Kirstin Kemner-Heek, VZG Göttingen
Focus On Open Science, Rome
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Who we are …
VZG: Headquarter of the GBV

- Common Library Network GBV
- One of six regional library service networks in Germany
- Headquarter „VZG“ situated in Göttingen, Lower Saxony

VZG|GBV: Common Library Network

• Host for regional union catalogue (collaborative cataloguing)
• Located in a heterogenous software environment for its libraries
• Provides ILS (SaaS), ILL, portals and other services
• FOLIO project cooperation with North Rhine-Westphalian Library Service Centre (hbz), Cologne
VZG|GBV: Common Library Network

• Using OCLC CBS since 1993 for the Union Catalogue
  • For 72 academic libraries, 400 research libraries
  • With more than 37 m bibliographic and 89 m holding records
  • 122,000 e-journals, 2,100,000 online resources (ebooks, articles)
  • Integrated ILL

• Using OCLC LBS since 1993 as ILS in 188 libraries in 30 sites
  • OPAC, acquisition, circulation, work catalogue, user management, systems administration
FOLIO
FOLIO overview

• Development since 2016
  • Founded as open source project by EBSCO, Index Data and the OLE community (Open Library Environment)

• Goal
  • Development of a Library Service Platform (LSP)
    • Open, sustainable, innovative, flexible, enhanceable

• Target Group
  • Academic and research libraries
FOLIO overview

• Conception and Development of a technical platform „Okapi“
• Development of „FOLIO“ as LMS on this platform
• Organization of end user applications = „apps“
• LMS development follows the design concept of
  • user experience design (UX)
  • user interface design (UI)
  • interaction design (IxD)
FOLIO overview

- Open for
  - Libraries
  - Commercial vendors
  - Service providers
- In 2018 apps for
  - Circulation, media type independent acquisition and management, meta data management
  - Budget control, vendor data and user data management, systems administration
FOLIO community

• New administrative home since 2016
  • Open Library Foundation
• Stakeholders
  • EBSCO, Index Data, OLE Community
• Development organizations
  • Stacks, K-Int, Qulto, @cult, FrontSide, UNAM
• Others
FOLIO funding and staff resources

• EBSCO

• Index Data
  • Hired by EBSCO

• OLE Community
  • Andrew W. Mellon Foundation and community funded

• Engagement of other development companies and libraries
OLE community

Partner Institutions

Duke University Libraries
HBz
The University of Chicago
SOAS
University of London
University Libraries
University of Colorado Boulder
The Andrew W. Mellon Foundation
Auburn University Libraries
Lehigh University
GBV1VZG
Cornell University Library
FOLIO organization

- Special Interest Groups (SIG’s)
- Product Council
- Developers
- UX/UI designers
- Product owner
- Stakeholders Board
# FOLIO special interest groups

<table>
<thead>
<tr>
<th>SIG’s</th>
<th>About</th>
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<tr>
<td>• Metadata Management</td>
<td>• SIG’s per topic/module/app</td>
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<tr>
<td>• Resource Access</td>
<td>• Subject matter experts</td>
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<tr>
<td>• Resource Management</td>
<td>• Facilitated by convener and/or product owner</td>
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<td>• User Management</td>
<td>• Resourced by FOLIO Product Council</td>
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<td>• Internationalization</td>
<td>• Weekly web conferences</td>
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<td>• Consortia</td>
<td>• Definition of requirements and use cases</td>
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<td>• Reporting</td>
<td>• Library expertise</td>
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<tr>
<td>• Privacy</td>
<td>•</td>
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<tr>
<td>• Accessibility</td>
<td>•</td>
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<tr>
<td>• System Operations and Management</td>
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FOLIO Product Council

• Supports and coordinates SIG work
• Information hub
• Responsible for roadmap, prioritization, and resourcing
• Comprises of OLE partner libraries, EBSCO and Index Data
• Weekly web conferences
FOLIO developers

<table>
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<tr>
<th>Developer teams</th>
<th>Task</th>
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<tr>
<td>• Index Data</td>
<td>• Development lead and organisation, core team</td>
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<td>• OLE developer</td>
<td>• Core team and app development</td>
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<tr>
<td>• OLE developer / Mellon Foundation funded</td>
<td>• App development for OLE community</td>
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<tr>
<td>• EBSCO</td>
<td>• App development</td>
</tr>
<tr>
<td>• Development companies: Stacks, UNAM, FrontSide, Qulto, @Cult, K-Int</td>
<td>• Contracted development</td>
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<tr>
<td>• Others</td>
<td>• Independent development</td>
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“Getting started for developers“ - see „guidelines“: [http://dev.folio.org/community/](http://dev.folio.org/community/)
FOLIO conceptual work

• UX/UI Designer
  • Base for app development

• Product Owner
  • Responsible for transfer of functional requirements into technical specifications
  • Connection to developer teams
  • Responsible for fulfilment of timeline and road map goals of his „product“ (= app)
FOLIO communication

Meetings
Conference calls
In-person

Skype
Chats
Calls/Meetings

Slack
Channels
Messages
Secondary tools feed into primary tools

Discuss
Categories
Topics
Posts
discuss.folio.org

Wiki
Documentation
Position papers
wiki.folio.org

GitHub
Source code
Pull Requests
github.com/
folio-org

Issues
Bug reports
Tasks lists
issues.folio.org

Primary COMMUNICATION Tools

FOLIO Forum
FOLIO technical architecture

**UI Toolkit - Stripes**
React, Redux,
Use default or create new

**Core FOLIO ILS Apps**
OS apps, e.g. e-resource management, circ, cat, acq...

**Other Apps**
Extend existing or develop new apps,
OS or commercial

**FOLIO Gateway - OKAPI**
APIs, "Switchboard",
Tenant separation
FOLIO software - users
FOLIO software - finances
FOLIO team in VZG and hbz

- Active cooperation in FOLIO project
  - Functional experts and developers
    - FOLIO Product Council, Stakeholders Board, SIGs, subgroups (incl. convener)
- Active cooperation in OLE community
  - Board, Steering Committee
- Joint representation of network interests
  - Workshops, presentations, documentations
  - Development project → electronic resource management
    - Organization of German FOLIO community
    - German web side „https://www.folio-bib.org/“
- Continuous evaluation of software and requirements during development process
FOLIO opportunities and risks

• Systems concept: modular, flexible, and customizable
• Integration in higher education structures
• Possibility of „step by step“ implementation of single modules = less fractions, less risk
• Systems architecture strictly open api’s
  • Platform internal between the apps
  • External to 3rd party systems
• Enhanceable by localization and extra services, e. g. 3rd party services, local developed apps (self check app, open access app, …)
FOLIO opportunities and risks

• Connection of various data sources
  • Standard metadata sources, e. g. union catalogues
  • Knowledge bases: commercial, cooperative
  • Linked open data

• Integration of future requirements

• Modern software stack
  • Recent technologies
  • Freedom of choice
  • Positive evaluation through OLE community – technical review team
FOLIO opportunities and risks

- Open Source
  - Open api’s: quick, non proprietary addons possible
  - No vendor lock-in
  - Cooperative, transparent participation and development – community owned
  - “Save haven“ of code (Apache 2.0 license) under the Open Library Foundation
- Data security, data safety, data ownership
- Self determination in information supply
  - Public service hosting possible
  - Library networks - proven, strong, collaborative partners in international cooperation
FOLIO opportunities and risks

• Cooperative development
  • „from libraries for libraries“
    • Comprehensive functional knowledge
    • Knowledge about recent and future requirements
    • Responsibility for development

• In cooperation with commercial partners
  • Financial and management support
  • „Outcome oriented“ target settings ensure the necessary pressure for success and reliability
FOLIO opportunities and risks

• Achievement of an implementable version
  • Definition and prioritization of requirements and realization
  • Reliable and timely delivery of
    • Funding
    • Staff: developer and functional experts
    • Product owner, project manager / leadership
    • Planned software in scope and quality
  • Consideration and realization of increased efforts in coordination and communication
  • Security for sustainable development continuation
FOLIO opportunities and risks

• The platform in focus!
  • Isolated module migration possible
  • Open api architecture (internal and external)
  • Recent software stack
  • Microservice idea embedded in technology concept
  • Compatibility of public service and commercial interests

= sustainable development possibilities of functionality and services for libraries in an innovative, self contained, consolidated concept!
FOLIO implementation

• FOLIO partner libraries as „early adopters“ in 2019
  • Texas A+M, Chicago, Lehigh, Chalmers, …
  • Data migration concepts
  • OLE partner libraries will support each other

• Choice of business model
  • Local
  • Hosted / SaaS by public service provides, e.g. network headquarters or regional centers of excellence
  • Commercial SaaS, e.g. by EBSCO, Index Data, …
FOLIO learn more

• Code on GitHub
  https://github.com/folio-org

• UI prototype
  http://ux.folio.org/

• Demo installation
  https://folio-demo.gbv.de/ + http://folio-dev.hbz-nrw.de
  (diku_admin / admin)
FOLIO learn more

• FOLIO Wiki
  https://wiki.folio.org/

• OLE community
  https://www.openlibraryenvironment.org/

• Open Library Foundation
  http://www.openlibraryfoundation.org/

• FOLIO
  https://www.folio.org/
Questions?

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Decisive for this presentation is the spoken word.