Facilitating Information Access for Visually Impaired Postsecondary Students

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Blind and partially sighted students must access print resources in alternative forms. Although technology enables access, adapted materials such as audio textbooks are not readily available. Moreover, a recent study evaluated 30 Canadian library web sites and found only 10% met accessibility standards (Forgrave and McKechnie 2001).

How do visually impaired postsecondary students find academic information? How do they use libraries? Does adaptive technology facilitate information access?

To help answer these questions, we interviewed six students enrolled in first- or second-year college or university programs. The participants — recruited through on-campus offices of support and disability services (OSDS)—were either totally blind or partially sighted, and unable to read print. Their responses highlight successes and failures in information access.

Adaptive technology

Adaptive technology magnifies print or transforms it into audio or tactile forms, while speech synthesizers verbalize electronic resources.

Given technology's ability to link visually impaired students with academic information, it is not surprising that this topic dominated our interviews. One participant, Alan, noted that adaptive technology improved his "ability to find information 100 per cent," while another, Stratton, stressed that he "couldn't cope" without it. However, the students had problems locating adapted materials, and the time-consuming adaptation process dramatically lessened their available reading time. Often, these students wrote exams without completing preparatory readings because they could not access adapted texts.

Adaptation also posed problems in the library. While sighted students browsed the shelves or catalogue for relevant materials, the interviewees relied on librarians to make selections. For example, one of Zeena's assignments asked students to locate and copy a research article — a quick process for sighted students. Zeena approached OSDS to convert the assignment, visited the library where a librarian retrieved the article, returned to OSDS to digitize the work, and then listened to it—a multi-day process.

Access to electronic information

The students believed the time and energy they invested in accessing information was excessive. As they had to rely on OSDS to adapt materials, they worked on OSDS' timelines, not their own. Hennie describes how study time was reduced or wasted:

> Sighted students are able to study between classes because they can see their texts. I often find myself just sitting and waiting for my next class to begin because I don't have time to visit the [adaptive technology] lab at OSDS.

The time involved in adaptation increased students' preferences for Internet resources, particularly e-journals. Magnification and speech synthesizers allowed immediate access—and students did not need to rely on others' judgements of relevance. Grant noted that Internet resources reduced the stress of completing assignments, making information-seeking "a lot more relaxing." Stratton highlighted ease of use:

Information on the Internet is already in a form that I can work with and copy. I can take notes from that easier than from [print] library materials.

Access to a support network

Because academic information generally appears in print, visually impaired students must rely on a support network for access. The OSDS staff and volunteers were integral to the interviewees' information pursuits; they scanned documents, took notes, offered technology training and so on. Discussing OSDS, Dinah said:

I don't see how they can do any more. They're helpful and wonderful. I've burst [in on them in the past] and said "pop quiz. I have seven minutes and I need someone to read it to me—*now*." Anything they have to do to make it possible, they […do, and in] whatever format I want… I don't want everything in Braille but I want some in Braille, some electronically and some audio. It all depends. I like textbooks on tape, summaries and glossaries in Braille, and assignments on disk.

Librarians also played significant roles by retrieving materials and conducting online searches. Fichten, Barile and Asuncion (1999) see librarians as key facilitators in disabled students' information seeking.

However, the students were often frustrated by feelings of dependence. Volunteer scribes were often unavailable—leaving students without any class notes—or did not provide thorough descriptions. The interviewees also wanted speech synthesizers in the library so they could review electronic resources on their own. Dinah found that reference strategies designed for sighted students were inappropriate to her needs:

Librarians are nice, but…most [sighted] people who are doing research want as much information as possible… I don't want lots of information because it just means more stuff to [adapt]. I want accurate information. I want the information I need quickly… I'd much rather get a book that's got the information I want, because I'm not going to look for other information… Being able to look on the computer yourselves, you can narrow it down a lot easier.

Lack of understanding

The students also stressed that not everyone is as helpful as those who regularly facilitate information access. Many people inadvertently impede access by not understanding visually impaired students' needs. As Grant explained:

If the teacher was to mention something in the class—write it

on the board or provide it on a handout—without verbally discussing it, then that information would pass me by… So, if it was really important for my research…I wouldn't be able to find information as easily as the sighted student would.

Hennie noted that others were simply unwilling to help:

In every class [the professor] gives a bunch of diagrams… from the text and they have figure numbers. So he's like "use the figure numbers to find what pages to read…" But how am I supposed to do that? I can't find the page number. And [at OSDS] we're like "well, how are we going to scan this?" We don't know where to start, where to end—it's very visual… So I talked to [the professor] and said "can you give me page numbers? Because this is a problem." He said no. So [OSDS] emailed him and politely asked him… He said no… I was so ready to drop [the course]…but out of spite I stayed. I've got something to prove now. [Otherwise] it's going to be set in stone for him— "blind or visually impaired students can't do this class."

Similar problems arose in the library. Here, Hennie describes borrowing non-circulating materials for adaptation:

[One woman at circulation] was quarrelling with me, [saying] "Who do you think you are? You don't have a right to say how long you get to take materials out for." And I'm like "well, they said I could." And she says, "I don't know why they said you could…" She was just not wanting to help me and not wanting to think that she could be wrong and that I do have the right to take material out… And I'm like "why don't you find someone who does know?" So [the circulation staff] get the head librarian, and this woman was actually nice. She's showing the other two: "this girl's card is tagged [to borrow these materials]"… But they should *know*. I shouldn't have to put up with that.

Conclusion

The problems encountered by these students suggest that librarians should consider the following recommendations to improve access:

1. Draft inclusive policies to meet disabled students' needs and ensure that staff understand special considerations (e.g., borrowing privileges).

2. Provide adaptive technology at library workstations to support students' independence in seeking information.

3. Work with on-campus units (e.g., offices for students with disabilities) to provide access to adapted materials without duplicating resources.

4. Develop sharing policies with other libraries. Providing access to previously adapted materials gives students more time to study and decreases duplication of resources.

5. Conduct outreach with faculty to highlight disabled students' information needs and ways the library can facilitate access.

6. Encourage publishers to provide materials in adapted form.

To provide universal access, librarians must understand how visually impaired patrons locate information and must set policies that address their needs (Canadian Library Association 1997). With increased understanding—and concrete service strategies—libraries will continue to be welcoming to all students.

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