

## **Customized USB Flash Drives Used to Promote Library Resources and Services to First-Year Medical and Dental Students**

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*In line with its institution's commitment to keep new student orientation/welcome events "green," Columbia University's Health Sciences Library (HSL) applied for a National Network of Libraries of Medicine Middle Atlantic Region (NN/LM MAR) Small Projects Award<sup>1</sup> in Spring/Summer 2009 to explore paperless modes of outreach. This article describes the project that resulted from this funding, whose purpose was to determine whether customized 1 GB USB flash drives are a good vehicle for distributing library promotional materials to incoming medical and dental students. This project gave HSL librarians the opportunity to connect with students in a way that had not been done before and to consider how these new students use/view the information the library produces.*

**KEYWORDS** *Data storage device, dental students, green marketing, library outreach, library resource promotion, library resource usage, medical students, USB drive, USB flash drive, USB key, USB memory stick, USB thumb drive*

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## INTRODUCTION

As the possible avenues for marketing library resources and services expand with the advent of social media services and other new communication technologies, promotional outreach to students has the potential to become more innovative. Without a doubt, the time has come to revisit more traditional modes of library outreach. The handouts, flyers, folders, bookmarks, and other paper products libraries have relied on as the foundation of their marketing toolkits for years pale next to the *YouTube* promotional videos, mobile advertising feeds, and the like that have now penetrated popular culture. Furthermore, the reams of paper used to produce these printed giveaways often conflict with the strong desire on the part of students to see a demonstrated commitment to being “green” from their academic institutions. As noted in Alice Circle’s 2009 *Library Journal* article,<sup>2</sup> “green initiatives” are one of the cultural shifts that appear to be influencing customer loyalty, and consequently, marketing trends.

## BACKGROUND/OBJECTIVES/PURPOSE

In line with its institution’s goal to keep new student orientation/welcome events “green,” Columbia University’s Health Sciences Library (HSL) applied for a National Network of Libraries of Medicine Middle Atlantic Region (NN/LM MAR) Small Projects Award<sup>1</sup> in Spring/Summer 2009 to explore paperless modes of outreach. The \$1,000 award was used to subsidize the purchase of 250 customized USB flash drives intended to promote library resources and services. This article will describe how this short-term project (three months; see Figure 1 for timeline) was developed, implemented, and evaluated. In addition to achieving its marketing objectives, the project also aimed to determine whether USB flash drives are a good “green” vehicle for distributing library promotional materials to incoming medical and dental students.

## METHODS

In September 2009, 1 GB USB flash drives were distributed to 199 of 233 incoming medical and dental students in the class of 2013 (College of Physicians and Surgeons and College of Dental Medicine). These students were attending a librarian-led “Accessing the Medical Literature” workshop, part of their “Molecular Mechanisms and Disease” course.<sup>3</sup> During the 1 hour and 45 minute workshop, various National Center for Biotechnology Information (NCBI) resources were discussed, with the focus being primarily on PubMed. The plain, white-colored USB flash drives were double-branded and adorned using the HSL and the National Library of Medicine (NLM)’s PubMed database logos on each side (see Figure 2). The decision to target

**Project Timeline:**

- July 2009 – Custom USB vendor's contacted for quotes
- July 2009 – Library handouts gathered/updated
- August 2009 – USB flash drives ordered & received
- August 2009 – Content & organization of folders established
- August 2009 – Content loaded onto USB flash drives
- September 1, 2009 – USB flash drives distributed to students
- September 8, 2009 – Students who missed class invited to pickup USB @HSL
- September 10, 2009 – First survey reminder email sent
- September 18, 2009 – Final survey reminder email sent
- September 20, 2009 – Survey closed
- September/October 2009 – Survey results analyzed
- November 2009 – MLA abstract submitted
- November 2009 – Final NN/LM MAR report submitted

**FIGURE 1** USB flash drive project timeline.

this project to students enrolled in a required first-year course was a logistical one: class rosters allowed for the library to keep accurate track of who received a USB flash drive, and class e-mail lists made subsequent communication with USB drive recipients possible. In the past, paper copies of library information handouts were distributed to these students during Columbia University Medical Center's annual *Welcome Expo* event organized for new students, where attendance is only optional.

HSL's marketing budget provided the additional \$958 needed to cover the total cost of \$1,958 for the 250 customized USB drives ordered from a

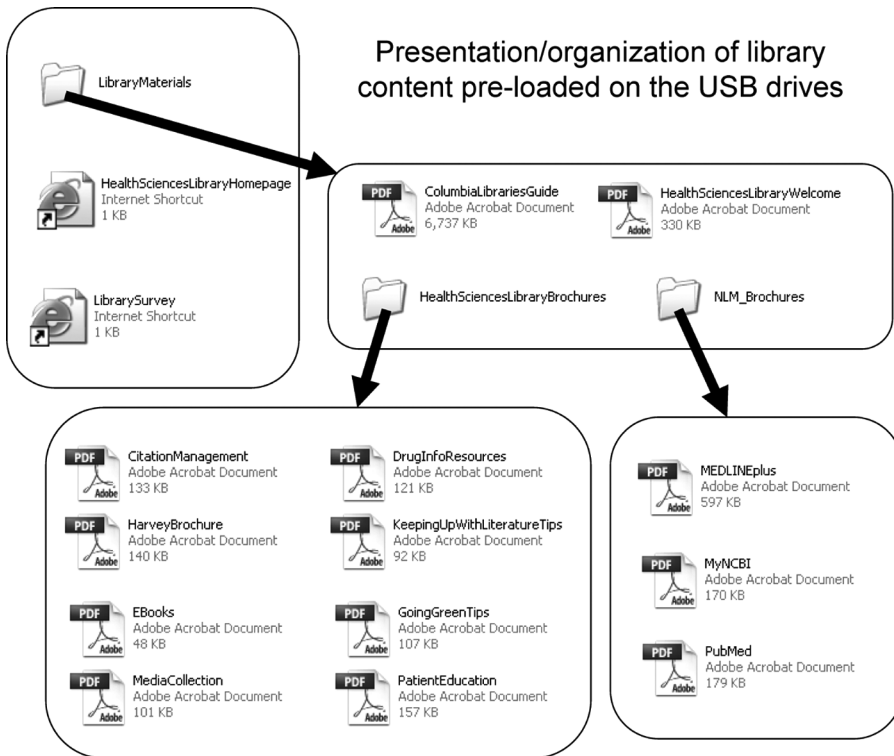


**FIGURE 2** USB flash drive with HSL and NLM logos.

private vendor. To limit expenses, the drives were received blank of files. HSL librarians then saved the content to the drives over a two- to three-day period.

Each USB flash drive was preloaded with ten library handout PDF files and three NLM brochure PDF files, along with web browser shortcuts to the library's home page and to the online survey (see Figure 3). Included as part of NLM's offerings were PDF brochures on PubMed,<sup>4</sup> myNCBI,<sup>5</sup> and MedlinePlus.<sup>6</sup> Among HSL's brochures were a welcome/orientation guide to the Columbia University Libraries<sup>7</sup> and one focused specifically on HSL,<sup>8</sup> as well as eight others ranging in topic from citation management options at Columbia to information on HSL's drug information e-resources.<sup>9</sup>

Handouts included on these drives replaced paper copies of brochures that would otherwise be distributed during orientation events. The USB flash drive, although not biodegradable itself, was justified as contributing to a "greening" of the library's orientation activities, as the project permitted the library to avoid having to make 233 print copies of 13 (multiple-page) library handouts. Furthermore, it was believed that if the students used the HSL and NLM-branded flash drive at the library when doing their research, they would potentially use less paper printing out articles if they downloaded resources to the reusable USB drive instead.



**FIGURE 3** Presentation/organization of library content pre-loaded on the USB drives.

A short, five-question online survey (see Figure 4) was developed to evaluate the usefulness of the library materials included and to gather information about student use of USB drives. Respondents were first asked questions about the preloaded content. Specifically, they were asked about how many of the preloaded documents they had viewed, which of the documents they found most useful, and what other resources they would have liked to be included on the USB drive. Next, respondents were asked about their USB flash drive use in general. Specifically, they were asked about the largest size USB drive they were currently using and whether they planned to use the

## Library Survey

Please take a couple of minutes to provide us with some feedback about the USB memory sticks. Thanks.

1.) Did you view any of the pre-loaded library materials included on the USB memory device?

- Viewed all of the materials
- Viewed 1-5 files
- Viewed 6-10 files
- Viewed none of the materials

2.) Which information on the USB memory device did you find useful?  
(Check as many as apply)

- “Welcome to the Library” brochure from the Health Sciences Library
- “Guide to the Libraries” brochure from Columbia University Libraries
- Health Sciences Library brochures
- National Library of Medicine brochures
- Shortcut to Health Sciences Library homepage

3.) What other library resources/materials would you have liked to be included?

4.) What is the largest size USB memory device you are currently using?

- < 1 GB
- 1 - 2 GB
- 2 - 4 GB
- 4 - 8 GB
- > 8 GB

5.) What is the likelihood that you will be using this device to transport/store resources downloaded via the library (e.g., PDF copies of articles, etc.)?

- Very likely
- Somewhat likely
- Not likely
- Undecided

Submit

Clear Form

Thanks for helping us. If you have any other questions or comments please let us know. You can email [hs-library@columbia.edu](mailto:hs-library@columbia.edu) or visit us at the reference desk.

FIGURE 4 USB drive project survey website.

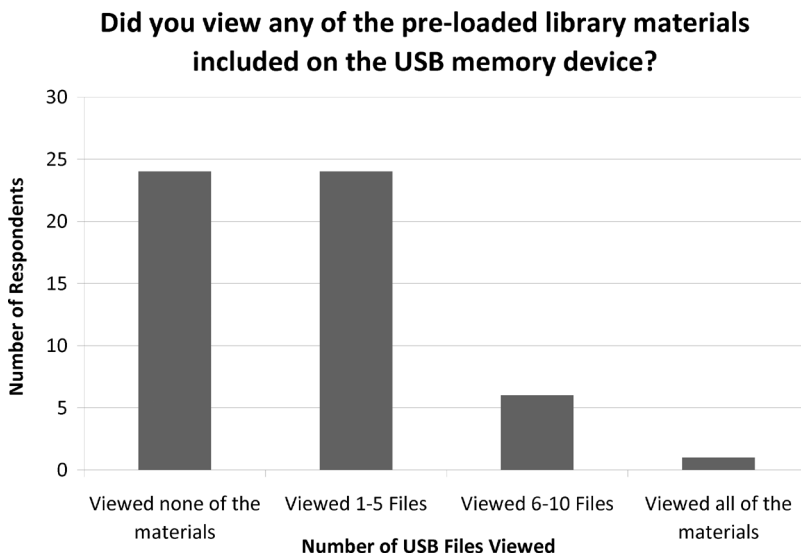
USB device they received from the library to transport/store resources downloaded via the library.

A website was created to capture the survey responses anonymously, and a browser shortcut was included on the USB drive so that students could easily access it. During the in-class lecture when the drives were distributed to students, the content of the USB drive was highlighted by the librarian, and students were encouraged to answer the survey by launching the survey website via the browser shortcut on the drive. Three reminder e-mails were sent to students that included the URL address to the online survey; one was sent via the course management system, and two were sent by an HSL librarian using student e-mail rosters provided by the schools. The survey was closed 20 days after the USB drives were first distributed (see Figure 1).

## RESULTS

### Question 1: Was the Preloaded Content Actually Viewed by Students?

Fifty-five out of 199 students who received the USB flash drive responded to the online survey (28% response rate). Of these 55 students who responded to the survey, 31 students (56%) viewed one or more of the preloaded library materials included on the USB drive, while 24 students viewed none of the files (see Figure 5).



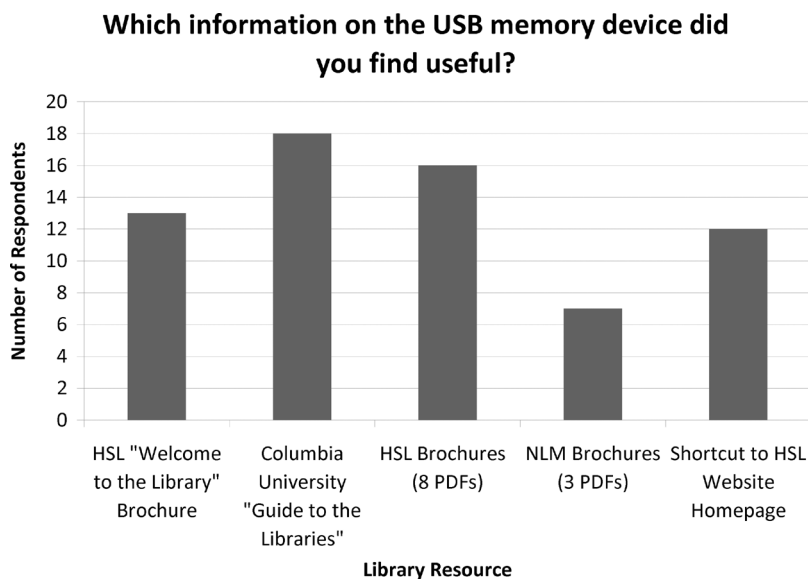
**FIGURE 5** Number of USB drive files viewed.

### Question 2: Which Handouts Included on the USB Drive Were Considered Useful by Students?

Of the files viewed, the handout reported to be the most viewed was the Columbia University Libraries *Guide to Libraries*<sup>7</sup> (see Figure 6). This was to be expected as incoming students were just arriving on the Columbia University Medical Center campus, and it is reasonable that they would be interested in information to help orient them to their new learning/research environment. It is believed that student perception of the usefulness of the publications may have had more to do with the immediate practical needs of students starting off at an academic institution that is unfamiliar to them than with the actual usefulness of the information contained within the document. Not surprising, NLM's brochures were the least viewed during the survey period, which was held early on in the semester (see Figure 6).

### Question 3: What Other Library Resources/Materials Would You Have Liked to Be Included?

Only six of the 55 respondents answered question 3 of the survey. HSL librarians intentionally wanted to include an open question that allowed for a free-text answer to be input, as this would provide students with the opportunity to offer any additional feedback/comments anonymously (see



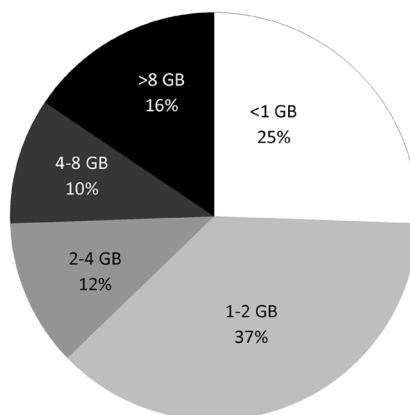
**FIGURE 6** Preloaded library resources perceived as useful.

Figure 4). As expected, the comments were varied, and all provided useful insights. One student wished for “a software application that magically makes the library stay open longer than the current ridiculously-inadequate hours.” Another hoped for “more information about citations, including web pages with specific tips and rules for MLA, APA, etc. citations.” Yet another suggested that “a map of the physical library and where the resources are” be included, something that could easily have been added but had been overlooked. The final two comments provided HSL librarians with some things to consider should this project be repeated. For example, a survey later in the semester may be more informative about the usefulness of the library informational handouts on the USB drives, as concluded by librarians after reading the comment: “I haven’t used the drive yet, so that is why I haven’t viewed any of the materials.” Also, the comment “I actually wasn’t aware that there were library resources on the USB device until I filled out this survey” gave librarians the impression that perhaps better communication with students is needed. One student did report, “None, this was sufficient,” suggesting that the preloaded contents may have been satisfactory for at least some of the students.

#### Question 4: What is the Largest Size USB Memory Device You Are Currently Using?

Only 25% of respondents (13/51) were using <1 GB USB drives, while 16% of respondents (8/51) reported using >8 GB USB drives (see Figure 7). The largest group of respondents (37%, 19/51) answered that they were currently using devices in the 1–2 GB range.

**What is the largest size USB memory device you are currently using?**



**FIGURE 7** Size of USB drive currently used.



### Question 5: What is the Likelihood that You Will Be Using this Device to Transport/Store Resources Downloaded via the Library?

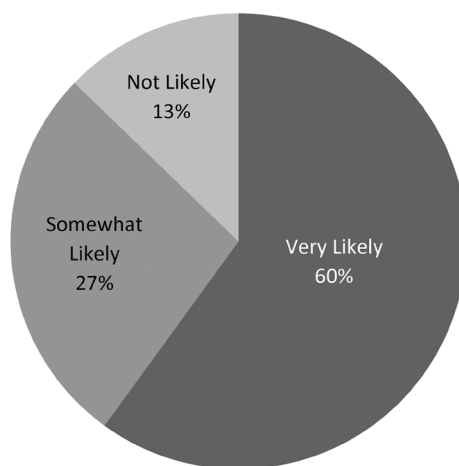
Eighty-seven percent of respondents (48/55) reported that they were either very likely or somewhat likely to use this device to transport resources downloaded via the library (see Figure 8). Only seven out of the 55 respondents (13%) said they were not likely to use the USB drive to transport/store resources downloaded via the library. In a bivariate analysis of the data, it was noted that the respondents who said they were not likely to use the drive to transport/store resources downloaded via the library were also more likely to be using USB drives <1GB. Conversely, those respondents who said they were very likely or somewhat likely to use the free USB drive were most likely already using larger USB devices.

## LESSONS LEARNED

A substantial proportion of students (24 out of the 55 survey respondents, or 44%) reported they had viewed none of the library content preloaded on the free USB drive that they received. Needless to say, there is room for improvement if such a project is to be considered again in the future. Questions that will need to be asked are:

- What is the optimal number of files to include on a promotional USB drive?

### What is the likelihood that you will be using this device to transport/store resources downloaded via the library?



**FIGURE 8** Likelihood of using USB drive for downloading/transporting library resources.

- How can the presentation/organization of the library preloaded content be improved upon to increase the number of files viewed? (One respondent commented that he or she did not even realize the USB drive contained any library materials.)

The survey responses highlighted the need to generate better ways to get people to look at more files (e.g., developing an attractive “Read Me First” splash web page that would link to all handouts and provide a brief narrative/explanation of the included library resources). Retooling the presentation of the information in a way that makes the usefulness of the information more apparent to users would likely result in more of the USB drive content being viewed by a greater number of students.

Another approach could be to build better awareness of the contents of the USB drive by actually using one during the class where the drives are distributed to students. With most students now using their laptops for in-class note-taking, the librarian lecturer could easily open up a few pertinent library handouts (e.g., PubMed Basics<sup>4</sup>) during the lecture while encouraging students to do the same. Working with the course director of the class to explore better ways to incorporate use of the preloaded library handouts into their course work would also be ideal.

### Valuable Outreach to School Administrators

An unexpected success encountered while implementing this project was the positive response received from the schools when they learned of the project upon being contacted with a request that student (name and e-mail) rosters be made available to HSL librarians. It was clearly appreciated by each school’s respective dean of students that the librarians had gone the extra mile and written a grant to provide a nice “extra” for their incoming students. Also, it probably helped that the objective of the project, to keep orientation/welcome event activities “green,” was very much in line with the objectives of the schools. The result was 100% cooperation from the schools.

### A Good Vehicle for Distributing Marketing Materials

HSL librarians felt that the USB drives provided a professional-looking way to present information about library products and services to this select group of patrons, which clearly welcomed the freebie. Despite continuous drops in pricing, however, the cost of purchasing USB drives intended for distribution to large groups is prohibitive and not a sustainable mode of outreach in this economic environment. Based on what was learned about the size of USB drives being used, it may be more strategic in the future for HSL librarians to limit distribution of USB drives to smaller, more targeted groups on campus (e.g., groups with which HSL librarians are involved on special

projects) and to invest more funds buying fewer but larger size USB drives. It is believed that larger size USB drives would make an even bigger impression on recipients than did the 1 GB drives. (It should be noted that the USB drive giveaway is just one of many approaches HSL librarians use to market these library handouts. The most cost-effective of these methods is to distribute bookmarks on which is printed the URL for the HSL web page,<sup>9</sup> where PDF files of the handouts are openly-available online.)

One issue that was not a factor in this project but that librarians thinking about using USB drives for outreach should consider is the increased spread of computer viruses tied to USB drive use.<sup>10</sup> Educating recipients about steps they should take to protect their computers to minimize the spread of viruses via USB drives, along with a disclaimer from the library, may be good to include when distributing the drives.

### Improving Survey Response Rates

Getting students to respond to HSL's online survey was an expected challenge. Suggesting to students in the final e-mail reminder that their participation in the survey would increase the chance that this project would be continued for future incoming classes provided the biggest boost to participation in the survey (see Figure 9). In the future, it may be wise to

Dear Class of 2013,

Please take a moment to fill out our extremely short (2 minutes) library USB survey at <http://library.cpmc.columbia.edu/hsl/usbquestions.html>

Your participation will help us in obtaining funding again next year to repeat this project for the Class of 2014.

Many thanks,

Dina

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**FIGURE 9** Final USB drive survey E-mail reminder.

include—in addition to the e-mails reminding students to take the survey—an e-mail introducing them to what files/handouts they will find preloaded on the USB drives. This would serve to reinforce the introduction to the USB drive content that students were given during their lecture. Also, doing two surveys—one immediately following the distribution of the USB drives (as was done for this project) and one survey administered a few months later (e.g. at the end of the semester)—would provide a more accurate picture of which handouts were ultimately used and found useful.

## CONCLUSION

This project gave HSL librarians the opportunity to connect with students in a way that had not been done before and to consider how these new students use/view the information the library produces. As this promotional outreach initiative managed to reach (to some extent) the majority (85%) of incoming first-year medical and dental students, it was concluded that the USB drives were a worthwhile addition to the library's marketing toolkit. Even if students did not all view the library content on the USB drive, using the USB drives with the library's logo provided some degree of publicity for the library. Anecdotally, librarians on duty at HSL's reference desk have since received some inquiries from patrons interested in purchasing one of the customized USB flash drives that they saw in use at the library by other patrons (presumably students from the project's target population).

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