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Collaboration Between the Library and Office of Student Disability Services: Document Accessibility in Higher Education

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Abstract

Purpose – The paper aims to discuss the relationship between interdepartmental stakeholders in higher education and the information identified as a result of collaborations. It proposes that collaborations can help clarify issues to then advocate for them.

Design/methodology/approach – The paper opted for a naturalistic case study design, gathering direct and participant observation of interdepartmental collaborations including 1 Student Share, 12 one-hour collaborative sessions and 1 Accessibility Conference.

Findings – The paper provides observed insight about student needs to have documents that are accessible for assistive technologies to recognize and read how change is brought about during internal brand building. It suggests that successful accessibility implementation in higher education calls for collaboration with stakeholders.

AQ: 1

Originality/value – This paper shows how a collaboration between the library and Student Disability Services can work to understand document accessibility issues. It also reveals that students with disabilities are adept with current mobile trends and technology, and need to be, for productivity in college. It will be valuable to librarians, faculty, staff and other technology stakeholders that work with students with disabilities.

Keywords Collaboration, Accessibility, Higher education, Library, Student affairs, Students with disabilities

Paper type Research paper

Introduction

Academic librarians and student affairs professionals support and contribute to the development of student learning in higher education. They each initiate collaborative relationships with academic faculty to support students. They are a natural fit as partners to bridge academic and social experiences for students. "By their very nature, partnerships require educators from both inside and outside the classroom to collaborate to consider students' educational experiences" (Whitt *et al.*, 2008). On the 25th anniversary year of the Americans with Disabilities Act in 2015, two successful collaborations were facilitated between the Leonard Lief Library and The Office of Student Disability Services at Lehman College, City University of New York (CUNY). As

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educational stakeholders, the library and the Office of Student Disability Services partnered to find out about student accessibility, mobility and transition issues through a student assembly on apps and technology.

Guiding principles for the collaboration

Collaborative efforts require time commitments from each member. Demands on each professional's time must be valued when there is value collaboration flows. Flexibility of meeting times is also important and supervisors must value work that is done. Both the Chief Librarian and Director of the Office of Student Disability Services and Veterans and Military Affairs value the relationships and students (Hinchliffe and Wong, 2012, p. 123).

Both departments collaborated again for a total of 12 one-hour meetings that resulted in a conference session to advocate for document accessibility. This result was largely because of the needs expressed by the students in the assembly from the first collaboration. "The purpose of collaboration is to create a shared vision and joint strategies to address concerns that go beyond the purview of any particular party" (as cited in Chrislip, 2002). A successful collaboration also involves getting started, setting up for success, working together and moving to action (Chrislip, 2002). This collaborative process has therefore created a mutually valuable and collaborative experience between the library and Office of Student Disability services. They both share related goals and an affinity for the students.

How the collaboration began

The library and Office of Student Disability Services hosted a student assembly in the Assistive Technology Center (ATC), located in the library, to discuss apps and technology that students use. The idea of a student assembly began with a conversation that the CUNY LEADS (Linking Employment, Academics and Disability Services) Counselor had with a librarian serving on the same search committee. The idea was to plan a workshop and connect with students who visit the ATC for accessibility and technical support. The librarian therefore asked if the library could be part of the student assembly as well, as they also come to the Reference Desk for assistance with research and citations. The event was held on February 25, 2015. "Integration of academic and student services across campus is recognized as a critical approach to providing quality education and support to promote students completion" (Ozaki and Hornak, 2014). The student assembly was facilitated by the Access and Technology Center Manager, CUNY LEADS Counselor and Government Documents Collection Development Librarian.

The assembly embraced students' technological mobility and how it affected their accessibility. Lehman College is a commuter school with students that are on the go. Because of the portability of devices and technology, students want access to data and information wherever they are. The educators hoped to discover which apps, websites and technology students use to enhance their learning, improve study skills and time management needs. They also wanted to impart resources available for students' successful academic careers. The resources for students consisted of ATC services, information technology (IT) essentials (printing, copying, e-mail, Blackboard course management usernames and passwords) and library databases for research and citation. One point, voiced by most students, at the assembly, became the issue of document accessibility implementation from faculty.

Student assembly discussion

College students with disabilities use technology in clever ways to retrieve information for educational purposes. Students use mobile devices such as smartphones, tablets and laptops to access apps, software, websites and cloud storage to retrieve notes, assignments and lectures. Cloud storage like DropBox is used to download notes, documents and lectures when recording with their phone or digital smartpens like the LiveScribe Pen.

The increase in use of technology introduces complex access issues for students with visual, physical, auditory and learning disabilities. Each may encounter different experiences with technology and "[…] access to technology is not the same as the accessibility and usability of that technology" (Thompson, 2015). Collaborative efforts, at this point, can help bridge accessibility issues, so students can cross academic, social and technical barriers.

Students recommended updating college websites and databases. They also recommended the entire campus making all documents accessible – a significant request. An accounting student, with a visual impairment declared, "If all responsibility lies on the student [*making documents accessible*], they will get frustrated and may even give up". He also recommended that QuickBooks replace Peachtree in accounting classes, as screen readers cannot read Peachtree software and QuickBooks is accessible. The event created a collaborative environment for students to showcase their technological skills and needs. This in turn improved understanding of student issues by staff involved at the assembly.

Students, technology and document inaccessibility

An essential discussion point raised by students at the assembly was document inaccessibility. Image PDFs (documents that have been photocopied, then scanned and uploaded) are inaccessible to students who use screen readers (JAWS – Job Access with Speech) and text-to-speech programs (Say Text, Voice Dream). Students recommend that faculty and staff use text documents instead of image documents or photocopies on Blackboard or when sending documents by e-mail. By creating a "true text" or "plain text format", PDF document characters are recognized by assistive technology software programs students use to read documents.

To produce a "true text" document, one must create an original document in Microsoft Word and then convert it into a PDF. PDFs can be made accessible by running the Accessibility feature on Adobe Acrobat. Faculty and staff without access to the original text file must apply an optical character recognition (OCR) tool such as AbbyFine Reader or Acrobat. The OCR tool will convert an image PDF into a Word document or accessible PDF that a screen reader or text-to-speech program can recognize and read back to students.

Students related information that was unfamiliar to the librarian in terms of technology and document accessibility. "Effective partnership programs foster learning, in and out of classrooms, in formal and informal settings, and for students as well as educators" (Whitt *et al.*, 2008). This technology is familiar to ATC professionals and may be familiar to some librarians that work with students with disabilities; however, it may not be familiar to all academic faculty.

Accessibility conference

The second collaboration between the library and the Office of Student Disability Services was held at the 6th Annual CUNY Accessibility Conference on May 1, 2015, at John Jay College of Criminal Justice. The conference theme Student Success in the Digital Age was intended for professionals of higher education and disability services. The library and the Office of Student Disability Services shared the experience of engaging with students in an assembly to find out how they access information and support their educational needs for successful academic careers.

Universal Design for Learning (UDL) was a strong, underlying theme at the Accessibility Conference. UDL, a topic beyond the scope of this paper but which deserves mention, conveys accessibility for everyone promoting equity in higher education for all students. "Planning with UDL does not assume a one-size-fits-all approach; instead it takes into account the variability of all learners" (National Center On Universal Design for Learning, at CAST, 2012). The UDL theme throughout the different workshops at the Accessibility Conference elucidated the idea that a universal design environment would support various accessibility issues.

Navigating college is complex, especially at a large university system like CUNY, where each campus, school, department, program and major has their own unique culture. Making time for collaboration is key in decreasing barriers for students with disabilities and promoting retention. Collaborations with students in assemblies and workshops and partnerships in higher education institutions can help ease the transition process, bridge accessibility issues and foster academic needs (Korbel *et al*, 2011). A list of apps, websites and software, which promote document accessibility and discussed at the Student Assembly and Accessibility Conference, is presented in Table I. T1,AQ:2

Creating awareness through collaborative efforts

Effective results of the collaboration were demonstrated between the library and the Office of Student Disability Services in that relationships and a new network were created. Educational conversations amongst staff and between staff and students occurred in a neutral setting. Accessibility issues were also better understood by both departments. The Office of Student Disability Services makes considerable strides toward solving technology and accessibility issues for students at Lehman College. The library benefitted from learning about technology, accessibility and time management issues as well as the expertise necessary to run a productive ATC for student productivity. "Student affairs professionals can offer librarians more opportunities for contact with students in nontraditional ways" (Forrest, 2005).

The issues brought up by students are a good start to an accessibility framework discussion. The library will work toward a plan of action to identify accessibility difficulties that students encounter in the physical and virtual library environment. Practical recommendations will be created for the library faculty and staff by providing updates at faculty meetings, collaborating with the Office of Student Disability Services, the ATC and IT, as well as creating a libguide.

Next steps

The next steps to increase accessibility efforts for students include engaging them in more assemblies, liaise with departments to discuss compliance; create a video for faculty with library technology accessibility features; use social media and email to

Optical character recognition (OCR)	AbbyFine Scanner Pro–App functions as scanner and OCRs documents, creates accessible Word documents and PDFs, not as powerful as AbbyFine Reader software
	CamScanner–OCRs print text onto a clipboard, scan single pages or a batch (creates one file). E-mail scans documents instantly–great app for peer note takers (sharing notes)
Text-to-speech reader (TTS)	VoiceDream–Text-to-speech reader, specifically for iOS devices/Apple. Highlights texts, so you can follow along with audio, choose your preferred reading speed in settings. Not as powerful as Kurzweil
Dictation	Dragon naturally speaking–Other voice dictation apps, transcribes audio lectures and converts recorded speech to text
TTS and OCR	SayText–TTS and OCR app all-in-one (Text-to-Speech and OCR App in One). iOS only (use with VoiceOver). Tailored for visually impaired/legally blind students. OCRs images, Voiceover will read text
Academic software	Learning Ally–Provides and narrates audio textbooks and literature, with an institutional license/membership, for blind, visually impaired and dyslexic students
	Learning Ally app–Available for iOS and Android devices. Books available in audio or voice text and broken up into chapters for students. Books available based on agreements with publishers or if volumes are out of copyright
	Kurzweil–Kurzweil 1,000 makes print and electronic materials accessible to students who are blind or visually impaired. Kurzweil 3,000 is a comprehensive reading, writing and studying program for students with learning disorders and for English-language learners. Kurzweil 3,000 will read text aloud while highlighting each spoken word (Student Disability Services, 2015). ZoomText–For the visually impaired, it enlarges everything on a computer screen, also a screen reader
Note-taking apps	Audionote–Creates separate folders, search/find specific notes, integrates audio and images to notepad in one place and syncs across all devices
	Evernote–Creates separate notebooks, syncs across all devices, access notes through phone, computer and tablet, integrates audio and images to your notes, Search/find specific notes, web clipper feature and many apps link to Evernote
	Notability–Sketch ideas, annotate PDFs, mark-up photos, record lectures, provide audio feedback and more. It is uniquely designed for each device to provide the best note taking experience at school, home and work. With iCloud, your notes are always up to date
Smart pen and app	LiveScribe Pen–Writes as a ballpoint pen concurrently using an infrared camera to capture notes and Bluetooth wireless technology to record a lecture while simultaneously sending notes and lecture recording to your Android or iOS tablet or smartphone via the LiveScribe app
Cloud storage	Dropbox, Google Drive and One Drive–Saves files that can be accessed and adds files from any computer device
Citation	EasyBib–Citation Generator, Citation manager–formats, alphabetizes, e-mails citations. APA, MLA, Chicago formats on app
eBooks from library	OverDrive–Digital library of eBooks, audiobooks and videos, primarily used by public libraries. Offers font designed with heavy-weighted bottom to increase readability for users with dyslexia
	Adobe digital editions–Used to download digitized books, works in conjunction with Adobe ID, compatible with screen readers, Windows, and Mac accessibility features
	BlueFire Reader–download secured books. Compatible with iPad, iPhone and Android
Productivity apps and websites	LinkedIn–Opportunities, Network. Create connections. Engage with professional content
	iStudiez Pro–Combines tracking schedule, homework and grades
	Course Hack–www.coursehack.it/, an organizational tool that helps students stay on top of class schedules, organizes course assignments into electronic calendars, uploads students' electronic syllabus into iCal or Google Cal
Choosing apps	AppCrawlr.com–App discovery engine filters searches by device, category, topic and audience

Table I.
Accessibility tools from student assembly and accessibility conference (Software, apps, websites and cloud storage)

communicate with students; and consult with university administration to create initiatives promoting universal learning and design. Accessibility training for library faculty and staff is also productive in focusing on technical issues and disabilities awareness (Seale, 2006.)

Initiatives take time. As a result of the partnership, further possibilities of collaboration and outreach to improve document accessibility were identified. The following are examples:

(1) outreach to information technology resources for advice on document compliance methods and creating a Blackboard compliance video for faculty including adjuncts;

(2) AbbyFine Reader software can be installed in faculty labs for access to create accessible Word documents and PDFs;

(3) engage in discussions at Senate, Department, Library Faculty and Staff meetings;

(4) work with the Teaching and Learning Commons Office to put together a handout, libguide or other collaboration for all teaching faculty;

(5) inform the Office of Student Affairs to promote document accessibility;

(6) have student focus groups and provide an accessibility survey; and

(7) inform librarians and students during Information Literacy classes about:

- ATC services;
- accessibility features available in electronic resources (automatic zoom, uploading articles on Evernote and other information sharing websites); and
- database support websites (EBSCO databases support http://tinyurl.com/plkxcud).

Next steps that have occurred

Interdepartmental collaborative activities with the Office of Student Disability Services have increased discussions about student accessibility issues. Two plagiarism workshops were conducted with the ATC writing specialist. The workshop objectives included plagiarism prevention, academic integrity and demonstration of the EasyBib citation app. "Both academic and student affairs benefit logistically from the efficiency of coordinated efforts to deliver student services" (Hinchliffe and Wong, 2012, p. 84).

There have also been two focus groups conducted with library faculty where accessibility issues have been brought up to the moderator. The first moderator was the new Vice Provost for Academic Personnel. The library mentioned that students have document accessibility issues on Blackboard. Image PDFs are inaccessible to students who use screen readers. It was recommended that there be professional development for faculty on how to upload accessible documents.

The Vice President for Enrollment Management and Associate Provost led the second focus group. Here the library mentioned an admission policy idea – students with disabilities need to self-identify once they are admitted to Lehman, so an email can be sent out that states that all students requiring support services need to self-identify at the Office of Student Disability Services:

> Being an ally for disability inclusion means not waiting for someone to vocalize the problematic nature of the environment or structure in place. As an ally one might work to develop access and inclusive measures proactively rather than reactively (Karen *et al.*, 2013).

Library accessibility and goals – lessons learned from collaboration

F1 Interdepartmental collaborations build awareness of student needs. Figure 1 shows some of the initial collaborative stakeholders that can get involved with accessibility goals. Some students' disabilities are not visible and those that need accommodations may not reveal physical, visual, hearing or learning differences at the Reference Desk. Students sense when they are valued, which results in increased self-advocacy and confidence (Gomez, 2015). It would, therefore, behoove librarians to learn more about accessibility options in technology to assist all students during reference interactions.

To address accessibility goals, librarians, faculty and staff can pursue professional development and training to advance their knowledge of current assistive technology features and accessibility options. These technology features and options include those in electronic resources, eBooks, software and selected apps. Library Collection Development Policies could be updated to include procurement of accessible products, whenever feasible, to enhance access to library electronic resources. Libraries can also create a research guide covering accessibility in library information resources and technology as shown on the Leonard Lief Library (2015) website, http://libguides.lehman.edu/library-accessibility-and-technology

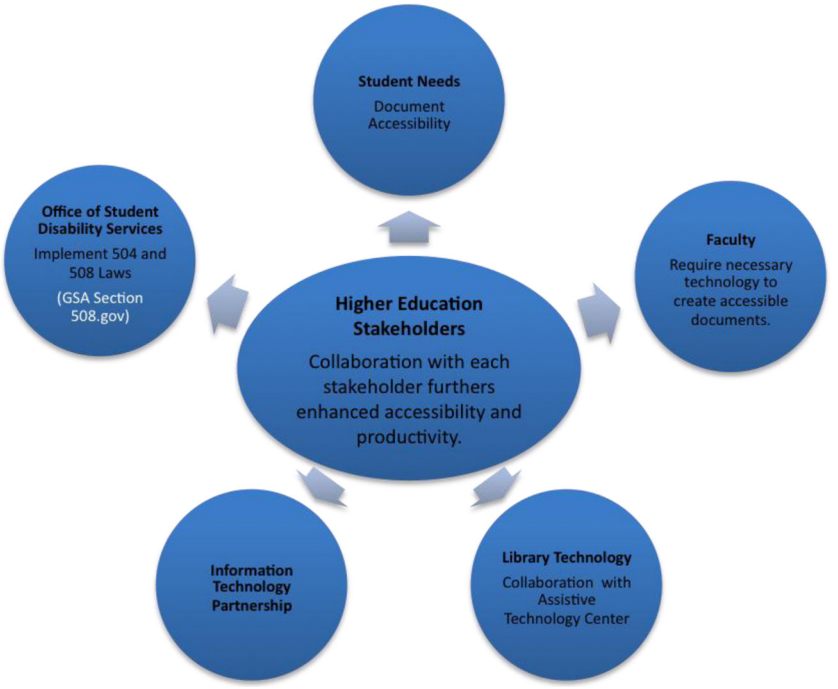

Figure 1.
Collaboration with stakeholders

Becoming involved with an institution's strategic technology accessibility initiative also promotes interdepartmental collaboration for accessibility issues, compliance and support.

Libraries can conduct an internal accessibility review, learn about accessibility features on computers, collaborate with IT for updates and collaborate with database and eBook vendors to request a summary of accessibility features. Librarians interested in accessibility can also follow the ATHEN listserv that provides tips and workarounds for higher education student accessibility issues (Canvas, 2015).

Conclusions

The library, Office of Student Disability Services and students communicated needs and issues to one another that would otherwise not have been investigated, discovered or understood. Student perspectives on use of assistive technologies are not frequently revealed. It is evident that students can educate and provide helpful, practical suggestions to improve accessibility through assemblies, conferences, forums and other programs. According to Vanderheiden (2007):

> We should be careful that our lack of imagination of what is possible does not translate into limitations that we place on the expectations of those we serve, and the preparation we give them for their future.

Students with disabilities are increasingly tech savvy, and must be, to successfully access information from course management systems and navigate databases that enhance their learning opportunities. Technology also helps students. The "various small opportunities" that were developed between the library and Office of Student Disability Services brought about a common vocabulary and a productive activity, a shared vision and identified outcomes that resulted from the collaboration (Frost *et al.*, 2010).

Learning about the importance of accessibility and how the library can help improve access through collaborations and partnerships is valuable. Students with disabilities face considerable challenges with their transition into college. Acknowledging growing technology and accessibility requirements will assist the library and faculty to better serve students. Collaborations provide learning opportunities for everyone involved and:

> […] providing physical and programmatic access to students with disabilities is an institutional responsibility that can be accomplished only by building partnerships and creating a sense of shared ownership (Korbel *et al.*, 2011).

Document accessibility implementation can result in increased productivity for students. This can be supported by improved technology and professional development for faculty and staff. Ideally, this can culminate in development of a universal design for learning, resulting in enhanced student success by increasing access to educational materials, which can also assist with retention.

Professional partnerships between the library and the Office of Student Disability Services or other student affairs departments bring together worlds that do not often mix. The collaborative experience at the Leonard Lief Library has brought a new and updated awareness of the needs of college students with disabilities particularly document accessibility, which is a universe unto its own. It has also indirectly brought

forth the awareness of the social model of disability and the disability rights movement's against ableism and exclusion (Hinchliffe and Wong, 2012, p. 181).

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AUTHOR QUERIES

AUTHOR PLEASE ANSWER ALL QUERIES 1

AQau—Please confirm the given-names and surnames are identified properly by the colours.
■= Given-Name, ■= Surname
The colours are for proofing purposes only. The colours will not appear online or in print.

AQ1— Please check the edits made in the following sentence, and correct if necessary: Original: The paper provides observed insight about student needs to have documents that are accessible for assistive technologies to recognize. read how change is brought about during internal brand building. Revised: The paper provides observed insight about student needs to have documents that are accessible for assistive technologies to recognize and read how change is brought about during internal brand building.

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