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What Can Higher Ed Learn from Library Technology?

Comparing & Contrasting Library Management Systems and Enterprise IT

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Housekeeping

- Yes! We will be sending a recorded version of this webinar and the slides out to you so you can share with your teams!

- Questions will be taken at the end of the webinar
    - o To ask a question, just type it into the Q&A section of the ReadyTalk console
    - o If we don't get to all of the questions, we'll follow-up afterwards via email

What Can Higher Ed Learn from Library Technology?

Comparing & Contrasting Library Management Systems and Enterprise IT

Learning From Library Technology

AGENDA

- What is our research approach?

- What is integration?

- What are the trends impacting libraries?

- How are libraries addressing integration?

- What are the key takeaways?

LEARNING FROM LIBRARY TECHNOLOGY

What is our research approach?

Our Approach

TRACKING THE MARKET

- First released in 2014

- In 2016, featured 518 products across 40 segments.

- In the 2019 feature 423 products across 42 segments, a 22% reduction.

- Some of these changes have to do with acquisitions and the launch of new products but are also due to larger macro trends
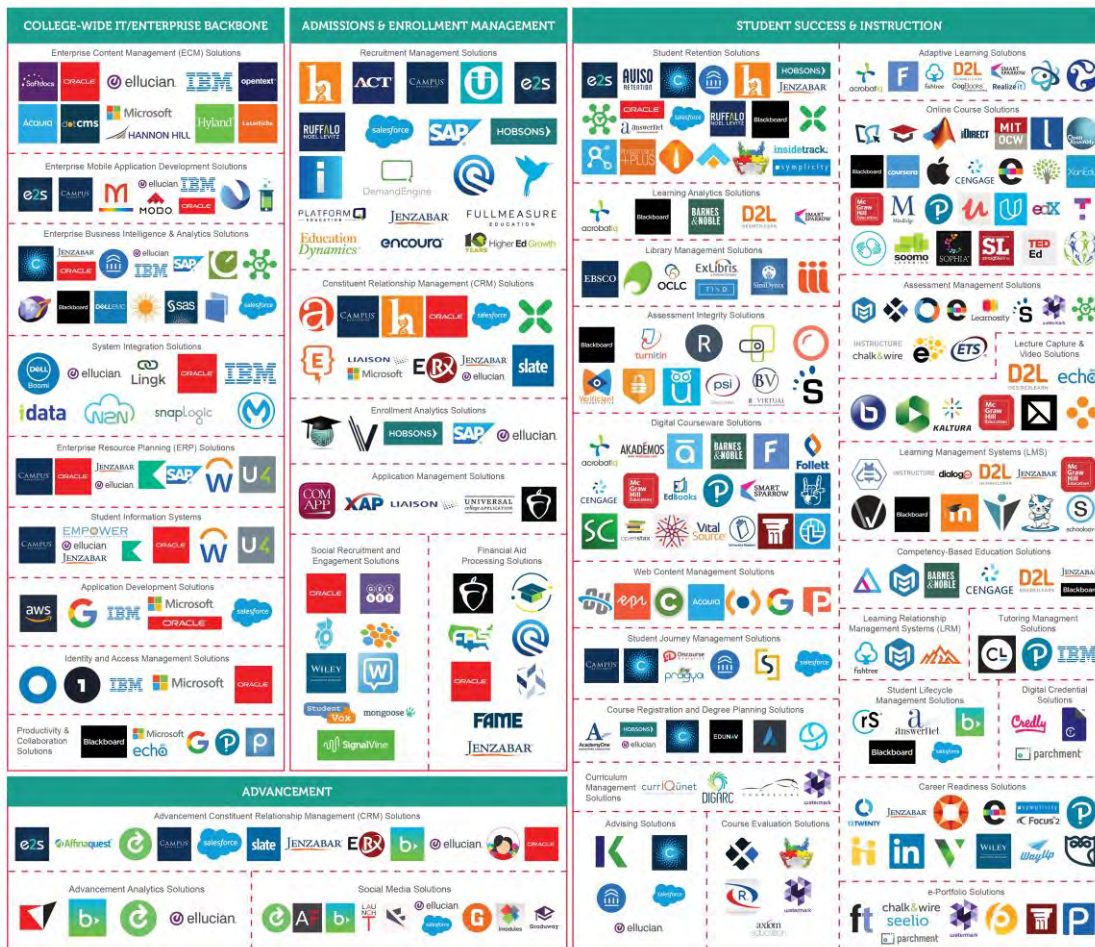
2019 HIGHER EDUCATION TECHNOLOGY LANDSCAPE — A CATEGORIZATION OF TECHNOLOGY PROVIDERS. encoura Eduventures Research

Our Approach

GATHERING INPUT

- Capture information and insight from several sources

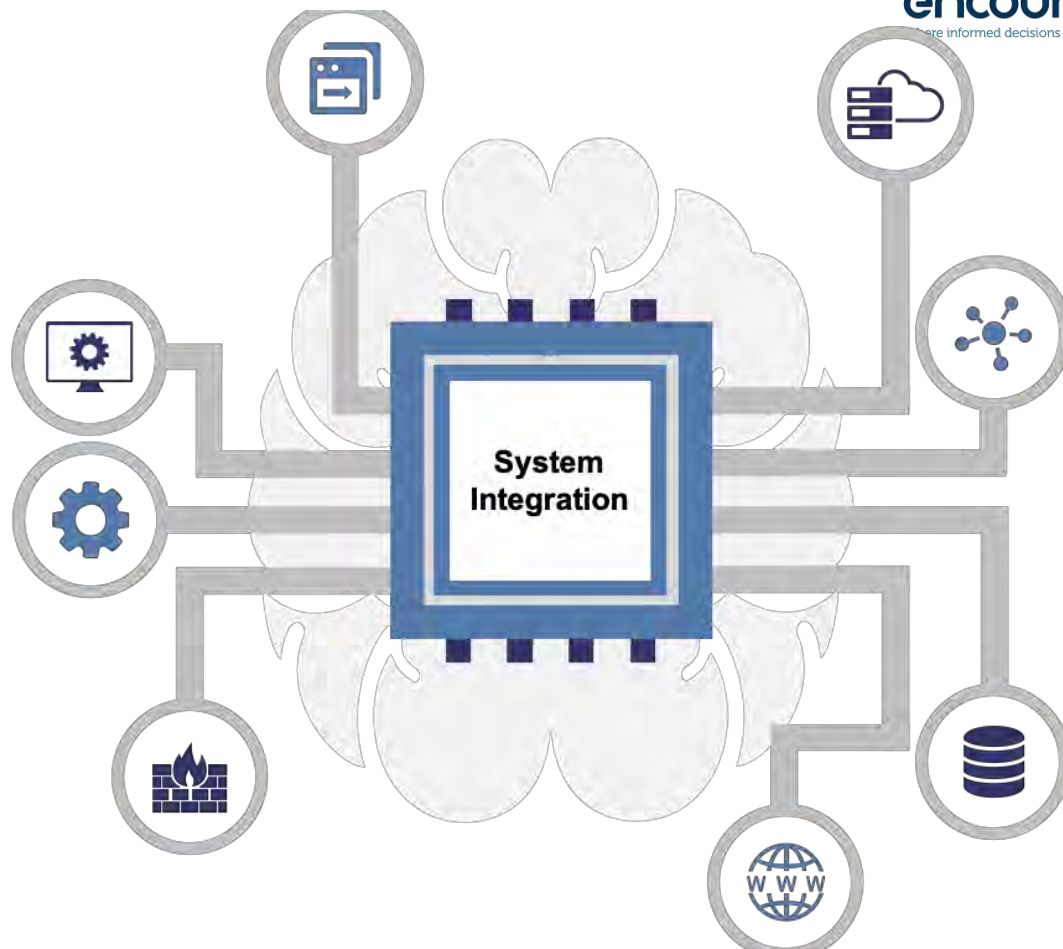- Includes trends, which are overarching movements in higher education that impact specific segments

What is integration?
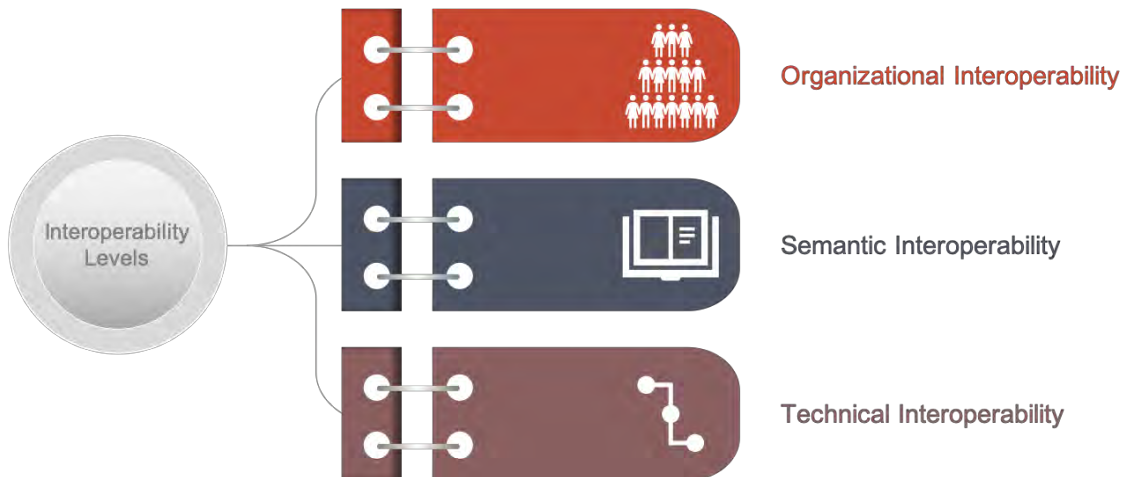
Integration

IMPORTANCE

- Extends beyond simply sharing data to allowing users to obtain data stored in disparate systems

- Also, impacts process improvement and data quality

- Included in the Educause 2020 IT Issues

Integration

- *Organizational*: Concerned with defining business goals, modelling business processes and bringing about collaboration within and between libraries

- *Semantic*: Ensures that the precise meaning of exchanged digital library resources is understandable by any other digital library "system" that was not initially developed to deal with it

- *Technical*: Concerned with the technical issues of linking computer systems and services implementing the digital libraries and their resources

Interoperability Levels

Organizational Interoperability

Semantic Interoperability

Technical Interoperability

Integration

BREADTH

- Involves more than simply the joining of solutions

- Impacts different components across an ecosystem

- Includes both policy and technology

What are the trends impacting libraries?

Library Trends

ACCOMODATING DIGITAL

- Providing the complete set of applications, digital content, related infrastructure and support for the modern library

- Most important challenges are either of online interaction with the patrons or of support of the physical and digital collections throughout the functional lifecycle
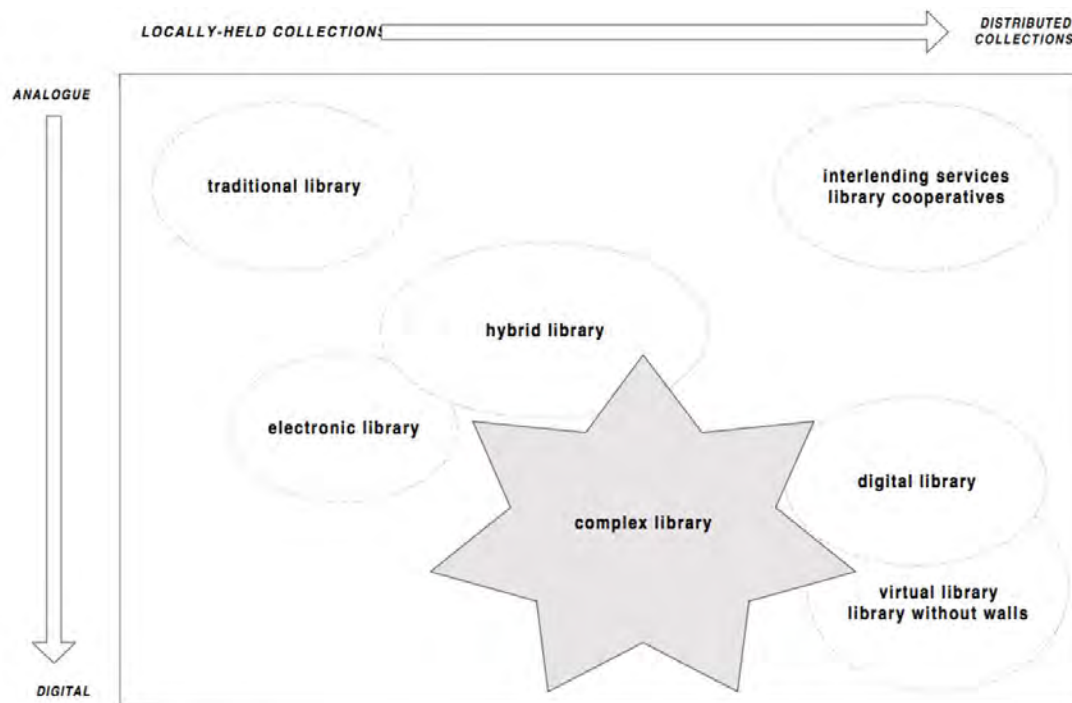
Rowlands, Ian, and David Bawden. 'Digital Libraries: A Conceptual Framework'. Libri 49 (1999): 192–202.

Library Trends

CHANGING FUNCTIONS

- Move to adding services (Discovery, Web & Mobile and IAM, Marketing, and Partner & Collaboration)

- Also, accommodating the process of establishing and monitoring Key Performance Indicators for the library as well as providing statistics about the library

Library Trends

HANDLING MODULARITY

- Responding to functions and data that are not always accessible to external systems and may be completely fixed into the package

- Looking to invest more in those modules that deliver the highest value, incurring costs only for the modules that are used, or share modules when applicable and desirable
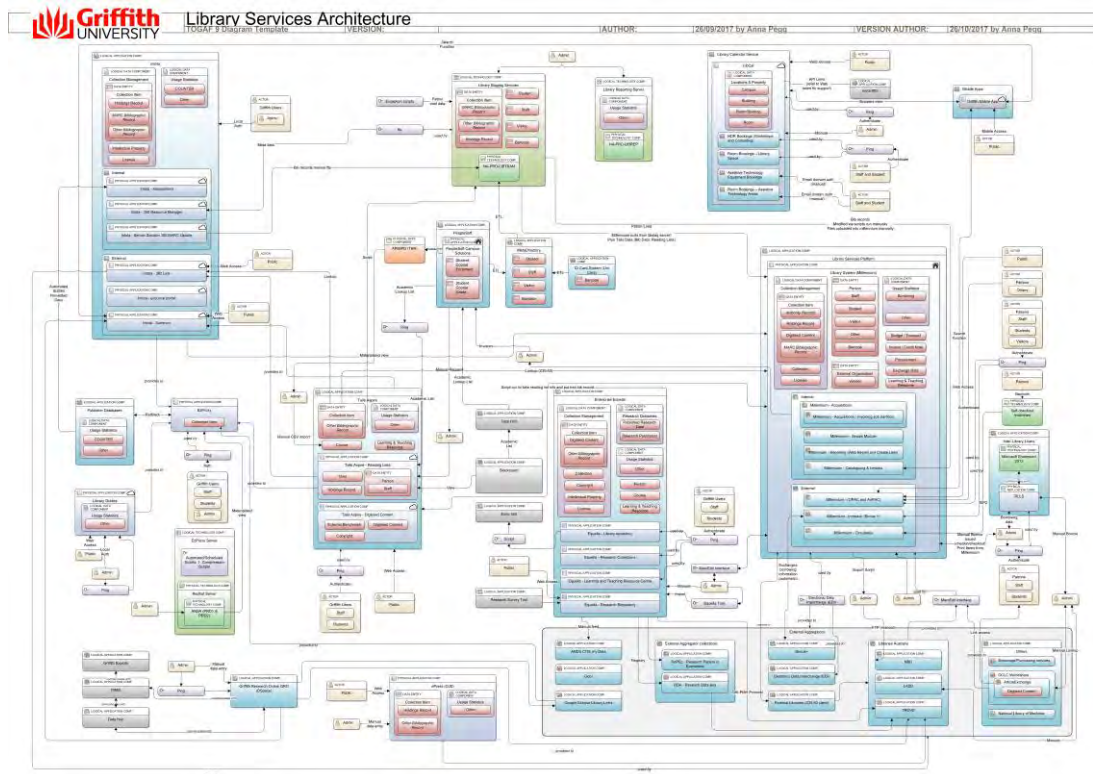
Sam Searle. 'The Benefits of Enterprise Architecture for Library Technology Management: An Exploratory Case Study' Information Technology and Libraries (December 2018)
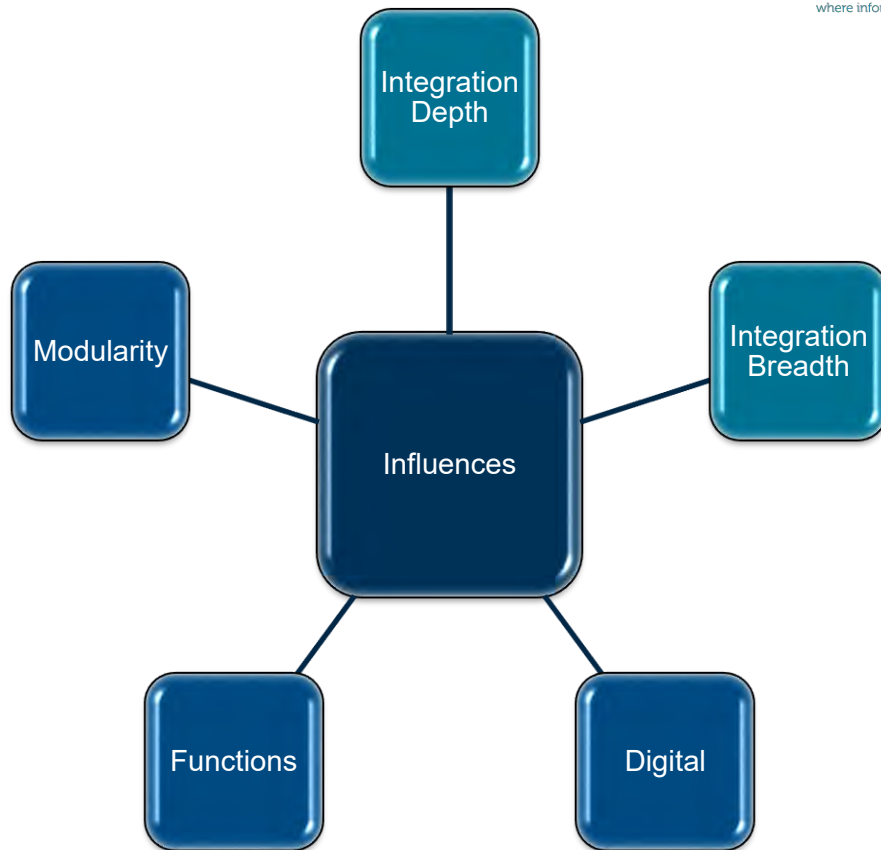
How are libraries addressing integration?

Addressing Integration

CONFLUENCE

- How are libraries responding to the different influences they face?

- In what ways are libraries like enterprise IT?

- In what ways are they different from enterprise IT?
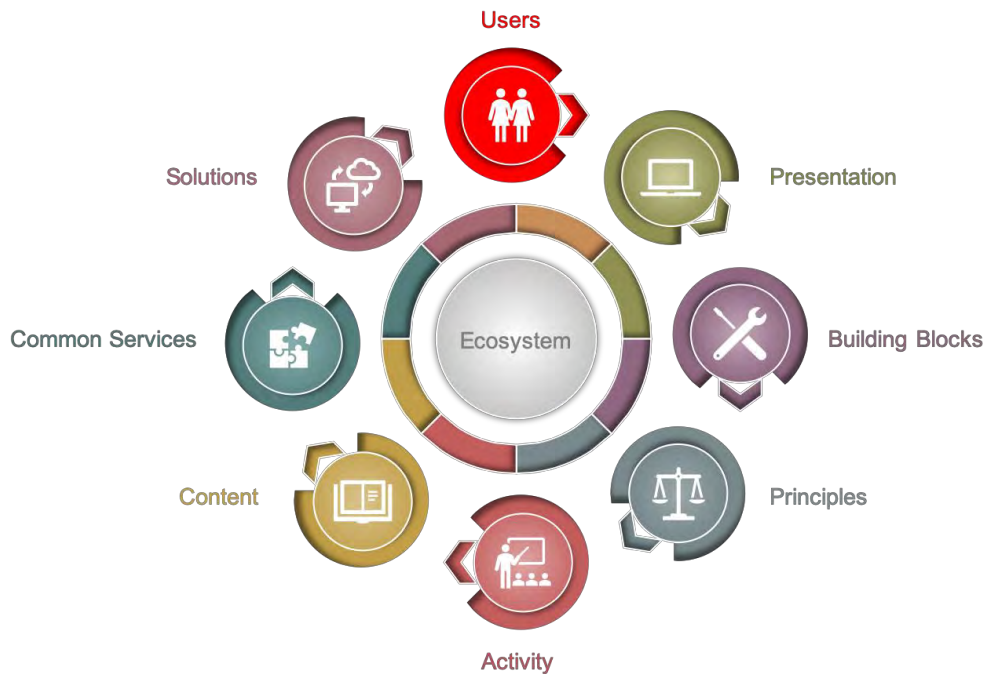
Addressing Integration

KEY QUESTIONS

- How are libraries addressing the depth and breadth of integration?

- In what ways are they like enterprise IT?
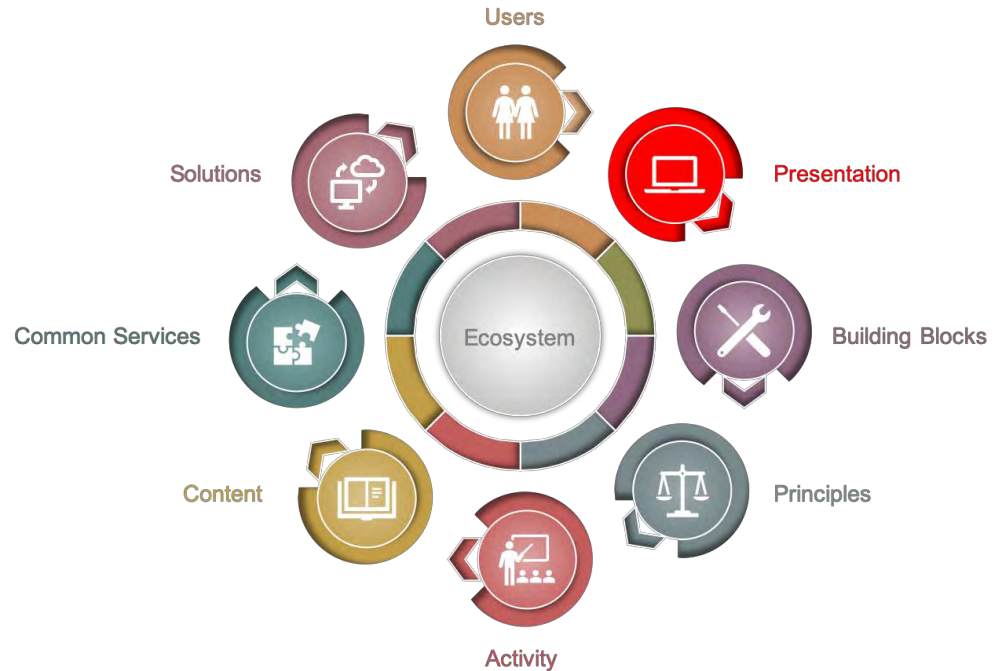
Addressing Integration

USERS

- Includes patrons, groups, library managers, and library software developers

- Enables organizational interoperability by allowing users to submit authenticated requests in a standardized format

- Enables semantic interoperability by ensuring that user and library identifiers are fixed

- Relies on technical interoperability (HTTPS, SAML)

Addressing Integration

PRESENTATION

- Allows for searching and accessing varied content via different media across disparate solutions

- Enables organizational interoperability by allowing organizational units (provider and consumer) to exchange information objects

- Enables semantic interoperability by providing a common understanding of the properties of information objects

- Relies on technical interoperability (URL, syntax independence, etc.)
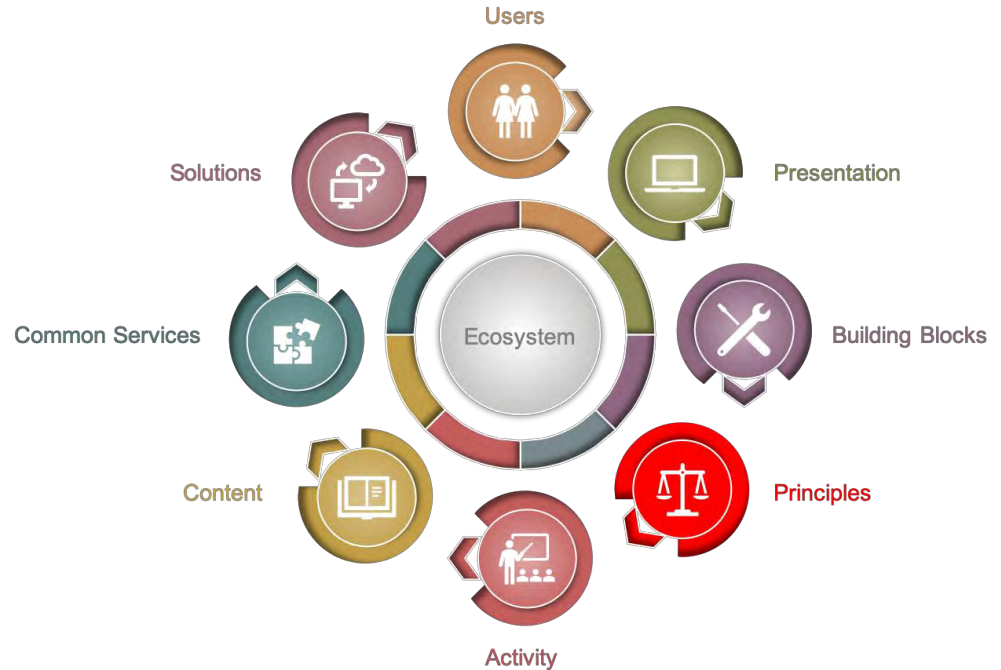
Addressing Integration

BUILDING BLOCKS

- Involves capabilities such as system, content, and user management

- Enables organizational interoperability by involving metadata records of its items and other information within a given Service Level Agreement to any client sending proper requests

- Enables semantic interoperability by providing a common sharing of import/export, search, browse and query functionality

- Relies on technical interoperability (METS, XML, etc.)
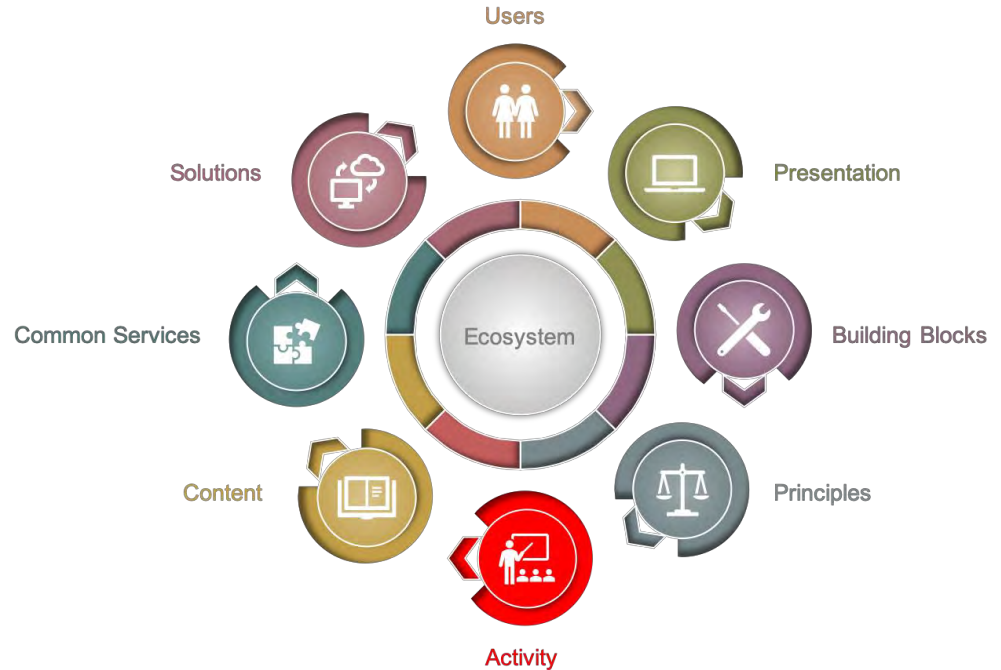
Addressing Integration

PRINCIPLES

- Includes quality management of content, architecture, user engagement, software, and functionality

- Enables organizational interoperability by ensuring customer requirements are met, better decision-making, and improved service

- Enables semantic interoperability by providing data reliability, shared SLA definitions, and common vocabulary

- Relies on technical interoperability (quality standards for web interfaces, etc.)
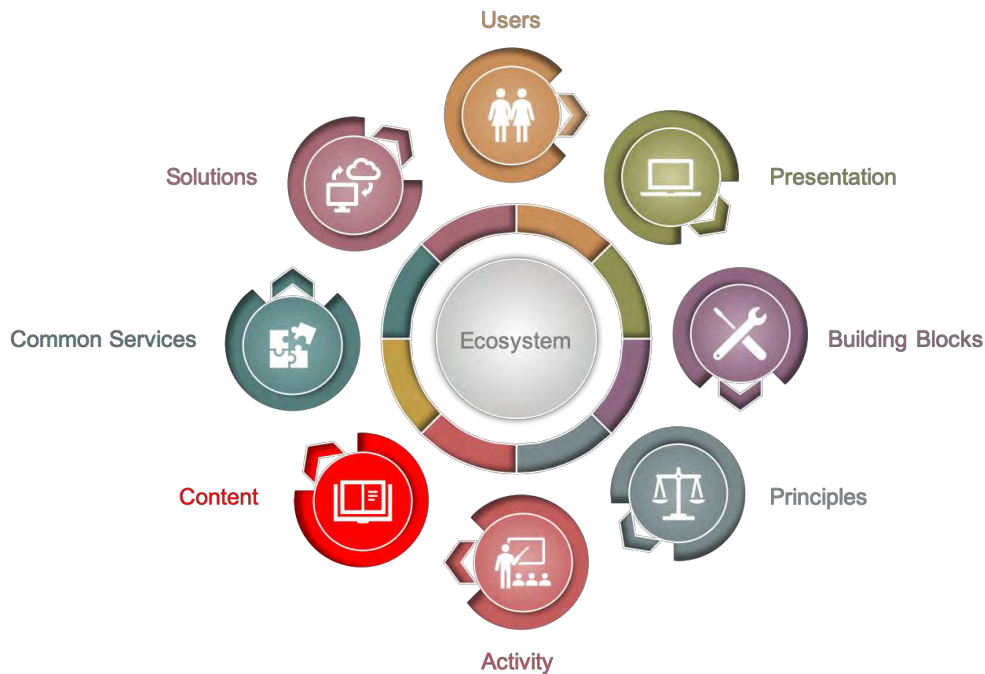
Addressing Integration

ACTIVITY

- Includes discovering, acquire, visualizing, creating, submitting, withdrawing, updating, preserving, validating, and preserving information objects

- Enables organizational interoperability by allowing users to access exposed functionality

- Enables semantic interoperability by allowing users to share the same understanding on all related entities and activities

- Relies on technical interoperability (WSDL, etc.)
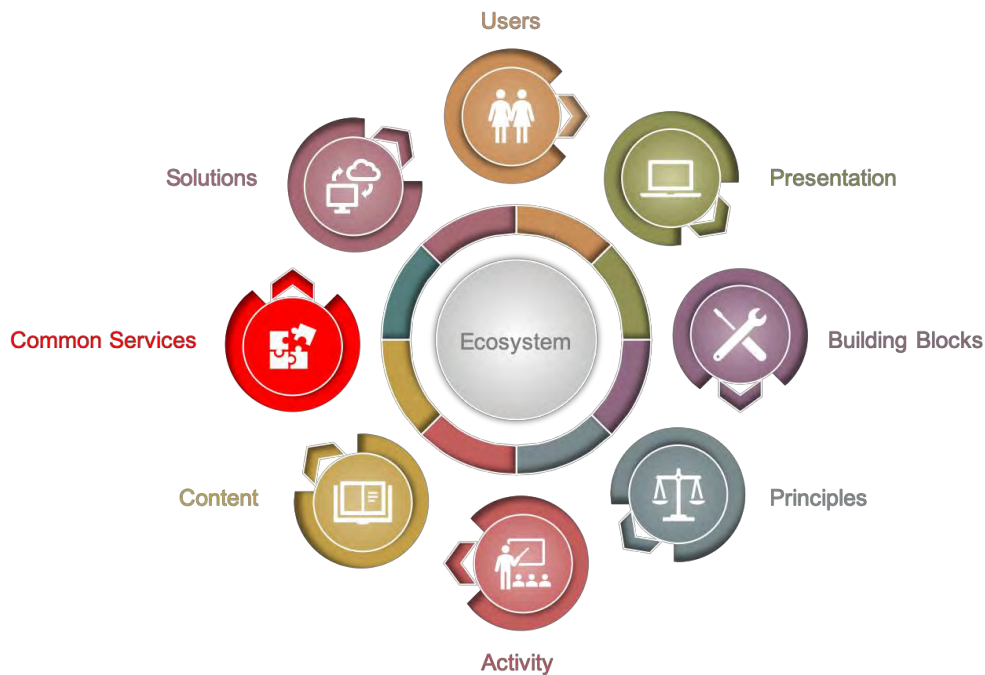
Addressing Integration

CONTENT

- Includes editions, content types, and annotations

- Enables organizational interoperability by exposing metadata records of its items and other information characterizing its service to any client sending proper requests.

- Enables semantic interoperability by allowing users to share a common understanding of items, metadata records, and metadata formats

- Relies on technical interoperability (linked data, etc.)

Addressing Integration

COMMON SERVICES

- Includes identity and access management and metadata management

- Enables organizational interoperability by allowing users to access information objects in a federated environment

- Enables semantic interoperability by allowing institutions to have a single unit of identity and other records

- Relies on technical interoperability (SAML, etc.)

Addressing Integration

SOLUTIONS

- Includes integrated library solutions, discovery solutions, library services platforms, etc.

- Enables organizational interoperability by allowing users to access information objects across disparate solutions

- Enables semantic interoperability by adhering to ecosystem principles

- Relies on technical interoperability (Software as a Service, etc.)

What are the key takeaways?

Takeaways

KEY LESSONS

- Unlike many implementations of enterprise IT, library managers are more likely to view their solutions as part of an ecosystem

- The current world of library architecture embraces modularity, which differs from how many see the "all in one" profile of enterprise IT

- While integration is important for enterprise IT and library technology implementations, they differ in terms of the depth and breadth of this integration
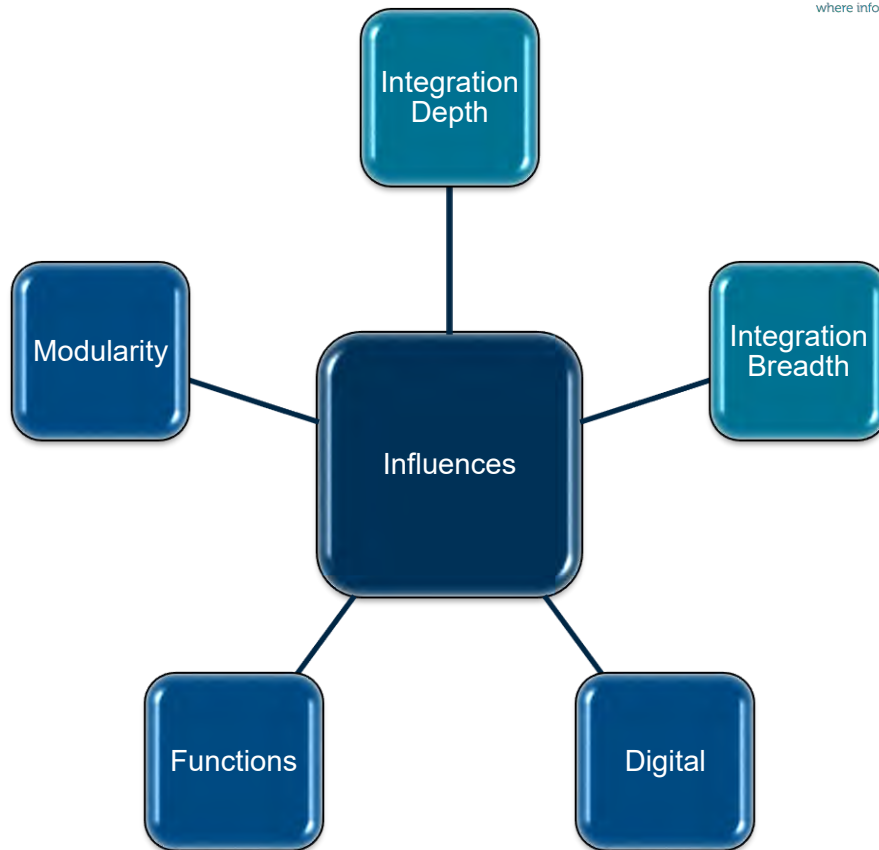
Thank you.

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Upcoming Eduventures Webinar!

Re-Thinking Program Innovation: Lessons from Neglected Trend Data

Date: December 5, 2019
Time: 2PM ET/ 1PM CT
Duration: 60 Minutes

In this webinar, Eduventures Chief Research Officer Richard Garrett explores rarely analyzed program and enrollment trend data, drawing on two decades of program feasibility work for hundreds of colleges and universities nationwide. This throws new light on three fundamental questions:

- Over the past decade, is enrollment by field of study best characterized by change or continuity?
- To what extent have the most successful schools – in terms of enrollment – relied on launching new programs?
- What is the optimal program portfolio size by enrollment scale?

The goal of this webinar is to better inform higher education leaders about the power and pitfalls of new programs. Leaders spanning traditional age and adult, campus and online, and undergraduate and graduate programs will benefit from this session.

Invitation to come!

Questions?