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## Universal Design and Its Discontents

Richard H. Godden and Jonathan Hsy

This collaborative essay offers two perspectives on disability and universalism in the fields of Digital Humanities (DH) and Universal Design (UD). One of the authors, Richard H. Godden, considers how a particular experience of disability shapes his use of media and also informs his reactions to proscriptive statements about the use of technology; the other author, Jonathan Hsy, writes as a nondisabled ally who considers some of the discursive and practical complications that arise in efforts to make the web more accessible to people with disabilities. While we each come from different perspectives, both of us seek to interrogate what it exactly means for a community to establish a set of "best practices" for the use of technology, and we both reveal how even the most well-intentioned universalist discourses can risk effacing crucial particularities of embodied experience.

Richard H. Godden: As an entry point to my reflections on Universal Design, I want to first think about some of the ways that Digital Humanities (DH), Disability Studies (DS), and Universal Design (UD) productively converge using recent discussions about the physical act of hand-written notes as an opening example. This is not unusual in a bid to consider the necessity of

UD; however, I also want to use this example in order to begin to disorient some of our understandings of UD. Although UD arose out of a real social and political response to the disabling aspects of everyday life for People with Disabilities, I want to suggest that the "Universal" in UD can carry with it some unintended and unexpected assumptions about normalcy and our physical orientation to the world.

Over the last few years, it has become a regular occurrence to see someone post on social media about a study concerning student note-taking. You know the one. Studies have confirmed, it would seem, that the pen has slain the keyboard. One such article from www.sciencenews.org begins "When it comes to taking notes, the old-fashioned way might be best." I will come back to this old-fashioned-ness in a moment. The article then goes on to say "People taking notes on laptops have a shallower grasp of a subject than people writing with their hands, and not just because laptops distract users with other activities such as web surfing, the new study suggests." I am not a scientist, so I am not going to fully challenge the ultimate findings of this study in this space.3 What has me so irritated, though, is the often triumphant (explicit or implicit) attitude on display when people post such articles. Additionally, there is also often a sense of relief, or of "I told you so." I understand the nostalgia people feel for physical books and for pen and paper. There is enormous pleasure to be had in the tactile engagement with such storehouses of knowledge. The only problem, however, is that I am often excluded from such pleasures. A book sitting on my shelf in my office might as well be a continent anyway.

The short articles that I repeatedly see posted on the subject focus on the superiority of old-fashioned technologies versus

<sup>1</sup> Laura Sanders, "Students Retain Information Better with Pens than Laptops," ScienceNews: Magazine of the Society for Science and the Public, 30 April 2014.

<sup>2</sup> Ibid.

<sup>3</sup> For a preliminary discussion of the potentially flawed nature of the study, see Kevin Gannon, "Let's Ban the Classroom Technology Ban," The Tattooed Professor, 15 May 2016.

newer digital tools. However, and unsurprisingly, looking at the actual study that spawned these articles tells a slightly different tale. In a recent issue of Psychological Science, Pam A. Mueller and Daniel M. Oppenheimer, in an article called "The Pen is Mightier than the Keyboard," conclude that students taking notes longhand do better in terms of knowledge retention than their laptop using peers, even when the distracting qualities of web surfing and other forms of multitasking are controlled for. The difference, perhaps counterintuitively, is that laptop users can record information faster. Because of this, they tend to transcribe almost verbatim what they hear, and this becomes a mindless task. Longhand note-takers, on the other hand, must be selective, and therefore end up processing information better. As Mueller and Oppenheimer state at the close of their article, "Although more notes are beneficial, at least to a point, if the notes are taken indiscriminately or by mindlessly transcribing content, as is more likely the case on a laptop than when notes are taken longhand, the benefit disappears."4

Now, I must admit to being somewhat unfair. Not everyone who recently posted this article, or variations of it, were doing so in the hopes of validating their own technological preferences. And, I should note that the initial article that I began discussing does acknowledge, albeit at the very end, that the issue is how information is processed and not the actual tool being used. What I take issue with, for the moment, is the title of the original article ("The Pen is Mightier Than the Keyboard") and the article's reference to "old-fashioned." The real heft of the original study focuses on information processing, but the advertising focuses on a binary between new and old, between the physical and the digital. When someone suggests that the "old-fashioned" is best, they are not only professing a preference for a physical book over a Kindle or iPad, but they are also revealing an anxiety about or suspicion toward the unavoidable ramifica-

<sup>4</sup> Pam A. Mueller and Daniel M. Oppenheimer, "The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking," *Psychological Science* 25, no. 6 (2014): 1159–68, at 1166.

tions of the digitization of knowledge. But what they are also doing, whether intended or not, is participating in "compulsory able-bodiedness," where "normal," "best," and "able-bodied" ultimately occupy the same subject position.<sup>5</sup>

Another article that has made the social media rounds, sometimes with affirmation and at times with consternation, is Adam Kirsch's "Technology Is Taking Over English Departments: The False Promise of the Digital Humanities" in The New Republic. (Never mind that I read this piece because it is posted to the magazine's website.) After surveying and critiquing (sometimes justifiably) the triumphant tone that often accompanies Digital Humanities, Kirsch offers the following appraisal in his next-tolast paragraph: "The best thing that the humanities could do at this moment, then, is not to embrace the momentum of the digital, the tech tsunami, but to resist it and to critique it. This is not Luddism; it is intellectual responsibility. Is it actually true that reading online is an adequate substitute for reading on paper? If not, perhaps we should not be concentrating on digitizing our books but on preserving and circulating them more effectively. Are images able to do the work of a complex discourse? If not, and reasoning is irreducibly linguistic, then it would be a grave mistake to move writing away from the center of a humanities education."6 There are many things going on here for Kirsch. One is certainly a nostalgic embrace of the old-fashioned, veiled in the trappings of "intellectual responsibility." More troubling to me, however, is the insistent refusal to engage with questions of accessibility. We can curate books and circulate them more, but does that always help the physically disabled? And, aside from the alarmist notion that writing is going to be removed from the humanities curriculum, what about the fact that multimodal objects may be a great help to some students who

<sup>5</sup> See Robert McRuer, "Compulsory Able-Bodiedness and Queer/Disabled Existence," in *Disability Studies: Enabling the Humanities*, eds. Sharon L. Snyder, Brenda Jo Brueggemann, and Rosemarie Garland-Thomson, 88–99 (New York: Modern Language Association of America, 2002).

<sup>6</sup> Adam Kirsch, "Technology Is Taking Over English Departments: The False Promise of the Digital Humanities," New Republic, 2 May 2014.

process information differently, and therefore feel excluded by linguistic-only expression? Within his nostalgic move he also expresses a normate position, thinking that we all learn, process, and engage the world in the same way.<sup>7</sup> What is good for Kirsch is good, apparently, for the rest of us.

Snark aside, "old-fashioned" often stands in for a wistful invocation of privilege, be it gendered, racial, or ableist. Kirsch articulates a sense of "best practices," and in doing so enshrines a particularly privileged orientation. If taking notes longhand is better for student retention than typing, then, the logic goes, professors and universities are correct to limit or ban laptops in the classroom. As a teacher, I too am concerned by the problematic qualities of laptops for student use, but as someone who is disabled, I know that if such a policy were in effect when I was a student, I would need to be an exception because handwritten notes are simply not something that I can do. My body works differently.<sup>8</sup>

As a corrective to such a retreat to the "old-fashioned" Humanities, I would look to George Williams, who, in his "Disability, Universal Design, and the Digital Humanities," observes that "Digital knowledge tools that assume everyone approaches information with the same abilities and using the same methods risk excluding a large percentage of people. In fact, such tools actually do the work of disabling people by preventing them from using digital resources altogether." To address this exclusion, Williams advocates that the field of Digital Humanities adopts the principles of Universal Design. As is widely known, up began as movement in architecture. Ron Mace developed

<sup>7</sup> For my use of the term, "normate," see Rosemarie Garland-Thomson, Extraordinary Bodies: Figuring Physical Disability in American Culture and Literature (New York: Columbia University Press, 1997), 8–10.

<sup>8</sup> For a fuller discussion on laptop bans and accessibility in the classroom, see Anne-Marie Womack and Richard H. Godden, "Making Disability Part of the Conversation," *Hybrid Pedagogy*, 12 May 2016.

<sup>9</sup> George Williams, "Disability, Universal Design, and the Digital Humanities," in *Debates in the Digital Humanities*, ed. Matthew K. Gold, 202–13 (Minneapolis: University of Minnesota Press, 2012), 202.

"the concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life."10 Williams points to an oft-cited example, the sidewalk curb cut: "initially created to allow people in wheelchairs to cross the street more easily, curb cuts became recognized as useful also to other people such as someone making a delivery with a dolly, a traveler pulling luggage on wheels, a parent pushing a child in a stroller, or a person walking beside their bicycle." While not an architect, as the user of a power-wheelchair I've experienced firsthand how significant UD can be for the built environment that I must navigate on a daily basis. For example, an out-ofthe-way ramp leading from a university quad up to the rest of the campus can be frustrating and problematic and laborious, compared to the entire walkway being turned into a gently sloping ramp that is better for everyone.

I very much agree with Williams, and I think that he makes several important and necessary interventions into Digital Humanities. However, while the nostalgic (and ultimately hierarchical) expression of normativity we see in Kirsch's call to arms seems to stand in direct contrast to the more open principles of UD, I want to suggest that both positions engender a sense of "best practice" that could obscure the specific sociopolitical and embodied orientation of an individual user. For the remainder of this essay, I want to consider further the ramifications of the call toward a design principle that speaks to and accommodates the maximum amount of people.

In his critique of UD, Rob Imrie interrogates what he describes as "the philosophical basis of UD, that is, the universalistic rationalism of enlightenment philosophy." In this analysis,

<sup>10</sup> This is Ron Mace's definition as provided by the Center for Universal Design at North Carolina State University. See "About the Center: Ronald L. Mace," Center for Universal Design, http://www.ncsu.edu/ncsu/design/cud/about\_us/usronmace.html.

<sup>11</sup> Williams, "Disability, Universal Design, and the Digital Humanities," 205.

<sup>12</sup> Rob Imrie, "Universalism, Universal Design and Equitable Access to the Built Environment," *Disability and Rehabilitation* 34, no. 10 (2012): 873–82,

UD would share some philosophical perspectives with the Enlightenment views of the universal subject. At first glance, then, this seems like a surprising avenue of analysis for Imrie. Much of the important work that Disability Studies scholars have undertaken is to dismantle the Enlightenment subject, revealing how its status as whole and independent is illusory. Lennard Davis, for example, introduces the idea of Dismodernism as a challenge to just such a subject position. In charting the terrain of a Dismodern orientation, Davis argues "[i]mpairment is the rule, and normalcy is the fantasy. Dependence is the reality, and independence grandiose thinking. Barrier-free access is the goal, and the right to pursue happiness the false consciousness that obscures it."13 He then argues that "Universal design becomes the template for social and political designs."14 Although Williams does not specifically cite the work of Davis, I would argue that Dismodernism and UD are philosophical cousins. Both approaches seek to universalize disability as opposed to treating it like a particular. As Williams describes of UD, "Devoting efforts to accessibility might improve the built environment for disabled people, but devoting efforts to universal design improves the built environment for all people."15 Something built specifically for the disabled might be prohibitively costly and aesthetically displeasing, whereas something built for everyone, both able-bodied and disabled, will be accessible and preferable to the maximum amount of people. Similarly, Davis has famously argued that normal parking ought to be viewed as a subset of handicap parking, and not the other way around. Therefore, accessibility becomes the norm, the universal, not the exception or specific instance.

Universal Design, like any principle or system, has both positive (often intended) and negative (often unintended) outcomes. In terms of positive outcomes, UD, according to Imrie, should

at 879.

<sup>13</sup> Lennard J. Davis, Bending over Backwards: Disability, Dismodernism, and Other Difficult Positions (New York: New York University Press, 2002), 31.

<sup>14</sup> Ibid

<sup>15</sup> Williams, "Disability, Universal Design, and the Digital Humanities," 204-5.

be viewed "as distinctive to conventional development and design philosophies and processes, which are otherwise seen as hierarchical and insensitive to the variations in human capabilities to interface with, and use, different features of the designed environment." Further, as Imrie continues to observe, "UD rejects design that fails to respond to, and interact with, everyone irrespective of their socio-cultural status and bodily capabilities and capacities." While maximum accessibility is a laudable goal, in practice UD often fails to attend to the particular as it espouses the universal. As an example, he describes an instance of a wheelchair-user unable to use a hydraulic lift on a bus. This particular user wished to board forward because she was not able to do so backward, whereas the bus driver insisted the user could only board backward. While policies existed to allow citizens to board in either direction, the driver insisted on one particular direction, and this slowed down the overall progress of the bus, creating a tense and frustrating social experience. The design was, in theory, a good one — a bus is made accessible to all by the addition of a ramp, but the highly individualized experience of a particular user and her own social and physical situatedness unexpectedly made this design untenable. In other words, the theory appears to be sound in principle, but in practice the drive for universalism obscures the embodied particularity of individuals.

Another relatively recent example of unexpected outcomes would be the Reachability feature introduced on the iPhone 6 and iPhone 6 Plus. Because of the screen size of the Plus, Apple developed this feature where two light taps on the home button will bring the top half of the screen down to the bottom half. The problem that this feature addresses is the fact that, even for able-bodied consumers, this screen on the Plus was too big for a user to navigate one-handed. This seems to me like an excellent example of UD in action—this feature is not only useful

<sup>16</sup> Imrie, "Universalism, Universal Design and Equitable Access to the Built Environment," 879.

<sup>17</sup> Ibid.

to someone using the bigger phone, but it can also be useful to a disabled user even on the smaller phone, as it can often be difficult for someone with a physical impairment to reach the top of the screen if they are holding it near the bottom. But, in my own very specific situation, I'm not always able to bend my head downward comfortably, and so sometimes my line of sight for the lower half of the screen might be obstructed. This is a highly specific and I am sure unanticipated problem with this particular functionality. I raise this only to suggest that while UD is far, far preferable to the head-in-the-sand quality of Kirsch and others, both orientations toward technology evince surprisingly similar limitations when it comes to the highly localized experience of embodied difference. Kirsch expresses a normative, privileged position, whereas UD proponents express a universalism (objects used by all, able-bodied and disabled), yet, despite these differences both perspectives have the capacity to overlook the ways that the distinctiveness of sociocultural embodiment can affect usability.

In closing this essay, I want to briefly interrogate the utopian promise of technology, especially as a fundamental quality to UD (and Digital Humanities). In Imrie's critique of UD, he notes that the "focus on technical innovation may underestimate how far design outcomes are dependent on use and fail to recognize that far from technology being a prop of/for social action, it is influenced, and mediated, by its emplacement in specific social and cultural contexts." Imrie's example of the wheelchair-user boarding a bus speaks to the ways that use can fail in practice. Closer to the world of Digital Humanities, Dominika Bednarska offers an example concerning blind students using assistive technology that raises some important questions that all advocates for People with Disabilities need to consider. Although Bednarska is writing about the limitations of technology and not specifically about UD, I do think that her cautions are salient. She argues that "[a] greater emphasis on technology can often overlook the drawbacks of technological reliance [...]. A focus

<sup>18</sup> Ibid., 877.

on these technologies as primary or exclusive means for solving accessibility issues also makes prior accommodations and accessibility modifications less available."19 To illustrate this, she examines how voice recognition software for the visually impaired could be seen to eliminate the need for assistants and note-takers. This is, in fact, one of the great benefits of assistive technology and UD - by building environments, physical and digital, that provide barrier-free access, then People with Disabilities can function more independently, and with less reliance on other people. As someone with a disability, I feel deeply and urgently the need to be less reliant on other people, but sometimes existing technology can be inadequate—it can break down, be unreliable, or may just be a poor substitution for human help (even if I don't want that help). Bednarska relates how, at her own institution, the University of California at Berkeley, funding for disabled students to have assistants became more restricted and limited because of the promise of available technologies. So, a student who did in fact work best with someone providing note-taking services would need to first demonstrate that available technologies were inadequate. This can provide an unnecessarily difficult bar to clear for some.

While my above discussion does articulate some ways that the effects of Universal Design may run counter to its hoped for aims, I am not suggesting a firm rejection of UD as it is applied to DH. However, I do think we need to move forward by balancing the Universalist and utopian aims of UD with a more local, attentive approach to individual use. As Imrie would describe it, advocates for UD need to specify how we conceive of the universal and the particular in terms of design.<sup>20</sup> As a medievalist also working in the field of Disability Studies, I have been trained to look for the particular and the local, the anomalous and the perplexing. In contrast with Davis's sweeping notion of

<sup>19</sup> Dominika Bednarska, "Rethinking Access: Why Technology Isn't the Only Answer," in *The Culture of Efficiency: Technology in Everyday Life*, ed. Sharon Kleinman, 158–69 (New York: Peter Lang, 2009), 160.

<sup>20</sup> Imrie, "Universalism, Universal Design and Equitable Access to the Built Environment," 879.

Dismodernism where disability stands in for the postmodern subject, Rosemarie Garland-Thomson describes the "extraordinary bodies" of the disabled,21 and in my own field of medieval literature, Christopher Baswell has referred to nonstandard bodies as "eccentric." 22 Eccentric and extraordinary bodies have the potential to puncture the illusion of the universal that UD champions, disorienting and, more importantly, reorienting how we conceive of access and equality. Williams himself cites the work of Garland-Thomson in his work on UD, and I do think that his analysis attends to the particular in better ways than the more architecture-based UD that Imrie critiques. For example, Williams encourages a reciprocity between user and designer, arguing that "by working to meet the needs of disabled people — and by working with disabled people through usability testing — the digital humanities community will also benefit significantly as it rethinks its assumptions about how digital devices could and should work with and for people."23 In response, I would suggest that the goals that animate UD should be and will continue to be a powerful principle in DH, but such a design principle needs to accompany, not supplant, the attention to the particular. Reciprocity could mean mutual care, of and for each other, but it should not need to flatten us out into a universal subject in the process.

Jonathan Hsy: In my reflections, I'd like to interrogate the role of overtly utopian discourses in Universal Design (UD) endeavors and the Digital Humanities (DH). Like any other collective movements, both UD and DH offer dreams of world-transformation that can, at times, enact proselytizing (if not activist) impulses. Both UD and DH advocates often invoke an unrealized and idealized conception of collective space (physical or

<sup>21</sup> Garland-Thomson, Extraordinary Bodies, 5-9.

<sup>22</sup> Baswell uses this term in a series of talks. See Christopher Baswell, "The Felicity Riddy Lecture: Kings and Cripples: Royal and Eccentric Bodies in Thirteenth-Century England" (lecture, University of York, 25 November 2010).

<sup>23</sup> Williams, "Disability, Universal Design, and the Digital Humanities," 210.

online) in order to challenge dominant beliefs and practices and to encourage people to join in a newly reconfigured sense of common purpose.

In her analysis of UD discourses in the US, media theorist Jane Bringolf explains that the "vision for [UD] is to cultivate the creative minds of designers to consider the whole of the population bell curve in their designs."24 Designating not so much a discrete goal but a "Utopian ideal," UD "is posed as an intellectual challenge for designers" or people developing other projects and products.25 While the term "Universal Design" was coined in the us by architect and designer Ron Mace and originally applied to the configuration of physical space, UD has since broadened to include online media and digital environments.26 In Europe, UD is more commonly called "Design for All," while in the UK the term "Inclusive Design" is preferred.<sup>27</sup> While all these terms differ slightly, Bringolf observes that "the same underpinning concept" underlies each one: the drive to "[design] for the whole of the population bell curve" and to "[create] maximum utility for the maximum number of people regardless of age, culture, and education or ability level."28

These ideals are wonderful in theory, but there are some unanticipated drawbacks to UD discourses as they inform actual practice. Do UD endeavors in their efforts to embrace the totality of all humanity actually seek to accommodate difference or rather to eradicate it? Mainstream UD discourses, especially as appropriated by designers in technology companies in the Us, have a tendency to render UD synonymous with the creation of "accessibility features" and other kinds of products to be used by people with disabilities. For instance, a mobile phone's capac-

<sup>24</sup> Jane Bringolf, "Universal Design: Is It Accessible?" Multi: The RIT Journal of Plurality and Diversity in Design 1, no. 2 (2008): 45–52, at 47.

<sup>25</sup> Ibid.

<sup>26</sup> Carlos Nunes Siva, "Universal Design," in *Green Cities: An A-to-Z Guide*, eds. Nevin Cohen and Paul Robbins (Thousand Oaks: sage Publications, 2011), 433–6.

<sup>27</sup> Bringolf, "Universal Design," 48.

<sup>28</sup> Ibid.

ity for voice dictation and or tactile magnification of text may be touted as "accessibility features" for people who are blind or visually impaired, but *nondisabled* people readily use such features too. Bringolf notes that a pervasive discursive practice of casting "accessibility" as a *subset* of UD (or even conflating "accessibility" and UD entirely) limits the scope of UD's original intent. In its broadest sense, UD promotes much more than creating a "special subset" of accommodations for disabled people but rather embraces a capacious orientation toward design that might work for as many people as possible, disabled and non-disabled alike.

To rework Bringolf's arguments a bit, I wonder if a general discursive tendency to conflate UD with narrower discourses of "accessibility" risks enacting the reverse of what UD initially envisions. Rather than attending to embodied variance as a way to multiply and sustain diverse modes of interaction with physical or digital environments, a narrowly conceived notion of UD as a set of separate (or supplemental) "accessibility features" conceives the challenge of UD as one of integrating disabled people into an existing set of nondisabled norms.

The complex operations of universalist discourses in promoting DH projects offers another example of how utopian thinking has the potential for unanticipated drawbacks insofar as they can reinforce a set of "best practices" that in itself asserts a new normative force. In arguing that information be made available to everyone through digitization efforts and other online media, DH endeavors can invoke a dream of a shared repository of knowledge that anyone can use, or (to adapt various UD discourses) such discourses suggest an idea of fully "inclusive content" or "scholarship for all" in a grand vision of public "outreach" and collective participation.<sup>29</sup> George Williams justifiably observes that "people with disabilities will benefit significantly

<sup>29</sup> See, for instance, the online discussion hosted by HASTAC Scholars Bridget Draxler, Jentery Sayers, Edmond Y. Chang, and Peter Likarish, titled "Democratizing Knowledge in the Digital Humanities: Making Scholarship Public, Producing Public Scholarship," HASTAC, 21 September 2009.

if the digital humanities community pursues projects [that] take seriously the need to adopt universal design principles." While such discourses are earnestly striving to respect human diversity and embodied variation, a future-oriented utopianism articulates an under-examined desire for some conformity (or alignment with, or participation along) a shared baseline: a set of collective values, "best practices," or shared cultural expectations.

As a medieval literature scholar, one way I try to think about this tension between an imagined universalism and the messiness of embodied diversity is through literary fiction. Fictional works often express cultural hopes or desires while also promoting a political ideology, whether or not that ideology is overtly disclosed. The Book of John Mandeville (most likely first composed in French the mid-fourteenth century) was a medieval "bestseller" with wide appeal: it was translated into Latin and many European vernacular languages and enjoyed a long life in many manuscripts and print media. Part pilgrimage manual, travel narrative, and proto-ethnography, the work narrates an English knight's journey from home to the Holy Land and back again, and along the way the narrator moves through diverse social environments. One modern translator describes the work as a "mash-up" or dynamic "recombination of sources [...] characterized by a shifting mix of genres,"31 with its narrator breathlessly announcing his travel across "many countries and many different provinces and many different regions and different islands" and "many different peoples with diverse laws and diverse customs,"32 including social groups of varied religions, languages, races, genders (including hermaphrodites), and other extraordinary modes of embodiment.

Despite its clear discursive interest in (if not desire for) embodied diversity, Mandeville's *Book* transmits its own fantasies of universalist polity. A prologue makes a call to "reclaim the

<sup>30</sup> Ibid.

<sup>31</sup> Iain Macleod Higgins, ed. and trans., *The Book of John Mandeville: With Related Texts* (Indianapolis: Hackett, 2011), xi.

<sup>32</sup> Ibid., 5.

[Holy Land] and wrest it from the hands of the foreigners" (i.e., Muslims) and a chapter on "Saracen" beliefs, emphasizing what beliefs they share with Christians, transmits the fantasy that they can be easily converted and assimilated into a Christian worldview.<sup>33</sup> Such modes of thinking were not without precedent in the medieval West, tracing themselves back to a Biblical passage asserting that "there is no longer Jew or Greek, there is no longer slave or free, there is no longer male and female; for all of you are one in Christ Jesus" (Galatians 3:28). This formative passage of Scripture discursively embraces divergent modes of difference (cultural, linguistic, gendered) but only to assert an ardent wish for oneness of shared social belonging (in this case, a Christian universalism).

There's a vast historical chasm between the medieval West and modern digital contexts, but I would suggest that UD, like Mandevillean discourse, has a clear eschatology (an ultimate destination for networked humanity) — and its arrival is alwaysalready deferred. If we just take the example of a website as a project that could enact UD principles, it's hard to imagine that one user interface could be equally accessible to everyone across every human language (spoken, written, or signed), every form of media, and every form of embodied variance (sensory, motor, cognitive). Joe Clark, a journalist and author specializing in media technologies intended to make information accessible to people with disabilities (such as captioning and audio description), contends in a provocative blog posting that UD is a myth.34 I might reshape Clark's observation to say that UD is a motivating fiction or tantalizing impossibility: a unicorn, Holy Grail, earthly Paradise, pick your metaphor. In its association with temporal deferral, UD suggests a close association with the very concept of disability as unrealized futurity. As cultural critic and theorist Robert McRuer has astutely noted, disability is not a "special" category or subset of humanity but a "spectral" prospect that haunts us all: "If we live long enough, disability is

<sup>33</sup> Ibid., 4.

<sup>34</sup> Joe Clark, "Universal Design Is a Myth," *fawny.blog* (blog), 15 October 2009.

the one identity that we all inhabit."<sup>35</sup> In its deferred arrival, UD can be considered, like disability itself, an intellectual and theoretical concept that evinces an elusive futurity: a prospect that is always receding on the horizon.

This notion of deferred futurity informs how mainstream social justice discourses of access and inclusion can reassert notions of a shared norm or space even as they acknowledge the attractive vitality of the very idea of sustaining social and embodied variety. The engaging Accessible Futures workshop series held at five different universities from 2013 through 2015 embraced a utopian discourse with the laudable mission to educate DH practitioners in how to make their projects accessible to internet users who have disabilities.<sup>36</sup> This series of workshops sponsored by the Office of Digital Humanities (ODH) at the National Endowment for the Humanities (NEH) has brought together scholars, archivists, and design practitioners to address disability and access issues relating to DH projects. Having attended one iteration of the series on February 28–March 1, 2014, at the University of Texas-Austin, I can say these workshops (and its associated website) are informative, lucid, and productive. Perhaps in line with the expertise of the organizers Jennifer Guiliano, George Williams, and Tina Herzberg, most of our time in the Austin workshop addressed improving the accessibility of websites for people with visual impairments, and we considered strategies for incorporating captions and alt-tags for images as well as ensuring that website architecture can be read and navigated by people using screen readers that voice online text

<sup>35</sup> Robert McRuer, Crip Theory: Cultural Signs of Queerness and Disability (New York: New York University Press, 2006), 200.

<sup>36</sup> According to the Accessible Future website: "Building an Accessible Future for the Humanities Project is organizing four 2-day workshops during which participants will learn about technologies, design standards, and accessibility issues associated with the use of digital environments." See Accessible Future, http://www.accessiblefuture.org.

aloud.<sup>37</sup> One session included an audit of various DH projects to discuss how well they integrated such accessibility elements.

One of the websites we discussed was the Deaf Studies Digital Journal or DSDJ, founded in 2009 and published by the ASL [American Sign Language] & Deaf Studies Department at Gallaudet University in Washington, DC.38 What makes this online publication so intriguing as a "case study" is the how the use of non-textual digital media shapes its linguistic and cultural content. ASL is a fully expressive language with as much potential as any other spoken language for artistic and intellectual expression, and DSDI is the first peer-reviewed academic and creative arts journal to use ASL for all of its content (it also publishes some material in English, as I will discuss below). Since ASL is inherently a kinetic language that uses embodied actions including manual gestures and facial expressions for its grammar, recorded video clips in Adobe Flash Player are crucial for the presentation of ASL content. The embodied physicality of sign language perhaps lends an unintended meaning to the word "digital" in the journal's English title — suggesting first the electronic or online medium of the publication and secondarily a "spectral" reference to fingers and the embodied labor visually showcased in the videos themselves. An online video produced by Deaf scholars Jill Bradbury and Tyrone Gioradano (debuted at the #TransformDH conference at the University of Maryland in October 2015) explores facets of Shakespeare performance in ASL and addresses the historical exclusion of Deaf people from sound-centered forms of theater and scholarship, and video - presented online with English captions and a full online transcript and description of its visual contents — deftly exploits the manifold valence of the "digit" in its pluralized title *Digit(al)* Shakespeares.<sup>39</sup> DSDJ and other digital media such as the Digit(al)

<sup>37</sup> For an excellent overview of the Austin workshop, see Susan Floyd, "Thinking About Accessibility: Accessible Future 2014 at UT-Austin," *Texarchivist* (blog), 14 March 2014. See also Floyd's writing on Twitter (@Texarchivist).

<sup>38</sup> See Deaf Studies Digital Journal (DSDJ), http://dsdj.gallaudet.edu.

<sup>39</sup> See Digit(al) Shakespeares, http://transformdh.org/2015-video-showcase/ digital-shakespeares-tyrone-giordano-and-jill-marie-bradbury.

*Shakespeares* project increasingly provide expanded opportunities for Deaf communities to connect with each other within the US and across the globe.

In a technological gesture towards universality, *DSDJ* displays a number of important strategies for reaching different kinds of people including Deaf communities beyond the Us. It provides abstracts (summaries) of each contribution, most often presented in sign language by the author. Some, but not all, of the content features a downloadable PDF presenting the equivalent content in English (other times the site features a previously published English-language article now translated into ASL). *DSDJ* also includes academic contributions in sign languages around the world such as International Sign (IS), a conventionalized transcultural Deaf contact language used in contexts where people use mutually unintelligible sign languages. By incorporating sign languages beyond ASL, the journal's content is made at least partially accessible to Deaf users around the world who might not use ASL or written English.<sup>40</sup>

An intriguing aspect of the group discussion of DSDJ in the Accessible Future workshop in Austin in 2014 was the sense that the lack of audio or captions in these videos make the content "inaccessible" by one set of embodied norms (that is, a set of UD principles that would call for embedded features for internet users who have visual impairments). As I reflect on this conversation afterwards, I have come to realize that the uneven media functionality of the journal suggested a discomforting social reality for those of us who were present at that particular workshop: much of the content of this Deaf-oriented journal was at the time rendered inaccessible to a hearing majority (or, to put things more precisely, the online journal's content was only partially accessible to non-ASL users).

The question of whether an ASL journal *should* provide equivalent English-language content for all its material is com-

<sup>40</sup> Peter C. Hauser's article, "Deaf Eyes: Visual Learning and Deaf Gain," DSDJ 2 (Fall 2010), is presented by the author in ASL as well as Is. As of 2 February 2018, the PDF of an English language translation is forthcoming.

plex not only for its sociopolitical ramifications but also in terms of the labor and logistics involved: captioning content for any video requires more than mere transcription of language (as would be the case in videos using spoken languages); these particular videos require a process of translation from ASL into written English that necessitates a close engagement with Deaf culture. In some cases, a link to a PDF with equivalent English text or at least an informative summary in English is provided as a link beside the video, but the question of how (or if) the online journal can provide non-ASL users with access to all of its ASL content (especially ASL poetry) is a more challenging prospect.41 As a hearing person with only some basic knowledge of ASL, I find it intriguing that an extensive commentary on an academic article about audism or "audiocentric privilege" does not provide a link to a PDF of the commentary that I can read in written English (perhaps one in the future might be provided).42 In this case, the current user interface appropriately forces me to confront my own audiocentric (and Anglophone) privilege and I find myself navigating an online linguistic environment that is only unevenly or partially configured for my use.<sup>43</sup>

In my reflections on the utopian prospects of UD and its unintended limits or exclusions, I hope to encourage a more nuanced orientation to disability and embodied diversity as we continue to create, rework, engage, and critique DH projects. We need more flexibility in how we conceive of UD and not assume a unidirectional delivery or translation of content, information, or experience. It's attractive to maintain a utopian dream of some "universal design concept" that could bring all kinds of

<sup>41</sup> For instance, Justin Jackerson's ASL poem "uses handshapes of the letters within the name 'Gallaudet University' twice [to tell] the fast paced experience of being a student at Gallaudet." See "Gallaudet University," DSDJ 4 (Spring 2014).

<sup>42</sup> Amy June Rowley and Richard Eckert, "Audism: A Theory and Practice of Audiocentric Privilege," *DSDJ* 4 (Spring 2014).

<sup>43</sup> For an excellent disability-centered analysis of the uneven accessibility of digital media, see Elizabeth Ellcessor, Restricted Access: Media, Disability, and the Politics of Participation (New York: New York University Press, 2016).

embodied variance into one shared physical space or digital environment, but we should be more careful about the presumed set of cultural and embodied norms and "best practices" that such initiatives might unthinkingly promote.<sup>44</sup> A multidirectional approach to how we all engage with digital media and content can open up both the U and the D in new ways—and humanist engagement with the arts, rhetoric, and critical theory must continue to play an active role in shaping these endeavors.

## Concluding thoughts

The two essays assembled here, one by a disabled user of various types of assistive technology and the other by a nondisabled ally who engages with aspects of Deaf culture, bring together particular sets of embodied experience in order to probe and interrogate the assumptions and inhibiting freight that the "Universal" in "Universal Design" draws in its wake. In our critical evaluations of UD, we share several conclusions and concerns with the contributors to the webtext Multimodality in Motion: Disability and Kairotic Spaces, and we wish to close this essay with a brief discussion of the important insights they articulate.45 In their opening "Access Statement," Yergeau et al. immediately acknowledge that "Universal design is a process, a means rather than an end. There's no such thing as a universally designed text. There's no such thing as a text that meets everyone's needs. That our webtext falls short is inevitable."46 They go on to caution that the inevitable failure of UD "is not a justification for failing to consider what audiences are invited into and imagined as part of a text."47 Rather, the recognition of failure at the heart

<sup>44</sup> On the conceptual limitations to "technology-led" approaches to UD and disability in the context of physical space, see Imrie, "Universalism, Universal Design and Equitable Access to the Built Environment."

<sup>45</sup> Melanie Yergeau et al., "Multimodality in Motion: Disability and Kairotic Spaces," Kairos: A Journal of Rhetoric, Technology, and Pedagogy 18, no. 1 (2013).

<sup>46</sup> Ibid.

<sup>47</sup> Ibid.

of Universalist paradigms can enable us to attend more closely to the particular embodied orientation of users and stakeholders. We would embrace this emphasis on process over product, on becoming and emergent technologies over closed systems of top-down provisions for accommodation. While we agree that Universal Design is an unachievable goal, we would go further and argue that the goal itself is problematic and ultimately inadequate to the continuously evolving situation of not only the inclusion of more and more disabled/extraordinary/eccentric bodies into "normal" society but also the ever-shifting able-ness of any body as it moves toward inevitable failure.

In his section "Over Here" in Multimodality in Motion, Michael J. Salvo discusses a possible successor to UD, the concept of Resonant Design as developed by Graham Pullin. As Salvo describes it, Resonant Design "offers designers and culture-atlarge a phrase for the kind of responsive, use-centered, stakeholder-involving, context-sensitive artifact creation methods [Pullin] advocates."48 Yet, while being more responsive to difference than UD, Resonant Design itself is an illusory goal because it "does not explore the potential contribution to culture that would come from further interrogating the relationships that make society a powerfully disabling force, limiting to physical, social, and lifeworld potentials for millions. In other words, it calls for change without fully recognizing how disruptive the needed changes may be."49 For Salvo, the inadequacy of Pullin's model lies in its failure to reconfigure the terms by which society defines normality, simply putting embodied difference at the center as opposed to the margins. However, we would contend that substituting Universalism (despite its potential for inclusiveness) for normativity would achieve less than what we expect or desire, and such a principle of design would similarly fail to cause any significant or re-orienting disruption. We would advocate the continued emphasis of multimodality and multi-

49 Ibid.

<sup>48</sup> Michael J. Salvo, "Resonant Design," in "Multimodality in Motion."

directionality in DH endeavors, and to do so we may need to abandon the aims of Universalism.

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