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Applying Universal Design in the Legal Academy

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Applying Universal Design in the Legal Academy*

Matthew L. Timko**

Too often barriers to access in the form of physical, technological, and cognitive environments play a large role in keeping many people out of law school. While federal and state laws address these barriers, universal design provides the clearest policy change for law schools to remedy these issues.

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Introduction

¶1 Universal design (UD) didn't start as a higher or legal education concept. The term was coined by architect Ronald Mace for "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."¹ Over the last 30 years, this concept has extended its reach, moving from architecture to many other facets of daily life: automatic doors at grocery stores, audio prompts at crosswalks, road-level curb entryways on sidewalks, closed captioning for television programming, and so on. Businesses and organizations have realized that planning for everyone is less expensive and more efficient than hastily changing an original design later to accommodate groups who were not initially considered.

¶2 Unfortunately, UD has been relatively slow to take hold in legal education. Because law schools serve as testing grounds for future attorneys, they are one of the lynchpins of the entire legal profession. Law schools' missions and environments play large roles not only in attracting students but also in introducing what values students take into the legal profession. The practice of UD in law schools must gain ground in order to make the legal profession more equitable and to take advantage of the tremendous amount of brain power that otherwise might be barred from entering the legal profession.

¶3 This change logically should begin in law school libraries, for several reasons: First, academic law libraries (hereafter law libraries) are the intellectual and cultural centers of law schools. They serve as the central hub of information gathering, processing, and reproduction, representing a direct access point to the legal information that students, professors, and lawyers need to understand and use, regardless of patrons' existing legal knowledge or physical limitations. Second, law libraries provide myriad settings in which to apply and test UD principles. And third, the results of testing these principles are readily determined; specifically, research and information instruction through the law libraries, assessed through information literacy outcomes, would reveal the utility or failure of UD practices relatively quickly.

¶4 As a way to introduce UD into law schools, the law library is the ideal testing ground, implementing various physical and technological changes to assist student comprehension of the vast legal materials available to show utility, equity, and cost efficiencies. By injecting these practices initially into law library services, their value will become apparent to all stakeholders, ultimately spreading throughout the legal academy and into every aspect of the legal education process and legal profession.

1. *About the Center: Ronald D. Mace, CTR. FOR UNIVERSAL DESIGN: ENV'TS & PRODS. FOR ALL PEOPLE* (2008), https://projects.ncsu.edu/ncsu/design/cud/about_us/usronmace.htm [<https://perma.cc/ZM85-3Y62>].

¶5 This article provides theoretical and legal frameworks for applying UD principles to the entire legal academy. The first two sections discuss the principles of UD generally and the legal standards supporting its use. The third section provides examples of general UD applications and how they can be implemented into the legal academy.

Universal Design Principles

¶6 The Center of Universal Design (CUD), founded by Ronald Mace and located at North Carolina State University, brings together advocates and practitioners from all areas, including architecture, education, and product design.² CUD endeavors to create, improve, and disseminate best practices for UD implementation; it is joined in this work by like-minded groups such as the University of Washington's Center for Universal Design in Education (CUDE).³ Since 1997, UD practitioners have used the seven principles model developed by CUD⁴: equitable use, flexibility in use, simple and intuitive use, perceptive information, tolerance for error, low physical effort, and size and space approach and use.⁵ Different groups in different settings have applied these seven principles to their own specialized interests, but we focus here on how these principles apply in higher education generally and to law schools more specifically.

Equitable Use

¶7 Equitable use requires that any “design [be] useful and marketable to people with diverse abilities.”⁶ Simply put, this means that any student or faculty member is able to use an available service at the institution, whether it be something as common as getting to an advisor's office or as specific as participating in an internship. Beyond an individual's ability to use the service, the general usability must be equitable, meaning it should be designed so that any user can get the full benefit of the product.⁷ Here UD highlights a recalibration of equity understanding: equal access is not the same as equal value, as UD values the latter as much as the former. Universities who apply UD principles ensure that all students and faculty are able to get the same academic benefit from

2. *About the Center*, CTR. FOR UNIVERSAL DESIGN: ENV'TS & PRODS. FOR ALL PEOPLE (2008), https://projects.ncsu.edu/ncsu/design/cud/about_us/about_us.htm [<https://perma.cc/8CWG-MQNV>].

3. *Overview*, CTR. FOR UNIVERSAL DESIGN IN EDUC. (2017), <https://www.washington.edu/doiit/programs/center-universal-design-education/overview> [<https://perma.cc/DT8R-V9FU>].

4. Betty Rose Connell et al., *The Principles of Universal Design, Version 2.0*, CTR. FOR UNIVERSAL DESIGN (Apr. 1, 1997), <https://www.washington.edu/doiit/principles-universal-design-version-20> [<https://perma.cc/39E8-VXA4>].

5. UNIVERSAL DESIGN IN HIGHER EDUCATION: FROM PRINCIPLES TO PRACTICE 15–16 (Sheryl E. Burgstahler ed., 2d ed. 2015) [hereinafter UDHE].

6. *Id.* at 15.

7. See also MOLLY FOLLETTE STORY, JAMES L. MUELLER & RONALD L. MACE, *THE UNIVERSAL DESIGN FILE: DESIGNING FOR PEOPLE OF ALL AGES AND ABILITIES* 91–92 (1998) (case study in which University of Virginia applied UD principles to campus renovation while maintaining the original façade of the campus; this case study also demonstrates how UD can match seamlessly with existing environments).

any product on campus, enhancing the effectiveness of the product and the overall learning experience for the vast majority of students.

Flexibility in Use

¶18 A design must accommodate “a wide range of individual preferences and abilities.”⁸ The emphasis on abilities is synonymous with disability accommodations defined under federal and state laws, but UD stresses personal preferences as equally important as personal ability, allowing those who do not need accommodations to choose the best option suited to their own tastes and strengths. Ultimately, UD generates choices rather than pigeonholing users into singular or discrete styles. By creating a flexible learning environment, higher education is now able to reach more students in a more thorough way, without having to spend extra time in modifying existing spaces to achieve the same result. Effectiveness and efficiency are other aspects of UD’s value to higher education, and what the seven principles aim to achieve.

Simple and Intuitive Use

¶19 While understanding the importance of personal abilities and preferences, to make environments more generally usable, UD aims to transcend these personal traits. Part of the UD philosophy requires that a design is “easy to understand, regardless of the user’s” personal traits including “experience, knowledge, language skills, or... concentration.”⁹ This may seem antithetical to a fundamental goal of higher education, specifically to challenge students to excel, but when considered carefully, this principle aims to focus those challenges along pedagogical lines as opposed to technical lines. With a simple and intuitive design, students will spend less time learning how to access the information and more time learning the information itself. Therefore, this principle enhances the goals of higher education by focusing attention on the important elements of learning, something that all UD principles strive for in any environment.

Perceptible Information

¶10 The goal of legal instruction is to get the substantive legal knowledge to the student as efficiently and effectively as possible. To aid that endeavor, UD creates conditions whereby this information may be disseminated “regardless of ambient conditions or the user’s sensory abilities.”¹⁰ Students have many different learning styles, and professors are responsible for conveying the information to students in a way that is understandable. Traditionally, accommodations have been a one-on-one transaction, where a single professor is required to make one or more accommodations available to a single student. Through UD, the content is presented and made available in a manner where the need for accommodations moves away from the professor and spreads the responsibility to the university (or law school) as a whole, which in turn disseminates the

8. UDHE, *supra* note 5, at 15.

9. *Id.* at 15–16.

10. *Id.* at 16.

responsibilities and benefits to the entire institution, improving every student's experience. By applying UD principles, the need for professors to navigate what accommodations are reasonable is vastly minimized; instead, an environment is created where new accommodations have already been considered and easily implemented. Just as the principle of simple and intuitive use allows greater focus on substantive knowledge for students, providing perceptible information by the university allows professors to focus less on restructuring their curriculum and more on delivering the subject matter to students; and these benefits are provided to the student body as a whole.

Tolerance for Error

¶11 Tolerance for error does not mean lowering standards but rather refocuses attention away from technical errors toward a prioritization of addressing errors in substantive knowledge or understanding. Specifically, part of the learning process in higher education is to allow, and then correct, mistakes made by students throughout the course of their studies. As with all UD principles, a built-in tolerance for error reduces the time and effort of students and professors to focus on technical, or tertiary, processes, and instead get to the heart of a subject. Building in tolerance for errors allows all users who make a technical mistake (e.g., clicking the wrong link on a website or going through the wrong entrance to a building)¹¹ to easily correct the mistake and move on to other things. By minimizing “hazards and the adverse consequences of accidental or unintended actions,” the environment allows all students to easily correct these mistakes so the substantive learning can continue.¹²

Low Physical Effort

¶12 Students learn best when physically comfortable and able to concentrate rather than when tired or distracted through physical exertion. Unfortunately, many students expel tremendous energy while doing typical learning tasks, such as reading, writing, and taking notes. Therefore, environments should be designed to “be used efficiently, comfortably, and with minimum of fatigue” so that any student can go into a situation fresh and in the best position to learn.¹³ This can be particularly true for large lecture halls seating hundreds, where often a student who fatigues easily has only two seat choices: the very front or the very back, explicitly segregating them. The basis for this

11. See Raymond Chen, *Nested Fly-Out Menus Are a Usability Nightmare*, OLD NEW THING BLOG (Aug. 23, 2007), <https://devblogs.microsoft.com/oldnewthing/20070823-00/?p=25443> [<https://perma.cc/WFL5-EH2T>] (a problem for all users, nested, or drop-down, menu options “ha[ve] turned into one of those mouse dexterity games where you have to guide your character through a maze without hitting any of the walls or you die and have to start over,” which becomes compounded when students don’t have complete muscle control); see also Susan David deMaine, *From Disability to Usability in Online Instruction*, 106 LAW LIB. J. 531, 546–47, 2014 LAW LIB. J. 39, ¶ 48 (this is particularly true for students with a lack of dexterity or difficulty with muscle control when it comes to navigating websites; oftentimes these sites require textually small links that must be clicked on with precision, making it very difficult for a student who has tremors to follow the link).

12. UDHE, *supra* note 5, at 16.

13. *Id.*

principle presumes that students who have less endurance or physical stamina should be provided resources and environments where they will not have to physically exert, and potentially exhaust, themselves just to get to a point where they can learn the substance. While learning is an endurance trial in many aspects, UD ensures that it is mentally exerting rather than physically exhausting as well.

Size and Space for Approach and Use

¶13 Focusing on providing “appropriate size and space...for approach, reach, manipulation, and use regardless of the user’s body size, posture, or mobility”¹⁴ ensures that participation is not implicitly discouraged. Maneuverability between tables, desks, book stacks, and study carrels provides the primary challenges in any academic setting, but this principle also applies when developing signage, whiteboard location, computer terminal layout, website design, and even book spacing on library shelves. UD presents a solution by incentivizing and supporting law school administrators to consider these matters initially so that costly and time-consuming changes won’t need to be addressed later.

¶14 It is important to understand that these principles provide a guide for individuals and institutions to implement UD rather than a criterion mandated on institutions. All seven of these principles may be implemented in accordance with the best practices and abilities of every university and law school, but they must be implemented in law schools if the values of equal access to justice are ever to be truly realized. While access to justice traditionally has been characterized as public access to legal needs, it is impossible to facilitate this access on the back end of the legal profession (i.e., emanating from the bench and bar) if the value of access is not instilled both theoretically and practically at the front end, specifically at all stages of the legal education process.¹⁵ The next part of this article defines the legal standards and litigation outcomes that face all practices and procedures that do not take UD into account.

Legal Standards of Universal Design

¶15 UD articulates an overlooked but integral American civil right: access to information and education for people with disabilities.¹⁶ Without question, recognition of

14. *Id.*

15. Michael Iseri, *How Universal Design Principles Can Improve Legal Accessibility*, AM. BAR ASS’N (May 2, 2018), <https://www.americanbar.org/groups/litigation/committees/jiop/articles/2018/how-universal-design-principles-can-improve-legal-accessibility/> [<https://perma.cc/3UTD-A3RW>] (Improving legal information to the public invariably makes it more accessible, i.e., understandable. Synthesizing the UD principles to create documents that are clear, visible, and follow a logical structure will help members of the public understand legal documents and therefore the legal process to a greater extent.)

16. See *About UD: Universal Design History*, CTR. UNIVERSAL DESIGN (2008), https://projects.ncsu.edu/ncsu/design/cud/about_ud/udhistory.htm [<https://perma.cc/FUT7-ATXG>]; see also Economic and Social Council Res. 2014/6 (June 12, 2014) (“Convinced that addressing the profound social, cultural and economic disadvantage and exclusion experienced by many persons with disabilities, promoting the use of universal design...will further the equalization of opportunities and contribute to the realization

these rights was driven by the work and advocacy of the civil rights movement and began in earnest with passage of the Rehabilitation Act of 1973. This and several other federal statutes identified the legal standards with which universities and law schools must comply so that people with disabilities are able to exercise these rights within institutions of higher education and the workplace. These federal laws create the floor, not the ceiling, by which UD success is measured: while all universities must comply with these laws, UD aims to extend past what is legally required, to measures that will be most beneficial for each unique individual at the institution, as well as for the institution itself.

¶16 Unfortunately, the literature and case law addressing these statutes focus primarily on employment, so there is limited analysis of the application of these laws within higher education. However, since higher education offers the pathway to employment, it becomes necessary to review the relevant statutory authority, as well as focus on the recent legal challenges to law school and law admission accommodations. This review brings into clearer focus how legal education institutions act as gatekeepers to employment by creating or removing barriers within legal education. This review further demonstrates how UD resolves many legal and equity problems before they begin.

Statutory Authority for Accommodations

¶17 Other authors have delved into the relevant statutes that allow students with disabilities to access law school resources.¹⁷ The following summaries, however, review the principal laws with an eye toward higher education and legal studies, making them necessary for any substantive analysis or discussion of the utility of UD within the legal education process.

The Rehabilitation Act of 1973

¶18 The Rehabilitation Act of 1973 (the Act) introduced the category of disability as a protected class:

No otherwise qualified individual with a disability in the United States, as defined in section 705(20) of this title, shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving *Federal financial assistance*.¹⁸

of a ‘society for all’); deMaine, *supra* note 11, at 537, ¶ 23; Jordana L. Maisel & Molly Ranahan, *Beyond Accessibility to Universal Design*, WHOLE BLDG. DESIGN GUIDE (Apr. 29, 2022), <https://www.wbdg.org/design-objectives/accessible/beyond-accessibility-universal-design> [<https://perma.cc/Z6ER-S7MZ>]; cf. Michael Ashley Stein & Penelope J.S. Stein, *Beyond Disability Civil Rights*, 58 HASTINGS L.J. 1203, 1204 (2006–2007) (arguing that advocates’ strategy has been to articulate disability rights as civil rights, but that this articulation is counterproductive).

17. See generally deMaine, *supra* note 11, at 537–42, ¶¶ 21–35; A POLICY READER IN UNIVERSAL DESIGN FOR LEARNING (David T. Gordon, Jenna W. Gravel & Laura A. Schifter eds., 2009); Robert F. Rich, Christopher T. Erb & Rebecca A. Rich, *Critical Legal and Policy Issues for People with Disabilities*, 6 DEPAUL J. HEALTH CARE L. 1, 17–22 (2002); M. Christine Fotopulos, *Civil Rights Across Borders: Extraterritorial Application of Information Technology Accessibility Requirements Under Section 508 of the Rehabilitation Act*, 36 PUB. CONTS. L.J. 95, 97–99 (2006).

18. Rehabilitation Act of 1973, 29 U.S.C. §§ 701–796l. The Act specifically identifies that “individuals with disabilities constitute one of the most disadvantaged groups in society,” *id.* § 701(a)(2), and seeks

Furthermore, section 504(b)(2)(A) of the Act specifically defines “a college, university, or other postsecondary institution, or a public system of higher education” as an eligible program or activity requiring compliance with the Act.¹⁹ Since almost all colleges and universities, as well as attached or independent law schools, receive some sort of federal funding, legal academies were then required to apply the protections of the Act to the law school admissions process,²⁰ which acts as the first “gate” toward legal employment.

¶19 The Act explicitly sought to allow individuals with disabilities to work within the public sector; outlawing discrimination against people with recognized disabilities, and enabled them to seek and keep employment based solely on their work product. To facilitate participation, institutions and employers were required to provide reasonable accommodations for existing design flaws, including allowances for physical assistance, auxiliary aids for comprehension, and modification of existing practices.²¹ The scope of these accommodations was meant to be relatively limited, but ultimately it rested on the answer to the question of what constituted “reasonable” in regard to accommodations. While the advocates of these rights felt the standards set out in section 504 were clear, the real-world application of the Act went down a much different path, creating ambiguity for institutions and individuals, ultimately leading to completely opposite interpretations than those intended.

¶20 Predictably, challenges to the requirements of the Act allowed courts to frame the Act far from the intentions of the framers.²² While the Act called for administrative actions to protect individuals with disabilities, litigants often had to sue institutions to force implementation of the requirements, which meant the courts had major influence over the application of the Act. Unfortunately, this led to further disappointment for the plaintiffs and activists who were regularly ruled against in cases before the U.S. Supreme Court.²³ The Supreme Court read ambiguity within the statute and determined (much to the horror of disability advocates) that the Act did not remove disability as a factor in consideration as long as it was not the sole consideration.²⁴ These rulings led advocates and members of Congress to draft new legislation to achieve what the Act was meant to establish: making discrimination against those with disabilities illegal.

“to maximize opportunities for individuals with disabilities,” *id.* § 701(b)(2), as well as “to ensure [that] students with disabilities . . . have opportunities for postsecondary success,” *id.* § 701(b)(5).

19. *Id.* § 794(b)(2)(A).

20. LAURA ROTHSTEIN & JULIA IRZYK, *DISABILITIES AND THE LAW* § 3.1 (4th ed. 2018).

21. 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, 530 (2014).

22. See Bianca G. Chamusco, *Revitalizing the Law That “Preceded the Movement”: Association Discrimination and the Rehabilitation Act of 1973*, 84 U. CHI. L. REV. 1285, 1292–93 (2017).

23. See SUSAN GLUCK MEZEY, *DISABLING INTERPRETATIONS: THE AMERICANS WITH DISABILITIES ACT IN FEDERAL COURTS 18–20* (2005) (reviewing Supreme Court decisions for 10 years after passage of the Act and determining that “for the most part the Court narrowed the parameters of the nation’s disability rights laws” including, but not limited to, § 504).

24. *Se. Cmty. Coll. v. Davis*, 442 U.S. 397, 406 (1979) (“An otherwise qualified person is one who is able to meet all of a program’s requirements *in spite of his handicap.*”) (emphasis added).

Americans with Disabilities Act of 1990

¶21 Rather than replace the Act, legislators sought to revitalize and clarify the law to perform as intended. A new and empowered core of social and legislative advocates led efforts to pass additional legislation to provide enhanced standards for protecting citizens' rights, as well as to reinforce the standards codified in the Act itself.²⁵ In response, Congress passed the Americans with Disabilities Act (ADA) in 1990. Congress's refusal to repeal the Act, along with recognition of the Act within the statutory language of the ADA, ensured that existing judicial interpretation of the Act would survive the new ADA law, thereby maintaining the jurisprudential relevance of 15 years of established precedents while superseding the rulings antithetical to the Act.²⁶ It is therefore unsurprising that the ADA requires public and private organizations to provide "reasonable accommodations" to allow citizens with disabilities to participate in work, education, and any other activity where barriers have traditionally been erected.²⁷ Significantly, the ADA includes an undue burden clause that allows many organizations, including law schools, to refuse some of the most important accommodations: specifically, changes to the physical and technological environments.²⁸

¶22 Written in response to the perceived ambiguity of the Act, the ADA strove to create clear definitions and concrete requirements for employers and educators to provide inclusive environments to individuals with disabilities.²⁹ Because the ADA is a product of the late 1980s, it fails to take into consideration any online or digital environment. Similarly, the ADA has been hindered by federal courts interpreting the protections for physical spaces as limited in scope and application.³⁰ Creating further turmoil,

25. H.R. REP. NO. 101-596, at 66 (Conf. Rept.), as reprinted in 1990 U.S.C.C.A.N. 565, 575 ("[A]dministrative agencies [are required] to develop procedures and coordinating mechanisms to ensure that ADA and Rehabilitation Act of 1973 administrative complaints are handled without duplication or inconsistent, conflicting standards. Further, agencies must establish the coordinating mechanisms in their regulations").

26. *Dubois v. Alderson-Broadbudds Coll.*, 950 F. Supp. 754, 757 (N.D. W. Va. 1997) ("[m]uch of the case law which existed under the Rehabilitation Act has become precedent for many ADA decisions"); see also *Bragdon v. Abbott*, 524 U.S. 624, 631-32 (1998) (the legislative intent to marry the Act and the ADA requires that pre-ADA regulations be interpreted based on the Act *and* the ADA, not just on the standards of the ADA; ultimately the ADA did not supersede the Act but rather supplements it).

27. 42 U.S.C. § 12184.

28. 42 U.S.C. § 12182(b)(2)(A)(iii) (discrimination occurs "unless the entity can demonstrate that taking such steps would fundamentally alter the nature of the good, service, facility, privilege, advantage, or accommodation being offered or would result in an undue burden"); see also 28 C.F.R. § 36.104 (2018) ("undue burden means significant difficulty or expense" that will factor in the nature and cost in relation to the financial resources of the institution; since physical or technological upgrades incur exorbitant costs, these will fall under the undue burden exception to accommodations).

29. Rothstein & Irzyk, *supra* note 20, § 3.1.

30. *Nat'l Fed'n of the Blind v. Target Corp.*, 452 F. Supp. 2d 946, 952-53 (N.D. Cal. 2006) (citing Ninth Circuit precedents, supported by Third and Sixth Circuit precedents, that define places of "public accommodation" as physical spaces *only*); see also *Young v. Facebook, Inc.*, 790 F. Supp. 2d 1110 (N.D. Cal. 2011) (denial of rights online does not rise to the level of discrimination proscribed in the ADA). *But see* *Nat'l Fed'n of the Blind v. Scribd Inc.*, 97 F. Supp. 3d 565, 572-73 (D. Vt. 2015) (reading the ADA to exclude enforcement on businesses simply because they don't have a "physical place open to the public," i.e., online-only businesses, "would lead to absurd results").

a circuit split emerged where some jurisdictions applied the ADA to physical spaces, or those places with a “nexus” to a physical space,³¹ while other jurisdictions refused to limit the ADA’s protections merely to physical spaces and required digital spaces (e.g., websites) to comply with the ADA’s requirements.³²

ADA Amendments Act of 2008

¶23 Just as the intention of the Act was subverted by the courts, leading to the ADA, the ADA was similarly undermined by the judiciary. The U.S. Supreme Court interpreted “the ADA’s coverage [as] restricted to only those whose impairments are not mitigated by corrective measures,” that is, only those whose disability persisted through interventions to accommodate the disability.³³ In passing the legislation that would become the Americans with Disabilities Act Amendments Act of 2008, the U.S. Congress identified two specific cases (including the case above) that epitomized the judicial efforts to narrow the meaning of the word “disability,” necessitating further legislation to clarify (again) Congress’s intent of who must be protected under federal law.³⁴

¶24 This renewed legislative effort coincided with advances in medical understanding and social acceptance of what constituted a disability, so that the articulation of disability under the ADA was recognized to have failed to appropriately encompass millions of Americans who should qualify for protections under the spirit of the law but were omitted from the ADA. To remedy this, the Amendments focused on broadening the definition of disability beyond the narrow parameters set by the ADA and constricted further by the courts. Instead, the Amendments incorporated the ADA (and by extension the Act) while expanding opportunities for accessibility to disabled persons

31. See *Weyer v. Twentieth Century Fox Film Corp.*, 198 F.3d 1104, 1114 (9th Cir. 2000) (no right to access since the insurance provider is a third party and not subject to the company’s obligation to meet the ADA requirements); see also *Ford v. Schering Plough Corp.*, 145 F.3d 601, 613 (3d Cir. 1998) (plaintiff had physical access to her employer but not to the insurance company hired by her employer; therefore discrimination by the insurance provider did not violate the ADA); *Parker v. Metro. Life Ins. Co.*, 121 F.3d 1006, 1011 (6th Cir. 1997) (benefit plan is not a good offered and therefore not subject to the physical space definition in the ADA).

32. See *Carparts Distrib. Ctr. v. Auto. Wholesaler’s Ass’n*, 37 F.3d 12, 19 (1st Cir. 1994) (public accommodations are not limited to physical spaces); see also *Doe v. Mutual of Omaha Ins. Co.*, 179 F.3d 557, 559 (7th Cir. 1999) (facilities solely in electronic spaces are covered by the ADA); *Palozzi v. Allstate Life Ins. Co.*, 198 F.3d 28, 32–33 (2d Cir. 1999) (ADA was meant to guarantee more than merely physical access to physical goods).

33. *Sutton v. United Air Lines*, 527 U.S. 471, 487 (1999).

34. ADA Amendments Act of 2008, Pub. L. No. 110-325, § 2(a)(4) & (5), 122 Stat. 3553, 3553 (along the way, Congress was unabashed in its criticism of the U.S. Supreme Court when citing *Sutton*, 527 U.S. at 471, and *Toyota Motor Mfg., Ky. v. Williams*, 534 U.S. 184 (2002), as narrowing the “broad scope of protection intended to be afforded by the ADA, thus eliminating protection for many individuals whom Congress intended to protect”).

by explicitly closing the gaps revealed in the previous laws,³⁵ and predicting possible gaps that could be revealed in the near future.³⁶

Litigation Involving Law School Accommodations

¶25 Unfortunately, as the history of the federal statutes demonstrates, litigation has driven much of the interpretation and application of federal disability law. In recent years, legal education has been subject to such litigation as potential and graduating students have made claims of discrimination based on disability within the full legal education process.³⁷ Myriad examples show where law schools have been culpable in sustaining existing (and sometimes erecting new) barriers to knowledge and education, and these cases demonstrate how the courts have interpreted the law in such instances. While the dispositions of these cases are important, they are cited here as case studies for how costly and lengthy litigation could have been avoided through use of UD principles.

Accommodations During the LSAT

¶26 The case of *Law School Admission Council v. California*³⁸ arose from a California law making it illegal for the Law School Admission Council (LSAC) to notify schools that the LSAT (Law School Admission Test) score was “obtained by a subject who received an accommodation.”³⁹ LSAC sued for injunctive relief claiming violations of several constitutional rights, including equal protection of the law.⁴⁰ The Third District California Court of Appeals reversed the order of injunction, finding that no constitutional violations existed and that any harm done to LSAC was outweighed by the potential harm to “law school applicants with disabilities,”⁴¹ ruling the intention of the statute meant to address “undue burdens on [law school] applicants with disabilities. Stated

35. *Id.* § 7 (explicitly changing the definition of disability so that employability was no longer a factor, but rather the existence of a disability governed; this was in response to the narrow application the courts gave to disabilities and technical employability).

36. *Id.* § 4 (adding definitional requirements for aids and services to include “modification of devices”, “other effective methods of making visually delivered materials available...”, and “other similar services or actions” to provide a catchall for any technical innovations needed in the future that were not presently accounted for in the Act).

37. The legal education process begins when a person decides to apply to law school and ends upon taking the bar exam. Therefore, the legal process includes sitting for the LSAT, the application process to all law schools, the law school curriculum and facilities, graduation, and sitting for the bar exam(s) in any and all states. While cases claiming discrimination from undergraduate (or even secondary education) institutions could also be applicable, for the purposes of brevity, a delineation between the decision to attend law school and any time prior is made while still recognizing that discrimination earlier in a person’s education can have long-lasting and deleterious effects on any opportunity to attend and complete a legal education.

38. 166 Cal. Rptr. 3d 647, 652 (Ct. App. 2014) [hereinafter LSAC].

39. CAL. EDUC. CODE § 99161.5 (West 2017) (defining the process for requesting an accommodation and all procedures that LSAC must perform to ensure all test takers are given due consideration for LSAT accommodations).

40. 166 Cal. Rptr. 3d at 656–57 (LSAC “alleged the newly-enacted statute: (1) violated LSAC’s right to ‘equal protection of the laws’ ... (2) abridged its ‘liberty of speech’ ... (3) constituted an invalid ‘special statute’ ... and also (4) amounted to a prohibited ‘bill of attainder’”).

41. *Id.* at 675.

broadly, the purpose is to prevent discrimination.”⁴² Supporting its decision, the court cited the American Bar Association (ABA) Commission on Disability Rights⁴³ and a report on the effects on students with disabilities from flagged test scores,⁴⁴ identifying the professional and academic costs that flagged scores create.

¶27 In *Binno v. American Bar Association*,⁴⁵ the plaintiff claimed that his visual disability made it impossible to perceive the “spatial relationships or perform[] the necessary diagramming to successfully complete the logic-games questions on the LSAT at a competitive level” and that the resulting distress he experienced “negatively impacted his overall performance on the exam.”⁴⁶ In the decision, the court identified that there was an actual injury-in-fact when Binno and other similarly situated applicants were forced to take a test that “discriminates against blind and visually impaired persons.”⁴⁷ While the case was dismissed for other reasons,⁴⁸ the ABA did concede that the LSAT was not designed for applicants with visual impairments to be on equal footing with visually abled applicants, recognizing the implicit biases present in the test itself.

¶28 In *Hanrahan v. Blank Rome LLP*,⁴⁹ a law student with Asperger’s syndrome and a “concomitant non-verbal learning disability” sued several law firms for not hiring him as a summer associate on the basis of his disabilities.⁵⁰ Hanrahan’s cause of action against the law firms originated with the LSAC’s failure to give him accommodations on the LSAT (which he never requested). This discriminatory action, he claimed, caused him to get into a lower-quality law school (Drexel, rather than Temple or Penn), which ultimately led to his failure to be hired by the defendant firms.⁵¹ It was this tenuousness between the stated discrimination (against LSAC) and Hanrahan’s failure to receive a summer position that led the court to dismiss the suit. Yet the court implicitly recognized that the failure of the LSAC to provide accommodations could result in a successful claim of discrimination against the Council, while not necessarily against the

42. *Id.* at 662.

43. *Id.* at 662–63 (the legislature had a “more narrow purpose, the prevention of discrimination in the law school admissions process. Throughout the legislative history, the support of the American Bar Association (ABA) is noted.” (emphasis in original)).

44. *Id.* at 670 (citing the report addressing SAT scores, “The Flagging Test Scores of Individuals with Disabilities Who Are Granted the Accommodation of Extended Time” by Gregg, et al. The report highlighted that flagged scores (1) led to disabilities being outed and contributed to the under-enrollment of students with disabilities while at the same time (2) not providing any clear predictive value of college success when compared with unextended time on the test).

45. 826 F.3d 338, 342–43 (6th Cir. 2016).

46. *Id.* at 344.

47. *Id.* (the ABA also recognized the existence of this discrimination).

48. *Id.* at 348–49 (in affirming dismissal, “we are left puzzled by Binno’s failure to litigate against the LSAC, rather than the ABA.... Unless Binno is seeking to be relieved altogether of the obligation of taking the LSAT, a more practical approach to achieving admission to law school than years of fruitless litigation against a remote accrediting body might well be to take advantage of the consent decree that the DFEH and the USDOJ have entered with LSAC.”).

49. 142 F. Supp. 3d 349, 350–52 (E.D. Pa. 2015).

50. *Id.* at 352–53.

51. *Id.*

law school admissions process or the defendant law firms, as Hanrahan attempted to do here.⁵²

Accommodations for Admission into Law School

¶29 While it is difficult to prove discrimination in any field, let alone the competitive, subjective, and complicated law school admissions process, at the bare minimum, an applicant must identify (1) a documented disability and (2) that discrimination based on this disability led to denial of admission to a law school. In *Jackson v. Northwestern University School of Law*,⁵³ the plaintiff suffered from some claimed, yet undisclosed, disability.⁵⁴ Failing to get into any law school, she subsequently sued every law school in northern Illinois,⁵⁵ claiming discrimination based on her disability resulted in her failure to be admitted. The Northern District of Illinois found the claims without merit since “neither the ADA nor the Rehabilitation Act requires a law school to alter its acceptance standards as an accommodation for a disabled person,”⁵⁶ and even if those standards were different, the plaintiff failed “to adequately allege that she is disabled.”⁵⁷ *Jackson* identified that admission to law school is inherently difficult, and while accommodations will be made for disabilities, failure to get into law school by itself is not evidence of discrimination.

Accommodations During the MPRE and Bar Exam

¶30 In *Jones v. National Conference of Bar Examiners*,⁵⁸ Deanna Jones, a blind law student in her third year, requested accommodations on the MPRE specific to her vision impairment, including a laptop “equipped with ZoomText 9.12,” which is a magnification program, “and Kurzweil 3000 v. 11.05,”⁵⁹ which is text-to-speech software that simultaneously highlights words and sentences. The NCBE (National Conference of Bar Examiners) offered Jones a choice of the exam in the mediums of “Braille, as an audio CD, in enlarged print, the use of a CCTV, and the provision of a human reader.”⁶⁰ After an attempt to explain her needs and the NCBE’s refusal to reconsider, Jones moved for a preliminary injunction against the NCBE to require use of her preferred accommodations.

52. *Id.* at 355–56.

53. No. 10 C 1986, 2010 WL 5174389, at *1 (N.D. Ill. Dec. 15, 2010).

54. *Id.* at *2 (“Plaintiff also fails to adequately allege that she is disabled. She does not plead what her disability is...”).

55. *Id.* at *2 (“Plaintiff has filed virtually identical complaints against six other law schools located in northern Illinois, all of whom denied her admission,” including DePaul University, Loyola University Chicago, Chicago-Kent College of Law, John Marshall Law School, University of Chicago, and Northern Illinois University).

56. *Id.* at *2.

57. *Id.* at *3.

58. 801 F. Supp. 2d 270, 278–80 (D. Vt. 2011).

59. *Id.* at 278.

60. *Id.*

¶31 The U.S. District Court for the District of Vermont ruled in favor of the injunction, claiming that what is “‘accessible’ to one disabled individual may not render it ‘accessible’ to another”⁶¹ and that providing accommodations that “have worked for other visually impaired test takers (but not for ones who also suffer from Plaintiff’s learning disorder) ... is wholly inconsistent with the plain language and underlying objectives of the ADA.”⁶² Explicit in the court’s ruling was the meaning of equal access: the standards of the ADA and other statutes is not mere access to *any* accommodations but access to accommodations that allow for equality in information comprehension, limited only by the individual’s intelligence and capacity to answer the questions.⁶³

¶32 *Bonnette v. D.C. Court of Appeals*⁶⁴ involved a blind student who requested an accommodation to use a screen reader on the bar exam. Cathryn Bonnette had been legally blind for 30 years by the time she attended law school, and she sat for the bar exam in California and then the District of Columbia. Although legally blind, she did have very limited vision but was unable to read standard print documents. During her time in higher education (which included multiple postgraduate degrees), she had used the screen reader system Job Access With Speech (JAWS) to provide written information available on a computer screen.⁶⁵ After failing the California bar exam multiple times using a human reader, Bonnette requested an accommodation to use JAWS on the DC bar exam and was denied by the NCBE.⁶⁶ Bonnette sought an injunction to compel the Bar Examiners to provide her with the JAWS accommodation.

¶33 The D.C. Circuit Court of Appeals granted the injunction on the basis that the potential harm to Bonnette far outweighed the burden placed on the NCBE.⁶⁷ Specifically, simply providing *any* accommodation is not enough; any alternative accommodations must be “as effective” as another, and Bonnette provided sufficient evidence that the offered alternatives were not as effective to her as JAWS.⁶⁸ Also weighing against the NCBE were its previous offers of screen reader accommodations (in other states)⁶⁹ and the strong public policy interests in ensuring that the antidiscriminatory elements of the

61. *Id.* at 285.

62. *Id.* at 289.

63. *Id.* at 285–86 (“The ADA mandates reasonable accommodation of people with disabilities in order to put them on an even playing field with the non-disabled”); *id.* at 291 (“The ADA serves the important function of ensuring that people with disabilities are given the same *opportunities* and are able to enjoy the same *benefits* as other Americans.”).

64. 796 F. Supp. 2d 164, 177–78 (D.D.C. 2011).

65. *Id.* at 169–70 (according to an expert witness at the trial, JAWS allows “greater efficiency, proficiency, automaticity, privacy, and independence than the use of a human reader,” and the common practice for people with limited visual ability is to use a screen reader since both Braille and human readers require extensive training for efficient use).

66. *Id.* at 172 (the D.C. Committee of Admissions to the Bar offered the use of an “audio CD, live reader, and Brailled or large print version” of the exam, which Bonnette refused since she had no ability to understand the Brailled or large print versions, and she felt that the audio versions had harmed her ability to pass the California bar exam).

67. *Id.* at 187–88.

68. *Id.* at 183–86 (citing *Burkhart v. Wash. Metro. Area Transit Auth.*, 112 F.3d 1207, 1213 (D.C. Cir. 1997)).

69. *Id.* at 188.

ADA were properly applied.⁷⁰ Finally, the court refused to accept that the additional costs incurred by the NCBE were sufficient to deny Bonnette the only reasonable accommodation possible.⁷¹

¶34 *Enyart v. National Conference of Bar Examiners*⁷² addressed similar situations. Here, Stephanie Enyart wished to use JAWS and ZoomText (a program that can magnify, enlarge, and adjust color of screen text) for both the MBE and the MPRE. Similar to *Jones* and *Bonnette*, the NCBE refused to allow the ZoomText and JAWS accommodations for both the MPRE and MBE, which prompted Enyart to withdraw from both exams.⁷³ Enyart moved for an injunction to allow her to use both ZoomText and JAWS on the next MPRE and MBE portions of the California bar exam, and the U.S. District Court for the Northern District of California granted the injunction based on the evidence proffered by Enyart that the NCBE's offered accommodations were not reasonable as they would not make the test any more accessible.⁷⁴

¶35 Upon review, the Ninth Circuit affirmed the injunction on the same grounds, reasoning that the proposed accommodations would severely impede Enyart's ability to perform her normal work product on the exam, "which is clearly forbidden both by the statute and the corresponding regulation."⁷⁵ Furthermore, the Ninth Circuit joined the D.C. Circuit by recognizing the potential harm to the test taker as being far more detrimental than the possible burden to the NCBE in providing the accommodation, as well as favoring the public policy of eliminating discrimination toward individuals over any argument (not made in *Enyart*) that accommodations may reduce the reliability of test results.⁷⁶

¶36 Echoing the lawsuits brought in *Bonnette* and *Enyart*, in *Elder v. National Conference of Bar Examiners*,⁷⁷ Timothy Elder sought an injunction to use JAWS on the entire California bar exam. Similar to *Bonnette*, the NCBE refused to allow Elder to use JAWS for the MBE, prompting the motion for an injunction. Similar to the previous cases, the District Court of the Northern District of California ruled that any accommodation is not adequate if that accommodation does not reasonably assist the test taker to perform up to the typical standards of that individual on the test (based on existing examples of test results with the specific accommodation) and that public policy weighed in favor of eliminating discrimination over any burdens the NCBE might face.⁷⁸

70. *Id.*

71. *Id.* at 186.

72. 630 F.3d 1153, 1156–57 (9th Cir. 2011).

73. *Id.*

74. *Id.* at 1157.

75. *Id.* at 1165 (quoting *Enyart v. Nat'l Conf. of Bar Exam'rs, Inc.*, No. C 09-5191 CRB, 2010 WL 475361, at *5 (N.D. Cal. Feb. 4, 2010)).

76. *Id.* at 1167.

77. 2011 WL 672662, at *1–2 (N.D. Cal. Feb. 16, 2011).

78. *Id.* at *10–12.

The Cumulative Effect

¶137 The cases discussed above show litigants' varying success in securing accommodations at three stages of the legal education process: LSAT, application, and bar exam. But although discussed separately, these interrelated stages form one continuous process for those moving through the legal education system. This fact makes the inconsistent judicial outcomes especially problematic or harmful, as individuals might receive accommodations at one stage but not another. The results would be the same as if the individual had received zero accommodations at every stage. The case law certainly showcases this dilemma. Litigants, for example, have found tremendous success in procuring accommodations for the bar exam, and these rulings have been definitive and federally applicable. Unfortunately, these successes come to those individuals who have reached the end of their legal education. The lack of similarly definitive federal rulings on appropriate accommodations during LSAT exams means that hosts of individuals, unable to use an accommodation most suited to their needs at the entry point to legal education, are essentially cut off from any meaningful access to a legal education. These individuals are excluded from expanding their knowledge, legal institutions are deprived of the brain power these individuals would have contributed, and other applicants with disabilities are discouraged from even attempting to join the legal profession at all.

Ethical and Professional Standards

¶138 Supplementing the legal standards are ethical and professional standards that support accommodations to students within law schools. As discussed in the case law section above, accommodations often provide tremendous benefit to individuals with only menial burdens placed on the institutions providing the accommodation. In addition, professional requirements within the legal community support implementation of a more accommodating legal education system. The ABA Commission on Disability Rights strives to advocate and support "persons with mental, physical, and sensory disabilities and to promote their full and equal participation in the legal profession."⁷⁹ Similarly the ABA and other legal institutions are committed to the ideal of providing access to legal services and information for all people.⁸⁰ Clearly the law school community understands the need for inclusive policies,⁸¹ and yet the legal requirements often provide cover for institutions that, for financial or other reasons, are forced or

79. *About Us*, ABA COMM'N DISABILITY RIGHTS, https://www.americanbar.org/groups/diversity/disabilityrights/about_us/ [https://perma.cc/8U8W-QPRJ].

80. See *Access to Justice*, NAT'L CTR. STATE CTS., <https://www.ncsc.org/consulting-and-research/areas-of-expertise/access-to-justice> [https://perma.cc/7D8F-6CBK]; Howard Lintz et al., "A Basic Human Right to Meaningful Access to Legal Representation" 24–25 (Univ. of N.C. Sch. of L., Human Rts. Pol'y Seminar 2015) (citing international agreements and consensus on the right of all people to have access to legal services).

81. See also James Forman, Jr., et al., "Report of the Committee on Diversity and Inclusion" 4 (Yale University Law School 2016) (all students and faculty "must be able to take advantage of the full panoply of professional and intellectual opportunities that Yale provides"); *Diversity, Equity, Inclusion and Engagement*, Nw. Pritzker Sch. of L., <https://www.law.northwestern.edu/diversity/> [https://perma.cc/2G7S-LCDB].

choose to do the bare minimum to meet legal compliance. The ultimate goal of higher education is to create a diverse and inclusive environment to promote and generate ideas, and yet people with disabilities are often left out of this environment.⁸²

¶139 Unquestionably, federal law has made important advances for inclusiveness and demonstrated the federal priority for inclusion. But uncertainty about whether laws will be applied as designed, as well as where and how they will be applied, leaves institutions and individuals in a state of limbo. Deferring to legal standards similarly limits what institutions can and will do to create a more inviting and universal environment for their students, faculty, and visitors. This is why UD is so vital to legal institutions: pushing for universal inclusion not only meets the legal standard but also goes above and beyond to set an example for all of the legal profession and other institutions. This is essential for a profession that proclaims the need for ethical competencies in the practice of law.

Accommodations vs. Universal Design

¶140 While disability law is no doubt essential for improving accessibility and promoting inclusivity, the reality is that providing accommodations after the fact as the primary method of remedy is insufficient. For one, the full extent of public and private accommodations for people with disabilities is constantly in flux. The definition (and society's understanding) of the term "disability" has grown substantially since 1973, yet the statutory language has been slow to respond. Courts have further restricted the definition of "disabled," limiting who is allowed to receive accommodations under the law. The failure to align the promise of providing accommodations with the practice has ultimately led to further legislation, but with limited results (as discussed in an earlier section).

¶141 While litigation has successfully fulfilled some of the promise of disability laws, it too is far from a perfect vehicle. First, lawsuits require affirmative action from those individuals unfairly discriminated against, revealing the ineffectiveness of the statutes that were meant to codify these rights as a matter of course.⁸³ Second, as discussed above, the courts' inconsistent application of statutory standards to various stages of the legal education process creates a tiered rather than a uniform system. Finally, this same inconsistency leaves those individuals who need accommodations on very shaky legal ground until after a cause of action is concluded. And since these cases often take years to be resolved,⁸⁴ even when litigants are successful, the newly removed barriers have

82. Ed Finkel, *Disabled Law Students See Largest Hurdles at Entrance, Exit*, 40 *STUDENT LAW*, Apr. 2012, at 23, 26.

83. See also H.R. REP. NO. 101-596, at 66 (citing decisions interpreting the Act as the impetus for passing the ADA); ADA Amendments Act of 2008, Pub. L. No. 110-325, § 2(a)(4) & (5), 122 Stat. 3553, 3553 (citing decisions interpreting the ADA as the impetus for passing the Amendments Act).

84. About half of the cases discussed above took more than one year from the moment of denied accommodation to the disposition of the district court case; contra, the remaining cases took at most two months since many of the tests for which an accommodation was sought were time sensitive.

already effectively barred the applicants or students from achieving their goals, at least in any kind of timely manner.

¶142 Herein lies the promise of UD. UD seeks to look beyond the legal standard toward what is possible and equitable and forces the academy to rethink the entire academic environment to best provide opportunities for all individuals—with and without disabilities—to achieve success in ways impossible within the traditional paradigm. Under the current standards, allowing individuals to participate is reactive: individuals (may) ask for and (should) get an accommodation. This creates a process by which bureaucracies need to work toward allowance, which takes time, requires money, and creates redundancies every time a request is made. Under UD, allowance is proactive, and environments are designed for ready or for easily adaptable use. This requires time, money, and redundancies at a single starting point and then allows for usability without constant efforts.

¶143 UD offers a way out of the current convoluted and problematic process discussed above by shifting the paradigm of legal education toward equality of usability, regardless of individuals' traits. Instead of designing for one group and accommodating for all others, UD takes all known groups into account and designs resources that are easily adjusted when new usability needs become apparent. Rather than requiring individuals to push for accessibility, the impetus for accessibility moves to the institution as a whole, spreading out the responsibilities to make the transition more manageable. Law schools, while representing only a part of the entire legal education process, represent the preeminent environment for which UD principles can be applied and disseminated throughout the entire legal education process.

Applying Universal Design in the Law School

¶144 Law schools' position within legal education can do much to influence and push the other actors—the LSAC and NCBE, for example—into better compliance with the intentions of the disability laws. Ideally, such a group effort will lead to more equitable outcomes at all levels in the legal profession and contribute to increasing access for individuals traditionally left out of the law school community, allowing them the chance to attend, participate, and excel within legal education. In turn arise tremendous opportunities to change the legal profession from within and for the better.⁸⁵

¶145 The path to law schools becoming models and incubators for UD in the legal profession starts with showing how UD can work within the law school setting itself. Ideally, law schools going through current and future remodeling (either physical, technological, or pedagogical) incorporate the seven principles into their plans.⁸⁶ Unfortunately,

85. Jennifer Jolly-Ryan, *Bridging the Law School Learning Gap through Universal Design*, 28 *TOURO L. REV.* 1393, 1396 (2012) (“[UD] of instruction will help more than students with disabilities, who are legally entitled to accommodations Adult learners, part-time law students, ESL students and students with varying learning styles, who are not legally entitled to education accommodations, will be better served as well.”).

86. See Jennifer Bard, *Universal Design in the Law School Classroom—A Few Thoughts*, A PLACE TO

budget constraints paired with the historical practice of granting accommodations only on request suggest that such wholesale modifications to existing environments will be slow to manifest. To circumvent these barriers to change, UD should be introduced into the law school environment in a relatively discrete setting to serve as a low-cost example of the utility and equity UD provides. It is therefore appropriate and sensible that the law library serve as the incubator within the incubator: introducing UD into the law school gradually so that such changes can take root and expand throughout the entire institution and eventually the legal profession.

¶146 Within law library services, three areas exist where UD should be applied: physical spaces; legal research instruction; and information services,⁸⁷ which encompass several modern aspects of library operations, including all print materials, digital resources, and information technologies used to assist in legal research and knowledge management.⁸⁸ The example of technological advances in legal research is especially informative in understanding how libraries have historically and successfully disseminated new practices⁸⁹ into the law school and legal profession.

Physical Spaces

¶147 The first real introduction to law school for almost every student is its physical spaces. Here students are introduced to the campus, buildings, classrooms, library, study spaces, and any other areas within the law school that they will inhabit over the next three to four years. This first impression will speak volumes about the values, character, and people of the law school, oftentimes unintentionally. Basic considerations should be apparent: if a student has difficulty using stairs, are there elevators available? If a student is in a wheelchair, are there computers that the student can access? If a student is too short to reach high into library stacks, are stools available? If a student is visually impaired, are there signs with physical details? Often, those with no physical or

DISCUSS BEST PRACTICES FOR LEGAL ED. (Jan. 24, 2020), <https://bestpracticeslegaled.com/2020/01/24/universal-design-in-the-law-school-classroom-a-few-thoughts/> [<https://perma.cc/H97F-4NYF>] (provides insights into traditional thoughts about legal education, and how there is not much curiosity about whether these practices are sensible on their face and specifically when presented to students with disabilities or impairments).

87. See ALA, EQUAL ACCESS: UNIVERSAL DESIGN OF LIBRARIES, <http://www.ala.org/alsc/sites/ala.org.alsc/files/content/NI14Handouts/Universal%20Design%20Checklist.pdf> [<https://perma.cc/NH62-RCGB>]; see also Sheryl Burgstahler, *Equal Access: Universal Design of Libraries*, DISABILITIES, OPPORTUNITIES, INTERNETWORKING, & TECH. (2012), <https://www.washington.edu/doi/sites/default/files/atoms/files/Equal-Access-Universal-Design-Libraries.pdf> [<https://perma.cc/3MVX-FFYJ>]; Stefanie Havelka & Rebecca Arzola, “Adopting Universal Design in Libraries: Collaborating for Student Success” (2016) (unpublished presentation) (on file with City University of New York Academic Works).

88. See Cameron Chavira, *Libraries, Technology and the Route to Relevance*, GOVERNING (July 9, 2018), <https://www.governing.com/gov-institute/voices/col-public-libraries-leverage-technology-build-relevance.html> [<https://perma.cc/ANU8-QAVL>] (librarians have been central in identifying knowledge gaps in patron bases and utilizing technology to fill those gaps to improve outcomes for the entire community).

89. ALA, IMPLEMENTING LIBRARY TECHNOLOGIES: HOME, <https://libguides.ala.org/librarytech> [<https://perma.cc/3JU6-WCBZ>] (summary and descriptions of the ways libraries have historically used and continue to use technology to help patrons access information).

cognitive limitations will overlook not-fully-accessible physical spaces; however, to anyone with physical or cognitive limitations, the law school spaces will be seen as unwelcoming and adding another burden to the otherwise burdensome first semester of law school. Already the physical space is working against some students as opposed to fostering the full utility of the space for student success.

¶48 Beyond the first appearances, students will be spending the majority of the legal education within the physical space of the law school. Even as online instruction is becoming more common, in-person instruction remains the norm;⁹⁰ this is especially true in law schools since the majority of law courses must be in person.⁹¹ Therefore, the space should not just reflect the current student and faculty populations but also provide a supportive venue for all populations. A clear example where requirements for accommodations have led to UD acceptance is wheelchair accessibility in buildings. Immediately, the presence (or absence) of wheelchair accessible entrances will indicate to students whether those in wheelchairs are implicitly welcomed into the building. Furthermore, ramped walkways are designed so that those with wheelchairs can easily move within a space with multiple levels but also allow others to use the feature; this example of UD demonstrates how a fundamental change in the physical space not only addresses the legal requirements of the disability statutes but also provides everyone with a different option that is often easier to navigate.⁹²

¶49 These built-in design features require thought and money at the beginning of the project and will provide ease of use to all users, enhancing in a minor but essential way the experiences of the students, faculty, staff, and visitors of the law school. Contrast this example with a design that fails to consider those in wheelchairs, and the cost-benefit analysis becomes obvious. Either the building will need to be remodeled or classrooms reorganized to include these features, or other alternatives, such as stair chair lifts, will need to be added. The former accommodation will cost a tremendous amount of money (arguably more since any ramp will need to be built into a design not intended for a ramp)⁹³ and involve work noise, hallway closures, and other general inconveniences for the entire law school. The latter alternative may be more cost-effective but adds a feature that will be usable only by those in wheelchairs, limiting the

90. THOMAS D. SNYDER ET AL., NATIONAL CENTER FOR EDUCATION STATISTICS, DIGEST OF EDUCATION STATISTICS 454 (2019) (as of fall 2016, 68.3% of undergraduate students and 63.2% of postbaccalaureate students had all of their courses on campus, while only 15% and 27.5%, respectively, had online courses only).

91. STANDARDS AND RULES OF PROCEDURE FOR APPROVED LAW SCHOOLS § 306(e) (Am. Bar Ass'n 2018) (the ABA allows only one-third of a student's total course requirement to be done online, requiring the students to be on campus to attend regular courses the rest of the time).

92. EDWARD STEINFELD, JORDANA MAISEL & DANISE LEVINE, UNIVERSAL DESIGN: DESIGNING INCLUSIVE ENVIRONMENTS 21 (2012) (wheelchair accessibility is the most relevant example for law schools, yet there are many other real-world examples such as unigendered bathrooms, physical barriers blocking dangerous areas, and closer parking demand beyond "handicapped" parking).

93. See David Gutman, *Seattle May Have to Spend Millions Making Sidewalks More Accessible to People with Disabilities*, SEATTLE TIMES (Apr. 17, 2017), <https://www.seattletimes.com/seattle-news/transportation/seattle-may-have-to-spend-millions-making-sidewalks-more-accessible/> [https://perma.cc/J6QX-76YW].

access and value to only a specific population. Faced with these alternatives, a building with UD principles in mind serves the entire population toward the fullest possible utility, limiting costs and expanding access.

¶150 Meaningful access to physical spaces means they also need to be navigable, which requires adequate signage. Signage is an essential tool for any library visitor and requires consideration of users with visual impairments, spatial awareness issues, dyslexia, or special needs in following directions. In many ways, the need for accurate and accessible directions in the library is more than just an opportunity to test universal signage design but a necessity for library policies to accurately direct their patrons to the location of various resources, including elevators.⁹⁴ The easiest way to apply UD principles to signage is to install digital signage, which is easy to change, manipulate, and (in some cases) interact with.⁹⁵ However, it is important to remember that UD principles need not be overly complicated: signage with text, pictorial, Braille, and digital options allows multiple users multiple options to access the sign. Regular signage around the library with arrows pointing to important resources is ideal.⁹⁶ QR codes⁹⁷ can be placed on signs to allow users with reading disabilities, such as dyslexia, to access an audio direction; while there are audio directions integrated into the physical sign in other venues,⁹⁸ the QR code offers a simple solution to the particularly noiseless library environment. Three-dimensional signage options now exist that present a more realistic context for those with visual impairments⁹⁹ and that provide (increasingly)

94. Edward Luca & Bhuvu Narayan, *Signage by Design: A Design-Thinking Approach to Library User Experience*, 1 WEAVE J. LIBR. USER EXPERIENCE, <http://dx.doi.org/10.3998/weave.12535642.0001.501> [<https://perma.cc/G26W-GAST>] (quoting Melissa Serfass, *The Signs They Are A-Changin'*, AALL SPECTRUM, Apr. 2012, at 5–6) (“Library signage serves two broad purposes: ‘informing library users and trying to influence their behavior.’”).

95. Four Winds Interactive, *The Benefits of Digital Signage in University Libraries*, FWI BLOG (Nov. 14, 2017), <https://www.fourwindsinteractive.com/blog/the-benefits-of-digital-signage-in-university-libraries> [<https://perma.cc/758A-SS2Q>].

96. VISUAL WORKPLACE INC., BEST PRACTICES FOR WAYFINDING AND DIRECTIONAL SIGNAGE 2–3, <https://www.visualworkplaceinc.com/wp-content/uploads/documents/Directional-Signs-Wayfinding.pdf> [<https://perma.cc/7SEH-4345>] (directional cues are ideal within all signage but particularly important at “intersections” and other “key locations” to help users easily identify the correct direction to take; ideally, all signage will incorporate visual, textual, digital accessible, and digital audio options).

97. Bruce E. Massis, *What’s New in Libraries: QR Codes in the Library*, 112 NEW LIBR. WORLD 466, 468 (2011) (analogizing the audio options as guided tours of museums; alternatively, allowing users to view digital signage and directions from their smart devices rather than installing the devices within the library).

98. Laurie Winkless, *Using Technology to Help Visually Impaired People Navigate Cities*, FORBES (Mar. 28, 2017), <https://www.forbes.com/sites/lauriewinkless/2017/03/28/using-technology-to-help-visually-impaired-people-navigate-cities/#6679fc0471d5> [<https://perma.cc/6R98-4HE4>] (utilizing smartphone apps, fixed audio alerts, and other physical designs to allow blind and other visually impaired individuals to effectively and safely navigate urban streets).

99. Fred W. Wright, *Unique Tactile Map Made on 3-D Printer Could Have Widespread Use*, TAMPA BAY TIMES (Sept. 25, 2018), https://www.tampabay.com/news/aging/Unique-tactile-map-made-on-3-D-printer-could-have-widespread-use_171592795/ [<https://perma.cc/99KQ-2MUA>]; see also Benedict, *No Business? 3D Print Your Own Magnetic Signage*, 3DERS (Mar. 4, 2018), <https://www.3ders.org/articles/20180304-no-business-3d-print-your-own-magnetic-signage.html> [<https://perma.cc/Ry6U-YWC4>].

cost-effective options for signage that achieves the dual goals of being universally accessible as well as attention grabbing.

¶151 The most obvious, but at times most egregiously overlooked, design feature for those with mobility problems is the availability of elevators.¹⁰⁰ Almost all buildings with more than one floor have elevators, which serve both those with mobility issues and those without, making getting to upper floors much easier. Unlike the previous two examples, elevators require constant upkeep and maintenance to ensure usability. It is true that UD cuts down most costs, but it is not free. Yet this small cost highlights the value of UD: proactive evaluation of environments helps ensure the utility of those spaces for all people, rather than a select few.

Instructional Services

¶152 As instruction relies more and more on technology, the need for consideration of UD principles when applying technology becomes even more pronounced. Beyond the technological components, law libraries often house the professors and staff members who instruct students in the substance of the law, and these instructors must teach with UD principles applied throughout their courses and lessons. A subset of UD is a focus on universal design of instruction (UDI).¹⁰¹ An aspect of UDI is to use as little UD jargon as possible while explaining the UD principles to educators, understanding that simplistic changes are the easiest and most practical to implement.¹⁰² While UDI is instructor based, it is keyed toward creating an environment compatible with universal design for learning (UDL).¹⁰³ UDL identifies the fundamental learning networks that

100. See Vivian Wang, *Students in Wheelchairs Find Campus Inaccessible*, YALE DAILY NEWS (Feb. 24, 2015), <https://yaledailynews.com/blog/2015/02/24/wheelchair-accessibility-leaves-much-to-be-desired/> [<https://perma.cc/Z6E7-JUEW>] (often, the mere presence of an elevator is considered suitable, overlooking the effect that broken, slow, or locked elevators, as well as those inconveniently located, has on students who rely on the elevators to attend classes); see also Alejandra Velazquez, *Inaccessible Buildings and Campus Culture Hurts Students with Disabilities*, GW HATCHET (Mar. 8, 2018), <https://www.gwhatchet.com/2018/03/08/inaccessible-buildings-and-campus-culture-hurts-students-with-disabilities/> [<https://perma.cc/G4SB-VSFT>] (elevators may be a convenience for most but are a requirement for others, and the failure of universities to provide adequate elevator service undermines a student's ability to succeed in school).

101. UDHE, *supra* note 5, at 39–41 (developed by the DO-IT Center, UDI explains UD principles to educators and provides best practices and checklists for creating a UD-based form of instruction, identifying specific learning environments and applying accommodations where the UD instruction “does not fully address the needs of a specific student”); see also *id.* at 38–39 (Universal Design for Instruction (UDforI) was developed by the Center on Postsecondary Education and Disability (CPED) at the University of Connecticut and added two UD principles that were narrowly tailored toward instruction in higher education; UDI took the suggestions of UDforI and fit instruction into the existing seven UD principles).

102. Teaching Engagement Program (TEP) at the Teaching and Learning Center, *Universal Design in College Instruction*, University of Oregon (2017), http://www.uco.es/aforac/media/recursos/Universal_Design_in_College_Instruction.pdf [<https://perma.cc/JF9Z-5GDV>] (UDI is meant to teach the faculty and instructors to effectively use UD to benefit the students, by creating a “framework to encourage faculty members to actively utilize and embed inclusive instructional practices into their courses”).

103. *About Universal Design for Learning*, CAST, <https://www.cast.org/impact/universal-design-for-learning-udl> [<https://perma.cc/TC7S-XLN7>] (UDL identifies the fundamental learning networks that all students have to varying degrees: recognition, strategic, and affective).

all students have to varying degrees, so that instructors are able to create courses that present information adequately for every student to understand and apply.¹⁰⁴ By breaking down instruction in this way, instructors identify the what, how, and why of the information and create different formats by which that information is presented to students so that they can apply the information to their unique situations.

¶153 Certain aspects of UDI are quite common and currently used in instruction. Recording lectures allows students with slower processing capabilities to reacquire the information enough times to understand it. Videos with closed captioning provide students with poor or no hearing with the text of the video, while the text and video together benefits visual learners. Allowing personal technology in the classroom has allowed all students to type notes and access documents digitally, as opposed to handwriting (a much slower process for almost all students) and bring all relevant materials in a digital rather than physical form (adding to weight and size of bags, which can be stressful for physically weaker students). Similarly, the increased ubiquity of e-textbooks has reduced the need to carry around heavy and awkward textbooks. Other aspects are not common but easily implemented: a specific agenda for each class helps students focus on the important parts of the lecture, modifiable assignment text can allow students to increase the text if needed, and nonwritten forms of assessment all have the capabilities (albeit with obvious, possible problems)¹⁰⁵ to provide different and novel methods of reaching students' differing network capabilities.

¶154 Outside of the class, various impediments are beyond the instructor's (and perhaps the law school's) control. Classroom setup is often fixed, meaning that students with mobility issues may be unintentionally segregated due to their inability to reach certain seating. Acoustics and microphone capabilities will dictate how much students with hearing issues will be able to take in. Alternatively, a room without microphones is unlikely to have a voice-to-text translating capability, which would mitigate the audio concerns. These impediments stress that technology within the classroom must be sophisticated enough to provide different media options to reach different learning networks, as well as the obvious benefits of designing physical spaces with these and other UD considerations in mind. What should be clear by now is that UD does not present an all-cases solution but creates a flexible environment in which options are available so that students with various conditions or considerations will have the option to participate in the educational process.

104. *Id.*

105. See Kateri David, *With No Alternative, In-Class Presentations Restrict Anxious Students*, DAILY TEXAN (Nov. 3, 2018), <https://www.dailytexanonline.com/2018/11/03/with-no-alternative-in-class-presentations-restrict-anxious-students> [<https://perma.cc/2LW6-CFTJ>] (most-common alternative to written projects are oral presentations, which require physical presence, projection, mental organization, and physical exertion, creating problems with students who fatigue easily, have speech impediments, or have anxiety concerns).

Informational Services

¶155 The transition to a more technological world invariably means movement toward a more digital world, which offers benefits and detriments unique to the forum. While the law school cannot ensure that all modes of information are accessible, digital materials are already more flexible for design changes than the physical or instructional venues. On the other hand, the ever-changing nature of technology means more vigilance is required to ensure new resources for information are usable for all those in the law school.

¶156 Computers have offered a tremendous opportunity for students with and without disabilities because of the flexibility and innovativeness inherent in computer programming. Resources discussed above (such as screen readers and text magnification) demonstrate how computer technology allows users to access information where previously such access was not allowed.¹⁰⁶ Unfortunately the flip side of these tools are the expanding costs of integrating technology, exacerbated by the frequency with which technology is updated.¹⁰⁷ Similarly, universities have been trending away from stationary computer labs because more students have their own portable computers. While this may place the burden back on the student to secure an accommodation, many institutions have taken UD principles to heart when reevaluating their computer options on campus¹⁰⁸ or redesigning computer lab spaces.¹⁰⁹ Without a strong computer presence at the law school, equitable access to information is all but impossible.

¶157 Regardless of how many computer labs or what other technological tools are available within the library, technology resources present two unique opportunities for the library staff. First, the library as holder of the law school's technology has a tremendous amount of influence over what technology is purchased and used. Second, librarians are often the most knowledgeable about the technology and how to use it.¹¹⁰ The fact that much of the law school's technological presence and knowhow reside in the law library means that law schools have a leg up on how to maximize the use of these tech-

106. Sheryl Burgstahler, *Working Together: People with Disabilities and Computer Technology*, PROVIDING ACCESS TO TECHNOLOGY 1-3 (2012), <https://www.washington.edu/doit/sites/default/files/atoms/files/wtcomp.pdf> [<https://perma.cc/LL4V-B7XM>].

107. Joshua Kim, *Why Are Laptops So Cheap and Institutional Technology Costs So High?*, INSIDE HIGHER ED (Nov. 15, 2017), <https://www.insidehighered.com/digital-learning/blogs/default/why-institutional-ed-tech-costs-will-continue-rise> [<https://perma.cc/9HM9-6KXT>].

108. See EAB, *7 Lessons Learned When a College Overhauled Its Computer Lab*, EAB DAILY BRIEFING (Mar. 23, 2017), <https://www.eab.com/daily-briefing/2017/03/23/7-lessons-learned-when-a-college-overhauled-its-computer-lab> [<https://perma.cc/SK4Z-T98X>] (many colleges provide extra laptops, laptops with accessibility features on them, or software available for students who need them).

109. See Krissy Lukens & Scott Ryan, *Rethinking the Computer Lab of the Future*, CAMPUS TECH. (Mar. 15, 2017), <https://campustechnology.com/articles/2017/03/15/rethinking-the-computer-lab-of-the-future.aspx> [<https://perma.cc/2P6G-MB32>]; see also Alan Joch, *Traditional Computer Labs Get Modern Makeover*, EDTECH MAG. (Apr. 27, 2017), <https://edtechmagazine.com/higher/article/2017/04/traditional-computer-labs-get-modern-makeover> [<https://perma.cc/3EST-MHCK>].

110. Chloe Wenborn, *How Technology Is Changing the Future of Libraries*, WILEY NETWORK (Apr. 11, 2018), <https://www.wiley.com/network/librarians/library-impact/how-technology-is-changing-the-future-of-libraries> [<https://perma.cc/NMX3-7BLX>].

nologies through UD principles applied to the library in a broad and culturally pervasive way. Furthermore, providing UD technology to the students through the library further perpetuates this culture throughout the legal education process, creating enhanced returns for years to come.

¶58 Similarly, the law school's website design must be useable for students to gain any benefit from the information available on the sites.¹¹¹ Unfortunately, too many websites do not comply with the ADA,¹¹² nor do they comply with best practices as outlined by UD organizations. While many websites fall short, the benefits of an accessible website mirror many of the benefits of accessibility in other areas discussed, but they more uniquely spread the law school's resources and information to a far greater group of people.¹¹³ Not only does this help current students, but the accessibility of the website also ensures that potential students have an easier time accessing information, potentially expanding the pool of applicants. Many times, the website is the initial point of contact between a person and the law school, further demonstrating the benefits of increased accessibility for all users.

Conclusion

¶59 While UD removes physical, digital, and instructional barriers so that all individuals are allowed to participate in a law school education, it does even more. UD as a term connotes inclusivity and comradery as opposed to the "otherness" implied in the current terminology—terms such as "accessible," "accommodating," and "compliant." Universal design offers the key to not only increased access to legal education and legal knowledge but also a more fundamental shift in the perceptions and thinking that have plagued disability laws and design habits over the last 30 years.

¶60 The types of UD features discussed throughout this article can be introduced into the law library gradually and in cost-effective ways. Such an approach allows more flexibility in implementing design features to see what works best for an institution's library, which then can be applied to the institution itself. As this article demonstrates, there are tremendous legal, financial, and moral incentives to applying UD principles in the law school, and the law library provides the best venue for law schools to find what works best for the entire institution. It is vital that law schools and the larger legal community adopt UD to make the entire legal education process a model for the legal profession.

111. U.S. DEP'T OF JUSTICE, *Accessibility of State and Local Government Websites to People with Disabilities* (June 2003), <https://www.ada.gov/websites2.htm> [<https://perma.cc/N3TD-H898>].

112. Cyndi Masters, *Despite Americans with Disabilities Act, Websites Are Often Inaccessible to the Impaired*, USATODAY (July 13, 2019), <https://www.usatoday.com/story/opinion/2019/07/13/americans-disabilities-act-websites-often-inaccessible-column/1712848001/> [<https://perma.cc/RW9K-VFZV>].

113. See *Benefits of Web Accessibility*, U.C. BERKELEY, <https://webaccess.berkeley.edu/web-accessibility-uc/benefits> [<https://perma.cc/3FMV-L95Z>] (University of California at Berkeley demonstrates how universities have adopted and applied the benefits of an accessible website policy to benefit users and the institution).