OPEN PRAXIS

Investigating Faculty Perceptions of Creating and Enhancing Accessible Online Courses with Ally

RESEARCH ARTICLE

PATRICK R. LOWENTHAL
CHRISTOPHER PROKES
AMY LOMELLINI
CRYSTAL GASELL

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

INTERNATIONAL COUNCIL FOR OPEN AND DISTANCE EDUCATION

ABSTRACT

As online education grows, ensuring accessibility for diverse and marginalized learners has become increasingly critical. This study investigated faculty perceptions of Anthology Ally, a tool designed to enhance the accessibility of online course materials by identifying and resolving accessibility issues. Using survey data from 78 educators at two- and four-year institutions, the research explores faculty knowledge, usage patterns, and attitudes toward Ally, alongside their perspectives on the responsibility for creating accessible online courses. Results reveal that most faculty view Ally as an effective, user-friendly tool that supports accessible content creation and improves student learning experiences. Faculty highlighted Ally's ability to provide alternative formats, offering students flexibility and addressing diverse needs. However, challenges persist, including the time required to use the tool, usability limitations, and insufficient training. The study also identifies a lack of consensus on responsibility for accessibility, with faculty often viewed as the primary drivers supported by instructional designers and other institutional staff. Findings suggest the need for a collaborative, institution-wide approach to accessibility, emphasizing proactive course design, continuous training, and a cultural shift from compliance-driven practices to equity-focused strategies. These insights provide a foundation for developing effective policies and practices prioritizing inclusivity and equitable online learning access.

CORRESPONDING AUTHOR:
Patrick R. Lowenthal
Boise State University, United States of America
patricklowenthal@boisestate.edu

KEYWORDS:
accessibility; online learning; student success; marginalized populations; faculty perceptions; Ally; accessibility in online education; higher education; elearning; online teaching

TO CITE THIS ARTICLE:
Lowenthal, P. R., Prokes, C., Lomellini, A., & Gasell, C. (2025). Investigating Faculty Perceptions of Creating and Enhancing Accessible Online Courses with Ally. *Open Praxis*, *17*(1), pp. 34–45. DOI: https://doi.org/10.55982/openpraxis.17.1.759

INTRODUCTION

The COVID-19 pandemic fueled the growth of online courses and programs since 2020. For instance, data from 2021 indicates that more than 51% of students in higher education enrolled in an online course compared to 37% in 2019 (Smalley, 2021). Long before the pandemic, online learning presented students with several benefits, including flexibility, convenience, and a focus on independent learning (Paudel, 2021). Marginalized populations have increasingly enrolled in online courses to take advantage of these benefits (Kim & Fienup, 2021). However, even before COVID-19, online courses often contained inaccessible content preventing learners success, including videos lacking closed captioning (Cifuentes et al., 2016) or scanned documents not optimized for use with assistive technologies (i.e., screen readers) (Case & Davison, 2011).

Accessibility checkers like Anthology Ally (previously Blackboard Ally) address these issues by identifying inaccessible content. Institutions increasingly use Ally because it checks for inaccessible content and provides students with content in multiple formats. In terms of its accessibility checking features, Ally scans course content in a learning management system and checks for common accessibility issues, provides an accessibility gauge for individual content as well as a course accessibility score based on the course content, and offers step-by-step guidance on how to improve the accessibility of the content (Blackboard Ally, 2022). Finally, Ally provides an institution-wide accessibility report to assist institutions with data to ensure course content meets the needs of all learners. As helpful as Ally can be, it is not a panacea. Faculty, instructional designers, and administrators must use Ally regularly to improve the accessibility of online learning. Questions remain, though, how faculty, in particular, use Ally and what they think of it. Given this, we set out to investigate how faculty use Ally, their perceptions of it, and who they think is responsible for creating and ensuring that content and online courses are accessible. In the following paper, we will present the results of our inquiry and the implications for research and practice.

LITERATURE

Research into online accessibility has grown over the last two decades (Foley & Ferri, 2012; Lightfoot & Gibson, 2013; Rose et al., 2002). In the following section, we will provide a foundation for this study by elaborating on some of the literature on the demand for online learning, legal foundations, inaccessible content, accessibility tools, and the responsibility and challenges of creating accessible online learning.

DEMAND FOR ONLINE COURSES

For the last two decades, enrollments in online learning have grown. However, those enrollments increased substantially since 2019, primarily due to the beginning of the COVID-19 pandemic in 2020 (Smalley, 2021). Moreover, the number of students from marginalized populations taking online courses has significantly increased over the last few years (Kim & Fienup, 2021; NCES, 2019). Students with disabilities who require accommodations, such as accessible course materials, are part of this group identified as marginalized. As far back as 2011, the United States Department of Education noted that the number of post-secondary students with reported disabilities was 11%—or roughly two million students–and that this number was likely to increase (Fenlon et al., 2016). Jaeger (2012) warned that this group would become further marginalized if those in charge of designing online courses did not begin to take meaningful steps to create more inclusive courses. While arguments have been made that online courses are lower quality than courses offered in person (Altindag et al., 2021), those with disabilities reported an increased preference for online courses, especially in the wake of the COVID-19 pandemic (Mullaney, 2021).

LEGAL FOUNDATIONS FOR ACCESSIBILITY

Several legal requirements and federal statutes form the foundation for accessible online learning (Burgstahler, 2002; U.S. Department of Education, 1998). Among the most significant in the U.S. are Section 508 of the Rehabilitation Act of 1973, which mandates that federal agencies and entities receiving federal funding make electronic and information technology accessible, and Title II of the Americans with Disabilities Act (ADA) of 1990. Section 504 also

applies to online courses, requiring that web accessibility be provided to ensure that individuals with disabilities have equal access (Burgstahler, 2017).

In the United States, a critical development occurred on April 24, 2024, when the Department of Justice (DOJ) published its final rule updating regulations for Title II of the ADA. This update establishes specific requirements for ensuring that web content and mobile applications are accessible to individuals with disabilities. The rule outlines compliance with the Web Content Accessibility Guidelines (WCAG) 2.1, the international standard for web accessibility, which addresses areas such as mobile accessibility, low vision accommodations, and cognitive disabilities. The DOJ's final rule officially extends the reach of ADA compliance, requiring that educational institutions, particularly those offering online courses, ensure their web content and mobile applications meet these updated standards to prevent discrimination based on disability (ADA, 2024).

Additionally, the 2024 rule reinforces the importance of designing accessible online learning environments from the outset, emphasizing that educational institutions must prioritize equal access in both web and app-based educational platforms. Failure to comply with these updated regulations could lead to legal challenges, including formal complaints with the Office of Civil Rights (OCR), which continues to oversee compliance with these laws. Through the OCR, the U.S. Department of Education defines accessibility as ensuring that individuals with disabilities can acquire the same information, engage in interactive learning, and benefit from services on equal terms with those without disabilities (U.S. Department of Education, 2022). Institutions that proactively implement these guidelines can avoid the risk of costly legal repercussions while fostering inclusive educational environments.

INACCESSIBLE CONTENT

Students with a disability should have an equal opportunity to participate fully in online courses (Massengale & Vasquez, 2016; WebAIM, 2022). One of the most significant problems students with a disability face with online learning is inaccessible content. Some common examples of inaccessible content include learning management system tools (e.g., HTML pages) and course material developed by instructors or others (e.g., textbook publishers), including Word documents, PDFs, PowerPoints, and audio and video files (Behling, 2017). In fact, in one study, Kent (2016) researched students at 15 different universities with many different disabilities. Some common issues he found included selective release of materials, lack of variable assessment methods, excessive content quantity and readability, and inclusion of third-party products with issues. In a more recent study of 500 institutions, Moody (2020) found that 50% of PDFs in online courses contained accessibility problems. Designing online courses that already pose hurdles, including inaccessible content, only exacerbates issues faced by students with disabilities.

ACCESSIBILITY TOOLS FOR COURSE DESIGN AND USE

Anyone involved in online course design must be aware of and able to use current accessibility tools available to help students with disabilities (Baldwin & Ching, 2021). Several accessibility tools have been developed that instructional designers and faculty can use to improve the accessibility of online courses; these include accessible checkers in commonly used products such as the Microsoft Suite (e.g., Word, PowerPoint) that enable someone to identify accessibility errors and fix them (Microsoft, 2022); there is even an add-on for Google Docs and Slides, Grackle, that can identify accessibility issues. Other tools native to an individual learning management system include the Accessibility Checker option in Canvas (Instructure, 2022) or Brightspace (Dahl, 2022). Other third-party products integrate into an LMS, such as UDOIT for Canvas or Ally (which works in various learning management systems).

In each case, tools like these can ensure accessibility issues in content and materials are "headed off at the pass" before students access the course or are identified through existing means of disclosure or self-identification (Roberts et al., 2011). Moreover, waiting until self-identification in all cases results in a multi-stage design, which is less proactive, can increase costs, and lead to less efficient or ubiquitous design following principles of Universal Design for Learning (UDL) (CANnect, 2010). Further, simply notifying a faculty member that one or more students in their course have a disability does not satisfactorily help students succeed

or easily overcome barriers with course content (Massengale & Vasquez, 2016). Often, the accommodations recommended by a disability services office or advocate are more focused on extended time on assessments or other individualized services rather than remediating course content or materials.

Once a course is live and front-end issues rectified, students can use tools such as Ally to access alternative formats of course content (Blackboard, 2022). Alternative formats provided by Ally include an audio version, an e-reader file, an immersive reader format, and others. Learners benefit from multiple alternative versions as disabilities present in such learners are often variable. It is important not to assume which format will be effective for any learner (McKeown & McKeown, 2019). Tools such as Ally help instructors and their respective institutions to make course materials accessible to all learners (Almufarreh & Arshad, 2021). This concept is often called the "Curb-Cut Effect" (Blackwell, 2017). Tools like Ally can ultimately prevent issues once the course is live, as the preparation stage presents an opportunity to ensure accessible design.

RESPONSIBILITY FOR ACCESSIBILITY

The design of online courses with accessibility in mind prevents or decreases issues during implementation, and doing so creates a mindset where accessibility is less of a burden and more of a productive endeavor (Baldwin & Ching, 2021). While this sounds ideal, it is unclear who may be responsible for accessibility at institutions of higher education. Lowenthal & Lomellini (2023) found that many institutions do not have a clear policy or stance on who bears this responsibility. Similarly, Guilbaud et al. (2021) determined that faculty viewed the accessible design process as very time-consuming and believed it was the responsibility of another department, such as disability services. Regardless of where responsibility lies, institutions with a collaborative mindset where several departments and personnel work together to ensure courses are accessible are far better equipped than those that deflect internally to other entities (Behling, 2017; Linder et al., 2015). Effectively, this approach ensures accessibility can be–and will remain–a top priority at the institutional planning level (Kent, 2016). The use of a collaborative approach can pay dividends. For example, Madaus and colleagues (2021) noted that students who took courses designed through such an effort felt far more supported by their institutions in meeting their needs.

CHALLENGES

Identifying who is responsible for ensuring that online courses are accessible to all learners is only part of institutions' challenges. Several scholars have identified other challenges, such as the lack of resources available to make online courses and materials accessible–such as having access to Adobe Acrobat Pro to fix inaccessible PDFs or transcription services to caption videos–as well as the time and cost of faculty and staff to fix issues retroactively (Asgari et al., 2022; Linder et al., 2015; Fenlon et al., 2016; Lomellini et al., 2022; Lowenthal et al., 2021). Another challenge is the lack of training faculty and staff have access to when designing online courses (Gladhard, 2010; Guilbaud et al., 2021). Those involved in online course design often lack an understanding of the process, work, or needs of students with disabilities (Kulkarni, 2019; Oswal, 2013). Finally, even further problems arise with the use of external products, such as third-party publisher platforms, that were not designed with accessibility in mind either because of a failure to consider those with needs or simply because the cost was too significant to bear (Dobransky & Hargittai, 2006; Stienstra et al., 2007).

While the research base for accessible online learning is growing, there is still little research on faculty experiences in creating accessible online courses and using tools like Ally. We set forth to address this shortcoming by examining what faculty and staff involved with online course design think of tools like Ally. Our inquiry focused on answering the following research questions:

1. What are faculty perceptions and experiences with the Ally accessibility tool?
2. Why do faculty use accessibility tools such as Ally?
3. Who do faculty think is responsible for accessibility on their respective campuses?

METHODS

RESEARCH METHOD

We used a survey instrument focusing on faculty views and experiences of using Ally, their rationale for using it, and who they felt was ultimately responsible for accessibility on their respective campuses. Responsibility on campus was defined as policy, enforcement, programming, and resources. Creswell & Creswell (2018) suggest the survey method has many benefits, including the potential for gathering data from a large sample size and allowing respondents to share information on their attitudes and opinions on or of a particular facet. Additionally, surveys enable the identification of trends or patterns within the sample that may apply to the larger population.

Our survey was descriptive and exploratory in nature as we wanted to gather and analyze data on the specific facets related to perceptions of the Ally tool. An exploratory survey aims to explore a topic or issue to gain an initial level of understanding with the intent of further or later research and inquiry. Similarly, a descriptive survey often collects quantitative and qualitative data to further explain or reveal information about a topic or issue. In our case, the survey focused on better understanding participants' perceptions, experiences, and motivation to use Ally (Creswell & Creswell, 2018).

SAMPLING

We conveniently sampled our networks because we knew those populations had individuals who used the tool; currently, there is no readily available dataset from which we could pull this type of data. Additionally, Ally is owned and licensed by Anthology, a for-profit firm; thus, no client or user list is available to the public. This approach was fitting given the proliferation of tools like Ally at higher education institutions (Arshad et al., 2020). Participants represented a strong cross-section of two and four-year institutions. After removing incomplete responses, 78 online educators completed the survey, though some chose not to answer all of the survey questions. Participants were somewhat evenly split between institutional type and tenured status (see Table 1); however, 91% worked at public institutions, and 61% reported teaching full-time.

Table 1 Participant Demographics.

INSTITUTIONAL TYPE	PROFIT STATUS	FACULTY-STATUS	TENURED STATUS
Two-Year: 39 (51%)	Public: 70 (91%)	Full-Time: 46(61%)	Tenured/Tenure Track: 37(49%)
Four-Year: 33 (43%)	For-Profit: 2 (3%)	Part-Time: 29 (39%)	Not Tenure Track: 38(51%)
Other: 5 (6%)	Non-Profit Private: 5(6%)		

RESEARCH PROCEDURES

We designed a survey using Qualtrics with questions focused on faculty views and experiences of using Ally, their rationale for its use, and who they felt was ultimately responsible for accessibility on their respective campuses. The instrument contained quantitative Likert-scale and qualitative open-ended questions. After receiving institutional review board approval, we administered the survey by posting the link to our professional networks (e.g., AECT, ITC, WCET). The results were analyzed in two phases. First, we calculated frequencies and descriptive statistics for the quantitative Likert-style questions. Then, we analyzed the qualitative open-ended question through first—and second-cycle coding (Saldana, 2016). The findings from this approach are discussed below.

VALIDITY AND RELIABILITY MEASURES

We took several steps to improve our research's validity and reliability as Creswell and Creswell (2018) recommended. First, we ensured alignment between the items on the instrument and the study's research questions to ensure content, construct, and criterion validity. In doing so, we could ask for responses from participants that would ultimately give us the data we sought to answer our research questions. Next, we revised our questions to verify that they contained concise and clear language free from ambiguity to avoid any confusion or misinterpretation by participants. Finally, we used a standardized administration

process through delivery online and used Likert scales as an established rating method to ensure reliability. By using these approaches, we can ensure actionable and credible findings applicable to a broad audience.

FINDINGS AND DISCUSSION

As previously mentioned, we were interested in online educators' perceptions of Ally, how they use it, and who they think is responsible for accessible content and courses. Below, we will report the results of our inquiry into these three areas.

AWARENESS AND KNOWLEDGE OF ALLY

We first wanted to understand better participants' awareness and knowledge of Ally and how faculty and students use it (See Table 2). As we hoped, given our focus on Ally in this study, most participants reported that they knew what Ally is (*M* = 4.62) and that their institution uses Ally (*M* = 4.58). Most participants also reported knowing how to use Ally (*M* = 4.32), but fewer reported knowing how students might use Ally in online courses (*M* = 3.53).

Table 2 Knowledge and Awareness of Ally.

QUESTION	STRONGLY DISAGREE	SOMEWHAT DISAGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT AGREE	STRONGLY AGREE	M	SD
I know that my institution uses Ally (n = 78)	6 (7.69%)	2 (2.56%)	1 (1.28%)	1 (1.28%)	68 (87.18%)	4.58	1.16
I know what Ally is (n = 78)	3 (3.85%)	2 (2.56%)	1 (1.28%	10 (12.82%)	62 (79.49%)	4.62	0.94
I know how to use Ally in my courses (n = 77)	5 (6.49%)	3 (3.90%)	2 (2.60%)	19 (24.68%)	48 (62.34%)	4.32	1.13
I understand how students use Ally in online courses (n = 76)	8 (10.53%)	16 (21.05%)	10 (13.16%)	12 (15.79%)	30 (39.47%)	3.53	1.45

GENERAL PERCEPTIONS AND USE OF ALLY

Once we had an idea of their awareness of Ally, we asked questions about their perceptions and use of Ally. First, 66% reported that they find Ally easy to use (*M* = 3.78) and they are confident in their use of it (M = 3.77). This could be due in part to prior training that they took part in, as about 66% reported that they had attended training on Ally (M = 3.62), yet 61% reported that they could use more training on using it. Most participants still reported that they find Ally easy to use (M = 3.78) and use Ally at least once a semester (M = 3.92). However, participants were more divided on the time it takes to use Ally; 32% reported that they either agree or strongly agree, and 19.5% reported a neutral opinion of neither agreeing nor disagreeing on whether it takes much time to use Ally. However, the majority still reported that they thought Ally was worth the time it takes to use (M = 4.07), with 76% of participants reporting that they agree or strongly agree that Ally improves the student learning experience (*M* = 4.13) (see Table 3).

We asked participants why they use Ally and their overall perceptions of using it in two open-ended questions. A few themes emerged from their responses. One theme focused on supporting students using accessible content in multiple formats. These participants focused not only on how Ally can check that content is accessible but also on how Ally provides students with content in multiple formats. The following quotes capture some of these sentiments:

- "I use Ally because I have benefited from Ally as a student. It also increases general access to my materials for all students."
- "I use Ally so all students can benefit from having accessible content; or, all students can choose which alt format they wish to download."
- "I'm an instructional designer. We use Ally when we are creating and building online courses. We also use Ally to help faculty create their ADA compliant courses."

Some pointed out that they did not have a choice to use or not use it, as using Ally was a campus requirement. For instance, one participant noted:

- "A few years ago, a lawsuit was brought against our institution. That was the primary push for making courses accessible."
- "I didn't have a choice – it was turned on for me at the admin level."

It is difficult to determine, though, whether, in these cases, the participants are more dissatisfied with top-down edicts from upper administration or whether they have problems with Ally itself.

Other themes about participants' overall perceptions focused on ease of use and usefulness for all learners, as well as how Ally can be frustrating, time-consuming, and even buggy.

- ***Easy to Use***. Ally was generally very user-friendly and easy to use.
- ***Useful for all learners.*** Even those without a disability.
- ***Frustrating and time-consuming.*** Many respondents found the tool to be frustrating, difficult, painful, or time-intensive to use.
- ***Limiting & Buggy:*** The tool was useful but contained limitations and bugs requiring rectification.

We then wanted to learn more about how they use Ally and whether they think their peers use it. While the majority (80%) of participants reported that they check the accessibility of materials before adding them to their course, almost half (47%) reported that they wait to use Ally to check the accessibility of content in their course. Moreover, 39% reported that they are only satisfied when the Ally gauge is green, indicating that the content is almost perfect or perfect (regarding accessibility).

Table 3 Uses of Ally.

QUESTION	STRONGLY DISAGREE	SOMEWHAT DISAGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT AGREE	STRONGLY AGREE	*M*	*STD*
I find Ally easy to use (n = 77)	2 (2.60%)	9 (11.69%)	15 (19.48%)	29 (37.66%)	22 (28.57%)	3.78	1.06
I am confident in my knowledge and use of Ally (n = 77)	7 (9.09%)	9 (11.69%)	7 (9.09%)	26 (33.77%)	28 (36.36%)	3.77	1.3
I have attended training on the Ally tool (n = 77)	15 (19.48%)	9 (11.69%)	2 (2.60%)	15 (19.48%)	36 (46.75%)	3.62	1.6
I could use more training on how to use Ally (n = 77)	11 (14.29%)	9 (11.69%)	10 (12.99%)	22 (28.57%)	25 (32.47%)	3.53	1.41
I use Ally in my online course(s) at least once every semester I teach (n = 77)	8 (10.39%)	7 (9.09%)	7 (9.09%)	16 (20.78%)	39 (50.65%)	3.92	1.37
It takes a lot of time to use Ally (n = 76)	13 (17.11%)	15 (19.74%)	24 (31.58%)	16 (21.05%)	8 (10.53%)	2.88	1.22
The time taken to use Ally is worth it (n = 75)	6 (8.00%)	2 (2.67%)	9 (12.00%)	22 (29.33%)	36 (48.00%)	4.07	1.19
Ally improves the online learning experience for students (n = 77)	3 (3.90%)	1 (1.30%)	14 (18.18%)	24 (31.17%)	35 (45.45%)	4.13	1.01
Having my course content accessible increases student success and learning (n = 74)	2 (2.7%)	1 (1.35%)	4 (5.41%)	11 (14.86%)	56 (75.68%)	4.59	0.87
I check the accessibility of course materials before adding them to my course (n = 75)	2 (2.67%)	10 (13.33%)	3 (4%)	20 (26.67%)	40 (53.33%)	4.15	1.15
I wait to use Ally to check the accessibility of my course materials because it is easier than using accessibility checkers or remembering how to create accessible content in applications like Word, Google Docs, PDF (n = 74)	13 (17.57%)	16 (21.62%)	10 (13.51%)	17 (22.97%)	18 (24.32%)	3.15	1.45
I am only satisfied when Ally's numerical numbers are 100 and all of the colored gauges are green—that is, all content has a perfect accessibility score (n = 74)	14 (18.92%)	19 (25.68%)	12 (16.22%)	20 (27.03%)	9 (12.16%)	2.88	1.32

RESPONSIBILITY FOR ACCESSIBLE ONLINE COURSES

Finally, Table 4 displays the results supporting who or which entity on campus participants felt was responsible for creating accessible content in online courses.

Table 4 Responsibility for Accessibility.

ITEM (n = 75)	COUNT (%)
Faculty	38 (50.67%)
eCampus/Online Learning/Distance Education Staff	7 (9.33%)
Disability Resources/Educational Access Staff	2 (2.67%)
IT Staff	1 (1.33%)
A combination of Faculty and Staff	27 (36%)

A little more than half of the participants reported that they thought faculty members were responsible for ensuring that online courses and materials were accessible, followed by a third who felt a combination of faculty and staff were responsible. Less than fifteen percent felt that other entities, such as distance learning centers, disability resource centers, or IT staff, were responsible for ensuring that online courses were accessible.

The themes from the remaining open-ended questions aligned with the quantitative results. For instance, several noted that faculty were the main driver of accessibility but cautioned against faculty being solely in charge. One participant explained, "This needs to be a faculty-driven initiative" and "Primarily, faculty should be ensuring accessibility of their course, but staff are available to assist and answer questions." Most noted that a joint effort was necessary from a campus perspective. For example:

> In my college (self-support), there is joint responsibility between the distance education instructional designers/support staff and the instructor. In the other colleges (state-support), the faculty are responsible, and they can seek out help from various offices on campus. This latter method is fragmented and inefficient. I think that there should be a more organized system for getting course materials into fully-accessible condition.

Other open-ended responses stated, "It's a team effort between the faculty and staff" and, "I think as a campus community, we need to adopt an accessibility mindset rather than one or two champions."

CONCLUSION, IMPLICATIONS, AND SUGGESTIONS

The survey results illustrate the role the Ally tool plays on various campuses around the U.S. through our key findings. Because the project focused exclusively on Ally (versus other tools for accessibility) and had a smaller sample of participants, the application of findings should be done cautiously and remain focused largely on institutions using the Ally product.

First, participants viewed Ally as an easy-to-use tool that can benefit students by helping institutions ensure that content and materials are accessible and available in alternative formats. This finding aligns with previous research, noting that student benefits are achieved through intentionality in workflow and design (Baldwin & Ching, 2021; Burgstahler, 2002). Next, while the tool has many benefits, participants were quick to point out that improvements can be made regarding LMS integration, user experience, and general workflows due to time investment. Many still acknowledged that they felt that the time was 'worth it' for the success of all students, further supporting the literature that highlights the benefits of taking a proactive approach to accessible online course design (Almufarreh & Arshad, 2021; McKeown & McKeown, 2019). Like previous literature (Baldwin & Ching, 2021; Behling, 2017; Linder et al., 2015; Lowenthal et al., 2020), participants highlighted the importance of developing an accessibility culture and mindset on campuses focused on pedagogy and equity and not simply on compliance. In the end, overall, most participants, like previous studies (Kent, 2016; Madaus et al., 2021), reported that faculty are the key drivers of the effort and need to create accessible

online courses, but with collaboration from other partners across campus such as distance/eLearning staff or other entities; further supporting the notation and need to create a culture of accessibility through collaboration rather than one person or entity trying to 'do it all.'

The results of this study have some direct implications for practitioners. First, the success of accessibility lies in a multifaceted collaborative approach that promotes accessibility for all learners regardless of need or disability. No individual or office can be alone in executing the key tasks to ensure that online courses are accessible through various means, such as the Ally tool. Next, while the work must be collaborative, faculty must drive the mission of accessibility, take part in training and development as needed, and ultimately be the face of course-level accessibility.

Institutions must ensure that their policies, procedures, and processes ensure that the importance of accessibility permeates all facets of course design and creation. This will avoid a reactive mindset and make a proactive approach the norm. Institutions must also better understand the time faculty spend creating accessible courses and materials and balance workload as needed.

While this research addressed a gap in the literature, further research is needed to better understand faculty views and uses of Ally and thoughts on campus-level responsibility for accessibility. This study contained a small sample. Thus, a replicative study with more participants – disaggregated by role, institution type, content area, rank, or other factor – could shed more light on differences across these different demographics. Newer faculty may be more attuned to the benefits of the Ally tool or even bear more of a personal feeling of responsibility for accessibility than tenured faculty. Further, this study did not assess the differences between faculty and staff's perceptions of using Ally. An additional focus of further research might consider students' perceptions of course-level accessibility or alternative formats.

Ally provides faculty and staff with a method to improve course accessibility. However, more research is needed to better understand the work required to make course materials accessible to learners before the course begins and throughout the semester.

SUSTAINABLE DEVELOPMENT GOALS

This study is linked to the following SDGs: Quality education (SDG 4), industry, innovation, and infrastructure (SDG 9), reduced inequalities (SDG 10), peace, justice, and strong institutions (SDG 16), and partnerships for the goals (SDG 17).

DATA ACCESSIBILITY STATEMENT

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

ETHICS AND CONSENT

Ethical approval through the lead author's Institutional Review Board (IRB) was sought and obtained prior to beginning this project.

ACKNOWLEDGEMENTS

We are grateful to our colleagues at AECT and ICDE for allowing us to share our work.

COMPETING INTERESTS

One author is presently employed by Anthology, makers of Ally, but was not employed at the time of the study or initial manuscript, and the research was fully disclosed to the employer upon hire.

There were no other ethical conflicts or competing interests in completing this research, and no funding was sought or provided to complete the project.

AUTHOR CONTRIBUTIONS

Patrick Lowenthal: Project administration, data curation, writing – review and editing; Christopher Prokes: Conceptualization, formal analysis, writing – original draft preparation; Amy Lomellini: Conceptualization, formal analysis, writing – review and editing; Crystal: writing – review and editing; formal analysis; All authors have read and agreed to the published version of the manuscript.

AUTHOR AFFILIATIONS

Patrick R. Lowenthal orcid.org/0000-0002-9318-1909
Boise State University, United States of America

Christopher Prokes orcid.org/0000-0003-4187-1542
Sinclair College, United States of America

Amy Lomellini orcid.org/0000-0002-2977-3010
Boise State University, United States of America

Crystal Gasell orcid.org/0000-0003-2499-8496
University of Colorado Denver, United States of America

REFERENCES

ADA. (2024, April). Fact sheet: New rule on the accessibility of web content and mobile apps provided by state and local governments. https://www.ada.gov/resources/2024-03-08-web-rule/

Almufarreh, A., & **Arshad, M.** (2021). An efficient utilization of Blackboard Ally in Higher Education. *Intelligent Automation and Soft Computing, 29*(1), 76–87. https://doi.org/10.32604/iasc.2021.017803

Altindag, D. T., Filiz, E. S., & **Tekin, E.** (2021, July). *Is online education working?* (Working Paper 29113). https://www.nber.org/system/files/working_papers/w29113/w29113.pdf.

Arshad, M., Almufarreh, A., Noaman, K. M. G., & **Saeed, M. N.** (2020). Academic semester activities by learning management system during COVID-19 pandemic: A case of Jazan University. *International Journal of Emerging Technologies, 11*(5), 213–219.

Asgari, H., Gupta, R., Titiloye, I., & **Jin, X.** (2022). Challenges, perceptions, and future preferences for post-secondary online education given experiences in the COVID-19 outbreak. *Computational Urban Science, 2*(29). https://doi.org/10.1007/s43762-022-00058-7

Baldwin, S. J., & **Ching, Y.** (2021). Accessibility in online courses: A review of national and statewide evaluation instruments. *TechTrends, 65*, 731–742. https://doi.org/10.1007/s11528-021-00624-6

Behling, K. (2017). Accessibility considerations for hybrid courses. *New Directions for Teaching & Learning, 149*, 89–101. https://doi.org/10.1002/tl.20230

Blackboard Ally. (2022). *Inclusive learning research series.* https://ally.ac/research/

Blackwell, A. G. (2017). The curb-cut effect. *Stanford Social Innovation Review, 15*(1), 28–33. https://doi.org/10.48558/YVMS-CC96

Burgstahler, S. (2002). Distance learning: The library's role in ensuring access to everyone. *Library Hi Tech, 20*(4), 420–432. https://doi.org/10.1108/07378830210452622

Burgstahler, S. (2017). ADA compliance for online course design. *EDUCAUSE Review*. https://er.educause.edu/articles/2017/1/ada-compliance-for-online-course-design

CANnect. (2010). *Web accessibility for online learning: How-go guide for creating accessible online learning content*. http://sloanconsortium.org/cannect/projectone/index.php

Case, D. E., & **Davidson, R. C.** (2011). Accessible online learning. *New Directions for Student Services, 2011*(134), 47–58. https://doi.org/10.1002/ss.394

Cifuentes, L., Janney, A., Guerra, L., & **Weir, J.** (2016). A working model for complying with accessibility guidelines for online learning. *TechTrends, 60*, 557–564. https://doi.org/10.1007/s11528-016-0086-8

Creswell, J. W., & **Creswell, J. D.** (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th Ed.). Sage.

Dahl, B. (2022, May 1). Brightspace Accessibility Checker. *Brightspace Community*. https://community.brightspace.com/s/article/Brightspace-Accessibility-Checker

Dobransky, K., & **Hargittai, E.** (2006). The disability divide in internet access and use. *Information, Communication, & Society, 9*(3), 313–334. https://doi.org/10.1080/13691180600751298

Fenlon, K., Wood, L. C., Downie, J. S., Han, R., & **Kinnaman, A. O.** (2016). Toward accessible course content: Challenges and opportunities for libraries and information systems. *Computer Science, 53*, 1–10. https://doi.org/10.1007/s11528-021-00624-6

Foley, A., & **Ferri, B. A.** (2012). Technology for people, not disabilities: Ensuring access and inclusion. *Journal of Research in Special Educational Needs, 12*(4), 192–200. https://doi.org/10.1111/j.1471-3802.2011.01230.x

Gladhard, M. (2010). Determining faculty needs for delivering accessible electronically delivered instruction in higher education. *Journal of Postsecondary Education and Disability, 22*(3), 185–196.

Guilbaud, T. C., Martin, F., & **Newton, X.** (2021). Faculty perceptions on accessibility in online learning: Knowledge, practice, and professional development. *Online Learning, 25*(2), 6–35. https://doi.org/10.24059/olj.v25i2.2233

Instructure. (2022). *How do I use the accessibility checker in the rich content editor as an instructor?* https://community.canvaslms.com/t5/Instructor-Guide/How-do-I-use-the-Accessibility-Checker-in-the-Rich-Content/ta-p/820

Jaeger, P. T. (2012). *Disability and the internet*. Lynne Rienner Publishers.

Kent, M. (2016). Access and barriers to online education for people with disabilities. *National Center for Student Equity in Higher Education*. https://espace.curtin.edu.au/bitstream/handle/20.500.11937/55588/55669.pdf

Kim, J. Y., & **Feinup, D. M.** (2021). Increasing access to online learning for students with disabilities during the COVID-19 pandemic. *The Journal of Special Education, 55*(4), 213–221. https://doi.org/10.1177/0022466921998067

Kulkarni, M. (2019). Digital accessibility: Challenges and opportunities. *IIMB Management Review, 31*(1), 91–98. https://doi.org/10.1016/j.iimb.2018.05.009

Lightfoot, E., & **Gibson, P.** (2013). Universal instructional design: A new framework for accommodating students in social work courses. *Journal of Social Work Education, 41*, 269–277. https://doi.org/10.5175/JSWE.2005.200303129

Linder, K. E., Fontaine-Rainen, D. L., & **Behling, K.** (2015). Whose job is it? Key challenges and future directions for online accessibility in US institutions of higher education. *Open Learning, 30*(1), 21–34. https://doi.org/10.1080/02680513.2015.1007859

Lomellini, A., Lowenthal, P. R., Trespalacios, J., & **Snelson, C.** (2022). Leaders' perspectives of accessible and inclusive online learning. *Distance Education*, *43*(4), 574–595. https://doi.org/10.1080/01587919.2022.2141608

Lowenthal, P. R., Greear, K., Humphrey, M., Lowenthal, D. A., Conley, Q., Giacumo, L. A., & **Dunlap, J. C.** (2020). Creating accessible and inclusive online learning: Moving beyond compliance and broadening the discussion. *Quarterly Review of Distance Education*, *21*(2), 1–21.

Lowenthal, P. R., & **Lomellini, A.** (2023). Accessible online learning: A preliminary investigation of educational technologists' and faculty members' knowledge and skills. *TechTrends*, *67*, 384–392. https://doi.org/10.1007/s11528-022-00790-1

Lowenthal, P. R., Lomellini, A., Smith, C., & **Greear, K.** (2021). Accessible online learning: A critical analysis of online quality assurance frameworks. *Quarterly Review of Distance Education*, *22*(2), 15–29.

Maudaus, J. W., Gelbar, N., Faggella-Luby, M., & **Dukes, L. L.** (2021). Experiences of students with disabilities during the COVID-19 interruption of in-person instruction. (EJ13086447). ERIC. https://eric.ed.gov/?id=EJ1308647

Massengale, L. R., & **Vasquez, E.** (2016). Assessing accessibility: How accessible are online courses for students with disabilities? *Journal of the Scholarship of Teaching and Learning, 16*, 69–79. https://doi.org/10.14434/josotl.v16i1.19101

McKeown, C., & **McKewon, J.** (2019). Accessibility in online courses: Understanding the deaf learner. *TechTrends, 63*, 506–213. https://doi.org/10.1007/s11528-019-00385-3

Microsoft. (2022). *Rules for the accessibility checker*. https://support.microsoft.com/en-us/office/rules-for-the-accessibility-checker-651e08f2-0fc3-4e10-aaca-74b4a67101c1

Moody, J. (2020, August 18). Navigating online college as a disabled student. *U.S. News and World Report*. https://www.usnews.com/education/best-colleges/articles/how-to-navigate-online-college-classes-as-a-student-with-disabilities

Mullaney, C. (2021, February 8). The shift in online has finally made space for disabled students. *Times Higher Education*. https://www.timeshighereducation.com/opinion/shift-online-has-finally-made-space-disabled-students

NCES. (2019). Table 311.10: Number and percentage of distribution of students enrolled in post-secondary institutions by level, disability status, and selected student characteristics, 2015–2016. *NCES*. https://nces.ed.gov/programs/digest/d19/tables/dt19_311.10.asp

Oswal, S. K. (2013). Exploring accessibility as a potential area of research for technical communications: A modest proposal. *Communication Design Quarterly Review, 1*(4), 50–60. https://doi.org/10.1145/2524248.2524261

Paudel, P. (2021). Online education: Benefits, challenges and strategies during and after COVID-19 in higher education. *International Journal on Studies in Education, 3*(2), 70–85. https://doi.org/10.46328/ijonse.32

Roberts, J. B., Crittenden, L. A., & **Crittenden, J. C.** (2011). Students with disabilities and online learning: A cross-institutional study of perceived satisfaction with accessibility compliance and services. *Internet and Higher Education, 14*, 242–250. https://doi.org/10.1016/j.iheduc.2011.05.004

Rose, D. H., Meyer, A., Strangman, N., & **Rappolt, G.** (2002). *Teaching every student in the digital age: Universal design for learning*. ASCD.

Saldaña, J. (2016). *The coding manual for qualitative researchers*. SAGE.

Smalley, S. (2021, October 13). Half of all college students take online courses. *Inside Higher Education*. https://www.insidehighered.com/news/2021/10/13/new-us-data-show-jump-college-students-learning-online

Stienstra, D., Watzke, J., & **Birch, G. E.** (2007). A three-way dance: The global public good and accessibility in information technologies. *The Information Society, 23*(3), 149–158. https://doi.org/10.1080/13691180600751298

United States Department of Education. (1998). *Q&A: Title IV-Rehabilitation act amendments of 1998. Section 508: Electronic and information technology*. https://www.justice.gov/sites/default/files/crt/legacy/2009/02/18/deptofed.pdf

United States Department of Education. (2022). *Resolution agreement*. https://www2.ed.gov/about/offices/list/ocr/docs/investigations/11116002-b.pdf

WebAIM. (2022). *Introduction to web accessibility*. https://webaim.org/intro/

TO CITE THIS ARTICLE:
Lowenthal, P. R., Prokes, C., Lomellini, A., & Gasell, C. (2025). Investigating Faculty Perceptions of Creating and Enhancing Accessible Online Courses with Ally. *Open Praxis*, *17*(1), pp. 34–45. DOI: https://doi.org/10.55982/openpraxis.17.1.759

Submitted: 19 September 2024
Accepted: 19 September 2024
Published: 15 April 2025

Open Praxis is a peer-reviewed open access journal published by International Council for Open and Distance Education.

INTERNATIONAL COUNCIL FOR OPEN AND DISTANCE EDUCATION