



A Case Study in Mitigating COVID-19 Inequities through Free Textbook Implementation in the U.S.

SPECIAL COLLECTION:
LEARNING FROM
LOCKDOWN

ARTICLE

KATHERINE WILLIAMS

ERIC WERTH

**Author affiliations can be found in the back matter of this article*

]u[ubiquity press

ABSTRACT

COVID-19, in addition to disrupting the global education system in general, is widening the economic and racial gaps institutions have spent years trying to address. The economic reality is that students who work to support themselves, their families, and purchase educational materials needed to succeed have been disproportionately harmed. This article discusses how the global COVID-19 pandemic is compounding structural inequities inherent in higher education. This requires faculty to reevaluate their role as agents of change in a world that is fundamentally different than it was a short time ago. The experience of one liberal arts institution in the U.S. who moved all courses to free materials in under six months will be recounted as an example of what is possible during extraordinary circumstances if students are truly prioritized during strategic planning.

CORRESPONDING AUTHOR:

Katherine Williams

University of Pikeville, US

KatherineWilliams@upike.edu

KEYWORDS:

COVID-19; Academic Inequity;
Open Educational Resources;
Institutional Response

TO CITE THIS ARTICLE:

Williams, K and Werth, E.
2021. A Case Study in
Mitigating COVID-19 Inequities
through Free Textbook
Implementation in the U.S.
*Journal of Interactive Media
in Education*, 2021(1): 14,
pp. 1–14. DOI: [https://doi.
org/10.5334/jime.650](https://doi.org/10.5334/jime.650)

Requiring learners to purchase commercial textbooks represents an obstacle to the educational success of college students, and one that has been getting progressively worse for over a decade. PIRGS, a U.S.-based student research and advocacy organization, found that textbook cost has been a barrier for student enrollment, purchasing necessary materials for courses, and their decision to pursue higher education (Senack 2014). Another U.S. study indicates that students will not purchase prohibitively expensive course materials which impacts their success (Donaldson & Shen 2016). A report from the United States' Bureau of Labor Statistics (2016) indicates that there was a 63% increase in college expense from 2006 to 2016. The highest cost overall was attributed to textbook materials, with an 88% increase over a ten-year period.

U.S.-based research published by Jenkins et al. (2020) provides empirical data underscoring the argument that textbook cost is not only detrimental to students, but truly a social justice issue. In this study, Latinx students were found to be significantly more likely than the general student population to self-report feeling additional stress, not to have purchased a textbook by the start of class, to have avoided taking a class, and to have failed a course because of material cost. The study found similar results for those dependent on financial aid, those who transferred to a college after beginning their education at a different institution, and first-generation students, groups often found to have greater difficulties at college compared to more privileged demographics.

These issues are not unique to the United States. A study out of New Zealand indicated that students will find alternative means for accessing relevant course content, including finding supplemental materials online and using resources suggested by faculty (Stein et al. 2017). In cases where costly textbooks were purchased but rarely used, students began questioning the value of the required text. Students in Canada may face similar issues, with textbook costs being ameliorated by using loans, credit cards, and lines of credit to pay for materials (Benoit 2018). Additionally, these students were often frustrated by the cost of the texts not matching the amount of use within a course.

The social justice dilemma created by requiring students to purchase publisher content goes against the liberatory potential of higher education. McDermott (2020) argues that expensive materials are a symptom of broader systemic inequities, but through eliminating these costs, we begin to address inherent contradictions in higher education. Senack and Donoghue (2016) argue that students who must purchase textbooks face a situation where they may be required to either increase their debt load or decrease the amount of time they have to study because of additional hours spent working. Leveraging the tenets at the core of critical pedagogy and critical digital pedagogy, we see how the act of teaching should be liberatory. Stommel (2014) makes a compelling argument that critical pedagogues recognize that education is emancipatory and, specifically, anti-capitalist. Freire (2000) posits that education is fundamentally a product of the labor force, where students learn in order to fill future roles within the capitalist structure. This done through the banking model of education which specifically states, "the teacher chooses the program content, and the students (who were not consulted) adapt it" (Freire 2000: 73).

A helpful lens by which to view this systemic inequity that makes higher education inherently racist, capitalist, and colonial is through structural ideology. Gorksi (2016) encourages a critical analysis of ideology in education which puts economic and social disenfranchisement on the back of students rather than systems that perpetuate these ideological standards. As Gorksi (2016) states, "Outside of schools, lack of access to adequate financial resources might mean that students experiencing poverty are coping with some combination of unstable housing, food insecurity, time poverty, and inadequate or inconsistent healthcare" (2016: 383). Viewing these issues as a result of a system which disenfranchises particular student populations means that the institution must be prepared to work towards disruption of injustice through deliberate and equity-minded action.

Systemic inequity became more prevalent as a result of the emerging global pandemic in early 2020. In both the U.S. and abroad, those found to be most economically harmed by COVID were populations already frequently considered disenfranchised (Adams-Prassl et al. 2020; Blundell et al. 2020; Institution for Women's Policy Research 2020; Johnson 2020). Higher education institutions around the world quickly responded, with many suspending normal operations due to the rampant spread of COVID-19 (Crawford et al. 2020). Globally, institutions predicted decreased enrollment, negatively impacting budget and school fiscal health, necessitating

reflection on how to better meet the needs of students (Ahlburg 2020; Jaschik 2020; Witze 2020). Pragmatic approaches adopted by colleges and universities may address some systemic inequities, but intentional disruption on the part of the institution is vital.

Open Educational Resources (OER) have been discussed in the literature as a method for advancing social justice efforts and ameliorating the issues described above. Bossu, Bull, and Brown (2012), for example, describe how OER may be used to reach traditionally underrepresented populations while Hodgkinson-Williams and Arinto (2017) discuss efforts related to social inclusion. Additionally, Lambert (2018) writes about how OER and their use in improving course pedagogy may play a role in Retributive, Recognitive, and Representation justice initiatives. OER-enabled Pedagogy (Wiley & Hilton 2018) where students contribute to the creation of course content through the production of OERs, is the liberatory antithesis of the banking model.

This article seeks to bring awareness to the psychological, financial and equity issues inherent in the commercial textbook industry exacerbated by COVID-19. We will pose questions about what role a faculty member plays in today's higher education environment and present a first-hand account in a possible road to addressing structural inequality in colleges and universities. As such, the purpose is to both inform readers of the issues and challenge them to be active agents of change. The use of the term "faculty" was adopted based on definitions from the U.S. Department of State and refers to an individual who teaches students in undergraduate, graduate, and professional education (Education USA n.d.).

POSITIONALITY

In considering the above, we want to ground our own positionality before discussing the issues more in-depth. We recognize that in academic writing it is easy to be disconnected from the students we serve. The practice of reflexivity and positionality allows us to center our own lived experiences within the broader context of our academic practice. Creswell (2007) notes that reflexivity is espoused in the understanding that it is no longer acceptable to pretend to be neutral observers, when neutrality is by its nature impossible. Thus, we wish to be transparent in our own identities as it impacts our understanding and interaction with academia.

We work from a platform of desiring to fundamentally shift the power dynamics of the "traditional" classroom environment. Drawing inspiration from educational theoretical approaches like critical pedagogy, we wish to deconstruct the power dynamics of the classroom. There is an ever-growing body of research that recognizes that the dismantling of such power dynamics disrupts the hegemonic power of the white voice. Intentional disruption allows the voices marginalized by the very structure of academia to be heard.

ACCESS BARRIERS RELATED TO TEXTBOOK COSTS FINANCIAL AND PSYCHOLOGICAL IMPACT ON STUDENTS

COVID-19 has amplified the potential for already vulnerable student populations to be disproportionately harmed. Despite often repeated claims that the virus is the great equalizer (Gray et al. 2020) globally financial, health, and educational inequities have become more apparent. Reports from the U.S. indicate that those hardest hit by job loss due to the coronavirus are of lower income (Beer 2020), and that while economic recovery may be underway for more affluent workers, the same cannot be said for those toward the bottom of the wage scale, particularly minority populations (Long, 2020). Similarly, Blundell et al. (2020) found United Kingdom sector shutdowns during the pandemic disproportionately affected young, low-waged women. In Canada, populations facing highest likelihood of job loss were women and young adults aged 15–24 (Johnson 2020). These dynamics also raise concerns about increasing gaps between the wealthy and poor and social stratification caused by race within populations (Hess 2020; Polikoff, Silver, & Korn 2020). In the U.S., the National Association for the Advancement of Colored People (NAACP) and American Association of University Women (AAUW) have both raised concerns about COVID's impact on underrepresented populations (Hess 2020). This echoes calls from medical professionals made during the pandemic for governments internationally to address broad inequities faced by economically disenfranchised populations seeking health care (Martinez-Juarez et al. 2020).

Pirtle (2020) discusses how fundamental racial inequities have resulted in a significant increase in disease spread. Gray et al. (2020) attribute this spread to factors that include “limited educational attainment, socioeconomic status, unemployment, discrimination, and structural racism” (2020: 520). Prior to the pandemic, income inequity was already considered a barrier to educational access (Pfeffer 2018). Research indicates that lower socio-economic status may have a detrimental impact on student enrollment or completion of a bachelor’s degree (Goldrick-Rab et al. 2016; Pfeffer 2018).

Students and faculty alike are aware of the high costs of course materials. Studies have shown that the majority of faculty believe textbook costs are too high and that this is a significant concern for students (Jaschik & Lederman 2018; Seaman & Seaman 2019). Commercially available textbooks have also been shown in multiple environments to cause stress and result in students failing to purchase or delaying purchasing materials necessary to be successful (Jenkins et al. 2020; Jhangiani & Jhangiani 2017; Martin et al. 2017; Murphy & Rose 2018). The impact on students is often personal as well as academic. Some students in the U.S. have reported skipping meals and holidays with family to pay for textbooks (Whitford 2018). Similarly, students in rural Nova Scotia have indicated that they will delay purchasing textbooks in order to alleviate food insecurity caused by the high cost of education (Frank 2018). The potential value of OER to students, on the other hand, is becoming undeniable. Multiple studies in a variety of environments have demonstrated that free educational materials save students significant amounts of money, improve or at least do not negatively impact student performance, and they increase student satisfaction, and improve measures of academic progress (Bliss et al. 2013; Choi & Carpenter 2017; Clinton & Khan 2019; Cooney 2017; Fischer et al. 2015; Grewe & Davis 2017; Griffiths et al. 2018; Hilton 2016; Jung, Bauer, & Heaps 2017; Martin et al. 2017; Pina & Moran 2018; Ross, Hendricks, & Mowat 2018; Wiley et al. 2016; Winitzky-Stephens & Pickavance 2017).

THE ROLE OF A 21ST CENTURY FACULTY MEMBER

In Spring 2020, many publishers offered faculty and students free access to eBooks and other digital resources through the remainder of the term (Price 2020). While these options likely helped some instructors make a quick pivot to online education, it also highlighted the increasingly prodigious services being offered by these vendors. Within the U.S., the teaching role of the faculty can typically be broken down into five areas: designing curricula, developing the course materials or selecting them from external sources, delivering the course content, tutoring, and assessment (Paulson 2002). Publishers have historically provided teaching editions of books, containing answers to problems located within the text. Many also have, for some time, come with test question banks, slide decks, and possibly videos to supplement instruction (Del Valle 2019). Increasingly, companies are offering not only supplements to instruction, but large parts of what would have constituted curriculum preparation by faculty not long ago. These frequently come as access codes, purchased by students either in addition to or included as a package with the text.

This dynamic brings up questions of fairness as well as what role faculty play in higher education. Faculty responsibilities may vary based on the type of institution (e.g. in the U.S.: highly active research institutions—R1 by the Carnegie Classification, liberal arts, community colleges), which would impact expectations regarding teaching and research workload (Brownell & Tanner 2012). While teaching is a primary responsibility of faculty in institutions globally, in many instances so is research and other activities that may be considered scholarship, the balance and value of which has been a subject of debate (Kern et al. 2015; Mtawa, Fongwa & Wangenge-Ouma 2016; Siebert 1993). In relation to their role as teachers, should a faculty member being paid to facilitate a course ask students to buy large portions of the course curriculum from a publisher?

Discourse surrounding the role of faculty members in course curriculum development and design has been debated in academia since the late 90s (Lichter 1999). According to a study conducted by Rawn and Fox (2018) with faculty at Canadian universities, 60% of those engaged in full-time instruction felt they were expected to facilitate undergraduate courses and engage in curriculum development. Test questions, presentation materials, discussion questions, and even multimedia content can be generated by instructors themselves, designed specifically to

align with course outcomes and assessments. Sasse, Schwering, and Dochterman (2008) argue that as more faculty move from positions focused on subject-specific research into roles that emphasize student learning and assessment, colleges and universities should review faculty outcomes and adjust expectations accordingly. Brownell and Tanner (2012) also note that any shift in pedagogical tactic or instructional technique requires an increase of labor and time on the part of the faculty. It is logical to assume that should there be an increase in time spent preparing instructional materials, this would result in a decrease in time spent elsewhere within their workload. Nevertheless, with the increasing availability of OER, instructors may be able to locate suitable supplemental content and edit these as desired or collaborate with a group of like-minded academicians to create material for their classes.

De Valle (2019) highlights that costs of textbooks that include access codes are in part due to publishers paying for the development of the materials discussed above. After paying tuition, should a student be required to purchase material that could be instructor-generated? These are questions that existed prior to COVID-19, but with textbook prices and sales expected to rise in response to the pandemic (CampusBooks 2020; McKinley 2020), the question of what students should be expected to pay for in addition to tuition has never been more pertinent.

OERs, in conjunction with OER-enabled Pedagogy could begin moving faculty from the existing banking model that is pervasive in K-12 and post-secondary education. This didactic style that Freire (2000) discussed views students as passive recipients of knowledge and emphasizes the use of rote memorization over critical thinking and application. The faculty-as-tellers model creates a problematic structure, wherein faculty have given up their own freedom as intellectuals by perpetuating modes of education shown to be wholly ineffective. Students often perceive integrated lecture models rather than traditional didactic instruction (faculty-as-tellers) as a more effective approach to instruction (Raman & Raju 2015). The last two decades have seen an increase in research calling for a more active approach to teaching, where students are part of the learning process, rather than passive consumers of information (Richardson 2008; Sandhu, Afifi & Amara 2012). The use, specifically, of OER-enabled Pedagogy may disrupt the traditional power dynamics of the classroom and make students co-creators of course content (Cronin 2016). Over-dependence on publisher materials may result in further widening of power dynamics, which perpetuate inequalities in higher education. Cronin (2020) elucidates, emphasizing that this form of educational praxis invites students into the learning process to “bring disparate learning spaces together, and to function as a form of resistance to inequitable power relations within and outside of educational institutions” (2020: 7).

THE ROAD FORWARD

Immediately following the rapid shift to online learning in Spring 2020, a swathe of U.S.-based universities announced cutting or freezing tuition. Other institutions have chosen to incentivize attendance by offering free classes or free years of college based on student standing and whether they choose to attend online or in-person (Burke 2020). It is unlikely that institutions intend this to be a permanent fix.

What happens after COVID-19? Systemic inequities will not disappear at the conclusion of the pandemic. Valant (2020), writing in early June 2020, noted that COVID-19 and the social unrest because of the killings of unarmed Black men and women has made systemic inequity more apparent, causing protests not only within the U.S. but globally, as citizens demand accountability for police brutality and racism (Kirby 2020). Similarly, financial insecurity on the part of our most marginalized populations will remain. Creating an expectation of zero textbook costs counters the behemoth of the U.S. publishing industry which has increased material expenses over 88% in a ten-year period [2006–2016] (Del Valle 2019).

Disrupting systems whose practices are entrenched not only in tradition, but where those who are supposed to be liberators voluntarily give up autonomy, will not be painless. Frequently cited reasons for not using free course materials are a lack of time and supplemental resources (Jhangiani et al. 2016; Taylor & Taylor 2018). With increasing pressures on their schedules, and publishers enhancing the “supplements” provided to instructors who require students to purchase their material, we are likely to continue to see more faculty adopt this publisher content. This widens the gap between the opportunity for success of those who can afford this content and those who cannot.

What can be done to facilitate the movement away from paid course materials to alternatives that are free for students without shifting the cost to another expense such as course fees? It is unlikely that significant change will occur without an external catalyst. As stated by a recent report on OER adoption in the U.S. by Bay View Analytics “Increased adoption of OER is hampered by the fact that the majority of faculty are unaware that it even exists” (Spilovoy, Seaman & Ralph 2020: 9). These authors go on to state, “Among the faculty that are aware of OER, the time and effort required to find OER materials appropriate to their needs remains far greater than that required to select commercial alternatives” (Spilovoy, Seaman & Ralph 2020: 9). This research suggests that it will be 2025 before even half of faculty are aware of OER and licensing.

Another recent report by Inside Higher Ed and Gallup does not bode well for wide-spread conversion of courses from paid to free alternatives. In this U.S.-based study, while 83% of faculty indicated they felt textbook prices were too high, nearly half (49%) stated that saving students money was not worth using what they considered to be lower-quality alternatives (Jaschik & Lederman 2018). Unfortunately, lower quality is often cited in OER studies as a reason why a faculty member is not using free course materials. No research we are aware of, however, addresses to what extent supplemental materials that reduce course preparation time impact faculty views of “quality”. In addition, the perception of OER being lower quality compared to commercial content remains despite a robust body of research cited earlier which demonstrates that use of OER has shown to either benefit or at least not negatively impact student academic achievement. Even in specialty and higher-division courses, no research we are aware of definitively links using what faculty consider lower-quality materials to lower student achievement. This may be due in part to the fact that not all students purchase the required material. Furthermore, student achievement is more dependent on the quality of teaching rather than the quality of the course materials.

A number of U.S. state governments have passed or are considering legislative actions aimed at reducing textbook cost (see: <https://sparcopen.org/our-work/state-policy-tracking/>). These initiatives vary in their advocacy approach. Some establish task forces aimed at exploring cost-savings or fostering the creation of OER while others require the burden placed on students be addressed. Although well-intentioned, the impact of these initiatives is yet to be seen. It is unknown, for example, how state budgets will be impacted by lost revenue due to COVID-19 and if this will alter appropriations for these initiatives. These efforts also do not address the needs of the quarter of U.S. undergraduate students seeking degrees at private, non-profit institutions even though the average private university is generally not more selective than comparative public institutions (Chingos 2017; National Center for Education Statistics n.d.). Even at a private university rated “more selective” by U.S. News and World Reports, textbook affordability was found to be a concern by students (Murphy & Rose 2018).

A CASE STUDY IN INSTITUTION-WIDE ACTION IN THE U.S.

The experience of faculty and students at the University of Pikeville (UPIKE) may provide a useful case study in terms of addressing the inequity inherent in a system where some students do not have access to the resources needed to excel in class. Located in the rural U.S., UPIKE is a college of opportunity with undergraduate degrees in the arts and sciences, business, education, and nursing/human services fields. In the Fall of 2019, the institution enrolled just over 1,100 students. The institution is predominantly white (83%), has an equal enrollment of male and female attendees, 38% of whom are first-generation students. Financial considerations are important as over 57% of students come from poor or near-poor families.

In the spring of 2020, the university pivoted to online-only instruction due to COVID-19. Facing unknowns surrounding Fall 2020 and recognizing that the economic impact to students could be catastrophic, the university decided to move all undergraduate and graduate courses to free materials. Able to use OER, content available in our library collections, or items in the public domain, faculty began conversion of classes in late April for the fall term. This was a significant undertaking. Being a four-year liberal arts institution, all courses, at all levels, in all disciplines would be modified including laboratory and performance-based classes.

Laying the groundwork for change began with a survey of students in Spring 2020. Students had indicated in previous years that textbook prices were too high. Although we expected their

concern would only be heightened, we wanted to get a better picture of how many students had to buy textbooks for class, how much they spent on these resources, and how many were working off-campus to support themselves and their family. Results indicated that over 90% of students purchased textbooks. Of these, 50% spent \$100–\$300, and almost 40% over \$300 in the spring term alone. Thirty-nine percent of students worked on campus and 36% worked off-campus an average of 26.5 hours/week. With local businesses who employ our students closing due to COVID-19, we recognized that their ability to pay for school-related expenses was negatively impacted and likely would be through the summer and into fall. Making a meaningful change to what students paid for course materials needed to succeed in class appeared to be not only appropriate, but necessary.

During Spring 2020, numerous meetings were held with campus leadership groups related to the possibility of moving to free resources. A task force, appointed by the Provost, researched previous studies on the impact to students and faculty and contacted various departments on campus to gather insight on concerns. One issue that arose was what would be done in situations where a free resource could not be located. To mitigate this concern, portions of savings from travel and professional development budgets were allocated for purchasing materials not freely available. Instructors would apply for funding, with a completed application including a description by either a librarian or professional development employee that an exhaustive search of library eBooks and OER had been conducted. Final decisions on funding would be made by a committee comprised of faculty and OER experts. Preference would be given to requests to buy eBooks to add to the library collections. By late spring, the taskforce forwarded a recommendation to move all undergraduate and graduate programs to free resources to the Provost. After discussion by the executive administration, the recommendation was supported by the President and endorsed by the Board of Trustees.

The initial phase of implementation was not without challenges. Library and professional development staff spent a great deal of time assisting faculty locating alternatives to paid texts. Commonly, faculty were not aware of the various sites and metafinders where OER may be located, impacting their impression of what was available. This issue was clarified in Fall 2020 when a survey asked faculty about their knowledge of OER and library resources prior to the initiative. Sixty-six percent of faculty responded about their knowledge of OER, with 41% indicating lower than average familiarity with these resources previously. This is congruent with other U.S. studies which show 56% of faculty unaware of OER and Creative Commons licensing (Spilovoy, Seaman & Ralph 2020). Seventy-nine percent of faculty responded regarding their familiarity with library resources. Over a third (37%) indicated average or lower knowledge before the initiative launched. The authors are not aware of research reporting the percentage of faculty at other institutions familiar with the use of electronic library resources to replace paid publisher content used previously, to serve as a comparison.

Evident during the transition were instances where faculty had not for years, or ever, selected a book to meet course requirements. At times, a course was structured around a book, often one used by a previous faculty member, instead of the text being used as a learning aid. Some instructors wanted publisher slide decks, question banks, or “teacher’s editions”. This is not surprising as lack of supplemental materials has been noted as a hurdle to OER adoption (Taylor & Taylor 2018). While often noted in relation to faculty time, we also encountered a lack of supplemental material as a matter of proficiency. With material provided by others, some faculty had not needed to maintain expertise in these course development skills.

At UPIKE, most classes converted to free materials ran in 8-week sessions. We wished to get student insight into the impact of this change at the start of the first block of fall classes, so surveyed students on their anticipated engagement and performance in class. With freshmen excluded as they had no experience prior to course materials being free, a response rate of 25% (n = 171) was achieved. Sixty-six percent of students anticipated engaging more with course materials considering they were free, with 21.6% indicating they would engage with the materials much more. The students also anticipated performing better in class. Sixty-nine percent of students indicated they felt they would perform better and 23.4% much better with course materials being provided at no cost.

Similarly, after the first fall session ended students were surveyed to determine their actual experience with free course materials. In regard to engagement, the survey had a response

rate of 19% (n = 130). Of those in their second to final years of undergraduate education, 60% indicated that their engagement with course materials improved. Only 19.2% indicated their engagement was worse than when publisher materials were utilized. In terms of self-reported performance, 139 students in their second to final year answered the question (20.3%). Fifty-six-point-eight percent of students indicated that having free materials increased their performance in class while only 18% thought it hindered their performance to some degree. The most common complaint about the initiative came from students who appreciated material being free but indicated a dislike of electronic resources.

Research on faculty experience is in progress, but some have advocated a return to publisher material as they feel these are “better” than those available for free. This begs the question, though; better for whom? A majority of students indicated that having free materials increased their engagement with the content and their overall performance. Even though this data is self-reported, it has been argued that students have considerable experience within the classroom and should be able to accurately assess their learning, perhaps even better than what is indicated by a letter grade (Richmond, Gorham, & McCroskey 1987). It is possible that there is a disconnect between how students and faculty view the value of course materials. This aligns with research internationally that shows students devalue the textbook in comparison to faculty, who perceive them as necessary (Benoit 2018; Podolefsky & Finkelstein 2006), particularly when the student is measuring course material value in relation to how it prepares them for assessment (Horsley, Knight & Huntly 2010). Faculty may appraise material based on a hypothetical student fully engaging with that content. Students, on the other hand, may see engagement as varying based on access and conditions that change during a class.

Although discussions and research are ongoing, free course materials are being utilized in the 2021–2022 academic year at UPIKE. While some faculty would like to return to a model where course materials are selected regardless of their cost, students have expressed a strong desire for the initiative to continue indefinitely.

CONSIDERATIONS FOR INSTITUTIONAL DEPLOYMENT

Our experience with transitioning an entire university from paid publisher content to free alternatives demonstrates the need for active and dedicated involvement by three elements of the organization: students, faculty (including those working in a part-time capacity), and the institution’s administration. **Figure 1** depicts the way in which these elements interacted leading to financial, academic, and psychosocial well-being of the organization. Students play a vital role in advocating for such initiatives as both administrators and faculty listen to grassroots concerns more attentively than when filtered through support offices. This

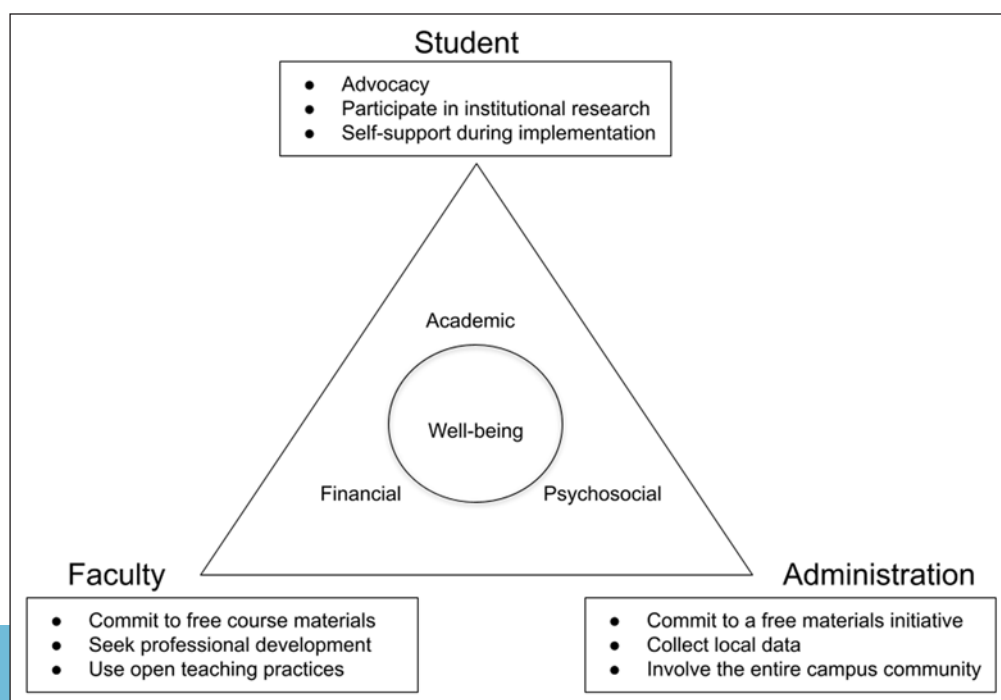


Figure 1 Elements Vital in UPIKE’s Move to Free Course Materials.

advocacy can be done individually, or through student-run organizations and clubs. Students must also participate in efforts aimed at gathering local data on class material affordability. When only a small percentage of individuals reply to surveys or other research efforts, which is common, it undermines the value of findings and the argument that textbook affordability is an institutional issue. Finally, we found that during the implementation phase students must be active in seeking solutions to issues they encounter. These may be related to accessing electronic content, transitioning from learning via traditional to eTexts, or printing materials when needed. While a portion of our students indicated in surveys these were concerns, offices designed to assist with such needs were often not contacted.

Administratively, institutions must collect local data on the impact of paid publisher content on students (Wittkower & Lo 2020). While studies from other institutions may suggest an issue and course of action, information from an institution's own student body goes a long way in countering institutional momentum. We developed our own student questionnaires based on multiple surveys which have already been published: textbook cost and use of anticipated savings by Martin et al. (2017), avoidance behaviors and their impact by Jenkins et al. (2020), and challenges during implementation (Cooney 2017). In addition, administrators must involve various institutional constituencies in the discussion of moving away from paid course content. Such conversations may not determine whether an initiative is implemented but may provide important information about concerns that should be proactively addressed. In the end, however, administrators may need to instigate institutional change understanding that universal implementation may be contentious.

Although only one of the three elements depicted in *Figure 1*, faculty may play the largest role in whether publisher content is successfully replaced with free alternatives. In the absence of mandates, faculty must commit to structuring classes around material that is no-cost to students even if they believe their texts are already affordable. This may require using multiple resources, supplementing student instruction, or creating teaching aids otherwise provided by publishers. Faculty must be proactive in seeking professional development or individualized support during a transition. We found that many who struggled during our initiative failed to attend training or seek assistance designed to make work-time more efficient and successful (Werth, Williams & Werth 2020). Finally, we discovered that faculty who aligned more fully with the characteristics of open educators (Nascimbeni & Burgos 2016) by engaging in practices such as sharing material with others, working interdepartmentally, contacting colleagues at other institutions, and having students act as co-creators of course materials more easily adjusted to challenges posed by the free material initiative.

Prioritizing holistic student well-being creates an environment which reduces external stressors learners experience in their educational endeavors. By centering the institution's efforts with these in mind, meaningful change which counteracts some of the inequities facing students in higher education is possible.

CONCLUSION

Colleges and universities are intended to be beacons of hope, pushing for equity and justice by educating all students. Still, we perpetuate a system that has been shown to negatively impact some students over others and benefits primarily ourselves and commercial publishers. This is hardly the promise we make to students when they enroll, or to taxpayers and donors when they invest in our institutions.

Who is responsible for slow progress? It would be an oversimplification to hold publishing companies solely responsible. A company's primary concern is its profit margin. For publishers of educational content, the lucrative business of supplying faculty with products and services they otherwise would need to make time to create themselves is tantalizing. Providers have used models that impart support but in turn make instructors increasingly dependent on their products. These costs are not born by those with positional or economic power, but are placed on the most vulnerable in our universities, our students.

It may be tempting to place blame on institutions themselves, but institutions are complex organizations with distributed decision-making structures. There are no colleges or universities that we are aware of where the administrative and academic leaders have

forbidden the use of free resources or OER. Research continues to demonstrate, however, that while instructor knowledge of OER is increasing it remains relatively low (Seaman & Seaman 2018.). Additionally, evidence from research on barriers to OER adoption globally show many reasons why faculty are not selecting alternatives to publisher content (Cox & Trotter 2017; Hilton et al. 2013; Padhi 2018).


This does not absolve institutions or educational systems. These entities must develop policies and infrastructure to foster a movement to free resources, as these can present barriers to OER adoption (Cox & Trotter 2017; Jhangiani et al. 2016; Padhi 2018). Research indicates that faculty in collaboration with other university structures are the key to systemic change (Braddlee & VanScoy 2019; Crozier 2018). Textbook costs have been shown to cause psychological and academic stress to students (Jenkins et al. 2020). Thus, faculty can free students from these stressors which perpetuate social inequity by relieving the economic burden of purchasing course materials. Instructors play an important role in mentoring students. What better way to model what we hope the world becomes than to take one of the most tangible examples of inequality in higher education, and perhaps the one we have the greatest control over, and work to eliminate the disparity?

COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR AFFILIATIONS

Katherine Williams  orcid.org/0000-0002-9385-2813
University of Pikeville, US

Eric Werth  orcid.org/0000-0003-0724-1598
University of Pikeville, US

REFERENCES

- Adams-Prassl, A, Boneva, T, Golin, M and Rauh, C.** 2020. Inequality in the impact of the coronavirus shock: Evidence from real time surveys. *Journal of Public Economics*, 189: 104245. DOI: <https://doi.org/10.1016/j.jpubeco.2020.104245>
- Ahlburg, DA.** 2020. Covid-19 and UK universities. *The Political Quarterly*. Advance online publication. DOI: <https://doi.org/10.1111/1467-923X.12867>
- Beer, T.** 2020. COVID-19 fallout: Lower-income earners hit hardest by job losses. *Forbes*, 14 May. <https://www.forbes.com/sites/tommybeer/2020/05/14/covid-19-fallout-lower-income-earners-hit-hardest-by-job-losses/#774bf4f35d89>.
- Benoit, AM.** 2018. Textbook affordability and student acceptance of eTextbooks: An institutional case-study. *Canadian Journal for the Scholarship of Teaching and Learning*, 9(2): n2. DOI: <https://doi.org/10.5206/cjsotl-rcacea.2018.2.3>
- Bliss, T, Robinson, T, Hilton, J and Wiley, D.** 2013. An OER coup: College teacher and student perceptions of open educational resources. *Journal of Interactive Media in Education*. DOI: <https://doi.org/10.5334/2013-04>
- Blundell, R, Costa Dias, M, Joyce, R and Xu, X.** 2020. COVID19 and Inequalities. *Fiscal Studies*, 41(2): 291–319. DOI: <https://doi.org/10.1111/1475-5890.12232>
- Bossu, C, Bull, D and Brown, M.** 2012. Opening up down under: The role of open educational resources in promoting social inclusion in Australia. *Distance Education*, 33(2): 151–164. DOI: <https://doi.org/10.1080/01587919.2012.692050>
- Braddlee and VanScoy, A.** 2019. Bridging the chasm: Faculty support roles for academic librarians in the adoption of open educational resources. *College & Research Libraries*, 80(4): 426. DOI: <https://doi.org/10.5860/crl.80.4.426>
- Brownell, SE and Tanner, KD.** 2012. Barriers to faculty pedagogical change: Lack of training, time, incentives, and... tensions with professional identity? *CBE—Life Sciences Education*, 11(4): 339–346. DOI: <https://doi.org/10.1187/cbe.12-09-0163>
- Burke, L.** 14 August 2020. More tuition cuts. *Inside Higher Ed* [online]. <https://www.insidehighered.com/news/2020/08/14/colleges-continue-slash-tuition-response-pandemic>.
- CampusBooks.com.** 2020. COVID-19 severely impacts back to school textbook industry reports *CampusBooks.com. Cision PR Newswire*, 30 July. <https://www.prnewswire.com/news-releases/covid-19-severely-impacts-back-to-school-textbook-industry-reports-campusbookscom-301103165.html>.

- Chingos, M.** 2017. Don't forget private, non-profit colleges. *Evidence Speaks Reports*, 2(9). Economic Studies at Brookings. https://www.brookings.edu/wp-content/uploads/2017/02/es_20170216_chingos_evidence_speaks.pdf.
- Choi, Y and Carpenter, C.** 2017. Evaluating the impact of open education resources: A case study. *Libraries and the Academy*, 17(4): 685–693. DOI: <https://doi.org/10.1353/pla.2017.0041>
- Clinton, V and Khan, S.** 2019. Efficacy of open textbook adoption on learning performance and course withdrawal rates: A meta-analysis. *AERA Open*, 5(3): 1–20. DOI: <https://doi.org/10.1177/2332858419872212>
- Cooney, C.** 2017. What impacts do OER have on students? Students share their experiences with a health psychology OER at New York City College of Technology. *International Review of Research in Open and Distributed Learning*, 18(4). <http://www.irrodl.org/index.php/irrodl/article/view/3111/4216>. DOI: <https://doi.org/10.19173/irrodl.v18i4.3111>
- Cox, G and Trotter, H.** 2017. An OER framework, heuristic and lens: Tools for understanding lecturers' adoption of OER. *Open Praxis*, 9(2): 151–171. DOI: <https://doi.org/10.5944/openpraxis.9.2.571>
- Crawford, J, Butler-Henderson, K, Rudolph, J, Malkawi, B, Glowatz, M, Burton, R, Magni, PA and Lam, S.** 2020. Covid-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1). DOI: <https://doi.org/10.37074/jalt.2020.3.1.7>
- Creswell, JW.** 2007. *Qualitative inquiry & research design: Choosing among five approaches* (5th ed.). Sage.
- Cronin, C.** 2016. Open, networked and connected learning: Bridging the formal/informal learning divide in higher education. In: Cranmer, S, Dohn, NB, de Laat, M, Ryberg, T and Sime, JA (eds.). *Proceedings of the 10th International Conference on Networked Learning, Lancaster University, Lancaster, 9–11 May 2016*, 76–84. http://www.networkedlearningconference.org.uk/abstracts/pdf/S3_Paper2.pdf.
- Cronin, C.** 2020. Open education: Walking a critical path. In Conrad, D and Prinsloo, P (eds.), *Open(ing) Education: Theory and Practice*. Leiden, Netherlands: Brill.
- Crozier, H.** 2018. Promoting open access and open educational resources to faculty. *The Serials Librarian*, 74(1–4): 145–150. DOI: <https://doi.org/10.1080/0361526X.2018.1428470>
- Del Valle, G.** 6 March 2019. The high cost of college textbooks, explained. *Vox* [online]. <https://www.vox.com/the-goods/2019/3/6/18252322/college-textbooks-cost-expensive-pearson-cengage-mcgraw-hill>.
- Donaldson, R and Shen, E.** 2016. *Student textbook and course materials survey*. Tallahassee, FL: Florida Virtual Campus, Office of Distance Learning and Student Services. <https://www.flvc.org/documents/96858/931951/2016+Student+Textbook+Survey.pdf/591cf5b0-bbe8-406d-acd8-b23d89b8577f>.
- Education USA.** n.d. *Glossary*. <https://educationusa.state.gov/experience-studying-usa/us-educational-system/glossary>.
- Fischer, L, Hilton, J, Robinson, J and Wiley, D.** 2015. A multi-institutional study of the impact of open textbook adoption on the learning outcomes of post-secondary students. *Journal of Computing in Higher Education*, 27(3): 159–172. DOI: <https://doi.org/10.1007/s12528-015-9101-x>
- Frank, L.** 2018. “Hungry for an education”: Prevalence and outcomes of food insecurity among students at a primarily undergraduate university in rural Nova Scotia. *Canadian Journal of Higher Education*, 48(2): 109–129. <https://doi-org.prescottcollege.idm.oclc.org/10.7202/1057106ar>. DOI: <https://doi.org/10.47678/cjhe.v48i2.188112>
- Freire, P.** 2000. *Pedagogy of the oppressed*. New York, London: Continuum.
- Goldrick-Rab, S, Kelchen, R, Harris, DN and Benson, J.** 2016. Reducing income inequality in educational attainment: Experimental evidence on the impact of financial aid on college completion. *American Journal of Society*, 121(6): 1762–1817. <https://pdfs.semanticscholar.org/ee2b/c6f154e2ae928f718e692021804145d76dce.pdf>. DOI: <https://doi.org/10.1086/685442>
- Gorksi, PC.** 2016. Poverty and the ideological imperative: A call to unhook from deficit and grit ideology and to strive for structural ideology in teacher education. *Journal of Education for Teaching*, 42(4): 378–386. DOI: <https://doi.org/10.1080/02607476.2016.1215546>
- Gray, DM, Anyane-Yeboah, A, Balzora, S, Issaka, RB and May, FP.** 2020. COVID-19 and the other pandemic: Populations made vulnerable by systemic inequity. *Nature Reviews Gastroenterology & Hepatology*, 17: 520–522. <https://www.nature.com/articles/s41575-020-0330-8>. DOI: <https://doi.org/10.1038/s41575-020-0330-8>
- Grewe, K and Davis, W.** 2017. The impact of enrollment in an OER course on student learning outcomes. *International Review of Research in Open and Distributed Learning*, 18(4): 231–238. DOI: <https://doi.org/10.19173/irrodl.v18i4.2986>
- Griffiths, R, Gardner, S, Lundh, P, Shear, L, Ball, A, Mislevy, J, Wang, S, Desrochers, D and Staisloff, R.** 2018. *Participant experiences and financial impacts: Findings from year 2 of Achieving the Dream's OER degree initiative*. Menlo Park, CA: SRI International. https://www.achievingthedream.org/sites/default/files/resources/participant_experiences_and_financial_impacts_oer_2018.pdf.

- Hess, A.** 19 June 2020. 7 ways the coronavirus pandemic could change college this fall and forever. *CNBC make it* [online]. <https://www.cnbc.com/2020/06/19/7-ways-coronavirus-pandemic-may-change-college-this-fall-and-forever.html>.
- Hilton, J.** 2016. Open educational resources and college textbook choices: A review of research on efficacy and perceptions. *Educational Technology Research and Development*, 64(4): 573–590. DOI: <https://doi.org/10.1007/s11423-016-9434-9>
- Hilton, J, III, Bliss, TJ, Robinson, TJ and Wiley, DA.** 2013. An OER COUP: College teacher and student perceptions of open educational resources. *Journal of Interactive Media in Education*. DOI: <https://doi.org/10.5334/2013-04>
- Hodgkinson-Williams, C and Arinto, P.** (eds.) 2017. *Adoption and impact of OER in the Global South*. Cape Town: African Minds. DOI: <https://doi.org/10.47622/9781928331483>
- Horsley, M, Knight, B and Huntly, H.** 2010. The role of textbooks and other teaching and learning resources in higher education in Australia: Change and continuity in supporting learning. *IARTEM e-Journal*, 3(2): 43–61.
- Institution for Women’s Policy Research.** 2020. Dramatic decline in employment hits women more severely than men. <https://iwpr.org/wp-content/uploads/2020/05/QF-Breadwinner-Mothers-by-Race-FINAL.pdf>.
- Jaschik, S.** 29 April 2020. Colleges could lose up to 20% of students. *Inside Higher Ed* [online]. <https://www.insidehighered.com/admissions/article/2020/04/29/colleges-could-lose-20-percent-students-analysis-says>.
- Jaschik, S and Lederman, D.** 2018. 2018 Survey of faculty attitudes on technology: A study by Insider Higher Ed and Gallup. <https://www.insidehighered.com/booklet/2018-survey-faculty-attitudes-technology>.
- Jenkins, J, Sánchez, L, Schraedley, M, Hannans, J, Navick, N and Young, J.** 2020. Textbook broke: Textbook affordability as a social justice issue. *Journal of Interactive Media in Education*, 2020(1): 3. DOI: <https://doi.org/10.5334/jime.549>
- Jhangiani, R and Jhangiani, S.** 2017. Investigating the perceptions, use, and impact of open textbooks: A survey of post-secondary students in British Columbia. *International Review of Research in Open and Distributed Learning*, 18(4): 172–192. DOI: <https://doi.org/10.19173/irrodl.v18i4.3012>
- Jhangiani, RS, Pitt, R, Hendricks, C, Key, J and Lalonde, C.** 2016. Exploring faculty use of open educational resources at British Columbia post-secondary institutions. BCCampus Research Report. BCCampus. <https://bccampus.ca/2016/01/27/exploring-faculty-use-of-open-educational-resources-in-b-c-post-secondary-institutions/>.
- Johnson, K.** 2020. Canadian youth, women hit hard by massive coronavirus-related job loss. *Reuters*, 9 April. <https://www.reuters.com/article/us-canada-economy-employment-youth/canadian-youth-women-hit-hard-by-massive-coronavirus-related-job-losses-idUSKCN21R3DE>.
- Jung, E, Bauer, C and Heaps, A.** 2017. Higher education faculty perceptions of open textbook adoption. *International Review of Research in Open and Distance Learning*, 18(4): 123–141. DOI: <https://doi.org/10.19173/irrodl.v18i4.3120>
- Kern, B, Mettetal, G, Dixson, MD and Morgan, RK.** 2015. The role of SoTL in the academy: Upon the 25th anniversary of Boyer’s “scholarship reconsidered”. *Journal of the Scholarship of Teaching and Learning*, 15(3): 1–14. DOI: <https://doi.org/10.14434/josotl.v15i3.13623>
- Kirby, J.** 12 June 2020. “Black Lives Matter” has become a global rallying cry against racism and police brutality. *Vox* [online]. <https://www.vox.com/2020/6/12/21285244/black-lives-matter-global-protests-george-floyd-uk-belgium>.
- Lambert, S.** 2018. Changing our (dis)course: A distinctive social justice aligned definition of open education. *Journal of Learning and Development*, 5(3): 225–244. <https://jld.org/index.php/ejl4d/article/view/290/334>.
- Lichter, RL.** 1999. A modest question: What does it mean to be a professor? *Chemical Education Today*, 76(12): 1610–1611. <https://pubs.acs.org/doi/pdf/10.1021/ed076p1610>. DOI: <https://doi.org/10.1021/ed076p1610>
- Long, H.** 2020. The recession is over for the rich, but the working class is far from recovered. *The Washington Post*, 13 August. <https://www.washingtonpost.com/business/2020/08/13/recession-is-over-rich-working-class-is-far-recovered/>.
- Martin, M, Belikov, O, Hilton, J, III, Wiley, D and Fischer, L.** 2017. Analysis of student and faculty perceptions of textbook costs in higher education. *Open Praxis*, 9(1): 79–91. DOI: <https://doi.org/10.5944/openpraxis.9.1.432>
- Martinez-Juarez, LA, Sedas, AC, Orcutt, M and Bhopal, R.** 2020. Governments and international institutions should urgently attend to the unjust disparities that COVID-19 is exposing and causing. *EClinicalMedicine*, 23. DOI: <https://doi.org/10.1016/j.eclinm.2020.100376>
- McDermott, I.** 2020. Open to what? A critical evaluation of OER efficacy studies. *In the Library with the Lead Pipe*. <https://www.inthelibrarywiththeleadpipe.org/2020/open-to-what/>.

- McKinley, J.** 2020. 7 things that are about to get more expensive. *Reader's Digest*, 10 August. <https://www.rd.com/list/things-about-get-more-expensive/>.
- Mtawa, NN, Fongwa, SN and Wangenge-Ouma, G.** 2016. The scholarship of university-community engagement: Interrogating Boyer's model. *International Journal of Educational Development*, 49: 126–133. DOI: <https://doi.org/10.1016/j.ijedudev.2016.01.007>
- Murphy, L and Rose, D.** 2018. Are private universities exempt from student concerns about textbook costs? A survey of students at American University. *Open Praxis*, 10(3): 289–303. DOI: <https://doi.org/10.5944/openpraxis.10.3.866>
- Nascimbeni, F and Burgos, D.** 2016. In search for the open educator: Proposal of a definition and a framework to increase openness adoption among university educators. *International Review of Research in Open and Distributed Learning: IRRODL*, 17(6): 1–17. DOI: <https://doi.org/10.19173/irrodl.v17i6.2736>
- National Center for Education Statistics.** n.d. *Digest of educational statistics*. https://nces.ed.gov/programs/digest/d19/tables/dt19_105.30.asp.
- Padhi, N.** 2018. Acceptance and usability of OER in India: An investigation using UTAUT model. *Open Praxis*, 10(1): 55–65. DOI: <https://doi.org/10.5944/openpraxis.10.1.623>
- Paulson, K.** 2002. Reconfiguring faculty roles for virtual settings. *The Journal of Higher Education*, 73(1): 123–140. DOI: <https://doi.org/10.1353/jhe.2002.0010>
- Pfeffer, FT.** 2018. Growing wealth gaps in education. *Demography*, 55(3): 1033–1068. DOI: <https://doi.org/10.1007/s13524-018-0666-7>
- Pina, A and Moran, K.** 2018. Effects of an open educational resource initiative on students, faculty and instructional designers. *Online Journal of Distance Learning Administration*, 11(2). https://www.westga.edu/~distance/ojdl/summer212/pina_moran212.htm.
- Pirtle, WNL.** 2020. Racial capitalism: A fundamental cause of novel coronavirus (COVID-19) pandemic inequalities in the United States. *Health Educational & Behavior*, 47(4). DOI: <https://doi.org/10.1177/1090198120922942>
- Podolefsky, N and Finkelstein, N.** 2006. The perceived value of college physics textbooks: Students and instructors may not see eye to eye. *The Physics Teacher*, 44(6): 338–342. DOI: <https://doi.org/10.1119/1.2336132>
- Polikoff, M, Silver, D and Korn, S.** 4 August 2020. What's the likely impact of COVID-19 on higher ed? *Inside Higher Ed* [online]. <https://www.insidehighered.com/views/2020/08/04/analysis-data-national-survey-impact-pandemic-higher-ed-opinion>.
- Price, G.** 2020. COVID-19: Special offers, events, news, and updates from library vendors, publishers, online services, and others. *Library Journal*. <https://www.infodocket.com/2020/03/17/covid-19-news-and-special-offers-from-library-vendors-publishers-online-services-and-others/>.
- Raman, VLM and Raju, KS.** 2015. Study on effectiveness of integrated lecture module versus didactic lecture module in learning skills. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 14(1): 14–16.
- Rawn, CD and Fox, JA.** 2018. Understanding the work and perceptions of teaching focused faculty in a changing academic landscape. *Research in Higher Education*, 59(5): 591–622. DOI: <https://doi.org/10.1007/s11162-017-9479-6>
- Richardson, D.** 2008. Don't dump the didactic lecture; fix it. *Advances in physiology education*, 32(1): 23–24. DOI: <https://doi.org/10.1152/advan.00048.2007>
- Richmond, V, Gorham, J and McCroskey, J.** 1987. The relationship between selected immediacy behaviors and cognitive learning. In: McLaughlin, M (ed.), *Communication Yearbook*, 10: 574–590. Beverly Hills, CA: Sage. DOI: <https://doi.org/10.1080/23808985.1987.11678663>
- Ross, H, Hendricks, C and Mowat, V.** 2018. Open textbooks in an introductory sociology course in Canada: Student views and completion rates. *Open Praxis*, 10(4): 393–403. <https://openpraxis.org/index.php/OpenPraxis/article/view/892/500>. DOI: <https://doi.org/10.5944/openpraxis.10.4.892>
- Sandhu, S, Affi, TO and Amara, FM.** 2012. Theories and practical steps for delivering effective lectures. *Journal of Community Medicine & Health Education*, 2(6): 158. DOI: <https://doi.org/10.4172/2161-0711.1000158>
- Sasse, C, Schwering, R and Dochterman, S.** 2008. Rethinking faculty role in a knowledge age. *Academy of Educational Leadership Journal*, 12(2): 35.
- Seaman, J and Seaman, J.** 2018. *Freeing the textbook: Educational resources in U.S. higher education, 2018*. Babson Survey Research Group. <https://www.onlinelearningsurvey.com/reports/freingthetextbook2018.pdf>.
- Senack, E.** 2014. *Fixing the broken textbook market*. Making Higher Education Affordable Report. US Public Interest Research Group, Student PIRG.
- Senack, E and Donoghue, R.** 2016. Covering the cost. *Student PIRGs*, 1–2. <https://studentpirgs.org/2016/02/03/covering-cost/>.
- Siebert, E.** 1993. Teaching and research—A dual role for college faculty at all institutions of higher education. *Journal of College Science Teaching*, 22(5): 283–285. Available at <http://www.jstor.org/stable/42985813> (Last accessed 6 May 2021).

- Spilovoy, T, Seaman, J and Ralph, N.** 2020. The impact of OER initiatives on faculty selection of classroom materials. WCET & Bay View Analytics. <https://www.onlinelearningsurvey.com/reports/impactofeerinitiatives.pdf>.
- Stein, S, Hart, S, Keaney, P and White, R.** 2017. Student views on the cost of and access to textbooks: An investigation at University of Otago (New Zealand). *Open Praxis*, 9(4): 403–419. DOI: <https://doi.org/10.5944/openpraxis.9.4.704>
- Stommel, J.** 18 November 2014. Critical digital pedagogy: A definition. *Hybrid Pedagogy* [online]. <https://hybridpedagogy.org/critical-digital-pedagogy-definition/>.
- Taylor, C and Taylor, M.** 2018. I'm never doing this again!: Identifying and solving faculty challenges in adoption of open educational resources. *Online Journal of Distance Learning Administration*, 21(2). https://www.westga.edu/~distance/ojdl/summer212/taylor_taylor_212.html.
- United States Bureau of Labor Statistics.** 30 August 2016. College fees and tuition increases 63% since January 2006. Available at <https://www.bls.gov/opub/ted/2016/college-tuition-and-fees-increase-63-percent-since-january-2006.htm>.
- Valant, J.** 2020. The banality of racism in education. *The Brookings Institute*, 4 June. <https://www.brookings.edu/blog/brown-center-chalkboard/2020/06/04/the-banality-of-racism-in-education/>.
- Werth, E, Williams, K and Werth, L.** 2020. Fostering rapid institution-wide curricular change in response to COVID-19. *Journal of Learning for Development*, 7(3): 416–422.
- Whitford, E.** 26 July 2018. Textbook trade-offs. *Inside Higher Ed* [online]. <https://www.insidehighered.com/news/2018/07/26/students-sacrifice-meals-and-trips-home-pay-textbooks>.
- Wiley, D and Hilton, J.** 2018. Defining OER-enabled pedagogy. *International Review of Research in Open & Distance Learning*, 19(4): 133–147. DOI: <https://doi.org/10.19173/irrodl.v19i4.3601>
- Wiley, D, Williams, L, DeMarte, D and Hilton, J.** 2016. The tidewater z-degree and the INTRO model for sustaining OER adoption. *Education Policy Analysis Archives*, 23(41). DOI: <https://doi.org/10.14507/epaa.24.1828>
- Winitzky-Stephens, J and Pickavance, J.** 2017. Open educational resources and student learning outcomes: A multilevel analysis. *International Review of Research in Open and Distributed Learning*, 18(4): 35–49. DOI: <https://doi.org/10.19173/irrodl.v18i4.3118>
- Wittkower, LR and Lo, LS.** 2020. Undergraduate student perspectives on textbook costs and implications for academic success. *Open Praxis*, 12(1). DOI: <https://doi.org/10.5944/openpraxis.12.1.1036>
- Witze, A.** 2020. Universities will never be the same after the coronavirus crisis. *Nature*. <https://www.nature.com/articles/d41586-020-01518-y>.

TO CITE THIS ARTICLE:

Williams, K and Werth, E. 2021. A Case Study in Mitigating COVID-19 Inequities through Free Textbook Implementation in the U.S. *Journal of Interactive Media in Education*, 2021(1): 14, pp. 1–14. DOI: <https://doi.org/10.5334/jime.650>

Submitted: 08 February 2021

Accepted: 13 May 2021

Published: 08 September 2021

COPYRIGHT:

© 2021 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

Journal of Interactive Media in Education is a peer-reviewed open access journal published by Ubiquity Press.