Applying Universal Design into the Legal Academy

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*Abstract: Access to quality legal education has always been fundamental for true access to justice. While there have been tremendous strides in law school inclusion and diversity, too often there are inherent and difficult barriers to access in the form of the physical, technological, and cognitive environment which are often overlooked but play a large role in keeping many people out of law school. While there are several federal and state laws meant to address these barriers, Universal Design provides the clearest policy change for law schools to remedy these issues. This paper will explore how the law, law school policies and UD principles interact within the law library environment to provide an inclusive and accessible law school experience for every single student.*

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# Introduction

Universal Design (hereafter UD) is a term coined by the 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.”[[2]](#footnote-2) Over the last 30 years, this concept has moved from a limited focus as an architectural principle, to implementation and incorporation into many other facets of daily life: automatic doors at grocery stores, audio prompts at cross walks, road-level curb entryways on sidewalks, closed captioning for television programming, etc. Businesses and organizations have realized that planning for everyone is less expensive and more efficient than hastily changing a product to accommodate someone who was not considered in the original design. While standard limitedly applies to legal businesses, it has been relatively slow to take hold in legal education, which serves as the lynchpin to the entire legal profession.

Law schools serve as the testing ground for future attorneys, and a law school’s mission and environment play a large role not only in attracting students to attend, but also in the values those same students take into the legal profession. Universal design is a worthwhile value that has been stymied in the legal profession primarily due to reality that it is not commonly practiced within law schools. This must change for the legal profession to become equitable and take advantage of the tremendous amount of brain power which has been historically barred from entering the legal profession. Furthermore, this change should logically begin in the law library, as the intellectual and cultural center of the law school. Generally academic law libraries (hereafter law libraries) provide a venue whereby UD principles can be applied in myriad settings and where results are readily apparent; specifically, research and information instruction through the law libraries, assessed through information literacy outcomes, will reveal the utility or failure of UD practices relatively quickly.

To this end, universal design provides an inviting atmosphere where students may approach new information with optimism. UD also offers an avenue for reluctant law faculty to access digital information, and presents the ability for libraries to provide access to all patrons regardless of existing legal knowledge or physical limitations. All of these fora allow for implementation, evaluation, and improvement of UD principles beyond the library, and within the law school and university, but applying UD principles within the law library services is the single most effective way to reach, and therefore welcome, all students into the legal academy, while still addressing the key components of successful legal practice in the modern world.

This paper is meant to provide the theoretical and legal framework for application of UD principles into the entire legal academy. The first two parts of this paper will address the principles of universal design generally and, in relations to the legal standards, how UD can mitigate violations and demonstrate that while Universal Design is not specifically required of law schools, the legal and ethical reasons for universal design make application imperative. The third part of this paper will provide examples of general UD applications and how they can be implemented into the legal academy. Specifically, as a way to introduce universal design 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 practices, their value will become apparent to all stakeholders, ultimately spreading throughout the legal academy and into every aspect the legal education process and legal profession.

# Part I: Universal Design Principles

The Center of Universal Design (CUD), located at the North Carolina State University and founded by Ronald Mace, is made up of advocates and practitioners from all areas, including architecture, education, and product designers.[[3]](#footnote-3) Along with the Disabilities, Opportunities, Internetworking, and Technology (DO-IT) programs within the University of Washington’s Center for Universal Design in Education (CUDE),[[4]](#footnote-4) CUD endeavors to create, improve, and disseminate best practices for UD implementation. While the philosophy of UD requires a narrow focus upon universal inclusiveness, these organizations have created customized advice for businesses, universities and colleges, public spaces, and many other areas of social interaction, to make these principles more apparent in specific environments. Since 1997, UD practitioners established the seven principles model developed by the Center for Universal Design[[5]](#footnote-5): equitable use, flexibility in use, simple and intuitive use, perceptive information, tolerance for error, low physical effort, and size and space approach and use.[[6]](#footnote-6) While these have been applied for different interest groups in different settings, we will now focus on how these principles are applied in higher education generally, with an eye toward how these principles can be applied to law schools more specifically.

## Equitable Use

Equitable use requires that any “design [be] useful and marketable to people with diverse abilities.”[[7]](#footnote-7) Simply put, this means that any student or faculty member will be able to use an available service at the institution, whether it be something as common as getting to an advisor’s office or more specific, such 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.[[8]](#footnote-8) 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 any product on campus, enhancing the effectiveness of the product and the overall learning experience for the vast majority of students.

## Flexibility in Use

A design must accommodate “a wide range of individual preferences and abilities.”[[9]](#footnote-9) 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 is another aspect of UD’s value to higher education, and what the seven principles aim to achieve.

## Simple and Intuitive Use

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.”[[10]](#footnote-10) 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. By creating 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

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.”[[11]](#footnote-11) Students have many different learning styles and professors are responsible with 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 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 providing an environment 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 provides these benefits to the student body as a whole.

## Tolerance for Error

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 in 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 (*i.e.* clicking the wrong link on a website, or going through the wrong entrance to a building)[[12]](#footnote-12) 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.[[13]](#footnote-13)

## Low Physical Effort

When trying to learn, it is best for students to be comfortable and able to concentrate, rather than tired or distracted through physical exertion. Unfortunately, many students expel tremendous energy while doing typical learning tasks, such as reading, writing, taking notes, etc. Therefore, environments should 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.[[14]](#footnote-14) 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 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

Focusing on providing “appropriate size and space… for approach, reach, manipulation, and use regardless of the user’s body size, posture, or mobility,”[[15]](#footnote-15) 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.

It is important to understand that these principles provide a guide for individuals and institutions to implement universal design, rather than a criterion mandated upon 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 traditionally access to justice has been characterized as access to the public to legal needs, it is impossible to facilitate this access on the backend 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.[[16]](#footnote-16) The next part of this paper will define the legal standards and litigation outcomes that face all practices and procedures that do not take universal design into account.

# Part II: Legal Standards of Universal Design

Universal Design articulates an overlooked but integral American civil right: access to information and education for people with disabilities.[[17]](#footnote-17) Without question, recognition of these rights were 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, addressed the legal standards by 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 ceiling, by which Universal Design success is measured: while all universities must comply with these laws, UD aims to extend past what is legally required, to measures which will be most beneficial for each unique individual at the institution, as well as for the institution itself.

Unfortunately, the literature and case law of these statutes has focused primarily on employment, as opposed to implementation in higher education and 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 will bring into clearer focus how legal education institutions act as gatekeepers to employment by creating or removing barriers within legal education. This review will further demonstrate how UD will resolve many legal and equity problems before they begin.

## Statutory Authority for Accommodations

Other authors have delved into the relevant statutes which allow students with disabilities to access the law school resources.[[18]](#footnote-18) However, a summary of these principal laws, with an eye toward higher education and legal studies, is necessary for any substantive analysis or discussion of the utility of UD within the legal education process.

### The Rehabilitation Act of 1973

The Rehabilitation Act of 1973 (hereinafter “the Act”) introduced the category of disability as a protected class:

“[n]o otherwise qualified individual with a disability in the United States, as defined in [section 705(20)](https://1.next.westlaw.com/Link/Document/FullText?findType=L&pubNum=1000546&cite=29USCAS705&originatingDoc=N66391590751C11E68D8AA3780A69FD92&refType=RB&originationContext=document&transitionType=DocumentItem&contextData=(sc.DocLink)#co_pp_c155000070793) 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*.”[[19]](#footnote-19)

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.[[20]](#footnote-20) 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,[[21]](#footnote-21) which acts as the first “gate” toward legal employment.

The Act explicitly sought to allow individuals with disabilities to work within the public sector; by outlawing discrimination against people with recognized disabilities, they were now able 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.[[22]](#footnote-22) The scope of these accommodations were meant to be relatively limited, but ultimately rested on the answer to the question of what constituted “reasonable” meant 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, and ultimately leading to completely opposite interpretations than those intended.

Predictably, challenges to the requirements of the Act allowed courts to frame the Act far from the intentions of the framers.[[23]](#footnote-23) 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.[[24]](#footnote-24) 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 soleconsideration.[[25]](#footnote-25) 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.

### Americans with Disabilities Act of 1990

Rather than replace the Act, legislators sought to revitalize and clarify the law to perform as intended. Led by a new and empowered core of social and legislative advocates, the Americans with Disabilities Act (hereinafter “the ADA”) was passed by Congress to provide enhanced standards for protecting citizens’ rights, as well as to reinforce the standards codified in the Act itself.[[26]](#footnote-26) The Congress’ 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 on the one hand, while at the same time superseding the rulings antithetical to the Act.[[27]](#footnote-27) 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.[[28]](#footnote-28)

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]](#footnote-29) The ADA is a product of the late 1980s, and so unsurprisingly 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]](#footnote-30) Creating further turmoil, a circuit split emerged where some jurisdictions applied the ADA to physical spaces, or those places with a “nexus” to a physical space[[31]](#footnote-31) while other jurisdictions refused to limit the ADA’s protections merely to physical spaces and required digital spaces (i.e. website) to comply with the ADA’s requirements.[[32]](#footnote-32) Additionally complicating enforcement of the stated purposes of the ADA, the Supreme Court did decide that to be “reasonable.”

### ADA Amendments Act of 2008

Just as the intention of 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,” i.e. only those whose disability persisted through interventions to accommodate the disability.[[33]](#footnote-33) In passing the legislation which would become the Americans with Disabilities Act Amendments Acts of 2008 (hereafter “the Amendments”) 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) the Congress’ intention of who must be protected under federal law.[[34]](#footnote-34)

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 American’s 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 ADA, and constricted further by the courts. Instead, the Amendments incorporated the ADA (and by extension the Act) while

## Litigation Involving Law School Accommodations

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.[[35]](#footnote-35) There are myriad examples 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 disposition of these cases are important, they are cited here as case studies for where UD application could have avoided costly and lengthy litigation.

### Accommodations during the LSAT

The case of *Law School Admission Council, Inc. v. California*[[36]](#footnote-36) arose from a California law making it illegal for the Law School Admissions Council (hereafter LSAC) to notify schools that the LSAT score was “obtained by a subject who received an accommodation.”[[37]](#footnote-37) LSAC sued for injunctive relief claiming violations of several constitutional rights, including equal protection of the law.[[38]](#footnote-38) The Third District California Court of Appeals reversed the order of injunction, finding no Constitutional violations existed, and that any harm done to LSAC was outweighed by the potential “law school applicants with disabilities,”[[39]](#footnote-39) ruling the intention of the statute meant to address “undue burdens on [law school] applicants with disabilities. Stated broadly, the purpose is to prevent discrimination.”[[40]](#footnote-40) Supporting their decision, the court cited the ABA Commission on Disability Rights[[41]](#footnote-41) and a report on the effects on students with disabilities from flagged test scores,[[42]](#footnote-42) identifying the professional and academic costs that flagged scores create.

In *Binno v. American Bar Association*,[[43]](#footnote-43) the plaintiff claimed that his visual disability made it impossible to perceive the “‘spatial relationships or performing the necessary diagramming to successfully complete the logic-games questions on the LSAT at a competitive level’” and that he received enough distress which “negatively impacted his overall performance on the exam.”[[44]](#footnote-44) 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.”[[45]](#footnote-45) While the case was dismissed for other reasons,[[46]](#footnote-46) 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.

In *Hanrahan v. Blank Rome LLP.*,[[47]](#footnote-47) 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.[[48]](#footnote-48) Strangely, his argument rested on discrimination of the LSAC, arguing that the LSAC refused legally required accommodations and alternatively that it annotates the tests to indicate students who received accommodations on the test, revealing to Law Schools that an applicant requires an accommodation. His argument then extended to the law schools he attended (Drexel) as having a higher percentage of disabled students than Temple or Penn, two schools where students were regularly selected by the defendant firm to become summer associates. Hanrahan’s cause of action against the law firms originates with a failure to receive accommodations on the LSAT (which he never requested), which he claimed caused him to get into a lower quality law school, which ultimately led to his failure to be hired by the defendant firm.[[49]](#footnote-49) It was this tenuousness between the stated discrimination (against LSAC) and his failure to receive a summer position that led the court to dismiss the suit, yet the court implicitly recognizes that the failure of the LSAC to provide accommodations could result in a successful claim of discrimination against the LSAC, while not necessarily against the law school admissions process nor the defendant law firms, as Hanrahan attempted to do here.[[50]](#footnote-50)

### Admission into Law School

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 her denial of admission to a law school. In *Jackson v. Northwestern University School of Law*[[51]](#footnote-51) the plaintiff, suffered from . Failing to get into any law school she subsequently sued every law school in Northern Illinois, [[52]](#footnote-52) 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,”[[53]](#footnote-53) and even if those standards were different, the plaintiff failed “to adequately allege that she is disabled.”[[54]](#footnote-54) *Jackson* identifies 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

In *Jones v. National Conference of Bar Examiners*,[[55]](#footnote-55) 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”[[56]](#footnote-56) which is text to speech software, which simultaneously highlights words and sentences. The NCBE 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.”[[57]](#footnote-57) 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.

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”[[58]](#footnote-58) and that providing accommodations which “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.”[[59]](#footnote-59) 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 rather access to accommodations that allow for equality in information comprehension, limited only by the individual’s intelligence and capacity to answer the questions.[[60]](#footnote-60)

*Bonnette v. D.C. Court of Appeals*[[61]](#footnote-61) also involved a blind student, requesting 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 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 post-graduate degrees) she had used the screen reader system Job Access With Speech (JAWS) to provide written information available on a computer screen.[[62]](#footnote-62) After failing the California bar exam multiple times using a human reader, Bonnette requested an accommodation to use JAWS on the D.C. bar exam and was denied by the National Conference of Bar Examiners (NCBE).[[63]](#footnote-63) Bonnette sought an injunction to compel the Bar Examiners to provide her with the JAWS accommodation.

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.[[64]](#footnote-64) Specifically, simply providing *any* accommodation is not enough, but rather 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.[[65]](#footnote-65) Also weighing against the NCBE were the fact that they had previously offered screen reader accommodations (in other states)[[66]](#footnote-66) and the strong public policy interests in ensuring that the anti-discriminatory elements of the ADA were properly applied.[[67]](#footnote-67) Finally, the court refused to accept that the additional costs incurred by the NCBE was sufficient to deny Bonnette the only reasonable accommodation possible.[[68]](#footnote-68)

*Enyart v. National Conference of Bar Examiners*[[69]](#footnote-69) addressed similar situations where Stephanie Enyart wished to use JAWS and ZoomText (a program which 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.[[70]](#footnote-70) Enyart moved for an injunction to allow her to use both ZoomText and JAWS on the next MPRE and MBE portion 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 accommodations were not reasonable as they would not make the test any more accessible.[[71]](#footnote-71)

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.’”[[72]](#footnote-72) 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.[[73]](#footnote-73)

Echoing the lawsuits brought in *Bonnette* and *Enyart*, in *Elder v. National Conference of Bar Examiners*[[74]](#footnote-74) 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, and 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.[[75]](#footnote-75)

### The Cumulative Effect

While individuals have had varying success of securing accommodations at different steps within the legal education process, it is impossible to look at each level as a discrete step, separate from all the rest in the legal education of an individual. Instead, the process is continuous which makes the lack of commonality for accommodations all the more dangerous, as receiving accommodations at one stage will be completely undone by a failure to allow for accommodations at another, with the results being the same as if the individual received zero accommodations at every stage. The cases addressed identify three “separate” time periods in the process: LSAT, application, and bar exam. Litigants 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 a similar definitive, federal rulings on appropriate accommodations during the LSAT process means that hosts of individuals, unable to use an accommodations most suited to their needs at the entry point to legal education essentially cuts off their ability to gain any meaningful access to a legal education. These barriers at the very beginning of the process chokes off the ability of students to even get into law school, excluding these individuals from expanding their knowledge, depriving legal institutions of the brain power these individuals will bring to bear, and discouraging other applicants with disabilities from even attempting to join the legal profession at all. In Part III I will discuss how Universal Design should be applied to ensure that these individuals’ talents will not be wasted.

## Ethical Standards

Beyond the legal standards, there are non-legal, ethical reasons to provide accommodations to students within law schools, epitomized by the case law addressed above which recognized that requiring accommodations often provided tremendous benefit to the individual with a menial burden on the institution providing the accommodation. Beyond the legal standards, there are professional requirements within the legal community which support implementation of a more accommodating legal education system. The American Bar Association 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.”[[76]](#footnote-76) Similarly the ABA and other legal institutions have committed to the ideal of providing access to legal services and information for all people.[[77]](#footnote-77) Clearly the law school community understands the need for inclusive policies,[[78]](#footnote-78) and yet the legal requirements often provide cover for institutions who, for financial or other reasons, are forced or choose to do the bare minimum to be in legal compliance. The ultimate goal of higher education is to create as diverse and inclusive environment to promote and generate ideas, and yet people with disabilities are often left out of this environment.[[79]](#footnote-79)

While the federal law has made important advances for inclusiveness, as well as demonstrate the federal priority for inclusion, the uncertainty as to whether the 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 to their students, faculty, and visitors. This is why universal design is so vital to legal institutions: pushing for universal inclusion not only meets the legal standard, it goes above and beyond to set an example for all of the legal profession and other institutions. This is essential for a profession which proclaims the need for ethical competencies in the practice of law. Understanding the distinction between accommodation and design is vital to developing an effective universal design.

## Accommodations vs. Universal Design

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, and when it does courts further reduce the definition of who can be legally deemed 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 (to reiterate) with limited results.[[80]](#footnote-80)

While litigation has been successful in fulfilling some of the promise of the disability laws, such steps require affirmative action on the parts of those individuals unfairly discriminated against, sadly revealing the ineffectiveness of the statutes that were meant to codify these rights as a matter of course.[[81]](#footnote-81) Furthermore, the inconsistency of judicial decisions in applying the statutory standards to all levels of the legal education process demonstrates that those requiring accommodations have very different legal rights to accommodations at the various levels of their education, creating a tiered, rather than uniform, system. Finally, the inconsistent case law rulings have led to uncertain application of the federal statutes, and demonstrates that while the law has done much to provide accommodations, at the same time it has left those individuals who need accommodations on very shaky legal ground until after a cause of action is concluded. Furthering the problem, since these cases often take years to be resolved,[[82]](#footnote-82) even when a litigant is successful the newly removed barrier has already effectively barred the applicant or student from achieving (in a timely manner at least) what that person originally set out to do.

Herein lies the promise of UD. UD endeavors to equalize the usability of the tools for individuals at the outset, so that these principles are most clearly beneficial to those with disabilities, while simultaneously benefiting all users. Therefore, understanding the current state of disability law is essential to get started; however, it is only the start. Universal design 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 individuals (with and without disabilities) to achieve success in a way 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, money, and creates redundancies every time a request is made. Under UD, allowance is proactive, designing environments for ready use, or for easily adaptable use. This requires time, money, and redundancies at a single, starting point and then allows for usability without constant efforts.

Up to this point, this article has addressed the legal standards which the legal education process is required to meet, and how often the plain language of the statute becomes muddled as it moves through the legal process. As stated, UD offers a way out of this convoluted and problematic process by shifting the paradigm of legal education toward equality of usability, regardless of an individual’s traits. Instead of designing for one group, and accommodating for all others, UD takes all known groups into account, and designs resources that can be 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 disseminate throughout the entire legal education process.

# Part III: Applying Universal Design in the Law School

Under the statutory and case law addressed in Part II, law schools are compelled to provide a reasonable accommodation to any student who requests one; also demonstrated above, are the myriad problems and pitfalls with this strategy. The first, and most egregious, are the barriers for individuals with disabilities to even get into law school in the first place.[[83]](#footnote-83) Secondly, the undue burden clause of the ADA allows many law schools to refuse some of the most important accommodations: specifically changes to the physical and technological landscape.[[84]](#footnote-84) Finally, as the landscape is now situated, each stage of the legal education process is siloed, especially in regard to outcomes of litigation; yet each stage presents another threshold for ultimate admission to the bar, necessitating a uniform approach. [[85]](#footnote-85) Without a universal design policy which permeates every level of the legal education process, students with disabilities will be disadvantaged at more points along the path to becoming attorneys. To this end, law schools and their vital position within the legal profession should take the lead in applying these universal design principles.

Since each step of the legal education process carries unique factors which must be weighed under the ADA and other legislation, often to varying degrees and standards law schools cannot dictate to either the LSAT, the NCBE, or legal employers the methods for uniformly applying these accommodation standards. Not only are law schools unable to solve the problem unilaterally, but in certain cases any advances made within the law school could (and almost certainly will) be mitigated by the practices of other organizations within the legal education process.

Yet, while law schools can only control their internal policies and practices, their position within the legal education environment can do much to influence and push the other actors into better compliance with the intentions of the disability laws, and ideally lead to more equitable outcomes at all levels in the legal profession. The objective for inclusion are currently aimed at clearing the low bar currently set by existing law and standards. UD helps to raise the bar by increasing access for individuals traditionally marginalized and left out of the law school community to get the chance to attend, participate, and excel within legal education which in turn provides tremendous opportunity to change the legal profession from within and for the better.[[86]](#footnote-86) Additionally, UD increases the overall equity of the legal profession by designing places and resources with the intention of allowing any user, rather than specific types users, access to all of the physical, instructional, and informational resources the law school provides.

To demonstrate how the law school can become a model and incubator for UD in the legal profession, it is best to demonstrate how UD can work within the law school setting itself. Ideally, law schools going through current and future remodeling (either physical, technological, or pedagogical) will take the seven principles into consideration.[[87]](#footnote-87) Unfortunately, budget constraints for many law schools paired with the historical practices of granting accommodations only upon 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 setting 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 legal profession. Understanding the law library’s special location within the law school suggests it is the best place to implement UD principles to most fully expand into the value for the entire law school.

Within law library services, three areas exist where UD should be applied: the physical spaces, legal research instruction, and information services[[88]](#footnote-88) which itself encompasses several modern aspects of library operations, including all print and digital materials, and information technologies used to assist in legal research and knowledge management.[[89]](#footnote-89) The example of technological advances in legal research is an especially informative example for how libraries have historically and successfully disseminated new practices[[90]](#footnote-90) into the law school and legal profession: as technology has advanced, law libraries have been tasked with the responsibility to disseminate legal information to the student (and faculty) patrons.

Beyond the technological component, law libraries are a central hub of information gathering, processing, and reproduction, representing a direct access point to the legal information students, professors, and lawyers will need to understand and use to be successful. It is logical then that the law library act as the pathbreaker in the application of UD principles into the larger law school environment.

## Physical Spaces

The first real introduction to law school for almost every student are the physical spaces. Here students are introduced to the campus, the building(s), the classrooms, library, study spaces, and any other area 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 the 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? A physical space which is designed for people with no physical or cognitive limitations will be overlooked by many; 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.

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;[[91]](#footnote-91) this is especially true in law schools since the majority of law courses must be in person.[[92]](#footnote-92) It is therefore necessary the space should reflect not just the current student and faculty populations, but should provide a supportive venue for the populations the law school wishes to invite into the environment. A clear example where requirements for accommodations have led to UD acceptance is in regard to 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 allows others to use the feature; this example of universal design 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 which is often easier, to navigate.[[93]](#footnote-93)

These built in design features required 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 did not consider those in wheelchairs and the cost benefit analysis becomes obvious. Either the building will need to be remodeled to include these features or other alternatives, such as chair lifts up stairs 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)[[94]](#footnote-94) 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 which will only be usable by those in wheelchairs, limiting the access and value to only a specific population. Faced with these alternatives, it is clear that a building with UD principles in mind serves the entire population toward the fullest possible utility, limiting costs and expanding access.

Meaningful access to physical spaces mean they also need to be navigable, which requires adequate signage. For any person, coming into a new building, without directional signage, a person will be wandering around without any clear indication which way to head.[[95]](#footnote-95) This concern becomes more pronounced for individuals with disabilities since signage may need to be modified to be effective. Extending the example of a person with a wheelchair, signage indicating the location of an office or room on another floor will only be useful if there is also signage indicating the direction of an elevator. Furthermore, visual disabilities run the gamut from total blindness to depth perception limitations to color blindness, all of which must be,[[96]](#footnote-96) but too often are not, considered when creating signage.[[97]](#footnote-97)

The most obvious, but at times most egregiously overlooked, design feature for those with mobility problems are the availability of elevators.[[98]](#footnote-98) Almost all buildings with more than one floor have elevators, which serve not only those with mobility issues, but 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 help ensure the utility of those spaces for all people, rather than a select few.

## Instructional Services

As instruction becomes more reliant upon using technology, the need for consideration of UD principles when applying technology becomes even more pronounced. Beyond the technological components, academic 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).[[99]](#footnote-99) 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.[[100]](#footnote-100) While UDI is instructor based, it is keyed toward creating an environment compatible with universal design for learning (UDL).[[101]](#footnote-101) UDL identifies the fundamental learning networks which 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.[[102]](#footnote-102) By breaking down instruction in this way, instructors will identify the what, how, and why of the information, and create different formats by which that information is presented to students so that every student is able to apply the information to their unique situation.

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 non-written forms of assessment all have the capabilities (albeit with obvious, possible problems)[[103]](#footnote-103) to provide different and novel methods of reaching students differing network capabilities.

However, outside of the class itself, there are various impediments which are beyond the instructors (and perhaps, for budgetary reasons, the law school’s) control to affect instruction and learning. Classroom set up is often unalterable to the point that students with mobility issues may be unintentionally segregated do to ability 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 the importance that technology within the class room 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 rather creates a flexible environment where options are available so that students with various conditions or considerations will have the option to participate in the educational process.

## Informational Services

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.

Computers have offered a tremendous opportunity for students with and without disabilities because of the flexibility and innovativeness inherent in computer programming. Resources discussed (such as screen readers and text magnification) demonstrate how computer technology allows users to access information where previously such access was not allowed.[[104]](#footnote-104) Unfortunately the flip side of these tools are the expanding costs of integrating technology, exacerbated by the frequency with which technology is updated.[[105]](#footnote-105) Similarly, universities have been trending away from stationary computer labs, based on the fact that increasingly more students have their own portable computer. While this may unfortunately 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 campus,[[106]](#footnote-106) or redesign the computer lab spaces applying UD principles.[[107]](#footnote-107) Without a strong computer presence on campus, it will be very difficult for all students to have equitable access to the information the law school has to offer.

Similarly, the law school’s website design must be useable for students to gain any benefit from the information available on the sites.[[108]](#footnote-108) Unfortunately, too many websites do not comply with the ADA,[[109]](#footnote-109) 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 more uniquely spread the law school’s resources and information to a far greater group of people.[[110]](#footnote-110) Not only will this help current students, the accessibility of the website will ensure that 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.

## The Law Library Will Lead

Academic law libraries are a microcosm for all of the aforementioned elements, since the library is often an established physical space, with various real and potential physical barriers, and with a (hopefully) robust digital presence. Libraries should be at the forefront of UD practices since it is often the nexus of the entire law school, where students congregate to study, use resources, or seek help with curricular and research needs.[[111]](#footnote-111) Acting as a laboratory for the changes advocated for in this paper, the library serves as an access point for universal design into the law school, where practices and policies can be introduced, revised, and perfected and then translated to the rest of the law school design.

Physical space has given way to digital space in preeminence of law library services and collections, but this does not mean that the physical library space has been abandoned, nor should it be ignored when applying Universal Design principles. In fact, as stated, a more inviting library physical space is more likely to bring users into the library and expand that person’s use of all library resources, which in turn will increase the likelihood for all student success in law schools.[[112]](#footnote-112) Such physical considerations must include whether there is enough space between stacks, tables, and study rooms for all people to navigate around. This may require a reorganization or even a downsizing of physical objects in the library, which in turn necessitates a substantial effort on the part of the library. However, ensuring enough space for students, regardless of the layout, not only allows all patrons to access the space, but also can create a sense of comfort in the library which can be beneficial for study habits, yet adaptable to meet future student needs.[[113]](#footnote-113)

Signage is an essential tool for any person seeking to access library materials and therefore requires consideration for users with visual impairments, a lack of spatial awareness, dyslexia, or people who have trouble with 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 rather a necessity for library policies to accurately direct their patrons to the location of various resources.[[114]](#footnote-114) 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.[[115]](#footnote-115) However, it is important to remember that UD principles need not be overly complicated: signage with text, pictorial, brail, and digital options allow multiple users multiple options to access the sign. Regular signage around the library with arrows pointing to important resources is ideal.[[116]](#footnote-116) QR codes[[117]](#footnote-117) 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,[[118]](#footnote-118) the QR code offers a simple solution to the particularly noiseless library environment. There have also been advances in three dimensional signage options which present a more realistic context for with visual impairments,[[119]](#footnote-119) and which provide (increasingly) cost effective options for signage that achieves the dual goals of being universally accessible as well as attention grabbing.

Many intuitions house their computer lab and other technological tools within the library itself, presenting 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 purchases and used. Secondly, as the holders of the technology, librarians are often the most knowledgeable about the technology and how to use it.[[120]](#footnote-120) 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 technologies through UD principles applied to the library in a broad and culturally pervasive way. Furthermore, providing UD technology to the students through the library will further perpetuate this culture throughout the legal education process, creating enhanced returns for years to come.

These types of design features can be introduced into the law library in a minimal and cost effective way, and allows more flexibility in implementing design features to see what works best for an institution’s library, which should be broadly applicable to the institution itself. As this article has demonstrated, 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.

# Conclusion

In many instances the language used to articulate how accommodating the services of the law school are insufficient. Terms such as accessible, accommodating, and compliant demonstrate just how disinviting spaces are until they have been modified. Instead, these spaces do not allow certain individuals to easily use the resources readily available to many other individuals. In the worst scenarios, this failure to allow use prohibits many students from even sniffing law school enrollment, and essentially barring them from practicing law. While this paper calls for a shift in design features, broadly speaking changing the way we think about design will inevitably change the way we think about all the structural aspects, including rhetoric, in regard to allowing use of legal resources.

While universal design removes physical, digital, and instructional barriers so that all individuals are allowed to participate in a law school education, it does even more. Universal design as a term connotes inclusivity and comradery as opposed to the “otherness” implied in the current terminology. Universal design offers the key to not only increased access to legal education and legal knowledge, but a more fundamental shift in perception and thinking that has plagued disability laws and design habits over the last 30 years. This is why it is vital that law schools and (hopefully) the larger legal community adopt universal design to make the entire legal education process a model for the legal profession and for higher education as a whole.

1. \* Matthew L Timko, Assistant Professor, Academic Technologies and Outreach Services Librarian, Northern Illinois University College of Law. J.D. Loyola University Chicago, B.S., Elmhurst College. [↑](#footnote-ref-1)
2. *About the Center: Ronald D. Mace*, The Center for Universal Design: Environments and Products for All People (2008), <https://www.ncsu.edu/ncsu/design/cud/about_us/usronmace.htm>. [↑](#footnote-ref-2)
3. *About the Center*, The Center for Universal Design: Environments and Products for All People (2008) <https://www.ncsu.edu/ncsu/design/cud/about_us/about_us.htm>. [↑](#footnote-ref-3)
4. *Overview*, The Center for Universal Design in Education (2017), <http://www.washington.edu/doit/programs/center-universal-design-education/overview>. [↑](#footnote-ref-4)
5. Betty Rose Connell et al., *The Principles of Universal Design, Version 2.0*, Center for Universal Design, (Apr. 1, 1997), <https://www.ncsu.edu/ncsu/design/cud/about_ud/udprinciplestext.htm>. [↑](#footnote-ref-5)
6. Universal Design in Higher Education, From Principles to Practice 15-16 (Sheryl E. Burgstahler ed., 2d ed. 2015). [↑](#footnote-ref-6)
7. *Id.* at 15. [↑](#footnote-ref-7)
8. 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 where 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). [↑](#footnote-ref-8)
9. Burgstahler et al., supra note 5, at 15. [↑](#footnote-ref-9)
10. *Id.* at 15-16. [↑](#footnote-ref-10)
11. *Id.* at 16. [↑](#footnote-ref-11)
12. See, Raymond Chen, *Nested fly-out menus are a usability nightmare*, The Old New Thing Blog (August 23, 2007), <https://blogs.msdn.microsoft.com/oldnewthing/20070823-00/?p=25443> (a problem for all users, nested, or drop-down, menu options “has 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 L. Lib. J. 531, 546-47 (2014) (this is particularly true for students with a lack of dexterity or difficulty with muscle control when it comes to navigating websites; often times these sites require textually small links which must be clicked on with precision making it very difficult for a student who has tremors to follow the link). [↑](#footnote-ref-12)
13. Burgstahler et al, supra note 5, at 16. [↑](#footnote-ref-13)
14. *Id.* at 16. [↑](#footnote-ref-14)
15. *Id.* [↑](#footnote-ref-15)
16. Michael Iseri, *How Universal Design Principles Can Improve Legal Accessibility*, American Bar Association (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 making it more accessible, i.e. understandable. Synthesizing the UD principles to create documents which are clear (clarity), visible, and follow a logical structure, will help members of the public understand legal documents and therefore the legal process to a greater extent). [↑](#footnote-ref-16)
17. *See* *Universal Design History*, The Center for Universal Design (2008), <https://projects.ncsu.edu/ncsu/design/cud/about_ud/udhistory.htm>. *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 of a ‘society for all’”); deMaine, infra note 18, at 537; Jordana L. Maisel & Molly Ranahan, *Beyond Accessibility to Universal Design*, Whole Building Design Guide, <https://www.wbdg.org/design-objectives/accessible/beyond-accessibility-universal-design> (last updated Oct. 30, 2017). *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). [↑](#footnote-ref-17)
18. *See* *generally* Susan David deMaine, *From Disability to Usability in Online Instruction* 106 L. Lib. J. 531, 537-42 (2014); A Policy Reader in Universal Design for Learning (David T. Gordon, Jenna W. Gravel, and Laura A. Schifter eds., Harvard Education Press 2009); Robert F. Rich, Christorpher 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. Cont. L. J. 95, 97-99 (2006). [↑](#footnote-ref-18)
19. Rehabilitation Act of 1973, 29 U.S.C. § 701-796l (2018). The Act specifically identifies that “individuals with disabilities constitute one of the most disadvantaged groups in society, *id.* § 701(a)(2), and seeks “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) (emphasis added). [↑](#footnote-ref-19)
20. *Id.* § 794(b)(2)(A). [↑](#footnote-ref-20)
21. Laura Rothstein & Julia Irzyk, Disabilities and the Law § 3.1 (4th ed. 2018). [↑](#footnote-ref-21)
22. 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). [↑](#footnote-ref-22)
23. *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). [↑](#footnote-ref-23)
24. *See* Susan Gluck Mezey, Disabling Interpretations: The Americans with Disabilities Act in Federal Courts 18-20 (2005) (reviewing Supreme Court decisions for ten years after passage of the Act determined that “for the most part the Court narrowed the parameters of the nation’s disability rights laws” including, but not limited to, Section 504). [↑](#footnote-ref-24)
25. *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). [↑](#footnote-ref-25)
26. H.R. Rep. No. 101-596, at 66 (Conf. Rept.), *as reprinted in* 1990 U.S.C.C.A.N. 565, 575 (“administrative 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”). [↑](#footnote-ref-26)
27. *Dubois v. Alderson-Broaddus Coll., Inc.*, 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 require that pre-ADA regulations be interpreted based on the Act *and* the ADA, not just upon the standards of the ADA; ultimately the ADA did not supersede the Act, but rather supplements the Act). [↑](#footnote-ref-27)
28. 42 U.S.C. § 12184 (2012). [↑](#footnote-ref-28)
29. Rothstein & Irzyk, *supra* note 20, § 3.1. [↑](#footnote-ref-29)
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 defines places of “public accommodation” as physical spaces *only*). *See also* *Young v. Facebook, Inc.*, 79 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”). [↑](#footnote-ref-30)
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. S*ee 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. Metropolitan 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). [↑](#footnote-ref-31)
32. *See Carparts Distrib. Ctr., Inc. v. Auto. Wholesaler’s Ass’n of New England*, 37 F.3d 12, 19 (1st Cir. 1994) (public accommodations are not limited to physical spaces). *See also* *Doe v. Mutual Omaha Ins. Co.*, 179 F.3d 557, 559 (7th Cir. 1999) (facilities solely in electronic spaces are covered by the ADA); *Pallozzi 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). [↑](#footnote-ref-32)
33. *Sutton v. United Air Lines, Inc.*, 527 U.S. 471, 487 (1999). [↑](#footnote-ref-33)
34. ADA Amendments Act of 2008, Pub. L. No. 110-325, § 2(a)(4) & (5), 122 Stat. 3553, 3553 (along the way, the Congress was unabashed in their criticism of the United States Supreme Court when citing *Sutton* 527 U.S. at 471 and *Toyota Motor Mfg., Ky., Inc. v. Wiliams*, 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”). [↑](#footnote-ref-34)
35. The legal education process focuses on the time when a person decides to apply to law school and ends upon taking the Bar Exam. Therefore, the legal process includes sitting for the Law School Application Test (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 are omitted while still recognizing that discrimination earlier in a person’s education can have long lasting, and deleterious effects upon any opportunity to attend and complete a legal education. [↑](#footnote-ref-35)
36. *Law Sch. Admission Council, Inc. v. California*, 166 Cal. Rptr. 3d 647, 652 (Cal. Ct. App. 3d Dist. 2014). [↑](#footnote-ref-36)
37. 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). [↑](#footnote-ref-37)
38. *Law Sch. Admissions Council, Inc.,* 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”). [↑](#footnote-ref-38)
39. *Id.* at 675. [↑](#footnote-ref-39)
40. *Id.* at 662. [↑](#footnote-ref-40)
41. *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)). [↑](#footnote-ref-41)
42. *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 (1) flagged scores 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 un-extended time on the test). [↑](#footnote-ref-42)
43. *Binno v. ABA*, 826 F.3d 338, 342-43 (6th Cir. 2016). [↑](#footnote-ref-43)
44. *Binno*, 826 F.3d at 344. [↑](#footnote-ref-44)
45. *Id.* (the ABA also recognized the existence of this discrimination). [↑](#footnote-ref-45)
46. *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” (referencing the Dept. of Fair Emp. and Housing, 2015 WL at 25-26)). [↑](#footnote-ref-46)
47. *Hanrahan v. Blank Rome LLP.*, 142 F. Supp. 3d 349, 350-52 (E.D. Pa. 2015). [↑](#footnote-ref-47)
48. *Id.* at 352-53. [↑](#footnote-ref-48)
49. *Id.* [↑](#footnote-ref-49)
50. *Id.* at 355-56. [↑](#footnote-ref-50)
51. *Jackson v. Nw. Univ. Sch. of Law*, No. 10 C 1986, 2010 WL 5174389, at \*1 (N.D. Ill. Dec. 15, 2010). [↑](#footnote-ref-51)
52. *Jackson*, 2010 WL 517439 at \*1 (“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). [↑](#footnote-ref-52)
53. *Id.* at 2. [↑](#footnote-ref-53)
54. *Id.* at 3. [↑](#footnote-ref-54)
55. *Jones v. Nat’l Conference of Bar Exam’rs*, 801 F. Supp. 2d 270, 278-80 (D. Vt. 2011). [↑](#footnote-ref-55)
56. *Jones*, 801 F. Supp. 2d at 278. [↑](#footnote-ref-56)
57. *Id.* [↑](#footnote-ref-57)
58. *Id.* at 285. [↑](#footnote-ref-58)
59. *Id.* at 289. [↑](#footnote-ref-59)
60. *Id.* at 285-286 (“The ADA mandates reasonable accommodation of people with disabilities in order to put them on an even playing field with the non-disabled,” quoting *Felix v. NYC Transit Authority*, 324 F.3d 102, 107 (2d Cir. 2003)); *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.” Quoting *Felix*, 324 F.3d at 107 (emphasis added)). [↑](#footnote-ref-60)
61. *Bonnette v. D.C. Court of Appeals.*, 796 F. Supp. 2d 164, 177-78 (D.D.C. 2011). [↑](#footnote-ref-61)
62. *Id.* at 169-170 (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 that 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). [↑](#footnote-ref-62)
63. *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). [↑](#footnote-ref-63)
64. *Id.* at 187-188. [↑](#footnote-ref-64)
65. *Id.* at 183-186 (citing *Burkhart v. Washington Metropolitan Area Transit Authority*, 112 F.3d 1207, 1213 (D.C. Cir. 1997)). [↑](#footnote-ref-65)
66. *Id.* at 188. [↑](#footnote-ref-66)
67. *Id.* [↑](#footnote-ref-67)
68. *Id.* at 186. [↑](#footnote-ref-68)
69. *Enyart v. Nat’l Conference of Bar Exam’rs*, 630 F.3d 1153, 1156-57 (9th Cir. 2011). [↑](#footnote-ref-69)
70. *Id.* [↑](#footnote-ref-70)
71. *Id.* at 1157. [↑](#footnote-ref-71)
72. *Id.* at 1165 (quoting *Enyart v. Nat’l Conference of Bar Exam’rs, Inc.*, No. C 09-5191 CRB, 2010 WL 475361, at \*5 (N.D. Cal. Feb. 4, 2010)). [↑](#footnote-ref-72)
73. *Id.* at 1167. [↑](#footnote-ref-73)
74. *Elder v. Nat’l Conference of Bar Exam’rs*, 2011 WL 672662, 1-2 (N.D. Cal. 2011). [↑](#footnote-ref-74)
75. *Id.* at \*10-12 (citing *Enyart* extensively). [↑](#footnote-ref-75)
76. American Bar Association Commission on Disability Rights, About Us, <http://www.americanbar.org/groups/disabilityrights/about_us.html> (last visited Feb. 24, 2017). [↑](#footnote-ref-76)
77. See, American Bar Association Young Lawyer Division Committee on Access to Legal Services, <http://www.americanbar.org/groups/young_lawyers/committees/access.html> (last visited Feb. 24, 2017); Access to Justice Commissions, National Center for State Courts, <http://www.ncsc.org/microsites/access-to-justice/home/Topics/Access-to-Justice-Commissions.aspx> (last visited Feb. 24, 2017) (role of these commissions is to “ensure that access to competent legal representation is available to everyone despite income level, *disability*, or other disadvantage (emphasis added)); Howard Lintz, Yallana McGee, Ola Mohamed, Safa Sajadi, Sarah Sawyer, Melanie Stratton, Jordan Wolfe, Deborah M. Weissman, A basic Human Right to Meaningful Access to Legal Representation 24-25 (University of North Carolina School of Law, Human Rights Policy Seminar 2015) (citing international agreements and consensus on the right of *all* people to have access to legal services). [↑](#footnote-ref-77)
78. See also, James Forman Jr., Healther Gerken, Tom Tyler, Ellen Cosgrove, Henry Hansmann, Tracey Meares, Susan Rose-Ackerman, Anika Signh Lemar, Rakim Brooks, Conchita Cruz, Rhea Fernandes, Clark Hildabrand, Amber Koonce, and Stephanie Krent, 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 Education and Outreach, Northwestern Pritzker School of Law, <http://www.law.northwestern.edu/law-school-life/studentservices/diversity/> (last visited Feb. 24, 2017) (the Law School “seeks to create a diverse and inclusive Law School community” which includes students “who are often underrepresented or marginalized, such as… students with disabilities); [↑](#footnote-ref-78)
79. Ed Finkel, *Disabled Law Students See Largest Hurdles at Entrance, Exit*, 40 Student Law., Apr. 2012, at 23, 26. [↑](#footnote-ref-79)
80. *See* supra Part II. [↑](#footnote-ref-80)
81. *See also* H.R. Rep. No. 101-596, at 66 (citing decisions interpreting the Act as the impetus for passing the ADA); § 2(a)(4) & (5), 122 Stat. at 3553 (citing decisions interpreting the ADA as the impetus for passing the Amendments Act). [↑](#footnote-ref-81)
82. About half of the cases discussed in Part II took over 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 where an accommodation was sought were time sensitive. [↑](#footnote-ref-82)
83. *See supra* Part II(b)(i), at 14-16 (the cases cited in this section demonstrate that litigation was needed to get any access to reasonable accommodations to even get be considered for admission into law schools; it does not take into account the other cases where litigation was not considered or instigated). [↑](#footnote-ref-83)
84. 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” which will factor in the nature and cost in relation to the financial resources of the institution. Since the costs of physical or technological upgrade incur exorbitant costs, these will fall under the undue burden exception to accommodations). [↑](#footnote-ref-84)
85. *See supra* Part II(b)(iii), at 18-22 (applicants taking the Bar Exam have been overwhelmingly successful in gaining their desired accommodation rather than the single or few options provided by the MBE. Unfortunately when compared to the litigation seeking accommodations at other stages of the legal education process, success at the Bar Exam level has not trickled down to the LSAT or Admissions process). [↑](#footnote-ref-85)
86. 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… [a]dult 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”). [↑](#footnote-ref-86)
87. *See* Jennifer Bard, *Universal Design in the Law School Classroom – a Few Thoughts*, A Place to Discuss Best Best Practices for L. Edu. (Jan. 24, 2020), <https://bestpracticeslegaled.com/2020/01/24/universal-design-in-the-law-school-classroom-a-few-thoughts/> [https://perma.cc/36FQ-JC6F] (provides insights into tradition 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). [↑](#footnote-ref-87)
88. *See* American Library Association, 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, and Technology (last visited on Sep. 30, 2020), <https://www.washington.edu/doit/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). [↑](#footnote-ref-88)
89. *See* Cameron Chavira, Libraries, Technology and the Route to Relevance, Governing (Jul. 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). [↑](#footnote-ref-89)
90. American Library Association, Implementing Library Technologies (last updated Mar. 18, 2019, 9:55 AM), <https://libguides.ala.org/librarytech> [https://perma.cc/3JU6-WCBZ] (summary and descriptions of the ways libraries have historically and continue to use technology to help patrons access information). [↑](#footnote-ref-90)
91. 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 only online courses). [↑](#footnote-ref-91)
92. 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). [↑](#footnote-ref-92)
93. 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). [↑](#footnote-ref-93)
94. *See* David Gutman, *Seattle May Have to Spend Millions Making Sidewalks More Accessbile to People with Disabilities*, Seattle Times (Apr. 3, 2017, updated 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]. [↑](#footnote-ref-94)
95. Steinfeld et al, *supra* note 79, at 277. [↑](#footnote-ref-95)
96. 36 C.F.R. pt. 1191, App. D, ch. 703 (2017) (Appendix D outlines the technical requirements for designing or redesigning architectural spaces, including the requirements to make signage ADA compliant. Too often these guidelines are ignored). [↑](#footnote-ref-96)
97. Edward Luca and Bhuva Narayan, Signage by Design: A Design-Thinking Approach to Library User Experience, 1 Weave J. Libr. User Experience (<https://perma.cc/G26W-GAST>) (signage, especially in libraries, is often bad due to lack of understanding about what constitutes effective signage). [↑](#footnote-ref-97)
98. *See* Vivan Wang, *Students In Wheelchairs Find Campus Inaccessible*, Yale Times (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 difficultly 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*, Geo. Wash. 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 requirement for others, and the failure of universities to provide adequate elevator service undermines a student’s ability to succeed in school). [↑](#footnote-ref-98)
99. Burgstahler et al., *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, Burgstahler et al, at 38-39 (Universal Design *for* Instruction (UD*for*I) was developed by the Center on Postsecondary Education and Disability (CPED) at the University of Connecticut and added two UD principles which were narrowly tailored toward instruction in higher education. UDI took the suggestions of UD*for*I and fit instruction into the existing seven UD principles). [↑](#footnote-ref-99)
100. Teaching Engagement Program (TEP) at the Teaching and Learning Center, *Universal Design in College Instruction*, University of Oregon (2017) <http://tep.uoregon.edu/resources/universaldesign/intro.html> (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”). [↑](#footnote-ref-100)
101. *About UDL*, National Center on Universal Design for Learning (2014) <http://www.udlcenter.org/aboutudl/whatisudl> (UDL identifies the fundamental learning networks which all students have (to varying degrees): recognition, strategic, and affective). [↑](#footnote-ref-101)
102. *Id.* (Recognition network is a student’s ability to understand *what* is being taught; strategic networks allow students to figure out *how* to approach the information; and affective networks is the student’s ability to understand *why* the information is important at all. Non-UD instruction will create a course tailored toward the majority of student networks, but overlook or ignore students with a different network makeup. UDL identifies the networks broadly so that instructors are able to identify whether the course instruction is reaching the network of all students in the course). [↑](#footnote-ref-102)
103. *See* Kateri David, *With No Alternative, In-Class Presentations Restrict Anxious Students*, The 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 presenations, which require physical presence, projection, mental organization, and physical exertion, creating problems with students who fatigue easily, have speech impediments, or have anxiety concerns). [↑](#footnote-ref-103)
104. Sheryl Burgstahler, *Working Together: People with Disabilities and Computer Technology*, Providing Access to Technology (DO-IT, Univ. Wash., Seattle, Wash), Mar. 23, 2012, at 1-3, <https://www.washington.edu/doit/sites/default/files/atoms/files/wtcomp.pdf> [https://perma.cc/LL4V-B7XM]. [↑](#footnote-ref-104)
105. 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]. [↑](#footnote-ref-105)
106. *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). [↑](#footnote-ref-106)
107. *See* Krissy Lukens & Scott Ryan, *Rethinking the Computer Lab of the Future*, Campus Technology (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 Magazine (Apr. 27, 2017), <https://edtechmagazine.com/higher/article/2017/04/traditional-computer-labs-get-modern-makeover> [https://perma.cc/3EST-MHCK]. [↑](#footnote-ref-107)
108. U.S. Dept. 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>]. [↑](#footnote-ref-108)
109. Cyndi Masters, *Despite Americans with Disabilities Act, Websites are Often Inaccessible to the Impaired*, USA Today (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]. [↑](#footnote-ref-109)
110. *See* Benefits of Web Accessibility, U.C. Berkeley, <https://webaccess.berkeley.edu/web-accessibility-uc/benefits> (University of California at Berkely demonstrates how universities have adopted and applied the benefits of an accessible website policy to benefit users, and the institution). [↑](#footnote-ref-110)
111. Ursula Gorham & Paul T. Jaeger, *The Law School Library or the Library at the Law School? How Lessons from Other Types of Libraries Can Inform the Evolution of the Academic Law Library*, 109 L. Lib. J. 51, 61 (2017). Libraries are leaders in presenting new methods of information literacy to the populations they serve through programming, collections, and instruction for emerging technologies. [↑](#footnote-ref-111)
112. Gensler Research, Students on Libraries 3-4 (2015) (student use of the library remains essential to their self-confessed study habits, yet the desires for libraries are shifting toward more quiet, individualized spaces in the library). [↑](#footnote-ref-112)
113. Jena McGregor, *Open Office Plans are as Bad as You Thought*, Wash. Post (July 18, 2018), <https://www.washingtonpost.com/business/2018/07/18/open-office-plans-are-bad-you-thought/?noredirect=on&utm_term=.c0651549be7e> [https://perma.cc/BF9D-E3FU] (highlighting how the physical space trends of just a decade ago are now out of style and need to be updated). [↑](#footnote-ref-113)
114. Luca & Narayan, supra note 92 (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’”). [↑](#footnote-ref-114)
115. 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]. [↑](#footnote-ref-115)
116. Visual Workplace Inc., Best Practices for Wayfinding and Directional Signage 2-3 (2014), <http://ficec3r3xz218zuwm3hnz00z.wpengine.netdna-cdn.com/wp-content/uploads/2014/08/Directional-Signs-Wayfinding.pdf> (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). [↑](#footnote-ref-116)
117. 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). [↑](#footnote-ref-117)
118. Laurie Winkless, *Using Technology to Help Visually-Impaired People Navigate Cities*, Forbes (Mar. 28, 2017, 10:43 PM), <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). [↑](#footnote-ref-118)
119. 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/UG32-8ZEN]. *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]. [↑](#footnote-ref-119)
120. Chloe Wenborn, *How Technology is Changing the Future of Libraries*, The 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]. [↑](#footnote-ref-120)