



# Open Systems in the age of Library Services Platforms

A Conversation with Marshall Breeding



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# Open Systems in the age of Library Services Platforms: Meeting expectations for interoperability and extensibility

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### Open Systems in the age of Library Services Platforms: Meeting expectations for interoperability and extensibility

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by **Marshall Breeding**

#### General Introduction

Libraries depend on their technology environment to support their operations and to describe and provide access to their collections. Almost all make use of multiple technology applications, provided by different vendors, which must work together effectively and efficiently. Systems not able to integrate fully into the organization's technology ecosystem usually result in duplication of effort, require manual processes for synchronizing data, and frustrate their users through separate logins.

The need for technology components to work together well drives interest in open systems. This term does not necessarily have a precise meaning, though it describes capabilities to easily connect to other systems, providing mechanisms for data exchange, and to enable its users or implementors to fully access data structures, and to enable programmatic access to functionality and data. This concept contrasts with closed systems that lack effective ways to interact with a system's data or to extend its functionality.

Open systems allow organizations to gain access to data and to create new functionality beyond what is directly delivered in an application. Libraries expect their systems to come with robust functionality accessed via the built-in user interfaces. Beyond these user interfaces, most organizations also need to move data in and out of their applications through automated scripts or through real-time interactions with other systems.

Application Programming Interfaces, or APIs, are the technical mechanism expected in modern software applications to enable interoperability, access to data, and to support the creation of scripts or modules to perform related functions.

In the last decade, a large portion of academic libraries have shifted from integrated library systems to library services platforms. These new products provide an updated approach to library automation and resource management consistent with the current realities of academic libraries. These products aim to address complex multi-format collections, where investments in electronic resources generally exceeds that of print materials. This new generation of products are deployed through multi-tenant platforms, consistent with modern enterprise applications in most business and non-profit sectors.



This white paper was sponsored by Ex Libris, a part of Clarivate. Though sponsored by a vendor, the paper follows the same principles of objectivity as other works published by the author in other publications.

Why is this an important topic?

Why did you focus on this specific area?



In the past, libraries were more of a siloed entities. Now, we see that they are very much trying to connect to the academic ecosystem.

Can you shed some light as to why this is becoming more of a trend?



Is the conversation of openness and open-source solutions limited to just larger libraries?

Or is this a growing trend for libraries of all types and sizes?



There are many different technologies that help create open systems. Is there a right approach here? A right or wrong?

What are the advantages and disadvantages of the different approaches?



Going forward, when a library is now looking to improve their connectivity to other systems, what are the things they should pay attention to?









How do libraries make best use of their technology-focused staff?  
Local development projects?  
Scripts through APIs?




How do libraries recruit the best level of technical personnel?





The following represents results from a question in the 2021 The State of Academic Libraries Benchmark Survey.

In light of your paper, and this conversation, what sticks out to you?

<i>How important are the following when your library purchases technology systems and services?</i>	<i>% of respondents</i>
 <b>Product support</b>	<b>63.9%</b>
 <b>Interoperability and integrations</b>	<b>54.6%</b>
 <b>Simple, easy administration</b>	<b>54.1%</b>
 <b>Product training</b>	<b>50.2%</b>

<i>How important are the following when your library purchases technology systems and services?</i>	<i>% of respondents</i>
 <b>Documentation</b>	<b>45.5%</b>
 <b>Developer support</b>	<b>40.0%</b>
 <b>Experience with provider</b>	<b>39.2%</b>

<i>How important are the following when your library purchases technology systems and services?</i>	<i>% of respondents</i>
 <b>Full featured, best of breed</b>	<b>39.2%</b>
 <b>Open-source</b>	<b>29.8%</b>



## Questions?



# Thank you!

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