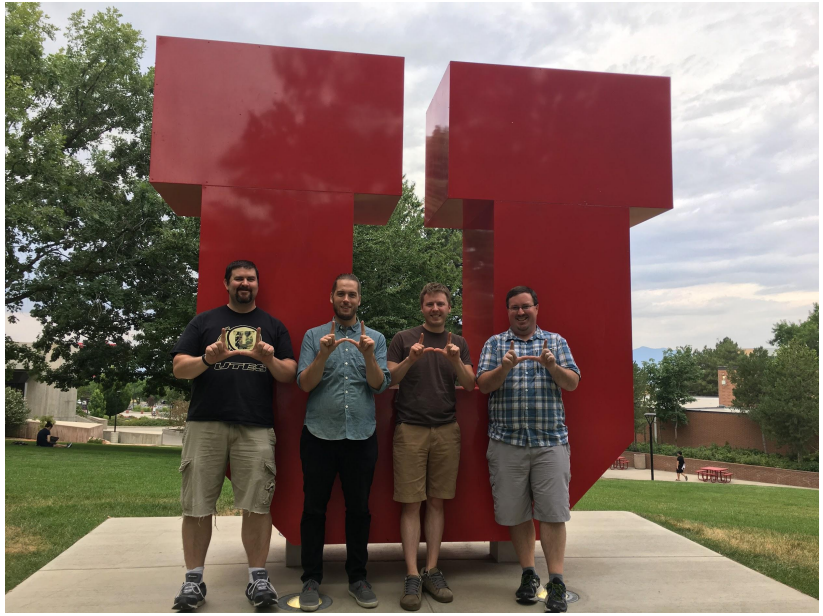
J. Willard Marriott Library
THE UNIVERSITY OF UTAH
ALL U NEED
Gitlab
for system admins

Digital Infrastructure Development Team



(L-R) Curtis Mirci, Jacob Reed, Alan Witkowski, Brian McBride (not pictured) Sean Upton

What does DID do?

- Architect and develop digital library (DL) systems
- Maintain core DL Infrastructure
- Contribute to the Library & Academic community
- Develop really awesome tools and systems for faculty, staff, students, and researchers

Today's Goals:

- Understand the basics of version control
- Basic understanding of git
- What can gitlab do for your team

What is version control?

What is version control?

“Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later.” - https://git-scm.com

Why version control?

- Easily identify changes
- Track changes to code bases
- Ability to revert to previous versions
- More easily allow for teams to develop code together

What is git?

History of git

- Created in 2005 by Linus Torvalds
- Initially used for linux kernel development

Why git?

- Large adoption base (community)
- Local copy of entire repository
- De-centralized software development
- Flexible workflows (branches, PRs, etc.)
- Support for non-linear development
- Improve development cycles
- Highly scalable and flexible

What is gitlab?

Why Gitlab?

- Issue Tracking
- Project Boards
- Activity/Analytics
- CI/CD
- Wiki
- Snippets
- Integrations

Code Repository System

- Centralize the storage of your code
- Determine who has access to your code (private/group/public)
- IP warehouse
- Share your code
- Track your codebase lifecycle
- Integrates with Xcode

Issue Tracking

- Easily track issues (i.e. bugs, feature requests, etc.)
- Assign tasks to users
- Ability to create labels and milestones
- Gain input for users and stakeholders
- Generate custom templates using markdown
- Easily create user stories and user boards
- Integrates with Jira and other applications

Project Boards

- Create customized workflows and boards
- Easily visualize issues
- Share boards with team members
- Assign status and labels

Activity and Analytics

- Track development cycles
- Track the entire history of a codebase
  - Code, Tests, Reviews, and development environments
- View time tracking on a granular level
  - Push, merges, issues, comments, teams

CI/CD

- Test your codebase
- Catch bugs early and often
- Create Pipelines (tasks)
- Create distributed testing systems (scalability)
- Schedule events
- Easily deploy code to production
- Complete DevOps workflow
- Easily integrates with Kubernetes

Wiki

- All your documentation in one place (yay!)
- GUI editor
- Supports Markdown, Rdoc, ASCIIDoc

Snippets (gists)

- Share code and text with users
- Downloadable
- Granular permissions

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Integrations

- Slack
- CAS +SAML, LDAP, OAUTH2,
- Redmine, Jira, others
- Trello
- Kubernetes
- Bitbucket
- Gmail action buttons
- Jenkins
- Many others….

Costs

- Community Edition (CE) - Free
- Gold - Free to EDU (requires institutional license)
- Premium - Free to EDU (requires institutional license)

Questions?

The Project Management Task Force

Angel Warkentin

Brian McBride

Devin Donaldson

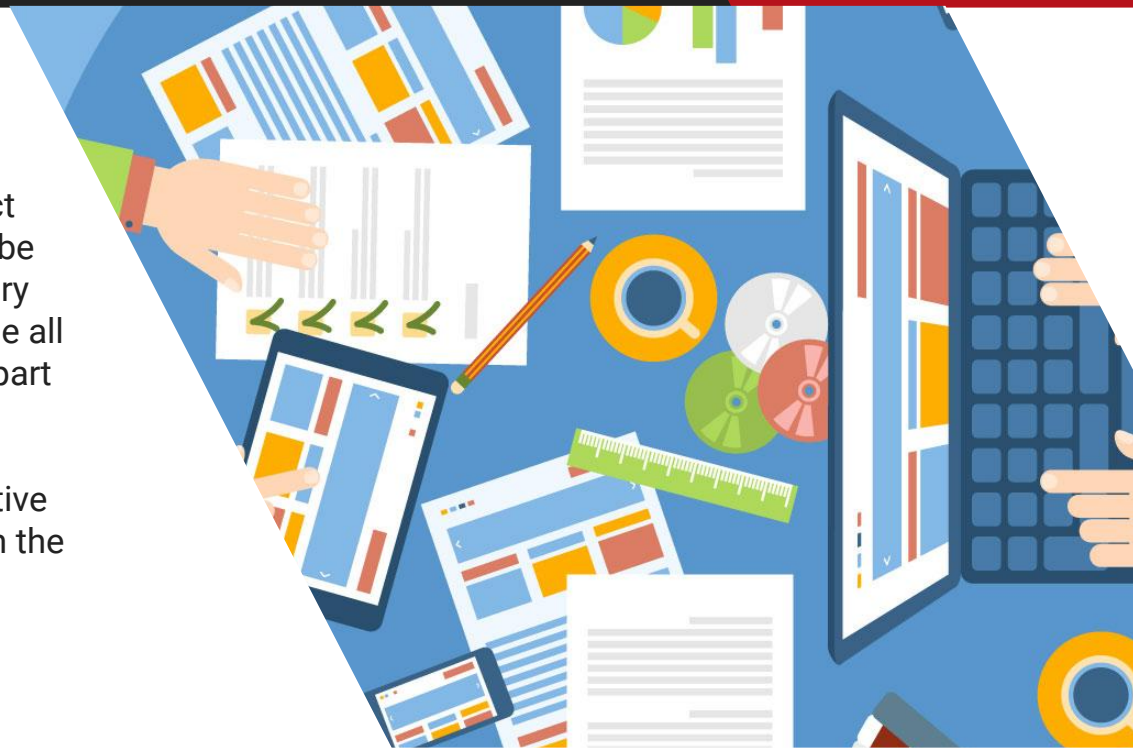
Leah Donaldson

Matt Brunsvik

Topher Nadauld

Our Goal

- Develop a set of simplified project management principles that can be applied to all projects in the Library
- Develop project charter and define all the components that need to be part of a project charter
- Develop a high level dashboard concept that captures current active projects and proposed projects in the pipeline.
- Define a shared vocabulary to communicate information about projects



How we define a Project

The creation of a unique product or service though a resource-bound series of tasks to accomplish a goal/objective.

Project Management

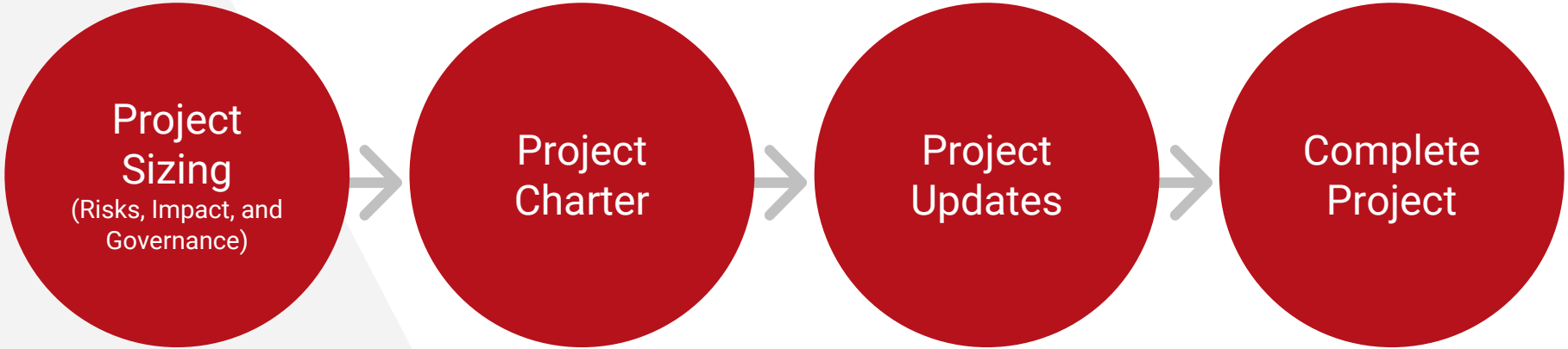
There are many project management methodologies. From applying agile principles in application development to using Six Sigma approaches for digitization projects. Yet, there exists a need to adopt a common project management framework that will distill core project information into a set of easily understandable deliverables for effective communication across the organization.

Agile | Traditional | Waterfall | Adaptive | Critical Path | Scrum
Six Sigma | Crystal | Critical Chain | Extreme

Of all the things I’ve done, the most vital is coordinating the talents of those who work for us and pointing them towards a certain goal.

~ Walt Disney

Workflow



Getting approvals
Have a rough idea of departments involved and scope.

Detailed Project Plan
Scope, Parties, Resource Dependencies, etc.

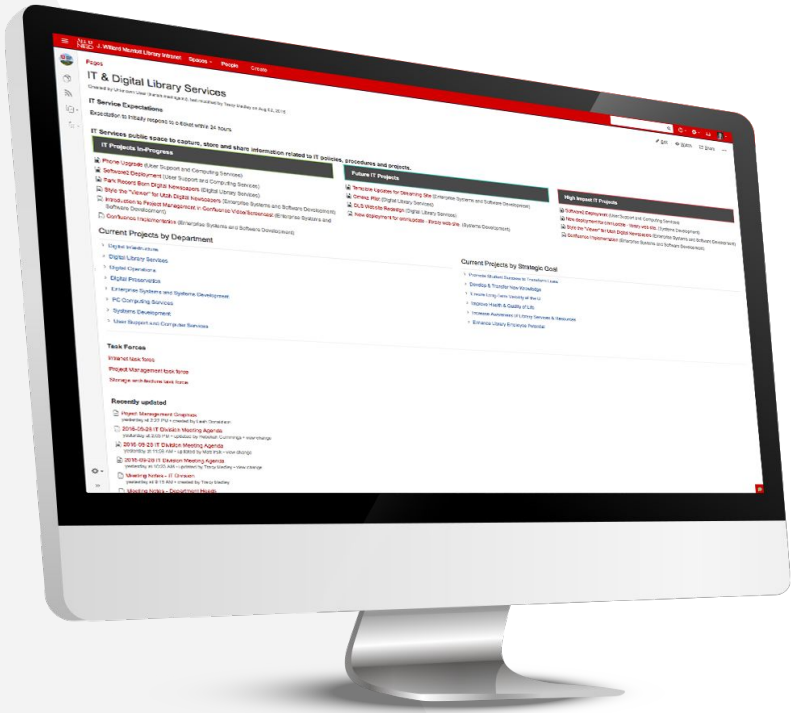
Track tasks, update labels and tags

Move project files into an archive, update labels and tags.

Picking the System

Confluence will primarily be used to store project charters and track progress through the basic task list for each project. We understand that day-to-day project management needs vary by project and leave it up to each manager to determine the best tool for that. Confluence alone will be sufficient for managing some projects, and if managers are using another tool, they will only have to mark major tasks complete in Confluence as the project progresses. Having all projects in Confluence will improve awareness of ongoing projects, both within ITDLS and in other library divisions.

The Dashboard



If Library Faculty and Staff have two sections for projects under their department's Confluence page, "Current Projects" and "Completed Projects," and use the proposed workflow for project management/tracking, we are able to create a high level dashboard for viewing aggregate project data across the organization.

This Dashboard will allow library faculty and staff to get a quick overview of ongoing projects, sort projects by defining labels/features, and view proposed projects in the pipeline .

Check out IT's Project Dashboard

Comic Intermission

We can help you!

Angel Warkentin

Brian McBride

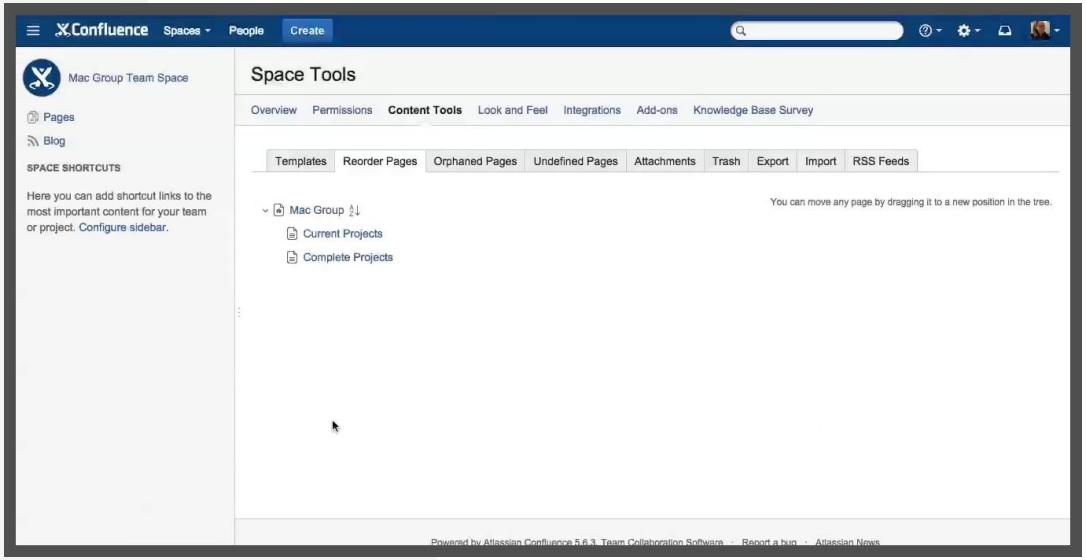
Devin Donaldson

Leah Donaldson

Matt Brunsvik

Topher Nadauld

Setup your department space



1.) Navigate to Department Confluence Page

2.) Click "Create"

3.) Select "Blank Page"

4.) Title the page "Current Projects"

5.) Save/Close

6.) Navigate to Department Confluence Page

7.) Click "Create"

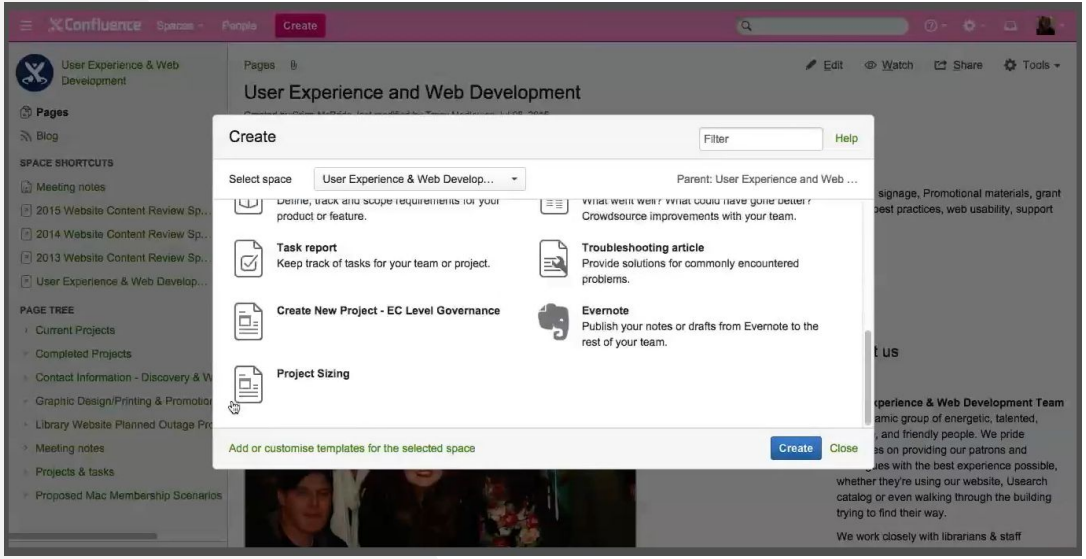
8.) Select "Blank Page"

9.) Title the page "Completed Projects"

10.) Save/Close

11.) Reorder pages

Project Workflow Step 1: Determine Governance



1.) Navigate to Department Confluence Page

2.) Click "Create"

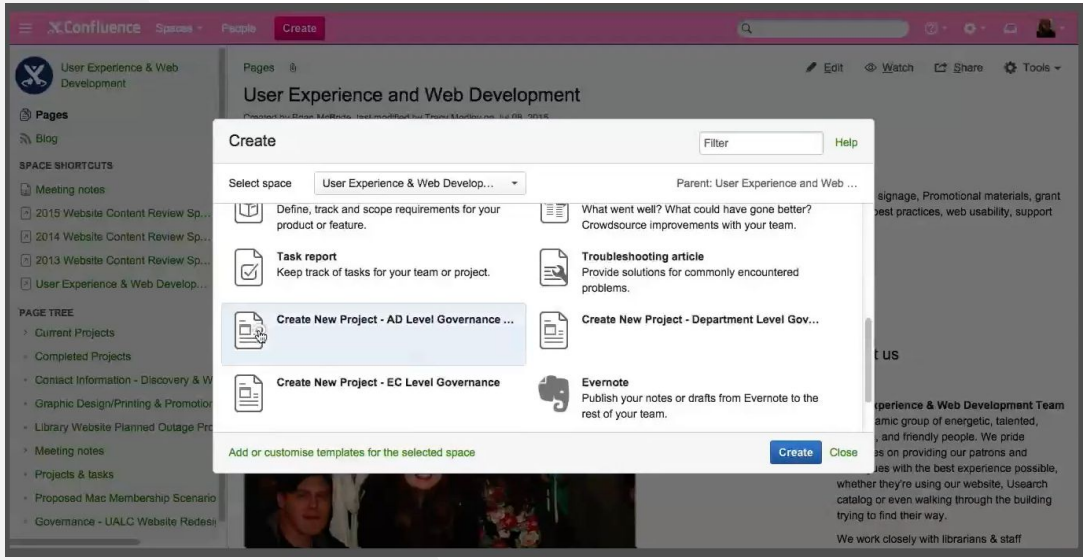
3.) Select "Project Sizing"

5.) Name the file "Governance - *project name*"

4.) Fill out Project Sizing Document

5.) Save/Close

Step 2: Create New Project Page Based on Governance Results



1.) Make sure you are still in the desired Department Confluence area

2.) Click "Create"

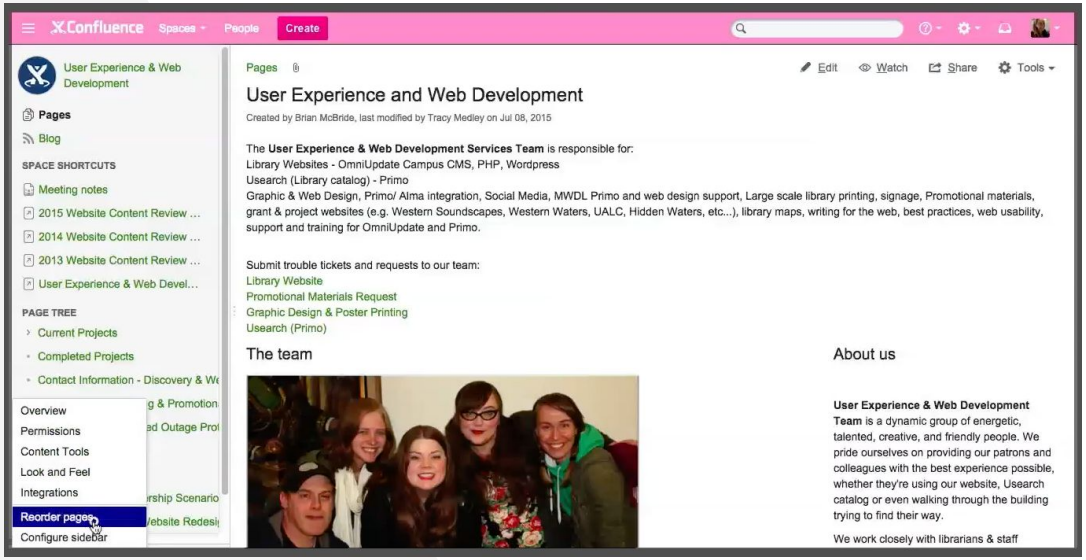
3.) Select "Create New Project" with the appropriate governance.

4.) Fill out document

5.) Add a few labels to identify the project

6.) Save/Close

Step 3: Nest Project and Project Governance Documents in Current Projects



1.) Click "Space Tools" > "Reorder Pages" on the bottom left of Department Confluence Page

2.) Click the down arrow to open Department Pages

3.) Drag the newly created project on to the "Current Projects" folder

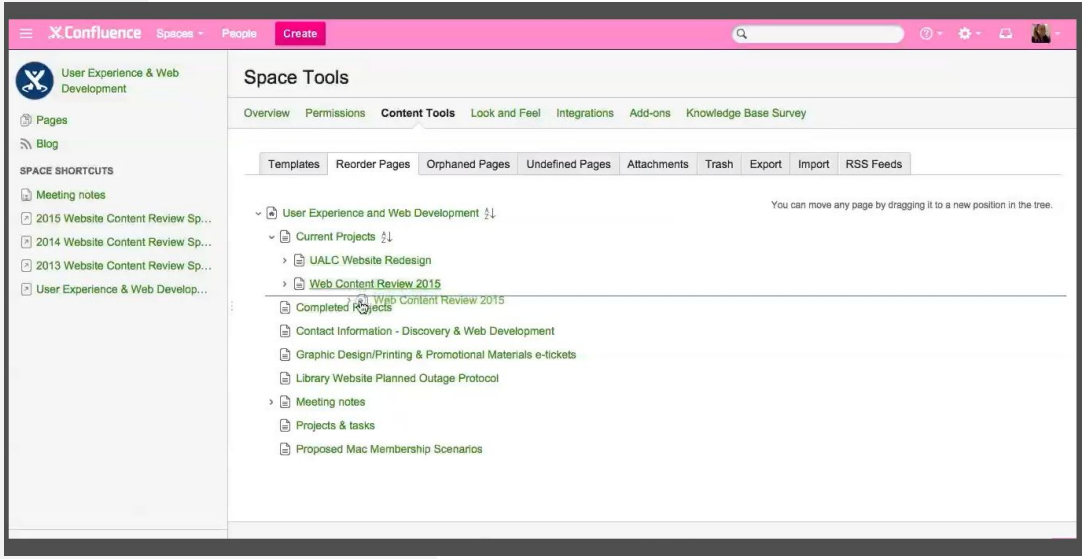
4.) Drag the Governance file on the Project file now inside the "Current Projects" folder

Step 4: Update Project Page as Needed

Updates may include:

- Assigning new tasks
- Create and nest Meeting Notes related to the project
- Modifying communication plan
- Adjusting milestones and timeline
- Adding/Removing Labels

Step 5: Finished Project? Put it in Completed Projects



1.) Click "Space Tools" > "Reorder Pages" on the bottom left of Department Confluence Page

2.) Click the down arrow to open Department Pages

3.) Click the down arrow to open "Current Projects" folder

4.) Drag the completed project page to the "Completed Projects" folder

5.) Add Label “Complete” to Project Page

Well done!

That wasn’t so bad, was it?

Labels for Filtering Projects

Filter projects with labels. Let us know if you have ideas about new/useful project filters! Here are a few we've come up with:

it (your department label)
in-progress (project status)
complete (project status)
planning (project status)
high-priority (project priority)
low-priority (project priority)
ad-governance (governance)
ec-governance (governance)
dept-governance (governance)
promote-student-success (strategic goal)
develop-transfer-knowledge (strategic goal)
long-term-u-viability (strategic goal)
improve-health-life-quality (strategic goal)
increase-awareness-for-services-resources (strategic goal)
enhance-employee-potential (strategic goal)

THANKS!

Self Guided Resources and Training

https://intranet.lib.utah.edu:8443/pages/viewpage.action?pageId=8519957

Questions or feedback?

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