Pushing boundaries: FOLIO beyond the ILS

Sebastian Hammer
Index Data
Stripes (UI toolkit)

Calendar app

Another app

Okapi (API gateway)

Calendar Gateway

Remote Calendar

calendar sync plugin

Other service
Bibliographic Metadata

Stripes (UI toolkit)

- Resource Management
- Metadata Management
- Circulation

Okapi (API gateway)

- Local metadata
- Remote KB plugin
- Native BIBFRAME
- IR plugin

Metadata DB

KB

Triples!

IR
Bibliographic Metadata

Stripes (UI toolkit)
- Resource Management
- Metadata Management
- Circulation

Okapi (API gateway)
- Codex search
  - Local metadata
  - Remote KB plugin
  - Native BIBFRAME
  - IR plugin

Metadata DB
KB
Triples!
IR
Keep apps small and simple!

Each app should do one thing well
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An item's status changes to "on hold"

**Workflow steps**

- Create variable for item
  - numberOfHolds = numberOfHolds + 1

- **Condition**
  - numberOfHolds > 6

- If condition is true:
  - Create task of type "Order Suggestion"
    - Assign to: John Doe
  - **Timeout**
    - Wait 90 days

- Change variable
  - numberOfHolds = numberOfHolds - 1

When was this workflow iterated?
FOLIO design paradigm

Decompose
Keep apps small and simple; each app should do one thing well

Combine
Combine apps into complex workflows to meet the needs of the library

Share!
Workflows can be shared between organizations
Resource Sharing (ILL) in FOLIO
Resource Sharing :: Request Submission

Resource Sharing Request

title*
The effect of Caffeine on the seasoned applications developer

subTitle*

titleOfArticle* Please fill in this field.

itemType* Please fill in this field.

patronId*

pagination

publisher
## Resource Sharing :: Request Management

### Resource Sharing Requests

2 Results Found

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Challenges to explore

- Directory Services / Organisational Context / Hierarchical Policy DB
- Connection with discovery/catalog services
- Construction / Experiments in Service/Module Design
- Organization as a possible “sister” project to FOLIO
Research Data in FOLIO?
Managing data: research and libraries

Researchers . . .
would like to focus on doing research
use files, databases, spreadsheets, etc.

?  

Libraries . . .
would like to offer research data storage and preservation services
use repositories
Focus in on data sharing

Data sharing

Research workflow

Data curation

Data reuse

Data lifecycle
Sharing a data set
Sharing a data set

Sender → Raw data → Channel → Raw data → Receiver

The receiver needs more information about the data

Reaction: ??!!
Glint is software that adds a thin layer of services to data
The data can reside in a repository, on a lab server, etc.
Using Glint

Web-based user interface: for general users (work in progress)

Command line interface: for technical users & software integrators
Posting data on a Glint server

$ glint post ocean.csv
https://glintcore.net/izzy/ocean
Sharing data & retrieving it in a web browser

https://glintcore.net/izzy/ocean
Sharing data & retrieving it in a web browser

https://glintcore.net/izzy/ocean

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Retrieving data in R

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> ocean <- read.csv("https://glintcore.net/izzy/ocean")

> ocean
   id t record site_id air_temp_avg baro_press_avg rel_hum_avg dew_pt_avg vpr_press_avg wind_speed wind_dir stddev wind_gust wtr_lvl_avg
e-1 1 2016-12-19 17:04:00 8109 1 792.5 171.4 NA
2 2 2016-12-19 17:34:00 8110 1 789.0 163.7 NA
3 3 2016-12-19 18:04:00 8111 1 790.4 169.7 NA
4 4 2016-12-19 18:34:00 8112 1 12.64 1012.0 92.7
5 5 2016-12-19 19:04:00 8113 1 13.26 1011.0 92.5 11.50
```

```r
de=4 1.355 0.000 0.000 0.000 0.000 1.237252
```
Changing how data are retrieved

https://glintcore.net/izzy/ocean?show(t,air_temp_avg)as.tsv

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Adding metadata

$ glint md ocean.t dc:date

$ glint md ocean.wind_speed yamz:h3846
Integrations

Metadata → URL

Client ← Server storage

Authentication / permissions

FOLIO

Data formats
"The generation of most biomedical data is highly distributed and is accomplished mainly by individual scientists or relatively small groups of researchers. Moreover, data also exist in a wide variety of formats, which complicates the ability of researchers to find and use biomedical research data generated by others and creates the need for extensive data 'cleaning.' According to a 2016 survey, data scientists across a wide array of fields said they spend most of their work time (about 80 percent) doing what they least like to do: collecting existing data sets and organizing data. That leaves less than 20 percent of their time for creative tasks like mining data for patterns that lead to new research discoveries."

—Draft NIH Strategic Plan for Data Science (2018)
"The value of research data arises from its use, and the more it is used the greater the social benefits and the higher net welfare."

—Business models for sustainable research data repositories (OECD report, Dec. 6, 2017)
Effective data sharing can accelerate cooperation around data

Suppose that we could share and cooperate around data—forming communities to discuss and understand data better—as easily as we share and discuss interesting articles today.

https://glintcore.net
Questions?

quinn@indexdata.com

www.folio.org

indexdata.com/folio