

DSPACE

DSpace 7: Selecting and Building a New DSpace User Interface

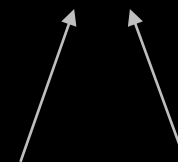
CNI Spring 2017 Membership Meeting
Debra Hanken Kurtz, DuraSpace
Michele Mennielli, 4Science
Maureen Walsh, The Ohio State University

History: Why a New UI?



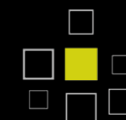
<https://flic.kr/p/59eZ2g>

DSpace UI



JSPUI

XMLUI



Background - Vision

2013

- Vision Discussions
- Vision Document

2014

- Vision Survey
- Product Plan
- Community Use Case Gathering

<http://bit.ly/dspace-strategic-planning>

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



<http://bit.ly/dspace-2015-18-strategic-plan>



Technology Goals

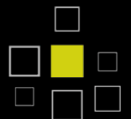
1. Focus on the modern IR use case
2. Lean, agile, flexible
3. Core set of functionality that can be extended
4. Easily/quickly configurable to integrate well
5. Support low-cost, hosted solutions and deployments

<http://bit.ly/dspace-2015-18-strategic-plan-technology>



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
3. Single Built-in Statistical Engine
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>

UI Prototype Working Group

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**

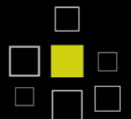
<http://bit.ly/dspace-ui-prototype-working-group>

UI Prototype Challenge

Eight Entries

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

<http://bit.ly/dspace-ui-prototype-challenge>



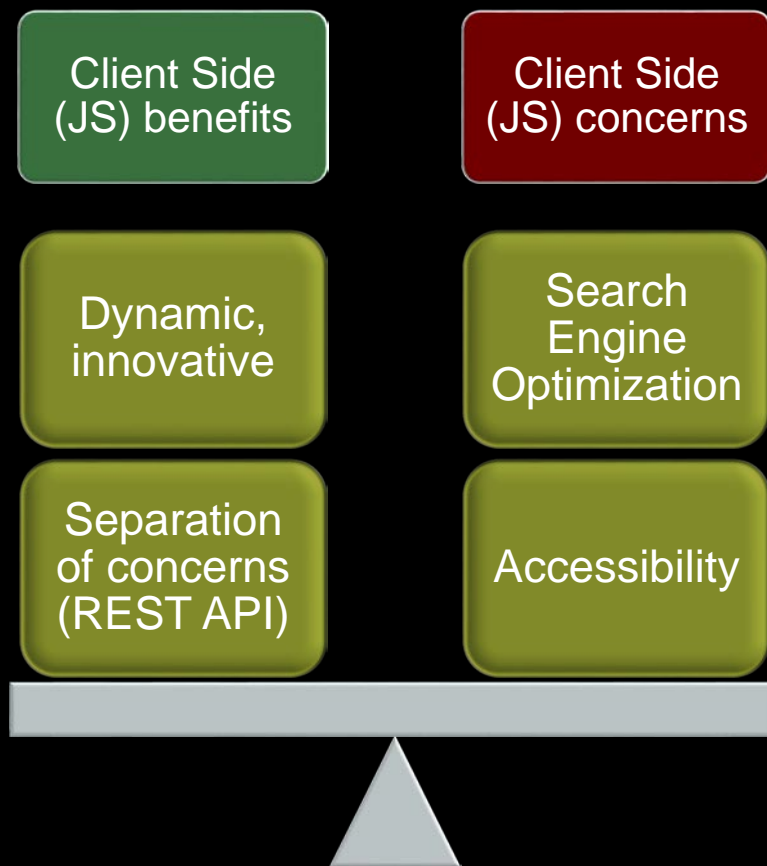


The Challenge & The Choice



Prototype Challenge Analysis (early 2016)

Decision Point: Java vs Javascript UI



Angular 2 Framework

First beta in Dec 2015

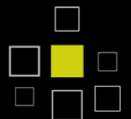
All benefits of Client Side UI

Accessibility support



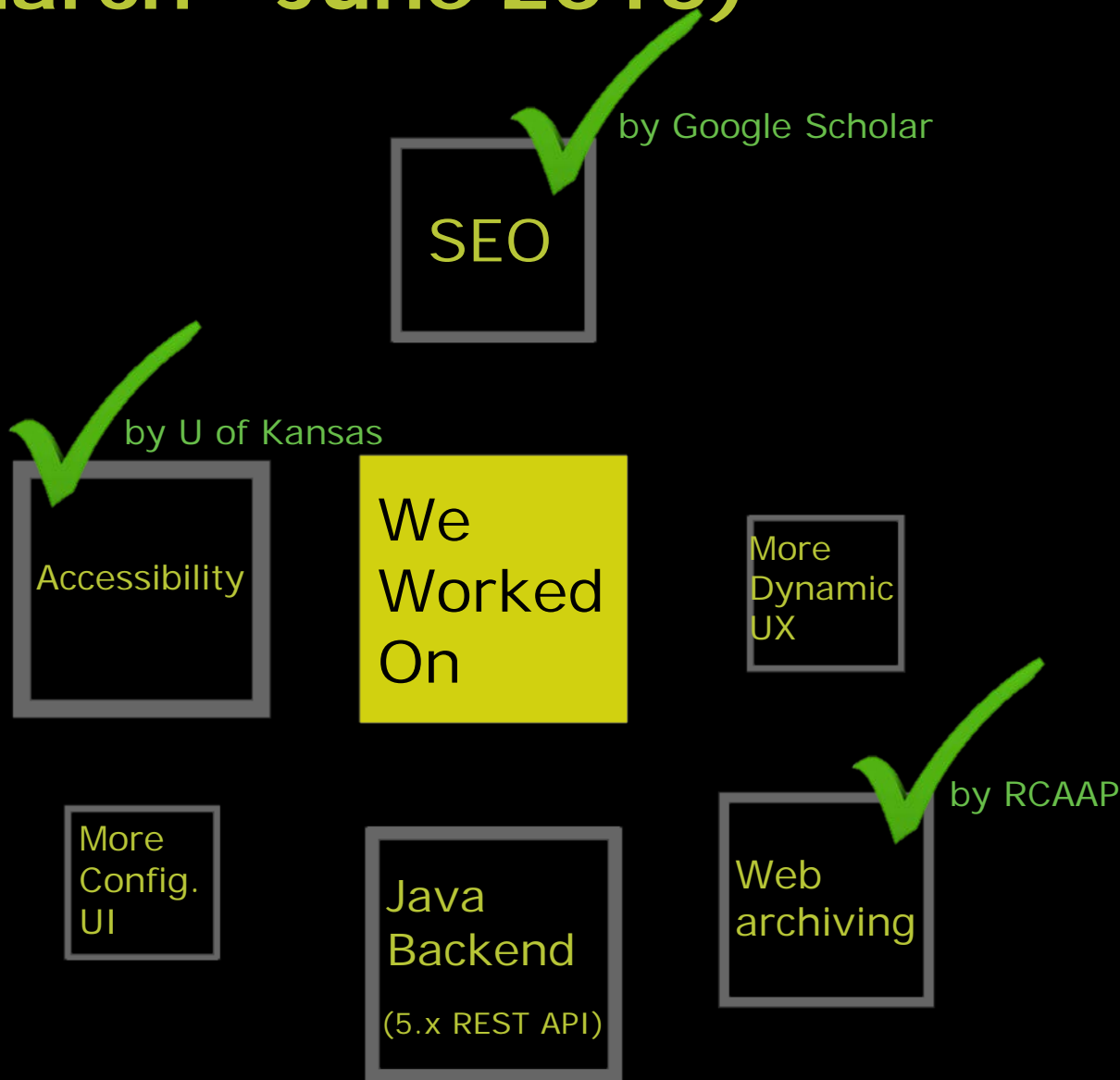
Most widely used platform

SEO support (via Angular Universal)





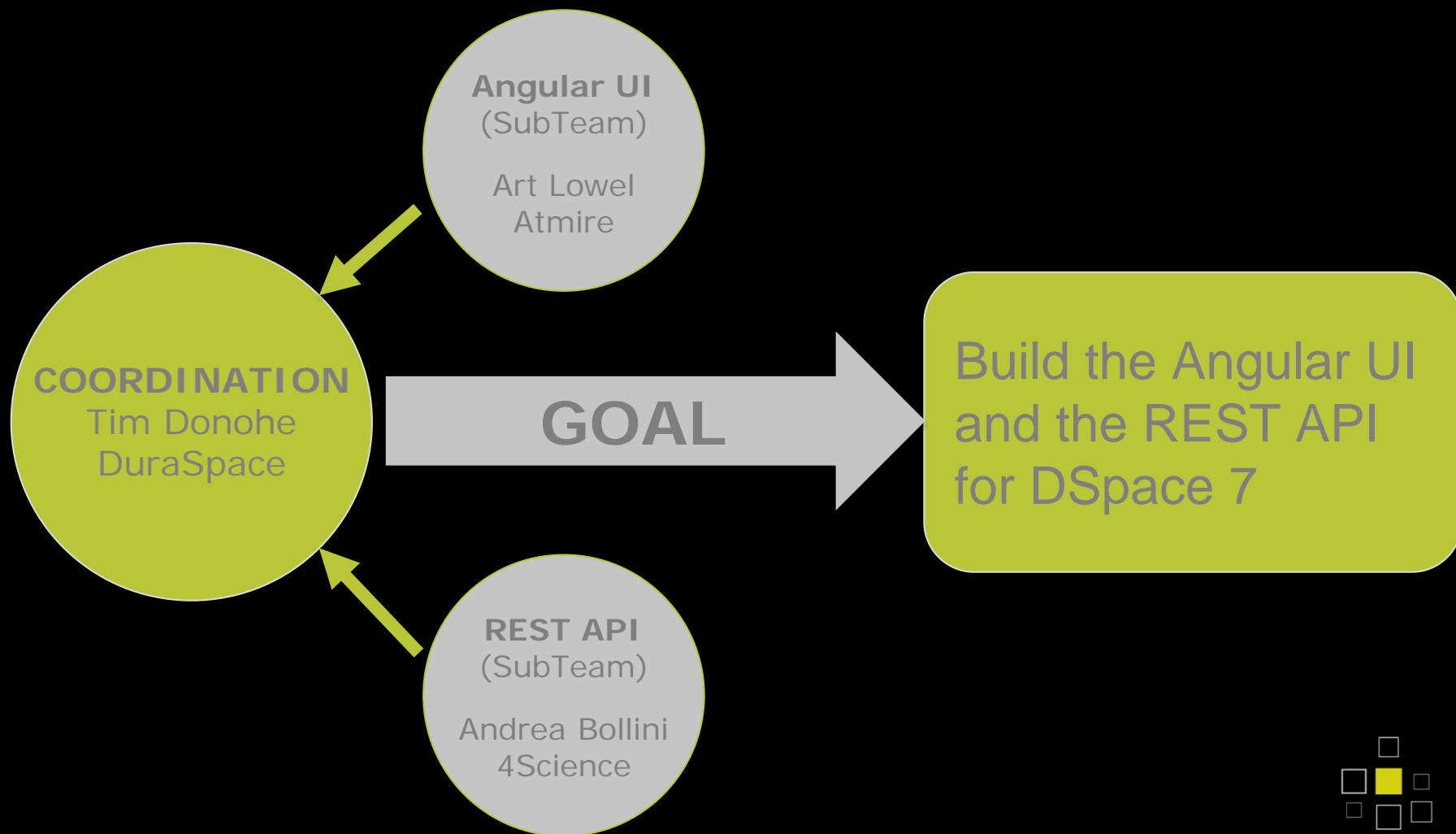
DSpace 5 + Angular 2 Prototype (March - June 2016)



From OR2016 to November



DSpace 7 UI Working Group (late 2016)



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

An aerial photograph of the Brisbane city skyline, showing the city's buildings and the Brisbane River. A white rectangular box is overlaid on the image, containing the text "OPEN REPOSITORIES 2017 CONFERENCE" in a bold, white, sans-serif font. The text is centered within the box and is clearly legible against the background of the city.

OPEN REPOSITORIES 2017 CONFERENCE

26-30 June 2017, Brisbane

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

7.0 Final Release - est 2018



Collaboration / Updates

/ Meetings: Every Thursday (16:00 UTC)



/ Soon: monthly video updates (to lists)



How to contribute



Claim a ticket and/or join a meeting

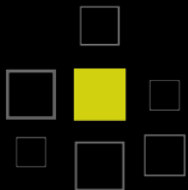
<https://wiki.duraspace.org/display/DSPACE/DSPACE>

[+7 +UI +Working +Group](#)



Join us on Slack / ask questions

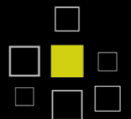
<https://goo.gl/forms/s70dh26zY2cSqn2K3>



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:

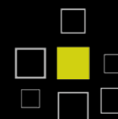
<https://wiki.duraspace.org/display/DSPACE/DSpace+7+UI+Working+Group>

Angular:

<https://angular.io>

Angular Universal:

<https://universal.angular.io/>



Additional Resources

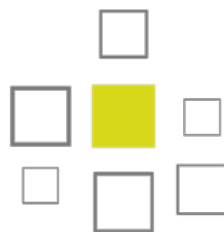
February 2017: Introducing DSpace 7 Webinar

Video: <http://www.duraspace.org/node/3103>

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>



D SPACE

2016

2250 Installed Repositories Worldwide!



Income

Membership Contributions	\$240,750
Registered Service Provider Contributions	\$32,285
Total Revenue	\$273,035



51 Members



ARGONET
D & L®

DMRS

ibai
SISTEMAS

[]
The
Library Code

ATMIRE

NEKI IT

Smart Information Management
Prodigio
Consultores

INFORMATICS
A Passage to Knowledge

KNOWLEDGEARC

Registered Service Providers

4SCIENCE
Share your knowledge

Openlx

CINECA

ARVO CONSULTORES
digital repositories

D²Technologies

NotionWave

DURASPACE™

DSpaceDirect

2013	5
2014	9
2015	2
2016	5
2017	7

Strategic Partners





<http://www.dspace.org/getting-started>