate this research in ten, or even five, years. Moreover, a larger sample size across more than one institution would contribute to a more complete picture of how students with ADHD fare in these environments. Nevertheless, the issues students encountered at the web-facilitated and hybrid stage would likely continue and intensify in a fully online course. The themes from this research are consistent with the paradox between the unique demands of online learning and equally unique qualities of students with a cognitive disability such as ADHD. This paradox deserves some place in the spotlight as course designers, administrators, and educators wrestle with how best to support all students in the new digital law school.

VI. LOOKING FORWARD

The online learning “tide” is coming to legal education, and “when an aquatic experience is inevitable it is best to start the swimming lessons as soon as possible.”¹⁴⁸

This Article concludes with three such lessons. First, it briefly summarizes the landscape of whether the law mandates support for students with cognitive disabilities in online learning environments, concluding that it most likely does.¹⁴⁹ Second, it offers several categories

¹⁴⁷ See *supra* Section II.A.2.

¹⁴⁸ DESIGN & DELIVERY, *supra* note 63, at 9.

¹⁴⁹ See *infra* Section VI.A.

of support at the institutional level for both faculty and students.¹⁵⁰ Third, it provides concrete suggestions for individuals interested in exploring small but important changes and practices that are likely to improve students' online learning experience, based on the interview data described earlier.¹⁵¹

The problems students with ADHD face are complex and the solutions are by no means straightforward. No school can design every course or lesson perfectly to reach every student, much less students with a unique condition such as ADHD. However, we can put our best stroke forward now, as online JD programs are designed. Our consideration, or lack thereof, of these issues will dictate whether law students with cognitive disabilities sink or swim in the new educational online arena.

A. Legal Requirements

Imagine a law student who is blind enrolls in a hybrid legal research class. It is easy to envision that student with a physical disability being legally entitled to a reasonable accommodation such as use of a screen reader under the Rehabilitation Act of 1973 or the Americans with Disabilities Act (ADA).¹⁵² But what about a law student with ADHD?

The answer to the question of what schools must do for students with cognitive disabilities in online learning environments is grainy, but becoming clearer. For starters, there is no doubt that a non-physical condition such as ADHD or dyslexia can qualify as an impairment under either federal law mentioned above.¹⁵³ Such qualification is by no means automatic, but this protection is why students with ADHD already receive accommodations such as extra testing time or semi-private testing locations in the brick and mortar law school setting.¹⁵⁴ Thus, the more ripe issue relevant to the topic of this Article is whether these federal statutes

¹⁵⁰ See *infra* Section VI.B.

¹⁵¹ See *infra* Part VI.B.3.

¹⁵² Rehabilitation Act of 1973, Pub. L. No. 93-112, 87 Stat. 355 (codified as amended in scattered sections of 29 U.S.C.); Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101–12213 (2012). A detailed discussion of the scope of these federal laws is beyond the reach of this Article, but in summary, the Rehabilitation Act requires compliance by schools that receive any federal funding whereas Title II of the ADA encompasses state, community, and city colleges and universities. Compare 29 U.S.C. § 794 (2012), with 42 U.S.C. §§ 12131–12165 (2012). Title III further captures within its scope private institutions that provide public accommodations (in other words, any United States law school). See 42 U.S.C. §§ 12181–12189 (2012).

¹⁵³ See, e.g., 42 U.S.C. § 12102(1) (2012) (defining “disability” as “a physical or mental impairment that substantially limits one or more major life activities of such individual”).

¹⁵⁴ NAT'L ASS'N OF LAW STUDENTS WITH DISABILITIES, BEST PRACTICES GUIDE FOR ACCOMMODATING LAW STUDENTS WITH DISABILITIES 4, 12 (2016).

require some level of compliance, accessibility, and reasonable accommodation for students with non-physical disabilities in the new digital law school.

In short, they seem to. Precisely what that obligation is, however, remains far less certain. Both the Rehabilitation Act and the ADA were passed long before the Internet became the ubiquitous force it is today.¹⁵⁵ Section 508 of the Rehabilitation Act was amended in 1998 to require federal entities to ensure equal access to “electronic information.” Although Section 504 was not amended in similar fashion, it would be an uphill battle for a school receiving federal funds to argue against some similar obligation, whether for a student with a physical or non-physical disability.¹⁵⁶ Likewise, although ADA jurisprudence offers limited wiggle room for a school to argue a website or educational online platform is not a physical “place” of public accommodation under the statute so as to mandate accommodations for qualifying individuals, that contention also seems unlikely to prevail.¹⁵⁷

Moreover, the Department of Justice (DOJ), the federal agency tasked with enforcing the ADA, remains consistent and clear in its position that Title III of the ADA does indeed cover access to websites for qualifying individuals.¹⁵⁸ Although formal website accessibility regulations have

¹⁵⁵ See, e.g., *Web Accessibility for Section 508*, JIMTHATCHER.COM (July 30, 2011), <http://www.jimthatcher.com/webcourse1.htm> [<https://perma.cc/RLM8-LMAM>].

¹⁵⁶ Laura F. Rothstein, *The Americans with Disabilities Act and Higher Education 25 Years Later: An Update on the History and Current Disability Discrimination Issues for Higher Education*, 41 J.C. & U.L. 531, 566 (2015) (“There is a general philosophy that compliance with Section 504 requires some level of ensuring access to websites, etc.”); deMaine, *supra* note 107, at 539 (“[T]here is little room for doubt that accessibility features in electronic instructional materials—along with websites, databases, and other electronic tools for learning—will be required.”).

¹⁵⁷ Although I have located no court decision addressing whether an educational web platform in an online learning environment is a place of public accommodation under the ADA, courts that have tackled the question in the online commerce context would seem to answer “yes” to this question. See, e.g., *Nat’l Ass’n of the Deaf v. Netflix*, 869 F. Supp. 2d 196, 200–02 (D. Mass. 2012) (denying motion to dismiss and noting that the ADA must evolve with technology because limiting to physical places would frustrate the statute’s purpose); *Nat’l Fed’n of the Blind v. Scribd Inc.*, 97 F. Supp. 3d 565, 575 (D. Vt. 2015) (“Now that the Internet plays such a critical role in the personal and professional lives of Americans, excluding disabled persons from access to covered entities that use it as their principal means of reaching the public would defeat the purpose of [the ADA].”). But see *Earll v. eBay, Inc.*, 599 F. App’x 695, 696 (9th Cir. 2015) (“Because eBay’s services are not connected to any ‘actual, physical place[,]’ eBay is not subject to the ADA.”) (quoting *Weyer v. Twentieth Century Fox Film Corp.*, 198 F.3d 1104, 1114 (9th Cir. 2000)).

¹⁵⁸ State law appears to be following suit. See deMaine, *supra* note 107, at 542 (noting that “[a]s of 2009, approximately fifteen states had statutes addressing website accessibility, and all fifty states had policies or guidelines on the subject”).

been delayed until 2018, at the earliest, following proposed rulemaking back in 2010, the DOJ's statements and actions leave little doubt as to its expansive view of the statutory obligations of private entities conducting websites as places of public accommodation.¹⁵⁹ For example, in the commercial context, the DOJ has brought actions against H&R Block, Inc., Carnival Corp. (operator of Carnival Cruise Line), and the online grocery delivery service Peapod. All actions were related to these businesses' alleged violations of the ADA in the context of web and mobile access for individuals with disabilities.¹⁶⁰

Settlements and lawsuits in the education context mirror this trend.¹⁶¹ For example, in 2015 the DOJ settled with edX, a significant player in the online education space, requiring edX to make modifications to its website, platform and mobile applications.¹⁶² In November 2016, a federal district court judge adopted a magistrate's recommendation regarding denial of Harvard and MIT's motions to dismiss claims brought by the National Association of the Deaf relating to failure to provide captioning for online content.¹⁶³ Additionally, in April 2016, blind law students filed a class action lawsuit against BarBri, the nation's largest bar exam preparation course, alleging it "refused to remove several accessibility barriers to its mobile application, website, and course materials."¹⁶⁴ The DOJ's spotlight is shining bright on this issue, and institutions face mounting pressure to conduct reviews of the accessibility of online materials, including both

¹⁵⁹ U.S. DEP'T OF JUST., FALL 2015 STATEMENT OF REGULATORY PRIORITIES (2015) (Summarizing 2010 ANPRM on web site accessibility and stating that "[t]he Department expects to publish the title III web site accessibility NPRM during fiscal year 2018.").

¹⁶⁰ See Consent Decree, Nat'l Fed'n of the Blind v. HRB Dig. LLC, No. 1:13-cv-10799-GAO (D. Mass. Mar. 25, 2014), <https://www.ada.gov/hrb-cd.htm> [<https://perma.cc/4P5D-J328>]; Settlement Agreement Between the United States of America and Carnival Corporation, DJ No. 202-17M-206 (July 23, 2015), https://www.ada.gov/carnival/carnival_sa.html [<https://perma.cc/X378-87ZF>]; Settlement Agreement Between the United States of America and Ahold U.S.A., Inc. and Peapod, LLC, DJ 202-63-169 (Nov. 17, 2014), <https://www.justice.gov/file/163956/download> [<https://perma.cc/V8HR-9LPJ>].

¹⁶¹ See, e.g., Settlement Agreement Between the United States of America and EDX Inc., DJ No. 202-36-255 (Apr. 1, 2015), https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/04/02/edx_settlement_agreement.pdf [<https://perma.cc/F5VR-L4LK>].

¹⁶² *Id.* at 2.

¹⁶³ Nat'l Ass'n of the Deaf v. Harvard Univ., No. 3:15-cv-30023-MGM, 2016 WL 3561631 (D. Mass. filed Feb. 9, 2016) (Report and Recommendation Regarding Defendants' Motion to Stay or Dismiss); Nat'l Ass'n of the Deaf v. Mass. Inst. of Tech., No. 3:15-cv-30024-MGM, 2016 WL 3561622 (D. Mass. filed Feb. 9, 2016) (Report and Recommendation Regarding Defendants' Motion to Stay or Dismiss).

¹⁶⁴ Complaint at 1, Stanley v. BarBri, Inc., No. 3:16-cv-0113-0 (N.D. Tex. Apr. 25, 2016).

course management platforms and the actual instructional materials they host.¹⁶⁵

These steps in the movement toward web “eQuality”¹⁶⁶ beg many questions: What does accessibility look like? Do reasonable accommodations differ for an individual with a physical or non-physical qualifying disability such as ADHD? How is web accessibility measured? How far does it reach? Is third-party online content included? What about mobile applications? Much remains to be seen. At this juncture, the primary source for answers to these difficult questions, and anything resembling a “gold standard” towards which to strive, is the Web Content Accessibility Guidelines (typically referred to by their acronym, WCAG, pronounced “wick-ag”).¹⁶⁷ WCAG 2.0 is the most recent version of this comprehensive set of technical specifications and techniques developed by the World Wide Web Consortium to assist with accessibility for websites and web content—for example, providing text alternatives for non-text content, giving users sufficient time to read web content, and making all website functionality available with a keyboard.¹⁶⁸

The unanswered questions regarding mandates for a law school vis-à-vis its online learning platforms and students with disabilities reinforce the importance of a proactive approach. The next and final two sections look forward and provide suggestions at the institutional and individual faculty levels as more law schools develop online programs.

B. Institutional Recommendations

What the law mandates for students with a qualifying disability in an online learning environment is not the only worthwhile inquiry. The next question is what *can* schools do? What *should* schools do to make online learning as successful an experience for as many law students as possible, and specifically for students with a cognitive disability such as ADHD? Although a comprehensive set of best practices for design of online learning programs is beyond the scope of this Article,¹⁶⁹ this section offers six examples of institutional support.

¹⁶⁵ Linder et al., *supra* note 9, at 22 (describing increased attention by government on online accessibility efforts in higher education).

¹⁶⁶ BLANCK, *supra* note 13, at 179.

¹⁶⁷ *Id.* at 163–64.

¹⁶⁸ *Web Content Accessibility Guidelines*, W3C (Dec. 11, 2008), <https://www.w3.org/TR/WCAG20> [<https://perma.cc/C3WB-46WL>]; *see also* deMaine, *supra* note 107, at 543–44 (providing further detail and description regarding industry standards and WCAG guidelines).

¹⁶⁹ The only law school-specific source I located regarding design of distance learning in legal education is the Working Group on Distance Learning in Legal Education’s 2015

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1. *Instructional Design Resources*

As accredited law schools experiment with online options, instructional design, also referred to as course design, takes on a role of heightened importance.¹⁷⁰ Similar to the faulty assumption that Millennial students excel at online learning because they are pros at perusing Facebook, so too is the notion that faculty are adept at designing an online course simply because they know how to order holiday gifts from Amazon. Technical and instructional experts must be available to guide faculty on best practices regarding, for example, organizing modules of information within a course management system in a logical and concise manner. Content presented in sequenced, small chunks with appropriate titles is something most students appreciate, especially students with ADHD who may be overwhelmed if material is disorganized or difficult to access. I am fortunate to teach at a law school that shares in the benefit of a University-wide Center for Teaching & Scholarly Excellence, which offers a specific Online Course Design Institute for faculty interested in developing a user-friendly online course.¹⁷¹

a. *Faculty Training and Technical Support*

Schools must overcome the perception that creating accessible online content is overly burdensome and far too time-consuming. To be sure, yes, some of it takes time and dedicated effort. But it doesn't have to be a monumental task; small improvements can improve students' learning experience. For many law faculty, contemplating changing the way they divide folders within a course management system or design a PowerPoint presentation is enough to make them "want to hide in their offices."¹⁷² Coupled with the potential for disdain and skepticism regarding accommodating students with certain "invisible" disabilities such as ADHD,¹⁷³ hesitation among faculty is not surprising. In addition to "macro" level training in the context of instructional design, schools

Recommended Practices, DESIGN & DELIVERY, *supra* note 63. In Appendix A, the Working Group provides its Model Standards, which include Standard 8.1 Accessibility ("Online programs should be accessible to persons with disabilities, in compliance with applicable federal (ADA) and state laws."). *Id.* at 82. Notably, the Group's Interpretation (c) of Model Standard 8.1 includes only "students with hearing and vision disabilities" in the context of accessible online content. *Id.*

¹⁷⁰ DESIGN & DELIVERY, *supra* note 63, at 8.

¹⁷¹ *Online Course Design Institute*, SUFFOLK U., <http://www.suffolk.edu/academics/60501.php> [<https://perma.cc/V9D5-2HF3>].

¹⁷² BEYOND THE AMERICAN WITH DISABILITIES ACT: INCLUSIVE POLICY AND PRACTICE FOR HIGHER EDUCATION 75 (Mary Lee Vance et al. eds., 2014).

¹⁷³ Jolly-Ryan, *supra* note 105, at 126.

should provide “micro” training with tools and strategies to make specific types of content more accessible.¹⁷⁴ Examples of “micro” training include how to caption video or audio lectures (something the students with ADHD I interviewed found very helpful), how to approach use of electronic textbooks, how to use “styles” formatting in a Microsoft Word document to ensure compatibility with a screen reader, and how to eliminate potentially distracting background graphics from PowerPoint slides.¹⁷⁵ Law professors are not going to become technical experts in the WCAG guidelines; indeed, most have never heard of them.¹⁷⁶ But that does not negate the need for faculty to be introduced to these concepts to obtain a basic understanding and awareness of available resources.

b. Academic Support and Disability Office Student Resources

“One of the first problems students with disabilities encounter is finding support.”¹⁷⁷ If support in a physical classroom is difficult to locate, it may be virtually invisible online. Indeed, the students interviewed expressed surprise at the idea of receiving an accommodation online.¹⁷⁸ Schools can and should change that. Any course management system can be modified to invite students to disclose and discuss their disability with the appropriate person (for example, adding a tab on Blackboard labeled “*Disability Information/Accommodations*” with appropriate contact information).¹⁷⁹ Or, a topic such as “How to Navigate Online Learning” can be included among more traditional Academic Support offerings such as outlining, essay exam writing, and time management. Early identification of students who may be struggling is critical. Targeted

¹⁷⁴ DESIGN & DELIVERY, *supra* note 63, at 46 (“[I]t is unwise—if not nearly impossible—for faculty to enter the world of online learning without training in a variety of areas.”).

¹⁷⁵ These examples (among others) are contained in an online training entitled “Making Your Online Course ADA Compliant,” I was fortunate to receive through Suffolk University’s Office of Disability Services and its former director Kirsten Behling, see *Faculty Development: Making Your Online Course ADA Compliant*, AUSTIN PEAY ST. U., <http://www.apsu.edu/announcements/faculty-development-making-your-online-course-ada-compliant> [<https://perma.cc/E679-9ZQZ>]. All faculty members at Suffolk were asked to complete this valuable training. Ms. Behling is a leader in this field and president of the New England Association of Higher Education and Disability Services (AHEAD). I consulted her at the outset of my research for this Article, and value her insight and enthusiasm for the topic.

¹⁷⁶ See *Web Content Accessibility Guidelines*, *supra* note 168.

¹⁷⁷ Grabinger et al., *supra* note 130, at 64 (describing offices that have traditionally provided support for students with disabilities as “ill[-]equipped to deal with distance learning problems”).

¹⁷⁸ See *supra* Part V.

¹⁷⁹ DESIGN & DELIVERY, *supra* note 63, at 21–22.

support will help those students overcome online process demands and avoid being one of the many students with a disability who falter in this setting.¹⁸⁰

c. Course Syllabus Statement

Schools should provide faculty with a suggested syllabus statement regarding the possibility of accommodations for a course involving any type of online learning, whether web-facilitated or completely online.¹⁸¹ In other words, likely every course offered in law school today. This statement can encourage student disclosure of a disability to appropriate offices such as the Dean of Students or Office of Disability Services. Disclosure and a discussion about challenges and potential accommodations and coping strategies becomes even more important online, when an already hidden disability such as ADHD becomes that much more invisible out of the classroom.¹⁸² Indeed, one study from 2011 reported that 69.7% of students had not disclosed their disabilities to online instructors.¹⁸³

d. Student Self-Assessment

Metacognition, or learning about one's own learning, is important for all law students—but it can be the difference between success and failure for a student with ADHD in a new and challenging online learning environment.¹⁸⁴ Schools should require students enrolled in any hybrid or

¹⁸⁰ See *supra* Section III.C; Grabinger et al., *supra* note 130, at 64 (“[S]tudents with disabilities frequently fail in their attempts to complete online courses.”); BEYOND THE AMERICAN WITH DISABILITIES ACT, *supra* note 172, at 113 (“[I]t is clear that there is significant attrition of students with disabilities.”); Editorial, *The Trouble with Online College*, NY TIMES (Feb. 18, 2013), <http://www.nytimes.com/2013/02/19/opinion/the-trouble-with-online-college.html> [<https://perma.cc/6ZZ7-HXRC>] (“[S]tudent attrition rates—around 90 percent for some huge online courses—appear to be a problem even in small-scale online courses when compared with traditional face-to-face classes.”). Of course, faculty cannot and should not ask a student whether he or she has a disability, but can certainly invite disclosure to the appropriate administrator to discuss available resources and support.

¹⁸¹ For example: *If you anticipate issues relating to the format or requirements of this course due to the impact of a disability, whether in the classroom or in the context of online content or other technologies, you should contact the Dean of Students Office for assistance, including information on disability-related accommodations.*

¹⁸² Jodi B. Roberts et al., *Students with Disabilities and Online Learning: A Cross-institutional Study of Perceived Satisfaction with Accessibility Compliances and Services*, 14 INTERNET & HIGHER EDUC. 242, 246–47 (2011).

¹⁸³ *Id.* at 246.

¹⁸⁴ For a more thorough discussion of metacognition in law school, see generally Anthony Niedwiecki, *Teaching for Lifelong Learning: Improving the Metacognitive Skills* (continued)

fully online course to complete a self-assessment similar to the one described in Part IV of this Article.¹⁸⁵ Instructors must give students a straightforward picture of the time commitment and demands, perhaps unique, of a particular online course. Schools could require this self-assessment at the pre-registration stage or immediately before the course begins—preferably during an “add/drop” period. The goal is not to screen out particular students; rather, it is to prompt a student—disability or not—to think carefully about his or her own learning style and the demands of an online course, and hopefully be receptive at an early stage to Academic Support or other counseling and advising services.

2. *Course Evaluation Student Feedback*

Student questionnaires that ask for evaluations of an individual course should include a question about the student’s experience with online learning tools, even if the course is “only” web-facilitated. Remember, under the new ABA Distance Learning Standards up to one-third of *any* law school course can be conducted online.¹⁸⁶ Schools should create a more detailed questionnaire for hybrid or fully online classes. Faculty and administrators would obtain feedback in response to pointed questions such as whether documents were accessible, technical issues were resolved in a timely and appropriate manner, the instructor was reasonably available, and audio and video content was delivered in a user-friendly manner.

3. *Faculty Recommendations*

This final section offers suggestions in three categories: (1) Course Material; (2) Course Platform; and (3) Course Communication. These lists will help faculty put into practice the concepts in this Article to improve the online learning experience of the growing number of law students with ADHD.

Moreover, small changes will benefit most students enrolled in a web-facilitated or online course, regardless of the existence or nature of disability, based on the concept of Universal Design.¹⁸⁷ From this

of Law Students Through More Effective Formative Assessment Techniques, 40 CAP. U. L. REV. 149 (2012).

¹⁸⁵ SUFFOLK U., *supra* note 137 (providing link to sample online learning student questionnaire).

¹⁸⁶ ABA STANDARDS, *supra* note 30, at 19.

¹⁸⁷ This Article will not explore the familiar concept of Universal Design in depth but for further reading on Universal Design in law school, see Jennifer Jolly-Ryan, *Bridging the Law School Learning Gap Through Universal Design*, 28 TOURO L. REV. 1393, 1413 (2012) (“Throw ESL students, part-time students, joint degree candidates, students with

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perspective, we should design online environments to be “usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”¹⁸⁸ In other words, proactively strive to create accessible learning experiences at the outset, for all students, rather than reactively adjusting based on individual needs. This mindset is especially applicable today, when the line between a student with a diagnosis of ADHD and a disorganized or inattentive student from the Millennial “Multitasking Generation”¹⁸⁹ is blurry.¹⁹⁰ Although one size never fits all when it comes to student learning, at the very least, faculty in the new digital law school can design materials and conduct online classes so that they may, indeed, overlap to fit most.¹⁹¹

a. Course Material

1. Design word documents in a simple and consistent manner, avoiding fancy and potentially distracting fonts such as *Curly MT*. Instead, use a sans serif font such as Arial, not a serif font such as the usual go-to, Times New Roman.¹⁹² Limit use of extra small font size, or variables

mixed motivations for coming to law school, and students with a variety of learning styles into the mix of students in the classroom, and the professor’s task to create an inclusive learning environment can seem overwhelming, if not impossible.”)

¹⁸⁸ Ronald L. Mace, *Universal Design: Barrier Free Environments for Everyone*, 33 DESIGNER’S W. 147, 147 (1985).

¹⁸⁹ Claudia Wallis, *genM: The Multitasking Generation*, TIME (Mar. 27, 2006), <http://content.time.com/time/magazine/article/0,9171,1174696,00.html> [<https://perma.cc/H6ZN-2ZGX>]; see also Shailini Jandial George, *The Cure for the Distracted Mind: Why Law Schools Should Teach Mindfulness*, 53 DUQ. L. REV. 215, 217 (2015) (“Today’s students operate in a state of distractedness.”).

¹⁹⁰ Indeed, the line will likely keep blurring. See, e.g., Alan Schwarz, *Idea of New Attention Disorder Spurs Research, and Debate*, N.Y. TIMES (Apr. 11, 2014), http://www.nytimes.com/2014/04/12/health/idea-of-new-attention-disorder-spurs-research-and-debate.html?_r=0 [<https://perma.cc/C5L9-HVV5>] (describing a condition called Sluggish Cognitive Tempo as “the new attention disorder.” It is “characterized by lethargy, daydreaming and slow mental processing.”).

¹⁹¹ Jolly-Ryan, *supra* note 105, at 146 (“[I]t is important to keep in mind that most of the teaching approaches and techniques . . . as accommodations for students with disabilities are simply good teaching techniques for teaching law to *all* students.”); Linder et al., *supra* note 9, at 31 (“[E]mbedding principles of UDL [Universal Design for Learning] within a course design process can help make the online learning environment more accessible for all while also providing a clear set of steps for faculty members who feel overwhelmed when tasked with designing an accessible course.”).

¹⁹² For further information on serif and sans serif fonts, see Ruth Anne Robbins, *Painting with Print: Incorporating Concepts of Typographic and Layout Design into the Text of Legal Writing Documents*, 2 J. ASS’N LEGAL WRITING DIRECTORS 108, 119–20 (2004).

- such as **bold** or ALL CAPS. Use pre-set software styles and headings such as “Heading 1” to structure the document.
2. Avoid flickering graphics or busy, patterned backgrounds in PowerPoint slides. Less is more; avoid having text-colored slides without adequate white space. Strive to make consistent color, font type, and size choices and repeat them throughout the presentations in the course.
 3. Keep online instructional content under ten minutes, and focus it on discrete topics.¹⁹³ For example, if you are providing an audio or video review of an entire subject, consider breaking it up into individual segments such as “The Mailbox Rule” rather than, for example, a single 90 minute Panopto video on “Review of Contracts Semester.” If you are posting a PowerPoint presentation with fifty slides on the topic of Justiciability, consider whether you can create smaller presentations with more focused titles and content such as Standing, Mootness, Political Question doctrine, etc.
 4. Aim to caption audio or video files you will use to deliver information to students online. Work with instructional technology staff, disability services, or both at your institution to explore possible in-house or professional captioning or transcription services, software, and resources for faculty. Some captioning tools such as for YouTube videos are available for free.¹⁹⁴
 5. Include brief, “alt-text” descriptions for images intended to give substantive content to allow assistive technology devices to communicate about the images. For example, if a Torts professor uses an image of two horizontal lines in a PowerPoint slide to explain the concept of Causation, he or she would right click on the image, select “format picture,” select “alt-text” and type “Causation graphic” in the title space provided and then “short line showing but-for causation and longer line with arrow showing

¹⁹³ This recommendation echoes the suggestion the Working Group on Distance Learning in Legal Education offers: “[P]odcasts, like videos, are best developed in small ‘chunks’ of 5–7 minutes to help students access information in digestible and reviewable pieces.” DESIGN & DELIVERY, *supra* note 63, at 26.

¹⁹⁴ See *Captioning YouTube Videos*, NAT’L CTR. ON DISABILITY & ACCESS TO EDUC., <http://ncdae.org/resources/cheatsheets/youtube.php> [<https://perma.cc/X223-L2W7>].

proximate causation” in the space provided for a description. While compatibility with screen readers is not specific to helping students with a cognitive disability like ADHD, using alt-text descriptions with important educational images is a best practice from a Universal Design perspective, included in the WCAG 2.0 guidelines gold standard for web accessibility,¹⁹⁵ and necessary to support any student who may benefit from using a screen reader (not just students with a vision or hearing impairment).

6. Use descriptive names for electronic files and e-mail subjects. Compare “octoberhandout!&.doc” with “CommerceClauseIntro.doc.” Compare a vague and generic “SUBJECT: “Update” with a more informative and helpful “SUBJECT: ConLaw Sample Essay Question #1 due next class.”

b. Course Platform

1. Use a simple course management platform with straightforward menu options and a logical display. While the majority of platforms such as Moodle¹⁹⁶ or Sakai¹⁹⁷ are pre-set, individual instructors still retain the ability to organize folders and sub-folders, re-order and add menu options, and layer in additional links and content. Use descriptive and detailed text for menu folders, subfolders, and modules in a course management system such as Blackboard. Compare “Lesson1May16” with “Exceptions to Hearsay.”
2. Ensure consistent and sequenced modules, if applicable to your platform. For example, if you expect students to complete Module 1 before beginning Module 2, state that explicitly and modify the platform as necessary to automate students being directed to Module only after completion of Module. Permitting students to complete course Modules in random order or download large amounts of materials all at once may contribute to students’ confusion and sense of being overwhelmed.

¹⁹⁵ *Web Content Accessibility Guidelines*, *supra* note 168.

¹⁹⁶ *About Moodle*, MOODLE (Dec. 5, 2016), https://docs.moodle.org/32/en/About_Moodle [<https://perma.cc/658H-UJ6P>].

¹⁹⁷ *About Sakai*, SAKAI, <https://sakaiproject.org/about> [<https://perma.cc/P964-CKV6>].

3. Give explicit, step-by-step instructions that explain what links are within a course platform, and what the student should do at each stage. For instance, “Click on the first link below to access Assignment #1 and then read the PDF file.” Do not assume students will be able to prioritize and organize a large volume of online files, links, and modules. Repeat the instruction at the start of a particular module if using an Overview or Summary page, as well as within each subsequent lesson or page.
4. Make contact information regarding disability professionals or appropriate administrators who can discuss accommodations available in a prominent spot on the main course page and provide it again as part of an online course syllabus. Do the same for an e-mail address and telephone number for technical support.
5. Create opportunities for small group discussion online instead of, or in addition to, one large discussion board. For example, build into a syllabus assigned “break out” discussions with fewer students. This may help attract participation from students whose ADHD contributes to them feeling uncomfortable and hesitant to participate in a larger electronic group of 90+ students. Consider offering students a chance for more interactive and personal means of communication beyond text on a discussion board, such as through video or voice recordings.
6. Allow students the opportunity for a test “practice run” in the context of online tools. For example, have students upload a blank document prior to their first deadline, or conduct a mock live discussion at an early stage of the course.

c. Student Communication

1. Prioritize online material and be explicit. If a recent *Wall Street Journal* article you e-mail to students is noteworthy for general background, but will not be the subject of class discussion, tell them. If the most important slides included in a 50 slide review PowerPoint are the final five, tell them. If you post a self-editing checklist that students must complete in advance of a certain date, tell them.
2. Organize online discussions around discrete topics to narrow the communication. It is preferable to host numerous discussions, each on a distinct topic, rather than

- allow a single and lengthy discussion thread to capture several, which often ends up unwieldy and confusing. Provide a title or focus question for each assigned online discussion, instead of doing so by date or lesson number. Consider opening up a supplemental “extra” discussion thread for more personal student commentary or questions for example, helping a student feel comfortable posting a question such as, “Is anyone else having trouble opening the PowerPoint presentations in module 6 on their tablet?”).
3. Give students explicit estimates as to time spent on certain online tasks to help them plan, prioritize and organize. For example, “this Module should take you approximately 15 minutes to complete” or “you should be present in the live discussion board for no less than 30 minutes.”
 4. Assess and provide feedback to students at small, natural breaking points during the course of an online class. For instance, assign an online quiz at the beginning or at the conclusion of each online module, instead of a single summative assessment on a large swath of material.¹⁹⁸
 5. Offer consistent “office” hours through different avenues when possible. Of course, an online course is online, and usual office hours can and should be hosted on an electronic discussion board or tool such as Blackboard’s Collaborate.¹⁹⁹ However, some opportunity for face-to-face interaction or telephone or even Skype²⁰⁰ or FaceTime²⁰¹ helps create the personal connection that

¹⁹⁸ Formative assessment in every law school course is now an ABA mandate in any event, and especially important in an online setting where students may be more likely to feel lost, overwhelmed, and distracted while navigating a large amount of content. Revised ABA Standard 314 takes effect in the 2016–2017 year and requires schools to use “both formative and summative assessment methods” to measure learning and provide feedback. See AM. BAR ASS’N, 2016–2017 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 23 (2016), http://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Standards/2016_2017_aba_standards_and_rules_of_procedure.authcheckdam.pdf [<https://perma.cc/HPX7-XYEF>]; see also Jolly-Ryan, *supra* note 105, at 139 (“This [ADD] student would probably do better with intermittent testing on chapters throughout the semester, as handling too much material at one time may be difficult.”).

¹⁹⁹ *Blackboard Collaborate*, BLACKBOARD, <http://www.blackboard.com/online-collaborative-learning/blackboard-collaborate.aspx> [<https://perma.cc/JW9L-ARLQ>].

²⁰⁰ *About Skype*, SKYPE, <https://www.skype.com/en/about> [<https://perma.cc/X5BU-7SQ6>].

²⁰¹ APPLE, <https://support.apple.com/en-us/HT204380> [<https://perma.cc/V4GA-CEX3>].

students with ADHD may need to feel less isolated from the instructor and more engaged with a particular course.²⁰²

6. Take attendance and actively track student engagement. Students should be accountable for participation in an online course just as in a physical classroom, and instructors must make that message clear at the outset of any web-based or web-facilitated course. Tools such as completion of an electronic quiz, entry in a particular discussion board, e-mail summary, or contribution to a group Wiki²⁰³ will help instructors keep tabs on students who may be falling behind or struggling. Just as in the traditional classroom, students are responsible for their own online effort—or lack thereof—and it is not the instructor’s job to chase. But early outreach to students who, at first “glance” in the invisible world of online learning, seem unengaged will capture students who are working hard but experiencing problems—problems that, with a little early assistance and communication, can be solved.

VII. CONCLUSION

The wave of enthusiasm online learning in legal education is riding is well deserved. But experimentation and expansion must be counterbalanced with careful design—especially for an increasing subset of students with cognitive disabilities who may find themselves vulnerable in this landscape. Of course, students with a disability such as ADHD can face challenges in any educational setting, whether brick and mortar or online. As law schools’ use of online instruction evolves, legal educators, administrators, and disability service professionals have the opportunity to design and deliver this learning experience in the most purposeful manner possible. Doing so will benefit students with cognitive disabilities and, just as important, foster success for all law students who will soon receive much of their legal education via the click of a mouse or tap of a screen.

²⁰² See Ni, *supra* note 84, at 201 (“An important component of classroom learning is the social and communicative interactions between student and teacher, and student and student . . . [o]nline learning requires adjustments by instructors as well as students for successful interactions to occur.”); Dukes III et al., *supra* note 131, at 40 (“[S]tudents have reported greater satisfaction with their online course as their perception of the instructor’s availability increased.”).

²⁰³ WIKISPACES, <https://www.wikispaces.com/content/classroom/about> [https://perma.cc/D97E-TXBH].

