Case Study: How Princeton University upgraded from Drupal 7 to Drupal 9

Our approach, process, and results.

Presented to Drupal Camp New Jersey 2023

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OiT

Agenda

1 **About Me**

2 **Brief history of Drupal at Princeton**

3 **Our Drupal 7 to 9 Upgrade Project**

4 **Questions**

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About Me

Background

- **Have a graphic design and communications degrees**

- **Working at Princeton University for 22 years**

Today

- **I manage a team call Web Development Services**

15 on the team
- Development & support (7)
- Content strategy & design (4)
- Project management (2)
- Accessibility (1)
- Director (1)

- Part of 300+ person central IT
- Provide self-service and professional website services

Haha!

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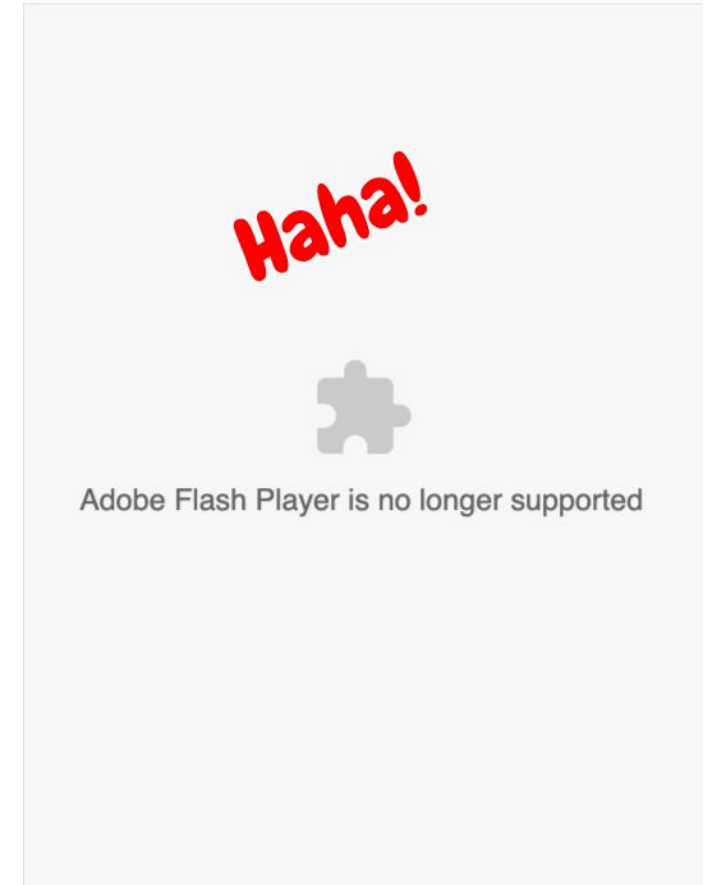
A Brief History of Drupal at Princeton

- **2010: Decided that our current CMS was no longer viable**

- **2011: Started experimenting by building websites using Drupal 7 and attended DrupalCon**

- **2012: Built more websites but aimed to have a "multi-site" because we knew we'd have to manage hundreds**

- **2013-14: Partnered with FFW to built a multisite platform**

- **2014-18: Built more websites and learned a lot**

- **2018: We started building our Drupal 8/9 multisite**

- **2019: Began planning an upgrade of Drupal 7**

- **2023: Expected to no longer run any Drupal 7 websites by the summer**

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Upgrade Project

How we got from Drupal 7 to 9

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Project Inception

Leadership Buy-in

Making the case to move to Drupal 8.

Scope

How big is this project? What is in scope? What is out of scope?

Costs

How much is this going to cost?

Finding a Partner

Who can help us?

Project Readiness

Are we prepared to start?

Leadership Buy-in

- **We just invested in moving to Drupal 7, so we need to maintain that investment**

- **Websites continue to be very important communication tools**

- **This is a one-time heavy lift**

- **Consolidation, clean up, and accessibility improvements**

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Scope

- **Over 1,000 websites (not really)**

- **3 main types with subtypes**

- **We knew we did things in the early years that would come back to bite us**

- **Custom themes, custom "surprises"**

- **Some custom colors – okay to reintroduce**

- **Balancing act**

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Scope: Assumptions

Taken directly from the project's notes…

- We will base the estimate on everything moving, including 50% of maintenance mode sites.
- We will include ALL of our Drupal platforms (PSBv1, Custom, and OpenScholar).
- We will do this in as compressed a timeframe as possible so that we do not fall behind with future Drupal upgrades.
- Ongoing work for WDS continues (e.g. we do not stop our routine work).
- Site Owners will move to the Tiger theme to increase accessibility compliance (except for those that already have their own theme (OIT, DFR, ODOC). If they don't want Tiger, they'll need to engage in a separate for-fee project with WDS.
- We will need site owners to test but they won't.

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Scope: Over 1,000 websites – really?

We had no quick and easy way to figure out how many viable websites we had.

- Would the sites in Maintenance Mode launch during this time?
- How many were abandoned?
- How many have site owners no longer at the University?

63%

of the websites actually upgraded

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Scope: Types of Websites

Site Builder – version 1

This was our original multi-site.

- Built in partnership with FFW (at the time called Blink Reaction)
- It served us well but was inflexible when we needed to add 1-2 custom content types to a single website
- Custom themes were hard to do

OpenScholar

We used this distribution for faculty and lab websites.

- The open-source version had few enhancements, and we did not have time to contribute
- The editing interface was clunky
- Themes were dated looking

Custom

Some of these were our earliest websites.

- We learned Drupal by building these
- Multiple ways to achieve the same thing
- If a website needed a custom content type that was not in our Site Builder, then they automatically became full custom builds

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Scope: Types of Websites

Site Builder – version 1	OpenScholar	Custom

Consolidating

↓

Site Builder – version 2
(Drupal 8/9)

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Scope: How big of an effort?

Discussed what was in scope and out of scope for each type.

- We broke out the Site Builder version 1 websites even further and assigned points to calculate complexity

- Some criteria =
  - Amount of nodes
  - CSS Injector - number of lines
  - Number of panel panes
  - Cost of original website project
  - Age + simple

- CSS w/ 500+ lines = 9 points

- CSS 100-500 lines w/ Tiger = 3 points

- CSS less than 100 lines w/ Tiger = 1 point

Example points

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Scope: Costs

We ballparked how long it would take the team to do the work.

- We used the points and put together some huge spreadsheets
- We calculated how many hours it would take us
- This planning helped us when we did an RFP
- Had some idea of the time it would take
- Were able to outline a clearer RFP
- Could ask better questions

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Finding a Partner

Our usual work needed to continue so we had to find help.

RFP

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Vendor Interviews

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Choose FFW

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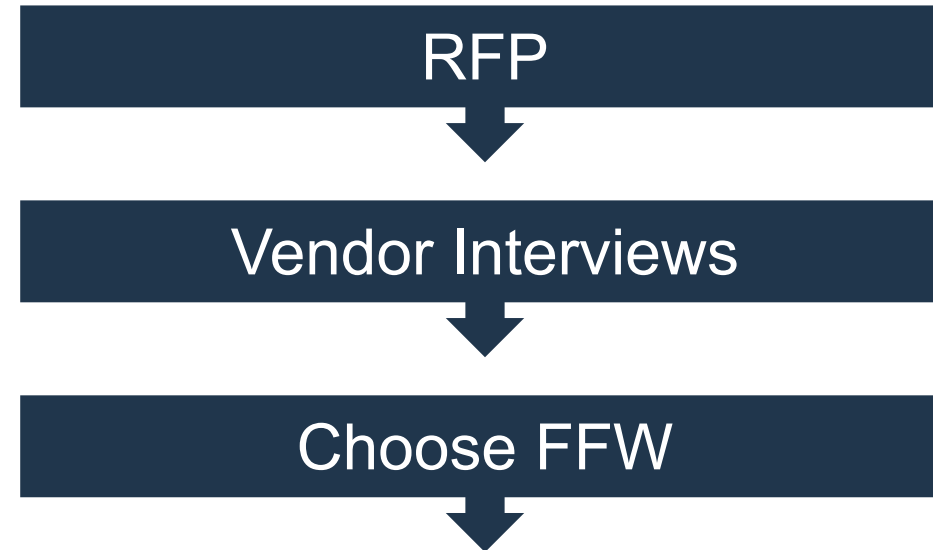
Our partnership with FFW has been successful.

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Project Readiness

Are we ready to start?

- The new multi-site was mature "enough" (Princeton Site Builder version 2)
- Assigned a project manager from WDS
- Dedicated 100% time of 2 people to the project – a project manager and a developer.
- Others from the team participated as needed – design manager, designers/themers, development manager, and architect

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Project Implementation

Kick Off

Phases and onboarding.

Communication Plans

How to tell hundreds of people they need to upgrade.

Project Management

How did we manage the day to day?
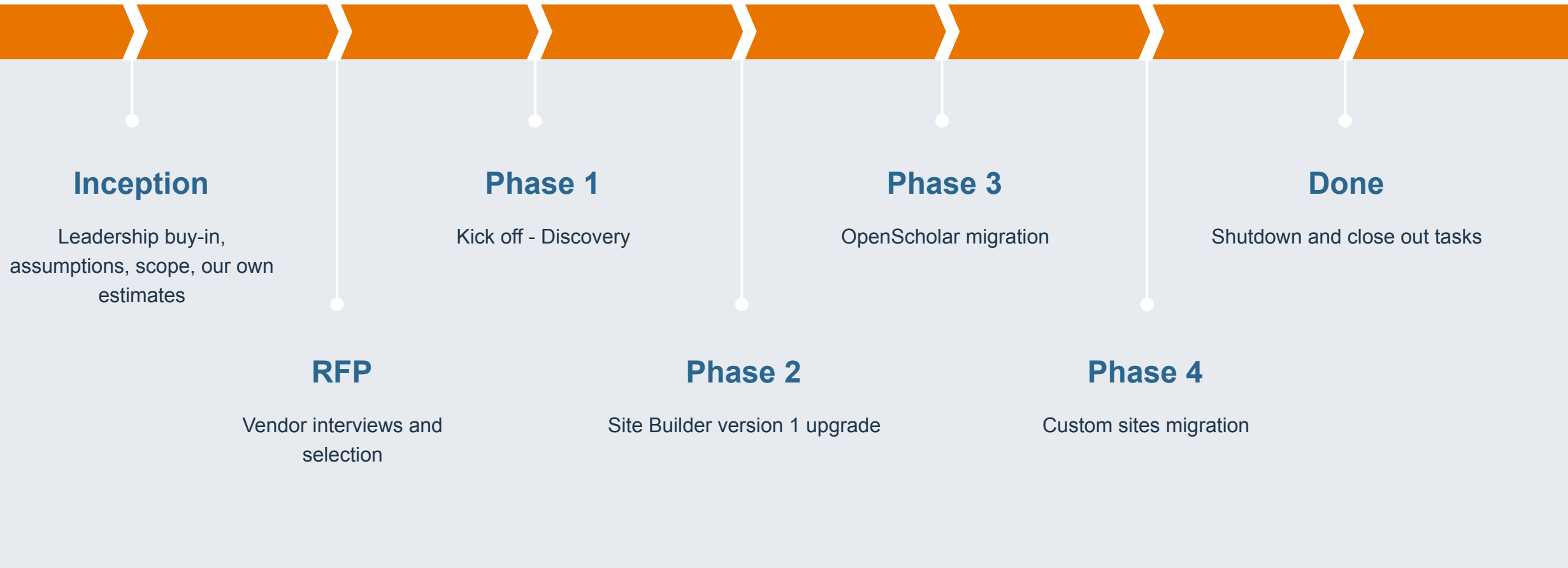
Fun

How we had fun.

Lessons Learned

Surprises, takeaways, and reflections.

Major Milestones

We are here.

Summer 2019

Fall 2023

Inception

Leadership buy-in, assumptions, scope, our own estimates

RFP

Vendor interviews and selection

Phase 1

Kick off - Discovery

Phase 2

Site Builder version 1 upgrade

Phase 3

OpenScholar migration

Phase 4

Custom sites migration

Done

Shutdown and close out tasks

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Kick Off

What we did, what we learned

- Talking about the hurdles internally helped jump start the project with FFW because we already hashed out our "odd" and/or institution-specific things
- Document the onboarding steps – makes introducing new developers to the project easier
- Break the work into phases to make the project less daunting
- You're not going to know everything up front

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Communication

How to tell hundreds of people they need to change

- Communication forums at Princeton
- Explained the "why"
- Explained what to expect – presentations, emails, and a website
- Emails templates
- Challenges – communicating too soon - too long of a gap between the phases
- Challenges – tools to communicate efficiently – taking emails addresses from spreadsheets
- Asking site owners to test – getting their attention – or focus

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Project Management

Keeping us on task

- We identified a project manager who had Drupal experience, not afraid to talk tech and log into a Drupal website to help
- Tools – Google Apps (Sheets, etc.) Slack, Jira, custom coded Sites Database and tool to ask one of the group types for a response
- Challenges – project manager switch mid project - setup a project email address

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Fun

Keeping the momentum going when you just want the project to be over.

WDS Retreat

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Lessons Learned

- Dead websites and scope
- Pre-planning
- Phases
- Project email
- We worried about things that the site owners did not
- Roll with and manage the unknown
- Hard to keep the momentum going on a long project – have fun
- Remember to clean up even if you're exhausted from the project

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The End

Questions?

Contact me. Jill Moraca jmoraca@princeton.edu

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