Case Study

Improving the Academic Ebook Reading Experience at Columbia University Libraries

SERVICE AREA: NEW YORK, NY
POPULATION SERVED: 36,000+

» BACKGROUND

Columbia University Libraries is a globally-recognized academic research library. As vital partners in the University's research and learning ecosystem, they connect users with rich and distinctive collections, foster meaningful learning experiences, and provide innovative research support for a large, diverse user population. The Libraries' collection includes resources in more than 450 languages and primary source materials that span over 4,000 years of human thought. The Libraries employs more than 400 staff and student assistants and hosts over 2.5 million physical and over 6.5 million virtual visitors each year. The collections include over 15 million volumes, with access to over 7 million online electronic resource titles, nearly 300,000 linear feet of manuscripts and archives, over 150,000 maps, and over 1.2 million graphic and audio-visual materials.

» INTRODUCTION

Columbia University Libraries, like many University Research Libraries, supports a vast collection of e-resources to support its curriculum and research activities. These collections tend to reside across a wide variety of e-resource vendors, digital repositories and databases with varying degrees of functionality and ease of access. A large part of student onboarding conducted by the library is teaching students how to navigate and use these resources.

» CHALLENGE

Fragmented User Experience:

The fragmented landscape of ebook platforms—with their inconsistent metadata formats, lack of standardized APIs, and varied access models—creates significant challenges for Columbia. Navigating these complexities often requires cumbersome workflows, making it difficult for students and faculty to find and access the ebooks they need. Even with costly efforts by librarians to manage metadata and develop discovery tools, access remains inefficient and unreliable.

Costly Vendor Integrations:

Columbia, like many academic libraries, faces burdensome platform integrations and vendor negotiations, often at the cost of user experience,workflow efficiency, and bargaining power. This issue is particularly severe for community and regional colleges, which have even fewer resources to implement workarounds. Yet, even when these strategies are in place, they fail to deliver a seamless reading experience.

Few Mobile Options:

Once content is discovered, access remains fragmented; especially on mobile devices, the primary means through which most users connect to the internet today. The lack of mobile-friendly, academically optimized ebook readers significantly limits discovery and access to both open access and licensed scholarly works. General-purpose ebook readers fail to meet the needs of students and scholars, as confirmed by an Alfred P. Sloan Foundation-funded Columbia/ Lyrasis survey of 151 academic libraries. Addressing these challenges is essential to ensuring that academic digital content is truly accessible, discoverable, and usable.

» STRATEGY

Columbia University and Lyrasis collaborated on implementing The Palace Project mobile e-reader and collection hosting service for select perpetually owned publications. In addition it utilized Open Publication Distribution System (OPDS) protocol, supported by Palace, to integrate major academic ebook providers, such as Springer Nature, as well as its digitized collections to Palace.

» IMPLEMENTATION

Digitized Collections:

To begin, Columbia started with digitized special collections they hosted on the Internet Archive (IA). The IA supported an OPDS interface to collections to make it easy to connect to the Palace system.

Licensed Publications:

Columbia worked with Lyrasis to host Johns Hopkins Press and Casalini Libri/ Torrossa Press titles and make them available for access via the Palace App. ProQuest (who supports an OPDS interface) was added next using The Palace Project's general use OPDS connector. Building on that success Columbia worked with Springer Nature to update its API so that Columbia could implement a local OPDS middleware solution to leverage Springer's proprietary API.

Open Access Publications:

Columbia leveraged OPDS to provide access to thousands of open access publications from OAPEN.

» RESULTS AND OUTCOME

Columbia has delivered a consistent academic reading experience across multiple ebook providers and sources, including multiple vendors, presses, open access publications and Columbia's digitized special collections. An easier, consistent reading experience has been delivered via the Palace app for mobile devices such as iOS-based iPhones, iPads and Android-based phones and tablets. Ebooks are accessible on-campus, off-campus, online and offline, using Columbia's standard campus authentication system.

KPI Number of Clicks to Access Content:

Prior to Palace, offline access required dozens of steps to access materials, on-campus connection or VPN software depending on where users were and where the content was served. After Palace, this became an easy 3-step process on their mobile device or from Columbia's Blacklight-based CLIO discovery system.

KPI Student Feedback:

Columbia created a student feedback advisory group to evaluate the moboile app. Students were asked to evaluate the app along the following five (5) categories below on a scale of 1-5, with 1 being most favorable and 5 being the least favorable.

Ease of **Finding Books**:	**70%** Most favorable
Ease of **Navigating**:	**72%** Most favorable
Ease of **Downloading Books** to read:	**75%** Most favorable
Ease of **Reading and Readability** of text:	**76%** Most favorable
Ease of having **various vendor books in one interface**:	**80%** Most favorable

Students overall experience: **82%** good or excellent

» ANALYSIS AND INSIGHTS

Key Insights:

In general there are improvements needed. For users, the feedback reported a desire to expand the collection of ebooks available through the mobile app, search results, and to make the app available on other devices such as Kindle, Mac and Windows PCs. For the library, better tools and methods to integrate the app into the libraries discovery systems. Lastly, making more commercial vendor and Open Access collections and services available. Adoption by vendors and standardization of the OPDS protocol to support integration with discovery and e-resource vendors was identified as a key strategy.

Challenges Faced:

Lack of vendor support for APIs or the OPDS protocol limited the ability to readily add more ebook services. Also, discovery systems rely on OCLC control numbers, MARC records, knowledge base systems and KBART files. These legacy tools and systems were not fully available in Palace because of its use of more web native technologies such as OPDS. This meant EBSCO and Taylor & Francis collections that make up a significant portion of Colombia's ebook collection were not available. The lack of citation support and integration into citation management systems such as Zotero, also limited the impact of Palace as an academic reader.

» CONCLUSION AND NEXT STEPS

Conclusion:

In short the impact to Columbia was improved user experience for students wanting to more easily access content from the library and use their mobile device for on and off campus access to content. The technical standards and protocols used by place demonstrated a proven technical approach to overcoming expensive system integration to simplify access to a variety of digital resources and publications to include licensed, unlicensed or digitized collections.

Next Steps:

Columbia continues to work with commercial systems and content providers to advance OPDS as an ANSI/NISO standard so as to improve ease of access, interoperability and reading experience for users, and to improve knowledge base integrations to Palace. Columbia is also collaborating with Lyrasis to add academic user features such as Zotero and citation management support to the Palace platform. Columbia is also exploring with Lyrasis options for Palace to host content the library owns when a publisher or vendor is unable or unwilling to provide API access via an open protocol such as OPDS.

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