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Book Author(s): JAY TIMOTHY DOLMAGE

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## CHAPTER FOUR

# Universal Design



Margaret Price, from her book *Mad at School*, about mental disability and higher education:

“Rhetoric is not simply the words we speak or write or sign, nor is it simply what we look like or sound like. It is who we are, and beyond that, it is who we are allowed to be.” (27)

So this brings us to our third metaphor: Universal Design (UD). In explaining Universal Design I want to emphasize the importance of the priority and activity of Universal Design as a process and mode of becoming. As Ronald Mace, one of the founders of the concept, wrote, “universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (1).<sup>1</sup> UD has gone through what linguists call a “nominalization.” That is, it has been changed from a verb into a noun—a solid, clearly defined thing, rather than a process. But in this chapter, I will try to reanimate UD as a verb.

The UD movement was first an architectural movement that worked against the exclusion of people with disabilities, and argued that instead of temporarily accommodating difference, physical structures should be designed with a wide range of citizens in mind, planning for the active involvement of all. Every year, awards are given for the most Universally Designed buildings, and specific features such as level entrances and

layouts, motion-detecting lights, nonslip surfaces, lever-style handles instead of doorknobs are all Universally Designed features. UD then also has become a major force in the design of smaller products and applications like, famously, OXO Good Grip kitchen utensils—originally designed to be used regardless of strength and dexterity. The result has been “the creation of an internationally recognised brand [and] 100 design awards. As for profits, in 1991, two years after product development began, the [OXO] company made \$3 million in sales. Since then sales have increased by 50 percent each year” (Center for Excellence in Universal Design).

Principles for Universal Design, developed by a team of researchers at North Carolina State University, and now widely accepted as (at least somewhat) definitive of the concept, include:

Equitable Use: The design is useful and marketable to people with diverse abilities.

Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.

Simple and Intuitive Use: Use of the design is easy to understand, regardless of the user’s experience, knowledge, language skills, or current concentration level.

Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities.

Tolerance for Error: The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Low Physical Effort: The design can be used efficiently and comfortably and with a minimum of fatigue.

Size and Space for Approach and Use: Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user’s body size, posture, or mobility. (Center for Universal Design)<sup>2</sup>

I want to point out that Universal Design, as a list, and as applied solely to the physical environment, as in this example, looks a lot like a set of specifications. Indeed, UD is often interpreted in this way. Yet UD, registered as action, is a way to move. In some ways, it is also a worldview. Universal Design is not a tailoring of the environment to marginal groups; it is a form of hope, a manner of trying.

Universal Design is a means of thinking through multiple sites,

while also acknowledging that fixed locations, like the steep steps in the “approach” to Rensselaer Polytechnic Institute discussed at the beginning of this book, fade, fall, and disintegrate, even as new passive-aggressive ramps and curb cuts to nowhere are built. The push toward the universal is a push toward seeing space as open to multiple possibilities, as being in process. More simply, the universal is an acknowledgment that our design practices have long been biased. Take for example the fact that many people find the buildings in which they work too hot or too cold. Why does this happen? Because building climates were designed based on the body of a 154 pound male (Kingma and van Marken Lichtenbelt). The temperature is just one very small example of design bias—bias in which a normate body was the end goal and end user for almost all design.<sup>3</sup> To be more universal, we need to design for a much more diverse group of people.

As mentioned in the beginning of the book, to a certain degree all disabilities on college campuses are invisible—until an accommodation is granted, they have no legal reality. But so-called invisible disabilities are particularly fraught in an educational setting in which students with disabilities are already routinely and systematically constructed as faking it, jumping a queue, or asking for an advantage. The stigma of disability is something that drifts all over—it can be used to insinuate inferiority, revoke privilege, and step society very freely. But the rights that come with disability do not drift very easily at all. Ableism drifts—so must accommodations and access. When we recognize physical inaccessibility we can and should read intellectual and social inaccessibility into this space. We currently live in a society in which one single disability can be linked to any other disability in a negative way. But could we live in a society in which the accessibility we create for one person can also lead us to broaden and expand accessibility for all? On the way to this world, we at least have to recognize that physical access is not “enough”—it is not where accessibility should stop.

Universal Design responds to the idea, here expressed by Lennard Davis, that “what is universal in life, if there are universals, is the experience of the limitations of the body” (Bending, 32). Difference, Davis asserts, “is what we all have in common” (Bending, 26). This is not to say that we are all disabled, but to show that “we are all non-standard,” disabled by oppression and injustice (Bending, 32). In response to this, we can either disavow our difference and project it upon others, or we can join in an “ethic of liberation” (Bending, 29). Davis suggests that disability epistemology, or “dismodernism,” to borrow his phrase, shows us that

identity is not fixed but malleable, that technology is not separate but part of the body, that dependence, not individual independence, is the rule (Bending, 26). Further, through UD, in the words of Rosemarie Garland-Thomson, “disability can be a narrative resource that does not trade the present in on the future” and instead “contributes a narrative of a genuinely open future, one not controlled by the objectives, expectations, and understandings of the present. Perhaps counterintuitively, rather than dictating a diminished future, disability opens a truly unpredictable, even unimaginable, one” (“Case For,” 352). Design for disability and benefit all.

As Sean Zdenek writes about the growing acceptance of captioning as a facet of the Universal Design of media, when it “enters the mainstream . . . [it] becomes more natural and less strange, more universal and less marginal, more central to our theories, pedagogies and . . . habits and less likely to be overlooked or forgotten” (301). The same can be said about many other aspects of Universal Design: they are means of reorienting not just priorities but also conversations and theories. I like Universal Design mainly because of the verb—design. This active dimension suggests that UD is a way to plan, to foresee, to imagine the future. The “Universal” of UD also suggests that disability is something that is always a part of our worldview. Thus, when UD is successful, it is hopeful and realistic—allowing teachers to structure space and pedagogy in the broadest possible manner. Universal Design is not about buildings, it is about building—building community, building better pedagogy, building opportunities for agency. It is a way to move.

### *Deep, Transformative, Tolerant, Redundant*

I should clarify that, in the historical transition between UD as an architectural concept to UD as a concept for the design of classrooms, or even social spaces, there was also a transition away from simply seeing disability as being about wheelchair access. Star Ford, in addressing the fact that almost all discourse about access and UD defaults to thinking about physical disability, developed the concept of “deep accessibility,” creating “five levels of accessibility, extending the familiar notion of wheelchair access to the sensory and cognitive levels of accessibility” (n.p.). I will summarize these five levels here:

1. Movement—getting there—how we get to an event or class.
2. Sense—being there—how we access the material, the conversation.

3. Architecture—orienting—how the space and layout structure our belonging and understanding.
4. Communication—how we join the conversation, engage, understand and are understood, what Zahari Richter calls “communicative access” (“Some Notes,” n.p.).
5. Agency—autonomy—how we can come to have a shaping role in the event or class, as well as the right to define our own identity and involvement.

In this scheme we move from the idea that access is only about getting there and getting in—to a library, a classroom, a conference, a protest—to the fact that once we are there, we need to be able to perceive all that is going on, sort important information from noise, and sense the action without delay or undue stress. Then, we also need to have ways for all bodies and minds to understand the orientation of the architecture—to understand its ideologies and affordances as well as how it might divert bodies and minds, to understand what the buildings mean. And we all need to be able to communicate. Then, finally, we all need to be able to ask our questions, make our ideas known, and share in discourse in a shaping way.

For UD to work we need to have all five levels of access, all the way up to the level of agency and autonomy, the idea that all users should shape the space. This interdependence links to what Elizabeth Brewer, Melanie Yergeau, and Cynthia Selfe call “transformative access.” They suggest that “there is a profound difference between consumptive access and transformative access. The former allows people to enter a space or access a text. The latter questions and re-thinks the very construct of allowing” (153–54). Transformative access, then, sees space, social space, and learning space, as being in process—and sees all as involved in designing that space.

If we were to look at some of the foundational principles of UD and apply them beyond the physical sphere, we could begin to understand how deep accessibility and transformative access would work in a classroom. For instance, let’s examine the concept of tolerance for error, meaning that “the design minimizes hazards and the adverse consequences of accidental or unintended actions” (Center for Universal Design). We could and should understand something like the “auto correct” function on a phone as an example of this tolerance for error.<sup>4</sup> A more physical example is a lever door handle that can be moved upward, downward, pushed or pulled to open a door; a door that swings in both

directions, and that has an access button for a powered opening (and that access button is large, easy to find, and easy to push). In this way, tolerance for error overlaps with the UD concept of redundancy: if there are fewer ways to be wrong or to make mistakes, then there also become many ways to be right. So, if the goal is to understand and to show how well you understand a difficult concept in class, there should be multiple avenues to get to that understanding and to convey it. There should be multiple ways to open that door even if they are redundant.<sup>5</sup>

Let me further explore what the door handle or the auto-correct metaphor can do for social interaction or for the classroom. In my own classroom, where there is often a reliance on discussion, I create “tolerance for error” by making sure that students who don’t want to raise their hands and respond in the moment can have time to write questions and comments down (on note cards) and submit them to be read aloud anonymously. That removes some of the difficulty of trying out a new idea on the spot in an intense social situation—where the fear often is that they will get something wrong. It creates time for students to think through their ideas and answers and use writing (or an alternative modality) to compose them. More time can be created by asking for the cards to be completed between classes rather than during them. Instead of using discussion as an informal and camouflaged form of testing, what I end up getting is more and better input from students. This is what I wanted, to begin with. I break down the idea that the only thinking students can do is in the few moments in which the teacher waits for them to respond, or even in the 50–80 minutes of a class session. They can do more and better thinking if given more time and different ways to contribute. Isn’t that what we want (at least most of the time): more and better thinking?<sup>6</sup>

This strategy also creates “equitable use” in that it recognizes diverse abilities. There are redundant or repetitive or duplicated ways to take part, but no one way is privileged over the others. The raise-your-hand modality isn’t the best way to allow all students to show what they know and to shape what we can all know together. There is also “flexibility in use” in that there can still be the old form of discussion in addition to this new mode. There is a “lower physical effort” in that there is more space created for quiet, more time given for students to process and compose their thoughts, and less emphasis on exchanges that can be anxiety producing for some students. While I may not be creating “size and space for approach and use,” I am creating an important analogue:

more time for students to approach the discussion and the ideas, more time to use them in their own ways.

This note-card technique can also be used during public talks or lectures and conference presentations—places where putting your hand up to ask a question can be even more difficult. In this case, many of the same benefits can be realized—benefits to deep accessibility, and benefits that involve more people in transforming what is being learned within the larger group, rather than simply creating ramps for people to access the content but not reshape it.

### *On Futurity*

The example above disrupts a relatively extreme bias of academia: the idea that learning has to happen in scheduled bursts and limited openings. But it also disrupts the idea that knowledge, in the classroom, is located in the teacher. This idealization of the teacher, as well as the mechanization of learning, are legacies that UD can seek to challenge.

Yet as theorists such as Christina Cogdell have shown, for much of the 20th century, the focus of design has been on streamlining, on speed, and on normative ideal types—ideal bodies for which designers sought not only to create products for but sought to sell products to create. That is, design itself was an extension of eugenics—in the middle part of the 20th century, “designers’ rhetoric strongly suggests that their conceptions of ‘ideal types’ in product design were intricately, ideologically entwined with eugenicists’ pursuits of the same goal in social and biological design” (Cogdell, 213). This idealization is basically the opposite of the design of products for the broadest range of users and uses. A factory, a vacuum, a car were all designed with an “ideal human” in mind and as their goal (Cogdell, 213). More simply, you didn’t make something just to be of use to a consumer. You made things that in part *formed* ideal consumers. The university was also designed, architecturally, with the ideal human in mind and as its goal. This conditions the spaces and the times of education.<sup>7</sup>

On the college or university campus, we know that the steps are steep, and they are also steeped in tradition. Many universities make the argument that steep steps are stylistically desirable, that they fit with the template, the architectural fingerprint of the school. These



arguments show the ways that in the construction and maintenance of the steep steps there is also a latent argument about aesthetics (access Hunter, “Out of Sight, Out of Mind: Disability and the Aesthetics of Landscape Architecture”). Change, then, is framed as a deformation, and a transgression of not only space but time. The Rensselaer approach that we began the book with, built of marble and in a Greek style, was not really a new construction in any way. (The crumbling of these steps, over time, reveals the tenuousness of any boundary—it also shows us that as boundaries fall, they can be replaced by an even more insurmountable landscape.) As I mentioned earlier, other campuses, many of them built around churches, similarly rely on steps not just as architectural details, but as symbolic social centerpieces of university life—traditional university life.

The point is that students with disabilities are excluded not just from campus space, but from the entirety of collegiate history and lore. The retrofit is, as I said, an after-the-fact construction. It is always supplemental—always not-original. The retrofit is additional. But as a supplement, to retrofit is to fix in some way. Like eugenic design, a retrofit can be meant not to fit a need, but to make its user perform and behave in a particular way, often in a constrained way. Unfortunately, this fixing provides little opportunity for continued refitting, for process. Yet Universal Design is a philosophy that, I hope to show, can provide a heuristic framework that makes disability essential to embodiment—it is a way of looking toward an inclusive future.

David Mitchell and Sharon Snyder argue that UD “organizes a disability time and place by shifting educational environments according to the demands of its peculiar, nonnormative logistics” and this “promises to widen the arena of embodiment for all” (Biopolitics, 93).

While the “universal” of UD is problematic (access discussion below), I believe that within the concept of Universal Design we should focus on the verb—design. In this way, and in the spirit of Mitchell and Snyder’s “disability time and place” UD becomes a way to plan, to foresee, to imagine the future (Biopolitics, 93).

As Alison Kafer writes: “how one understands disability in the present determines how one imagines disability in the future” (2). But she clarifies that disability has a vexed futurity:

The value of a future that includes disabled people goes unrecognized, while the value of a disability-free future is seen as self-evident;

and second, the political nature of disability, namely its position as a category to be contested and debated, goes unacknowledged. The second failure of recognition makes possible the first; casting disability as monolithic fact of the body, as beyond the realm of the political and therefore beyond the realm of debate or dissent, makes it impossible to imagine disability and disability futures differently. (3)

We must connect Kafer's argument back to eugenics and the reshaping of how North Americans thought about bodies and minds. But Kafer goes on to craft a "politics of crip futurity," an "insistence on thinking these imagined futures—and hence, these lived presents—differently" (3).

The futurity of Universal Design, while it might also lead to delaying rights and opportunities, makes space for different disability futures that we know are close to impossible to imagine in an ableist society, and particularly in one of its most ableist institutions, the university. The opposite of this disability futurity is "curative time," which entails a "curative imaginary, an understanding of disability that not only expects and assumes intervention but also cannot imagine or comprehend anything other than intervention" (27). These interventions come in service of compulsory able-bodiedness and able-mindedness (27). Curative time is also the time of accommodation—seeking to erase the disability. The potential of UD, on the other hand, is a future with more claiming of disability and a more positive experience of it, not the erasure of disability as some would suggest.

Many of the negative effects of disability can be created by cultural and even spatial constructions—the world is built to accommodate the normal body and mind, and we all experience some degree of discomfort due to these limits. These limits also function to make the world highly inaccessible to people with disabilities—or to make them come in the back door. In response, we could change the environment to minimize the constraining and impairing effects of intellectual and architectural structures, but also to emphasize and enable embodied differences to thrive. Is there a way to increase access without negating the presence of disability? In a sense, this is what Universal Design does—it allows us to claim disability as we limit the normalizing and segregating effects of cultural geographies. For Universal Design to be truly successful, it must do so without claiming to erase embodied difference.

On your own campus, surely there are research initiatives, perhaps highly visible and highly funded, organized around curing disability or

eradicating it. These initiatives may not be a problem, *per se*. But when these initiatives crowd out the space needed to imagine a future in which disability is central and valued rather than eradicated, we badly need a “politics of crip futurity” as Kafer suggests (3). If disability is something we avoid talking about in the push for “wellness” on campus, in creating euphemistic names like “Access Services” or “AccessAbility” instead of disability offices, and if disability is only ever mentioned as something researchers are “fighting,” this will undoubtedly impact and negatively shape the environment for disabled students.

As mentioned above, the UD movement was first an architectural movement. The design of physical spaces through UD then also became a means of transforming ideological space. Out of this, Universal Design for Learning (UDL) has become a philosophy of teaching adapted from these architectural roots—advocating the use of multiple and flexible strategies to address the needs of all students. The three major “moves” of UDL mandate that there be multiple means of student engagement (why students learn), multiple means of delivering content (what students learn), and multiple ways for students to express themselves and act (how students learn). In what follows, I will first move backwards, to lay out some of the foundations of UD, and then I will move forward, to acknowledge some of the difficulties of implementing UD in the neoliberal university. But in each of these explorations, I want to center the idea that we must design a future for higher education that acknowledges but rejects its eugenic, steep steps history, refuses to accept an ongoing series of retrofits and slapped-on accommodations, and values instead the unpredictable times and places of disability to come.

Many of the benefits of UD are bound to be unforeseen: the benefits of any design created for a broad range of users will be, almost without exception, unpredictable. So, if we design a product with open-mindedness and inclusiveness, it can have an expanding range of uses. If we design for one body, it will need to be retrofitted to work for any others; if we try to design for all bodies, every single body that interacts with the technology will find a use for it (many of them novel). If we design a classroom activity for one mind (maybe a mind much like our own) then only a few students will be able to do this thinking (students most like us); if we design a classroom activity for a broad range of minds, then all students will have a genuine opportunity to learn and to create new knowledge.

*Bringing Disability, Usability, and Universal Design Together*

To begin with, there can be no history of UD without an understanding of the history of usability. Allow me to begin with an anecdote. Mara Mills writes powerfully about the history of hearing aids—a technological narrative that every computer science, engineering, and arts scholar or student should read. She suggests that “although the enduring stigmatization of deafness often led to unhappy relationships between individuals and their prosthetics—and sometimes to fraudulence in the hearing aid field—it did not necessarily result in passivity or dependence” (26). So, first of all, much of the frustration that Deaf and hard of hearing people felt was caused by the stigmatization of disability by society, not necessarily by the technologies. Then, these people still went on to play “shaping roles as early adopters, inventors, retailers, and manufacturers of miniaturized components—even though advertisements and the popular press have historically portrayed ‘the deaf’ as patients, ‘guinea pigs,’ recipients of charity, or hapless consumers of technology” (26). Mills hits, here, on a key oversight in the history of design and technology: “even in the vast literature on ‘users’ in technology studies over the past 30 years, people with disabilities have only rarely been ascribed the competence or the relevance to figure centrally in narratives of technological change” (26).<sup>8</sup> Universal Design, then, seeks to change this narrative moving forward; a history of UD also seeks to revise some of these narratives from the past. We begin, then, by revising the history of an interrelated concept: usability.

In their article on the rhetorical concept of “Institutional Critique,” mentioned earlier in the book, James Porter et al. wrote about the political move of having usability included as a criteria on Microsoft’s “generic product development chart” (610). The initiation of this change proves, to the writers and (hopefully) to the audience, that “though institutions are certainly powerful, they are not monoliths; they are rhetorically constructed human designs (whose power is reinforced by buildings, laws, traditions, and knowledge-making practices) and so are changeable” (611). In their story, getting Microsoft to consider usability was nothing less than a revolution. There are two aspects to this revolution. First, because usability is defined as aiming to “humanize system design,” it is an “important political move, establishing users and user-testing as a more integral part of the software development process” (611). The human is set in opposition to the monolithic corporation, and usability

seems to be David's slingshot. The second aspect of the revolution is the proof that, because a giant like Microsoft can be changed, even the most monolithic institutions are rhetorically constructed—thus they can be rhetorically reconstructed. It follows that usability itself can be rhetorically reconstructed.

I am particularly interested in the interaction between usability and Universal Design. Usability speaks for universal design, and has played a crucial role in how UD has been rhetorically constructed—and vice versa. In this section, there are two connected theses. First, usability may become a way to talk about user-centered design without always recognizing the diversity of these users—without placing disability at the center of the call for the adaptation of physical, technological, and ideological spaces and interfaces. In the same way, UD has become a way to talk about changing space to accommodate the broadest range of users, yet it consistently overlooks the importance of continued feedback from these users. Therefore, usability needs Universal Design and Universal Design, specifically of education or learning (UDL), needs usability.

Tracing the evolution of the term usability leads directly to its interaction with universal design. The cross-breeding of the two concepts has led to the recombinant terms “Accessible Design” and “Inclusive Design,” concepts explained in the book *Countering Design Exclusion: An Introduction to Inclusive Design* by John P. Clarkson and Simeon Keates. Ronald Mace coined the term universal design in a 1985 article in *Designer's West*, and one of the first published articles on UD was titled “Maximizing Usability: The Principles of Universal Design” (Story). This latter article is a primary example of the conjunction of the two concepts, resulting in new sets of principles for the design of physical and ideological space (as well as new portmanteau linguistic products, new words). Given such existent confluence, it seems worthwhile to, at least briefly, provide a genealogy of both usability and UD. I don't intend to give a comprehensive history here. However, I do want to mention some of the commonalities and divergences in the historical development of the two concepts.

### *Histories*

Usability has often been tied to the rights of people with disabilities. Whether in response to a more diverse (and often disabled) workforce following World War II, or in reaction to the increasingly politicized input from people with disabilities about society's barriers, usability fore-

grounds the ways bodies interact with technologies and environments, and often points out the ways environments and technologies exclude. To trace some of the history of usability we will also trace the circulation of discourse through the body, the bodies that design thinking has selectively excluded, and the bodies that have actively intervened to reshape the world.

The use of more advanced technology in World War II led to a greater concern for the relationship between human and machine. Creating new technologies that had to be immediately utilized by men and women “in the field” led to heightened concern about the interface between person and machine in a life-or-death situation. The ease of this interaction then gradually became a more central priority in the development of new technologies. There was an effort to make machines more responsive to human needs. Following World War II, in North America, the principle of “ease of use” became a key marketing tool—not just for soldiers, or for war veterans (many of whom had different user needs and desires), but for every consumer. Technologies used by people with disabilities—such as prosthetic devices for war-wounded citizens—also were charged with cultural meanings, for instance to mitigate the perceived emasculating effect of injury (access Serlin). Disability, in many ways, came to be seen through new biological, cultural, and technological lenses. At the same time, redesign, with the help of potential users, became a key component of usability theories and methods. For instance, according to company promotional materials,

As early as the mid-1940s, Kodak created one of the very first in-house corporate design staffs. In 1960, Kodak established what is now one of the oldest Human Factors Labs in the United States. Originally focused on the design of workplace facilities and environments, the lab expanded its charter to include its current focus on product design in the mid-1960s. (Kodak Corp.)

Yet I’d suggest that it wasn’t until set principles of usability were adopted in the telecommunications and later in the computer industry in the late 1980s and early 1990s that usability truly became part of the popular lexicon—or part of institutional design in a real and “revolutionary” way. The developments at Microsoft are an excellent example of this change. The key to usability was, and is, the priority of feedback from users—the idea that users must be actively involved in the continued redesign of products, interfaces, and spaces. Central to the development of usability

was, simply, the push for more users to be more involved in the design of products. Usability testing represents a shifting of design responsibility—and a sharing of the power that comes from having a stake in making the world—through iterative design. Iterative design, the progressive refinement of design through evaluation by testing actual “end-users” on a working system, brings “the consequences and personal contexts of any knowledge” to light in the early stages of design (Porter et al., 611). Power is shifted to the user who, through use and feedback, can illustrate the ways a technology best fits their needs, tasks, and expectations.

Universal design does not have the same specific history—in some ways, UD developed out of the usability movement. Early discourse about UD borrowed heavily from the discourse of usability. Yet Universal Design is usability with a key difference: it has always been more closely wed to the goal of making the world more accessible for people with disabilities. While usability principles sometimes listed people with disabilities as one key constituency, UD has placed individuals with disabilities at the center. One of the philosophical bases of universal design is that disability is partially socially constructed. Genes alone don’t disable people; an environment designed only for people with a certain body disables people whose bodies don’t conform to this narrow norm. Changing this environment is a means of intervening in the social construction of disability—interaction between person and world is not only made more efficient, it is made less oppressive. When Ronald Mace and his colleagues at North Carolina State University established the Center for Universal Design in 1989, the associated think tank was named the Center for Accessible Housing, and grew thanks to a grant from the National Institute on Disability and Rehabilitation Research. In 1990, thanks to momentum from the NC State project and other “no-barriers” practitioners, as well as the progressive work of groups like ADAPT,<sup>9</sup> the disability rights movement in the United States made a breakthrough: the U.S. government passed the Americans with Disabilities Act. With the passage of this act, Universal Design gained an essential point for leverage. Previous efforts to prioritize barrier-free design were now given legal reinforcement, and the rights of the disabled user were now inscribed in law. While the ADA hasn’t always led to the kind of revolutionary redesign of the environment that we might hope for, it has allowed UD to come in the front door, so to speak—and it has shown how user feedback (in the form of political protest) can create change.

*Critiquing Usability and Universal Design*

A critique of usability might focus on the failure to prioritize the value of different abilities, needs, and goals in users. As Robert R. Johnson argued in his book *User-Centered Technology: A Rhetorical Theory for Computers and Other Mundane Artifacts*, usability lacks a coherent theory of use or usefulness. Though usability foregrounds the importance of collaboration between users and producers, the ethical foundation of this relationship is underdeveloped.

The ethos of the user most often comes from his or her ability to represent an average consumer or the correct target demographic. Universal design offers a means of placing those with unconventional abilities, needs, and goals at the center of the design process. When disabled people lead the process, we can more specifically address the power imbalances that lead to exclusive spaces, interfaces and pedagogy. On the other hand, a critique of universal design would point out that there is no built-in process for collecting feedback from users, thus no way to ensure that those who inhabit the designed space have an active role in its reconstruction. In these ways, usability and universal design ask for one another. Particularly in the context of the classroom, usability and universal design offer a philosophical and practical basis for the kind of teaching that might be truly responsive to all students, and that might allow all students to be responsible for the direction of pedagogy.

As this communication and expansion happens, then, there is a tension created when we strive to expand toward diversity rather than a normative ideal. As we design pedagogy we must think about the use and usefulness of usability, as Johnson suggests, and we must also consider it ethically. How are particular models and uses exclusive? How does usability, in this way, become a normative process? In an even more specific example, Cynthia Selfe and Richard Selfe wrote:

[Teachers] who use computers are often involved in establishing and maintaining borders themselves—whether or not they acknowledge or support such a project—and, thus, in contributing to a larger cultural system of differential power that has resulted in the systematic domination and marginalization of certain groups of students, including among them: women, non-whites, and individuals who speak languages other than English. (482)



I would argue that students with disabilities must be added to this list of “certain groups” and that, as Selfe and Selfe argue, they must also be given the opportunity to “become technology critics as well as technology users,” to “contribute to technology design,” and to “[address] the interested map of reality offered by computer interfaces [by becoming] involved . . . in an ongoing project to revise interfaces as texts” (494–96). Teachers have a responsibility to interrogate all spaces and all interfaces, as well as to share this responsibility equally with our students.

As students and teachers critique spaces and interfaces, lessons from disability studies offer ways to prioritize and to value disability, while developing the critical tools to intervene in the production of cultural space. Disability studies scholarship has had a persistent and insistent, if sometimes neglected or deflected, voice in fields that claim to do the work of design—of spaces or products or technologies. This critical perspective can shed significant light on issues of access and usability. Here, I’ll briefly investigate how disability studies reframes issues of normativity, accommodation, and inclusion in ways that must be considered by designers.

As mentioned, disability studies theory holds that disability is partially socially constructed. Disability studies points up the interestedness of categories of disability, and the material and social practices that inscribe, codify, and enforce both normalcy and abnormalcy—the programs and uses of normativity. Disability studies scholars show that disability as an invented category serves primarily to reify or reinforce a fictional norm, organizing classifications of difference around an unexamined, privileged, and normative center. Disability is posed, schematized, and discursively and materially regulated so that dominant positions can be maintained untroubled. The concept of “design against normativity” has even been developed as a response to this maintenance of the norm. As Gesche Joost and Tom Bieling write, “against the background of the cultural construction of normality, the social exclusion of human beings and the design of innovative products . . . majority-oriented design conclusions” cannot be “the guiding principle in usability-focused design approaches” (n.p.). We need to consciously work against the values and habits and biases of mainstream design practices.

So, a disability studies critique reveals something of the normativity of our teaching practices, reflected but also conditioned by the spaces and technologies we engage with. The argument, as it was written by John Dewey nearly 80 years ago, is that “the failure of the adaptation of the material to needs and capacities of individuals may cause an experi-

ence to be non-educative quite as much as a failure of an individual to adapt [him/her]self to the material” (47). We also come to understand, through disability studies, how inclusion and accommodation work and do not work, how interested the programs are, and these issues of access and inclusion, then, are crucial for considering the entailments of usability, reframing ideas about who an end user is, how users interact, and to what purpose. Just adding disability accomplishes nothing, and in fact strengthens the squeeze of the norm.

### *Futures for Disability, Usability, and Universal Design*

Universal Design for Learning (UDL) principles focus on multiple, overlapping strategies, not the delivery of single streams of information and not a blanket approach (Bowe). I use the label “Universal Design for Learning” instead of “Universal Design of Instruction” (another way to talk about this concept) because the pedagogy is not solely about instruction; it is about the entire learning process. My definition of UDL, adapted from Bowe, emphasizes expanding three vectors of the classroom dynamic. One focus is on how the teacher instructs—how we deliver information and engage students in the most accessible manner possible. Another focus is on active learning by students—varied forms of applied and interactive learning, with course materials and within a diverse community. The third focus is on multiple options for student design, delivery, and expression—multiple ways for students to show what they know, share their ideas, compose for varying audiences, and then revise. These foci necessitate less teacher dictatorship and greater communal shaping. Universal Design, then, is a way of responding to changing space and developing technology not with panic and reduction but with planning for hybridity and transformation.

As a model, we should consider using the principles of usability in any classroom setting in which we strive for UDL. My 2005 *Disability Studies Quarterly* article makes this argument, and lays out an example of how this can be done: together with students I realized that, although UDL validated and valued their standpoints, there was nothing explicit in the principles of UDL that provided for anonymized student-feedback as part of a dynamic and ongoing, class-by-class process of pedagogy design and revision. Though Frank G. Bowe, in his canonical book-length study of UDL, mentions the need for interaction between teachers and students,

this practice has not been codified in a useful way. As mentioned in the previous chapter, the recent work by the New London Group on the concept of “multiliteracies” puts forward a philosophy and a pedagogy of multiple literacies and multimodal learning and expression, and these scholars, including James Paul Gee, Gunther Kress, Bill Cope, and Mary Kalantzis, foreground the role students must be given in the redesign of social futures. Yet the New London Group does not call this universal design, nor do they address learning differences from the perspective of disability. We wanted a more insistent principle of learner negotiation for UDL, based on its principles of inclusion. The students said, repeatedly, that professors would know what works and what needs to be done if they just asked their own students. While recounting a list of strategies that teachers used, and addressing questions about how UDL could be better incorporated, the students continually insisted that teachers had to allow students multiple modes of anonymous course assessment or critique—to give them some control over course design so that their abilities and needs could be adequately addressed as the course went along, not just when it ended.<sup>10</sup>

UD, then, is finally a matter of social justice—the importance of including everyone in the discussions that create space. For UD to be a transformative agenda, we are reminded that our work must be change-enhancing, interactive, contextualized, social; must allow individuals to rewrite institutions through rhetorical action and must push us all to think broadly and generously. Universal design does seem to include, and embrace, such possibilities—and can be beneficially (and continually) rethought when combined with the user-centered and iterative push of usability. Just as usability needs Universal Design, Universal Design needs usability.

### *We Need to Talk about Universal Design*

While I have spent the first half of this chapter arguing for Universal Design, we are required to spend at least as much time arguing against the concept for its potential to come fully into relief, to be totally understandable. We need to talk about Universal Design, and this notion cuts in two directions. First, we need to talk about Universal Design because we need to create more accessible avenues for the presence and participation, creation and collaboration, reading and writing, sketching and moving, revision and reflection of students with

a much wider range of abilities and disabilities, levels of preparedness, and cultural and linguistic commitments than we currently do. But, second, we also need to talk or communicate in the sense that something is wrong. “We need to talk” is a phrase that has likely introduced a million breakups. I don’t want to break up. But here, I want to suggest that, at the very least, we need to carefully review our relationship with Universal Design. We need to talk about Universal Design. But allow me to clarify that, although we need to talk about Universal Design, it’s not you, it’s me that has a problem. That is, as you can understand from my arguments above, I have been a longtime proponent of UD and UDL. I have defended UD against those who think it sounds like a variety of creationism or a *Star Trek* episode. I have addressed the doubts of pragmatists and cynics for whom the word universal is understandably, problematically, broad. As mentioned above, I have argued that within the concept of Universal Design we should focus on the verb—design. I have then argued that UD becomes a way to plan, to foresee, to imagine the future. The universal of UD also suggests that disability is something that is always a part of our world and worldview. Thus, when UD is successful, it is hopeful and realistic—allowing teachers to structure space in the broadest possible manner.

As fellow UD proponent and critic Aimi Hamraie has written, the “design” in UD is in fact what Hamraie calls “value-explicit design,” design that “does not privilege expert knowledge, but rather provides a framework within which designers can be held accountable for the types of environments that they produce” (n.p.). Thus, the verb “design” in UD also “critiques the false value-neutrality of inaccessible environments” (Hamraie, n.p.). Hamraie cites Edward Steinfeld and Jordana Maisel to suggest as well that the “universal” in UD “be understood as it is used in terms like ‘universal suffrage’ or ‘universal healthcare’” (Steinfeld and Maisel, 30). Hamraie suggests that the “universal” can lead to “broad accessibility”—design for the broadest possible range of users, hopefully considering issues of sex, gender, and intersectionality; aging; size; race, and environmental justice (n.p.). The “universal” can also lead to what Hamraie calls “added value”: “designs that produce disability access also have added value or benefit insofar as they are useful to non-disabled people” (n.p.). Though none of these arguments is immune to further critique (from myself or from Hamraie), it is clear that UD can be a powerful lever to challenge the structures and systems that disenfranchise disabled people. It is also clear that UD has been revolutionary within architecture.

This problem of universality is of course connected to normativity. We might suggest that most claims to universality also subsume the possibilities of rich and meaningful particularity. For instance, as Robyn Wiegman suggested, “critical race theorists have assumed that the power of whiteness arises from its appropriation of the universal . . . the universal [as] opposed to and hence devoid of the particular” (117). Yet she argued that, insofar as this assumption is made, “we have failed to interpret the tension between particularity and universality” (117). Wiegman argues that normative and unexamined structures must be rendered particular so that we might understand their power. Likewise, I would argue that we can look for the universal possibilities of particularity. More simply, student learning differences should drive design, should be designed towards.

Importantly, the alternative to planning for diversity is pretty dire, leaving access as an afterthought, situating it as something nice to be done out of a spirit of charity, or as something people with disabilities are being unfairly given. Without Universal Design, the alternatives are the “steep steps” that are set out in front of many people with disabilities, or the “retrofits” that might remove barriers or provide access for disabled people, but do so in ways that physically and ideologically locate disability as either deserving exclusion or as an afterthought.

### *Posing Problems*

As mentioned, despite the “Universal” of UD, there are some major occlusions and oversights built into its implementation. UD has had what Sara Ahmed calls a “melancholic universalism.” This can be defined as “the requirement to identify with the universal that repudiates you”—something that a lot of people with disabilities feel about UD, but something that it is very hard to draw attention to (“Melancholic,” n.p.). That is, “the universal is the promise of inclusion that has become heavy or weighed down by the way the promise has been sent out and about. . . . the promise of the universal is what conceals the very failure of the universal to be universal” (“Melancholic,” n.p.). UD seems like such a good idea that those who might argue against it, or who might point out the ways that it fails to accommodate their needs or minds or bodies, do so only at great cost. Think, for example, of the students who congratulated their teacher on the first day of class for how well-designed the syllabus was, saying that they wouldn’t even need the sanctioned accommoda-

tions they had been offered. Now imagine what happens when, later in the semester, one of these students feels the need to highlight their exclusion from class, but now must do so against the feelings of their peers and the teacher. As Ahmed writes, “melancholic universalism is another way of describing the promise of happiness; how depression is associated with concrete difference, and how some differences become concrete and not others” (“Melancholic,” n.p.). Suitably, she uses the metaphor of a wall (and we might substitute steep steps or ornate gates here, too): the wall “comes up for those who are not accommodated. For those who are accommodated there is no wall at all. Enter; easy, look, easy, just do it” (“Melancholic,” n.p.).<sup>11</sup> Later in this chapter, I will attempt to offer some solutions to this exclusion, even as I acknowledge that any solution may be merely a “promise of happiness” that can just as easily disappear. But before we get there, there are more problems.

### *Interest Convergence*

One of the major arguments for UD is that it is good for all students. But of course there is some danger here of falling into what critical race theorists would call interest convergence—the idea that conditions for the minority group improve only once the effort can be justified as helping the majority as well (access Bell). As Brenda Brueggemann and Georgina Kleege point out, for instance, “much of what has always disturbed us about the rhetoric around mainstreaming has to do with the way it is presented as something that is valuable for the *majority* culture . . . culturally enriching non-disabled students” (183, italics mine). In arguing for Universal Design instead of accommodations, many have suggested that UD is of greater benefit to more students—UD can take adaptations and use them to help everyone. Yet such an argument can lead to a situation in which the needs of the majority once again trump the needs of those who have been traditionally excluded—people with disabilities. For instance, here’s a statement from the Ohio State FAME website, introducing the concept of UD:

A key feature of Universal Design is that when you have both ramps and elevators, and even stairs, then you have alternatives even if you don’t have a disability. If you’re pulling a baby carriage or a shopping cart, you’re really glad there’s a ramp there, or a curb cut. Or if you’ve had a large breakfast, you tend not to take the elevator and you

decide, “I’ll take the stairs today,” but when you’re tired, you want the elevator. Options are good for all of us. (n.p.)

While there is nothing inherently wrong with this argument, it does need to be problematized. It is the introduction to UD provided by the section of the site devoted to UD—a section of the site separate from the pages devoted to accommodations. The suggestion is that accommodations may be about students with disabilities, while UD is for everyone. Again, no problem, except that this opens a sort of hole: we can fall into a habit of eliding or overlooking considerations of disability—the power of normativity would pull us toward this elision of oversight. Clearly, having a big breakfast is not the same as having a disability—because most big breakfasts don’t lead directly to systemic discrimination.

In response to the interest convergence that situates UD as something that is for “all students,” while overlooking specific forms of difference, as well as specific histories of disenfranchisement, a few researchers have begun to explore what might be explicitly built into UD to address the needs, in particular, of African American students. As part of a presentation made at the Pacific Rim Conference on Disabilities in 2006, Higbee et al. presented the following UD principles for multiculturalism and antiracism:

1. Create spaces and programs that foster a sense of community for all students, particularly students from underrepresented communities.
2. Build barrier-free welcoming environments with attention paid to attributes that include disability, diverse content, access to artwork and graphic design, and geographic location relative to function.
3. Design accessible and appropriate physical environments that provide ease of use for people who use different modes of interacting or communicating and allow for confidential use based on the services, programs, or benefits being delivered.
4. Create inclusive and respectful policies and programs that, from the beginning, take into consideration the diverse student and employee populations at the institution and provide natural and cognitive supports to ensure full utilization of programs by students and employees.
5. Hire and develop personnel who understand, respect, and value the institution’s diverse community of students and employees.
6. Ensure that nonelectronic information environments are accessible and appropriate so that information is delivered in formats

(e.g., Braille, captioning, different languages) understandable and easily usable by diverse users without requiring unnecessary steps or “hoops” to jump through for completion.

7. Design and maintain Internet and other electronic environments to ensure accessibility and appropriate confidentiality or privacy for those who use various adaptive equipment, hardware (that may vary in age and capacity), and software and for those that require or need confidentiality or privacy (n.p.).

Though some of this guidance overlaps with the usual “list” of UD considerations, there are specific actions here that add crucial dimensions to UD. In particular, the explicit instructions about protecting student privacy really matter. While all students with disabilities may have been (or could be) stigmatized if they disclose a diagnosis, the stakes are absolutely higher for African American students, for whom disability diagnoses and streaming at the K-12 level correlate with overwhelmingly negative outcomes. Racism can and will absolutely compound the stigma of disability. As mentioned previously, ableism is never alone with itself. Keeping any accommodations that are made for these students confidential is a tangible way to avoid inviting racism and ableism. Marking minority students out as those who are visibly in need of a different form of learning might tokenize their involvement and attract other forms of discrimination. As social psychologist Claude Steele has argued the idea: “that erasing stigma improves black achievement [in University] is perhaps the strongest evidence that stigma is what depresses it in the first place. This is no happy realization,” but it means that reducing “racial and other vulnerabilities” that come through stigma can improve achievement (6).

Further, in interpreting the extra time and space and “hoops” and “barriers” that minority students may need to navigate, and thus that teachers need to anticipate and build into their course and curriculum design, William Sedlacek suggests that minority students have to develop specific skills and expend considerable energy coping with racism, looking for allies and forming their own community, and protecting their identities (202). It might be argued that these are tasks that might require strategic silence or reticence, cunning, code-switching, self-care, and a wide range of abstract and contextually varying skills. These skills do not always sync with traditional pedagogy and assessment. At the same time, students in “majority” groups can concentrate on interpreting and categorizing information in ways that sync with test-taking, reasoning, and other more straightforward academic arenas (Sedlacek, 202). The



result is that multiple studies have shown that minority students, specifically African American and Hispanic students, exert more effort and are more engaged than white peers, but get lower grades (access Greene et al., for instance, on two-year college students and this acknowledged “effort-outcome gap”). Teachers absolutely have to understand that these differences change the social and the educational geography on campus. Universal Design can only hope to address this geography by also imagining a more diverse future.

As Vershawn Young and Frankie Condon have argued, “there are many scholars whose research interests and political commitments coincide with the work of antiracism. It is difficult, however, for even the most committed of us to perceive, name and contend with the ways in which racism winds its way to our classrooms—through unexamined curricula, careless, ill-considered or unreflective teaching practice, or talk to and about our students” (4). Thus there is not a single aspect of the “Universal Design” of teaching that does not need to ask: How might this reinforce the privileges and the exclusions—the steps up and the steps down and the ramps around—the systemic racism of higher education?

Finally, the explicit suggestion to hire or employ diverse faculty becomes a tangible way to remove barriers. It will not be enough to “just” utilize Universal Design in academies where we know the faculty and instructors do not look like and do not come from the same cultural backgrounds as the students. If we do, we are simply retrofitting another academic fad onto a highly exclusive machine. If we make the “interest convergence” argument that UD is just good for all students, we ignore the different pathways that bring students to our classrooms, or keep them from getting there, and we may even reproduce these exclusions.

*We Need to Talk about Universal Design  
in the Neoliberal University*

In the last chapter, I suggested that it is likely true that retrofits, in other contexts, can be much more useful and powerful than they can be in higher education, mainly because of the persistence of academic ableism in universities and colleges. Maybe, in the same sense, Universal Design can only do so much in the context of higher education, because of the persistence of both academic ableism and academic ableism-inflected retrofits and defeat devices. That is, disability is so overdetermined by the accommodation process in higher education, and these accommo-

dations can be so efficiently stripped of their effectiveness, that the university is a machine for qualifying (and portioning out only minimal) access and rights.

So we need to talk about Universal Design because despite the potential benefits enumerated above, its usefulness and subversiveness is being slowly vacuumed out. In the neoliberal university, Universal Design may become a way of promising everything while not doing much of anything. I am no longer going to allow Universal Design to make me promises it doesn't intend to keep. Thinking of UD as a logic of neoliberalism specifically can be a useful way to interrogate its meanings, possible uses, and misuses. Neoliberalism takes the values of free choice, flexibility, and deregulation and translates them into market reforms and policies designed to maximize profits, privatize industry, and exploit all available resources. But much more than this, neoliberalism should be seen as a system that powerfully masks inequalities and readily co-opts concepts like diversity, tolerance, and democracy. Not only this, but neoliberalism has been shown to interpellate—to sneak in and insinuate—its logics and grammars into our everyday lives—so that we all become middle managers, so that we run our classrooms and cultural institutions like corporations while allowing corporations to take over the discourses we used to control and sell them back to us for pennies on the dollar. Think of something like critical thinking or information literacy—these are now actual industries tied almost entirely to the creation of a new-economy workforce and having very little to do with their origins in the humanities. I think we are getting dangerously close to allying Universal Design with these same neoliberal trends.

This alliance would place UD closer to what Lauren Berlant calls “cruel optimism”—when something you desire is actually an obstacle to your flourishing; a way of describing how people have remained attached to unachievable fantasies of upward mobility, job security, political and social equality, and durable intimacy—despite evidence that liberal-capitalist societies can no longer be counted on to provide such opportunities for individuals. It is highly possible that a concept such as Universal Design could simply become a proxy system for demanding the flexibility of bodies, increasing the tenuousness of social and physical structures, rebranding our intellectual work, constantly moving the target for technological innovation as flows of information are made ever more proprietary, and placing the privilege of “design” in the hands of a narrowing and exponentially profiting few. More simply, what if we are being given (and we are giving to others) lofty and theoretical con-

cepts like UD to distract us from much more simple realities? What if our debates about the most fair and equitable forms of inclusion are happening as real rights and opportunities get sucked away? UD seems especially prone to the false promise of expanding—neoliberalism promises an expanding world, more jobs, greater access to more and more technology and information. But what expands is truly just the market; this expansion is often false, supplemental, derivative; the benefits of this expansion are only ever financial, they flow upward rapidly, and the benefits that do trickle down do so ever more slowly if they trickle down at all, while risk is transferred downward by the truckload (or pipeline).

It is possible that, in and out of academic circles, the term “neoliberalism” is losing meaning. But it names a relatively simple logic, and a very widespread one. Lisa Duggan suggests that neoliberalism is characterized by the shrinking of the public sphere as the government renounces responsibility for social welfare. This shrinking and shirking connects to a key but misguided concept underlying austerity: the argument that cuts to public programs can lead to private growth. David Harvey has also suggested that the neoliberal state attempts to “reconstruct social solidarities, albeit along different lines . . . in new forms of associationism” (“From Space to Place,” 81). In *The House of Difference*, Eva Mackey famously studied Canadian discourses that invoke liberal multicultural practices, but do so in order to protect existing economic and cultural power structures. It is easy to think that a celebration of Universal Design could be a way to actually shrink the safety net and widen structural inequalities. What if Universal Design, as it is being argued for and implemented at colleges universities, just camouflages clawbacks to other essential support systems? These are systems that are stunningly inadequate already.

My warning here is that UD is becoming a neoliberal industry within higher education. While I have offered warnings about the neoliberal dangers of Universal Design in other work, Aimi Hamraie also puts these dangers in stark but brilliant terms: when neoliberal values for UD take over, UD concepts “become marketing tools” and critical discourses “drop out” (n.p.). As David Harvey might say, UD is subject to neoliberal “creative destruction” (“Neoliberalism,” 3). This destruction leads to replacing hard-fought provisions with new contractual relations that in fact remove the university or college from responsibility for individual students’ rights, and demand that each individual manage their own access.

I still reserve the right to defend Universal Design. But it also time

for an honest appraisal of what our relationship has become. Universal Design, are you a neoliberal buzzword? Have you been creatively destroyed?

### *Landmarks*

In higher education, there are some very tangible examples of the false promise of UD. A recent article in the *Chronicle of Higher Education* profiled a scholar and administrator who had just recently accepted a job as the director of the Institute for Research and Training at Landmark College. Landmark is a two-year institution in Vermont “known for working with students with learning disabilities and ADHD, but now [also] working to understand more of the complex needs of students with multiple disabilities, particularly students with autism-spectrum disorders” (Berrett, n.p.). The scholar talks about the opportunity to implement and then study Universal Design in classrooms at Landmark: “At other institutions where I’ve worked, it was always a challenge to find enough students to do field research; about 3 percent to 9 percent of the population of postsecondary students has a learning disability. It’s different here at Landmark, where all of our 500 students have diagnosed learning disabilities,” the scholar said (Berrett, n.p.). When Landmark hired neuropsychologist Lynda Katz as their third president in 1994, she transformed Landmark into a research center, thanks to the fact that all students could concurrently be seen as learners and as research subjects (access Toomey and Maguire).

A couple of things to note: first, basic tuition at Landmark costs \$48,000 a year. That astronomical number has earned them the distinction of charging the highest tuition of any U.S. college, and they have earned this dubious title every year since 1998. Landmark also ranks 3,152nd in the United States in terms of average faculty salary, and has no tenure process (talk about an economic process designed to extract surplus value with as little investment as possible for the greatest possible return).<sup>12</sup>

Further, the focus of the *Chronicle* interview is not on students, but on this administrator’s own research. In the interview, Landmark seems to operate like a laboratory, full of the kind of specimens the scholar can’t get at a regular university. A reading of a number of scholarly publications from Landmark faculty, writing about their students, reveals a disturbing trend, characterizing students as having “difficulties with Theory of Mind,” using actual article titles like “What’s Wrong With That Kid?”

and so on. Landmark also teaches how to teach with Universal Design through expensive online certificate programs, with course titles like “Cerebro-Diversity.”

So, what does Landmark stand to gain from this Universal Design research? Hopefully, they improve their teaching. But the research also allows them to market themselves as pedagogically progressive. Doing and studying Universal Design at Landmark reveals a few of the more problematic reasons why we need to talk about Universal Design. First, the very existence of Landmark might signal to teachers in other universities and classrooms that there is a special place where disabled students should go, that they should have to pay a ton to access the accommodations they really need, and, inversely, the “regular” classroom at a “regular” university is thus released of responsibility to accommodate. Or, at the very least, teachers may be allowed to use the excuse that they don’t have the resources to do so. This relationship basically exemplifies neoliberalism, where social responsibilities—like the duty to educate all—are left to the open market and paid for by individuals.

But aside from the “special case” of Landmark, more and more programs are popping up at mainstream schools that ask students to pay (usually quite a bit) for accommodations that are labeled as special. At West Virginia University, where I taught for four years, such a program was coming in as I left, and it was called the Mountaineer Academic Program with a mission to “provide student-centered supplemental academic support services for students with disabilities” (Stender, n.p.).<sup>13</sup> There are different levels of tutoring offered, at about \$15 an hour. But what happens is that students get funneled to this pay-for-tutoring service immediately, as soon as they come in to Disability Services, and this then ends up replacing what should be happening in the classroom, and also tells teachers that the real accommodations happen elsewhere. The most famous of these programs is Strategic Alternative Learning Techniques (SALT) at Arizona, which costs a lot of money (\$2,450 per semester on top of regular tuition), and which offers “alternative accommodations.”<sup>14</sup> Such programs, in my mind, answer the minimalistic and harmful logics of the retrofitted accommodation, which uses rights-based arguments against those who are arguing for their rights, but they answer this conundrum by privatizing access and veiling discrimination. This places Universal Design closer to what Lauren Berlant calls “cruel optimism” (as previously discussed). That the flag Landmark is now flying has Universal Design emblazoned across it should give us serious pause.

When these students pay for access and accommodation, they basi-

cally sell out their legal rights at the same time as they relinquish their agency, and when this becomes an industry it undercuts the push for equality or diversity across state-sponsored (and privately sponsored) institutions of learning. This isn't to say that separate schools or programs such as Landmark couldn't provide the kinds of access and community missing at many other state-sponsored or mainstream schools—or that students with disabilities should be forced to go to inaccessible schools and fight against their ableist and normative structures. What is happening is much more complex. It is certain that when students with disabilities only pay to enter these special schools and programs, the norms across all universities cannot be feasibly challenged (not that these students have a duty to do so—just that in their absence, teachers and administrators have an excuse to do less, be more ableist). Further, clearly the majority of students with disabilities cannot afford these programs. This all goes to underline the fact that we need to talk about Universal Design.

### *The Digital Lives of Universal Design*

Beyond Landmark and other pay-for-accommodation schools and programs, Universal Design is being used more widely as a marketing tool at contemporary universities. While every mention of Universal Design at North American universities makes claims to validation by citing research, the same very few sources of research are mentioned over and over again, suggesting that while UD initiatives may have begun at places like North Carolina State University, where research into UD was being actively funded, there are very few currently active initiatives funded to continue supporting UD. The same dollars invested in UD back in the early 1990s continue to pay dividends, and no new investment is happening, meaning that UD is the ultimate neoliberal asset: it refuses to die no matter how little is invested in its development or protection.

Using educational-context-specific search tools, for example, shows us that universities that specifically discuss UD somewhere within their web pages refer as well to North Carolina State “about 2,750” times. The linking is significant because NC State is acknowledged as the “birthplace” of UD in their school of architecture. Thus in these 2,750 iterations, Universal Design is likely explained according to its origins. Ohio State is likewise referenced on UD web pages “about 16,900” times and the University of Washington “about 5,860” times. It is safe to say, then,

that if an educational website references UD and cites research, that research comes from one of three places: North Carolina State, where the Center for Universal Design's website hasn't been updated since 2008, and where they list no new publications since 2005; the University of Washington, where a series of National Science Foundation and Department of Education grants have funded a series of projects on UD for education; or Ohio State, who received a Department of Education partnership grant to develop UD principles and practices.

The forms of citation of these three projects could be viewed quite loosely: literally hundreds of schools simply reproduce the materials that North Carolina State University, the University of Washington, or Ohio State University developed. For instance, dozens of schools reproduce, in full, Ohio State's FAQs, as Chicago State University does, for instance. This reproduction allows for a nod to UD but certainly guarantees no true understanding or implementation of it, just as students who drag and drop chunks of research into their essays aren't going to be given credit for comprehending, synthesizing, or applying that knowledge. Search for full chunks of text from any of the three main UD hubs and their verbiage appears over and over again. If we need to talk about UD, then we need to ask: Are these UD pages and resources, the vast majority of which have been repurposed and ripped from just three funded initiatives, actually increasing access for students with disabilities, or for "all students"?

Is it possible that having a UD initiative at a school is actually a defeat device? (Recall my definition of the defeat device as a retrofit that is actually designed to hide an inequity or mask a problem by offering a fake or deceiving solution.) That is, could a tiny, negligible investment in UD replace a real investment in more staff, counseling, or other resources? Could a gesture toward UD be a way to say "we don't need to invest in any more accommodations," or even "we eventually won't need accommodations anymore"? It isn't that we wouldn't want higher education to be, eventually, completely Universally Designed. It's just that we are currently nowhere close. So we need to be concerned when we have a Universal Design committee or workshop or conference that is actually encouraging university administrations to invest less in students with disabilities. The same thing might happen through the offloading of UD onto teachers, the vast majority of whom are only tenuously employed. Again, it isn't that we wouldn't want all teachers, eventually, to design their classrooms more accessibly from the start. It is just that, again, we are currently nowhere close.



*Checklistification and Neurorhetorics*

When colleges and universities present Universal Design on their websites, they sometimes present UD as a list. This listing proceeds from the “nominalization” of UD—its conversion from a verb to a noun, its transformation from a process to a solid thing with clear boundaries, a checklist. The University of Washington’s excellent DO-IT project takes this approach, for instance in a “checklist for designing spaces that are welcoming, accessible, and usable” (n.p.). Many, many other colleges and universities have republished this checklist, so much so that it has become a canonical text in the actual academic implementation of UD. But there are some problems with this recycling: How many schools actually use this as a checklist with any teeth, with any consequences? Moreover, turning UD into a checklist defeats so much of the rhetorical purpose of UD, as what I have called a “way to move,” or as what Aimi Hamraie has called “a form of activism” (n.p.). That is, UD should be registered as action—a patterning of engagement and effort. With this said, such lists invite us to believe that Universal Design would stop if the boxes were all checked. We should be more interested in places to start thinking, doing, acting, and moving.

The one checklist I would be inclined to accept is the simple three-part approach to Universal Design for Learning, as mentioned earlier:

- *Multiple means of representation*, to give learners various ways of acquiring information and knowledge,
- *Multiple means of expression*, to provide learners alternatives for demonstrating what they know,
- *Multiple means of engagement*, to tap into learners’ interests, offer appropriate challenges, and increase motivation.

Yet when we begin to break these “multiples” down into short lists of strategies, UDL curls up into a ball or folds up into a small package. The very idea that education is about not just representation but also expression and engagement is somewhat revolutionary in a world of 500-student classes in which lectures and exams are the norm and a course’s content is almost always what a textbook or a professor says, rather than what students think or create. Moreover, the “multiple” tells us that there is not just one, nor can there be singular, favored ways of representing, expressing, or engaging—and that is an impetus to view students in a radically broader and more empowering way.

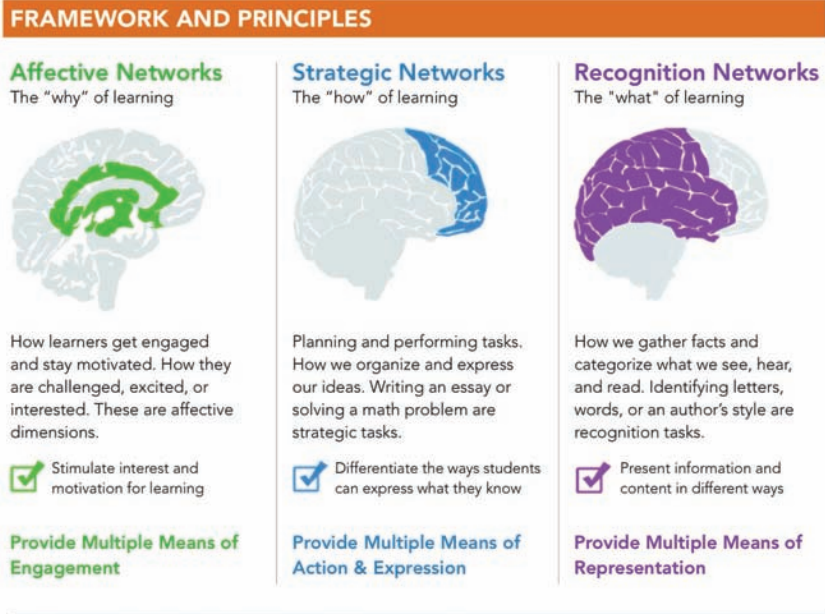


Yet colleges and universities have begun to define UD by linking it with old discourses of “learning styles” and newer “neurorhetorics.” So the basic three-part approach, instead of getting opened up to a broader range of possibilities, gets jammed into much more reifying or rigid paradigms. For instance, the “old” idea of learning styles was first used to cajole teachers to move away from an approach to teaching based around a conceptualization of only one type of learner. Stop believing students all learn one way. Stop thinking they will learn the way you do. This was a good thing, and perhaps still radical. But the consequence has often been a labeling and sorting of students: this one is visual, this one auditory, this one kinesthetic, this one a read/write learner. The discourse also linked learning to an innate and fixed student identity—denying the possibility that learning could be social, a process, and so on.<sup>15</sup>

If you Google “universal design” plus “learning style,” you’ll get all types of charts and images and ideas, and you’ll come to understand that advice around UD practices can be pitched to learning styles in ways that exclude all mention of disability. So, teachers can be asked to deliver materials orally and visually, to accommodate different learning styles, rather than to accommodate disability. This gets mapped onto the three-part UD approach: students are seen as specific types of receivers of representation, or they become specific types of expressers, or they are engagers. But this hollows out the potential for disability as a valued and agentic identity in the classroom: Universal Design becomes a way to erase disability altogether. This erasure presents a vexing, inescapable problem for any argument for Universal Design. In my own cautious arguments for UD, I seek to avoid this convergence by urging you to explicitly link teaching/learning strategies to disability experience, when possible, and by placing students with disabilities in the middle of the design process.

A newer flavor of this interest convergence, and this hollowing-out of the activist potential of UD, also comes in the form of what Jordynn Jack would call “neurorhetorics” (n.p.). In this example, colleges and universities have started to pitch UD as something that reaches all parts of the student brain. That is, the three major “moves” of UD now get located in different parts of the mind. In the following chart, taken from a page on the National Center on Universal Design website, but also used by others all over the web, and mainly at educational web addresses, shows how UDL maps across the brain.

The top of the chart is labeled Universal Design for Learning, and



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Fig. 6 "Universal Design for Learning Guidelines." CAST.

this forms a sort of umbrella over the rest of the figure. Below this, we view three columns. The left-hand column is titled Recognition Networks, the "what" of learning. We then are given a two-dimensional side-view of a brain with a region near the back of the brain shaded purple. Below this we can read: "how we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks." Then there is a shaded box, roughly the same color of purple as the brain shading above, with a check and the imperative to "present information and content in different ways." The center column is titled "Strategic Networks, the 'how' of learning." The brain is shown again, this time with a region near the front shaded blue. Below this we read: "planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks." Then below this there is a box shaded blue, and another check, now beside the imperative to "differentiate the ways that students can express what they know." The final column, on the right-hand side, is labeled "affective networks, the 'why' of learning." The brain is now shaded

green in a circular pattern near its center. Below this we are given the explanation: “how learners get engaged and stay motivated. How they are challenged, excited or interested. These are affective dimensions.” The box below this is shaded green, and there is a check, beside which we read the imperative: “stimulate interest and motivation for learning.”

This image accompanies the UDL guidelines on the National Center for Universal Design site above—one of the primary pages showcasing the definition of what UD is, in a checklist form. Thus the brains have taken over even the lists.

Other researchers have pointed out how such neuro rhetorics (or, in their terms, “neuromyths”) have taken over discourse about “learning styles” and “multiple intelligences.” As Paul A. Howard-Jones, a neuroscientist writing in the journal *Nature Reviews Neuroscience*, writes, “some longstanding neuromyths are present in products for educators and this has helped them to spread in classrooms across the world. . . . We see new neuromyths on the horizon and old neuromyths arising in new forms . . . and we see confusions about the mind–brain relationship and neural plasticity in discussions about educational investment and learning disorders” (817). The same can be said about the alliance of neuromyths and Universal Design, as viewed in the charts above. Howard-Jones continues:

Multiple Intelligences theory has proved popular with teachers as a welcome argument against intelligence quotient (IQ)-based education. . . . Multiples Intelligences theory claims to be drawn from a range of disciplines, including neuroscience. . . . However, the general processing complexity of the brain makes it unlikely that anything resembling Multiple Intelligences theory can ever be used to describe it, and it seems neither accurate nor useful to reduce the vast range of complex individual differences at neural and cognitive levels to any limited number of capabilities.” (818)

As Jack has shown, these charts make what she calls “neuroclaims.” That is, they “reduce complex concepts (often subjectivity or identity) to measurable entities in the brain through reduction” (n.p.). This reduction is dangerous first of all because there is really no scientific basis for such claims—no one has actually studied brain activity during Universally Designed teaching, for instance. But within disability studies, we also know that such claims are most often used to infer deficits. As Melanie Yergeau shows, such a scheme “reduces and restricts social forces to grossly simplified, and often binarized, categories . . . renders real human groups passive . . . captives of geometric shapes and other foul represen-

tations. The circles, rather than autistics themselves, define what autism is and means. . . . Dichotomizing cognitive styles (e.g., between left and right hemisphere, between visual and spatial)” thus “results in theories of hierarchy rather than theories of difference (“Circle Wars,” n.p.).

Erin Manning and Brian Massumi also write that “the neuro is inherently a therapeutic concept contrived with the pathological—which is to say it is guided by an a priori commitment to a presupposed, quantifiable, base-state distinction between the normal and pathological. No matter what kind of philosophical calisthenics are performed around it, the neuron remains profoundly neurotypical” (n.p.). In simpler terms, whenever we are given neuromyths and neurorhetorics, whenever we are given colored brain maps, whenever connections are drawn between types of people, types of thinking, and parts of brains, this is all wrapped up in academic ableism, in ideas about which kinds of brains are normal and the commitment to mark some brains as abnormal, in the desire to place people on steps above and below one another.

If we aren’t maxing out all the different ways our brains might be engaged, then our brains are somehow deficient. The same things might be true for pedagogy: once we begin to sew types of teaching to parts of the brain, how do we untangle this from the harm of deficit-based thinking? Once we link the “moves” of UD to discrete parts of the brain, how do we view students as more than just different colors of minds? How do we advocate for critical approaches to teaching beyond the idea of maxing out all modes of teaching, all of the time?

As Christina Cogdell has shown, for decades there has been a “circular approach, whereby a predetermined notion of types affected [physical anthropologists’ and psychologists’] selections of groups from which norms were then derived and against which individuals were then measured” (192). The use of “representative ‘types’ for different population groups [became] a useful tool [not just for] product standardization [but also] ‘human engineering’” (192). Against this backdrop, we cannot separate the idea that different people use different parts of their brain from the possibility that this is difference that can be used against individuals and groups.<sup>16</sup>

The good thing is that the original UD materials were designed from the beginning with a great amount of rhetorical velocity—they were always aimed at a common shared audience of students and (especially) educators, and designed to be remixed and repurposed (access Ridolfo and DeVoss). So the FAQ about UD that Chicago State University “bor-

rows” from Ohio State University can do useful rhetorical work in this new location. It could also be said that the discourse of UD helps to change the conversation at universities and colleges. While, predictably, legal phenomena like the ADA is mentioned “about 8,400” times on educational sites that also mention UD, “disability rights” is invoked “about 15,300” times on these pages, and that represents a substantial shift from the legal minima and butt-covering that the ADA seems to inspire, to a rights-based, social justice orientation, one that might even link disability rights to other rights and other linked forms of oppression.

But let’s also be realistic. As shown previously, disability services offices are already working above capacity, and may have incentives or restraints, or both, that minimize the supports they can offer and the ways that students might be able to access assistance. Into this mix comes Universal Design: a way to utilize interest convergence to talk about assistance and accommodation without increasing anybody’s caseload and without spending a penny.

For instance, McGill University in Canada suggests: “There are several reasons why Universal Design is the model most Higher Education Disability service providers in North America are turning to. These include the need to manage resources of rapidly expanding service demands, building a more sustainable model of service provision . . .” (n.p.). Those “needs” are basically neoliberal justifications for cutting back on funding, not increasing it. So long as Universal Design continues to be gift-wrapped for higher education administrators as something that is more “efficient” and “sustainable,” then it will be as dangerous as it is useful.

So, now is the moment in the chapter when I am supposed to offer a much more hopeful message. Now I’m supposed to give everyone some small solution or strategy that we can plug into a problem, at least until next semester.

What I would much rather do would be to give teachers some places to actually begin changing the classroom and the syllabus, without delimiting Universal Design or using it to demand a maxing out of modes, without packaging it as a neurorhetoric or mapping it across the brain.

How do we create change when such change can be so quickly and easily problematized? In his book, *The Rhetoric of Reaction*, Albert O. Hirschman suggests that there are three specific ways that people defuse efforts to create change:

1. The futility thesis holds that nothing we do can have much positive impact at all.

2. The perversity thesis suggests that anything we do to help also creates harm.
3. The jeopardy thesis argues that any change we make will likely endanger something else, something already established, something much more important. (ix)

Each of these “reactions” endangers Universal Design. Of course, they endanger progressive (indeed, all sorts of) political action much more broadly. Further, in terms of the ableism of academia, we know that there are forms of apologia, as well as defeat devices that can always be employed to ignore, defuse, or actually reinforce issues of exclusion and discrimination for disabled people. Hirschman finally argues that there are dangers and risks in both progress and intransigence, action and inaction. The risks of both should be carefully considered, and we need to remember that we can never fully predict the impact of anything we do to create change; but we can know that the futility, perversity, and jeopardy theses, the apologia and defeat devices, will almost always pop up to dissuade people from doing anything at all.

So I present UD not as a grand solution that can be neatly packaged, but in fact as a variety of teaching strategies, each of which might be a good solution in the classroom but might just as well create what Hirschman would call “perversity” or “jeopardy” or what Margaret Price calls “conflicts of access” (“Access” n.p.). That is, the strategy we use to make engagement more accessible for one student could be experienced as profoundly limiting for another. Moreover, often the demand to make a class accessible can be experienced as conflicting with a teacher’s access needs. Each of these conflicts should also be seen as a space in which “accesses engage” with one another rather than just colliding, as Dale Katherine Ireland reminds us.<sup>17</sup> This provides an opportunity to rethink the space, time, and infrastructure in which these conflicts arise (n.p.). In a document housed on the University of Michigan Press website for this book, then, I offer an exhaustive list of UD “places to start.” Teachers can begin with any one of these suggestions, bring them into the classroom, and understand how they meet, collide with, or engage student needs, modes, literacies, styles of learning, and abilities. Any of these strategies may endanger other academic values. But as I have been arguing throughout the book, those values may need to be endangered.

