History: Why a New UI?

https://flic.kr/p/59eZ2g

DSpace UI

JSPUI

XMLUI
Background - Vision

2013
• Vision Discussions
• Vision Document

2014
• Vision Survey
• Product Plan
• Community Use Case Gathering

2015 Path to a Roadmap

- Roadmap Working Group
- Strategic Plan
- Use Case Analysis
- Technology Roadmap
- Vetting by Steering, Leadership, and DSpace Community
Strategic Plan 2015-18

Community  →  Sustainability  →  Technology

Technology Goals

1. Focus on the modern IR use case
2. Lean, agile, flexible
3. Core set of functionality that can be extended
4. Easily/quickly configurable to integrate well
5. Support low-cost, hosted solutions and deployments

Technology Goals

Actions

2. DSpace will be lean, with agility and flexibility as primary goals

A. Converge on single, out-of-the-box user interface
B. Converge on single, out-of-the-box search/browse system
C. Converge on single, built-in statistical engine
D. Develop a basic user interface style / layout guide
Technology Roadmap

Candidate Features for DSpace 7.0 - Priority 1

1. **Single User Interface**
2. Configurations in Admin User Interface
4. Module Framework and Registry
5. Simplify Community and Collection Hierarchy
6. Lower the Effort to Deposit Content

https://wiki.duraspace.org/display/DSPACE/RoadMap
In 2015, the DSpace Steering Group announced an initiative to prototype and select the technology to use for a new, modern user interface (UI), targeted for DSpace 7.

UI Prototype Challenge

Eight Entries

- Rails
- EmberJS
- AngularJS
- Spring MVC
- Spring Boot

The Challenge & The Choice
Prototype Challenge Analysis (early 2016)

Decision Point: Java vs Javascript UI

Client Side (JS) benefits:
- Dynamic, innovative
- Separation of concerns (REST API)

Client Side (JS) concerns:
- Search Engine Optimization
- Accessibility
Angular 2 Framework

- First beta in Dec 2015
- All benefits of Client Side UI
- Accessibility support
- Most widely used platform
- SEO support (via Angular Universal)
DSpace 5 + Angular 2 Prototype (March - June 2016)

- SEO
- Accessibility
- We Worked On
- More Dynamic UX
- More Config. UI
- Java Backend (5.x REST API)
- Web archiving

by U of Kansas
by Google Scholar
by RCAAP
From OR2016 to November
DSpace 7 UI Working Group (late 2016)

**COORDINATION**
Tim Donohe  
DuraSpace

**GOAL**
Build the Angular UI and the REST API for DSpace 7

**Angular UI (SubTeam)**
Art Lowel  
Atmire

**REST API (SubTeam)**
Andrea Bollini  
4Science
Angular UI SubTeam

Framework by Google for building apps in the browser

Only data from the server

HTML generated by JavaScript in the browser

Main elements:
• Components (render data)
• Services (provide components with data)

Angular team sub-project

Supports the server-side rendering for angular apps

Same code that is used by the client

The server imitates a browser using angular app

It makes calls to the REST API for data

It sends HTML as response
REST API SubTeam: why?

What the Prototype Challenge told us

- Only a limited subset of DSpace functionality is currently exposed
- Handcrafted implementation, no standard or convention adopted
- Different technology than the other DSpace code (Jersey)
REST API SubTeam: the goals

- Support the Angular UI development
- Documented, tested & stable REST API
- Adoption of best practices to modernize the code base
- Rely on widely used frameworks (Spring)
Next Steps & Contributing
Next Steps / Timeline

- Angular UI developers workshop
- DSpace 7 update talk
- Alpha demo (search/browse?)

7.0 Final Release - est 2018
Meetings: Every Thursday (16:00 UTC)

Soon: monthly video updates (to lists)
How to contribute

Claim a ticket and/or join a meeting
https://wiki.duraspace.org/display/DSPACE/DSpace+7+UI+Working+Group

Join us on Slack / ask questions
https://goo.gl/forms/s70dh26zY2cSqn2K3

DSpace 7 Outreach Group
https://wiki.duraspace.org/display/DSPACE/DSpace+7+UI+Outreach+Group
Additional Resources

Prototype analysis:
https://wiki.duraspace.org/display/DSPACE/DSpace+UI+Prototype+Challenge

Introducing the new UI:
http://www.slideshare.net/tdonohue/introducing-the-new-dspace-user-interface

DSpace 7 Working Group:
https://wiki.duraspace.org/display/DSPACE/DSpace+7+UI+Working+Group

Angular:
https://angular.io

Angular Universal:
https://universal.angular.io/
February 2017: Introducing DSpace 7 Webinar

Video: [http://www.duraspace.org/node/3103](http://www.duraspace.org/node/3103)
Slides: [https://www.slideshare.net/DuraSpace/22817-introducing-dspace-7-webinar-slides](https://www.slideshare.net/DuraSpace/22817-introducing-dspace-7-webinar-slides)

DSpace 7 UI Project Plain Language Summary:
[https://wiki.duraspace.org/display/DSPACE/DSpace+7+UI+Project+Plain+Language+Summary](https://wiki.duraspace.org/display/DSPACE/DSpace+7+UI+Project+Plain+Language+Summary)
2250 Installed Repositories Worldwide!
Income

Membership Contributions $240,750
Registered Service Provider Contributions $32,285

Total Revenue $273,035
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Strategic Partners

- SHARE
- COAR
- RDA
- euroCRIS
- ORCID
http://www.dspace.org/getting-started