

Chromebooks™ in Libraries - Trial Report

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Summary

In fall 2012, the State Library of Ohio placed 10 Chromebooks™ each in three library systems in central Ohio. These library systems were chosen for different demographics served: one was rural, one was suburban and one was urban. Each library system was allowed to determine how the Chromebooks would be used in their system within the parameters of in house patron check or staff use. Libraries were encouraged, but not required, to use them in patron training.

The primary objective of this trial was to determine the ease of use and functionality of the Chromebook in the library environment. To this end, the State Library of Ohio provided a patron evaluation form as well as an online staff evaluation. Overall, the Chromebooks did seem to provide ease of use and cost savings, but were found to lack the robustness of a desktop computer. Functionality concerns also included lack of integration with common print management systems, a non-standard keyboard, and need for a mouse.

What's a Chromebook?

'Chromebook' is the term used by Google and others to describe laptops designed to use the Chrome operating system. A netbook refers to a small laptop with not-too-powerful specifications that runs a regular desktop operating system, typically a version of Windows. It's expected that one will be able to buy a Chromebook in a variety of sizes; one of the initial offerings has a 12.1-inch display, which makes it larger than an average netbook. Because Chrome operating system is based entirely in the Chrome browser, everything done while working on a Chromebook takes place in the internet browser.

This makes the internet connection extremely important to the usability of the Chromebook. There is a selection of apps available from the Chrome App Store which can be used offline; however, most apps need to be used with an internet connection. For the purpose of clarification, the Chrome App Store and Google Play are entirely separate app stores although both are maintained by Google. For some apps, this offline use is cumbersome. To use Google Docs or Gmail offline, for example, the user must enable offline use while they are online.

67% of the patrons who participated in this trial reported that they had never used a Chromebook or similar device before. When asked the same question, 85% staff reported that they had never used a Chromebook or similar device before. This suggests that Chromebooks have not yet significantly penetrated the consumer marketplace.

Google Accounts.

Users of the Chromebook have the option to either log in with their Google account or as a guest. If a user already has a Google Account, signing in with it gives access to documents on Google Drive, bookmarks on Google Chrome, and email through Gmail. If patrons log in as a guest user, he or she will not have access to any of

Google account features or use of the apps. However, he or she will be able to privately browse the internet. When the user is signed in as a guest, the pages visited and the information accessed is erased from the machine. When a user is logged in to a personal Google account and logs out, the browser history is stored by Google. If a patron purchases an app while logged in from their own Google Account, the app purchase stays with that account. Patrons cannot purchase apps while logged in as a guest, including free apps.

In this trial, 42% percent of patrons logged in with a Google account as compared to 71% of staff members. Two of the library systems in this survey use Google for email hosting, which may have led to a higher than normal percentage of Google users among the staff.

Cloud Based

Unlike a traditional Windows or Macintosh computer where the user saves documents to the computer's hard-drive, users of a Chromebook save their work to the cloud using a Google app. This means that the patron can then log in from anywhere to get back to the work saved while using the Chromebook at the library. A patron can also save documents to a USB drive the way he or she would normally save to a hard drive.

Due to this emphasis on the cloud, the Chromebook is set up in such a way that no programs can be installed directly on the computer, potentially eliminating the need for anti-virus software or system restore software such as DeepFreeze. However, it also means that many of the software products that library patrons have come to expect are not available for the Chromebook.

Both staff and patron mentioned the need for software to perform some tasks. Although alternatives to Microsoft products are available for use on the Chromebook and Microsoft itself has a cloud-based solution called Skydrive, both patrons and staff expressed the desire for Microsoft Office Suite, particularly Microsoft Excel. Several staff also mentioned that the lack of Integrated Library System (ILS) software on the device made it less useful to complete their tasks. It is unclear whether the desire for this software was due to lack of features on the cloud based solutions or that patrons and staff were unaware that alternatives exist.

Ease of Use

Overall, the Chromebook does appear to meet its promise of easy use. 89% of patrons found the Chromebook reported that they were able to complete their tasks using the Chromebook. Similarly, 90% of staff members also reported that they were able to complete their tasks using the Chromebook. Common praise of the device was the quickness of loading and the speed of the browser.

This is not to say that all patrons and staff were completely satisfied with their experience. Staff reported that only slightly more than 50% of patrons understood how to log in to the Chromebook or do common tasks on it. It is unclear whether the patrons were at first unable to accomplish these task but quickly learned or those who were unable to do common tasks did not fill out an evaluation form. Further, the ten percent of both patrons and staff who were unable to complete their tasks had common complaints. The Chromebook's touchpad and/or the need of a traditional mouse was often cited as a barrier to functionality. The non-standard keyboard which lacked a "CAPS LOCKED" button was also cited as a barrier. A few staff members also mentioned a low battery life that made the device less functional as a work terminal.

Barriers to Library Integration

Although Google has solutions for printing from the Chromebook in both business and the home using Google's Cloud Printing Service, participants in this trial were unable to find a workable solution for the library environment. The Cloud Printing Service will not work correctly with many of the solutions used to manage printing in a public library. The printing solutions used by library systems in this trial were Envisionware and Pharos.

Similar to the issues with other types of software, many staff members commented that their dissatisfaction with being unable to get ebooks from the library on the Chromebook. Patrons can in fact get ebooks from the library via the vendor Overdrive on a Chromebook using a free app called the Kindle Cloud Reader. To accomplish this task, the patron would need both their library card and an Amazon.com account. After the end of this trial, the same vendor has released a new feature called Overdrive Read that would allow for in-browser reading that would also be accessible. It is unclear from comments whether staff was not aware of the Kindle Cloud Reader solution or if they felt it was overly cumbersome.

Value

Because nothing can be downloaded to the device, Chromebooks have a potential cost-savings for libraries because software necessary to protect the machine, such as DeepFreeze, is not required. Further, on the current market a Chromebook is \$100-\$200 cheaper than a netbook of a similar storage capacity and speed. When these two factors are combined, Chromebooks would be 35% less expensive than a purchase of equivalent netbooks. However, when considering a purchasing Chromebooks, one must weigh the robust functionality of a desktop computer against the inexpensive yet limited function of a Chromebook.

Overall, 77% of staff felt that the Chromebooks should not be purchased as a staff computer; the lack of familiar software and access to an ILS were the most often cited reasons. However, staff was ambivalent as to whether Chromebooks should be purchased as a patron device: 58% of staff recommended it for patron purchase. Comments indicated price was a major factor in recommendation. Privacy concerns were an often cited reason for not recommending the device. Patrons were unequivocally in favor of the service: 97% said that this was a valuable service the library should provide.