

20-24 August 2012



Migrating to Drupal: Who? What? Why? and How?

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Nicole Lind

- Vice President
- Phase2technology.com
- Enterprise Drupal management specializing in Scope, Budget and Team Building
- Web management professional since 1999



Ken Rickard

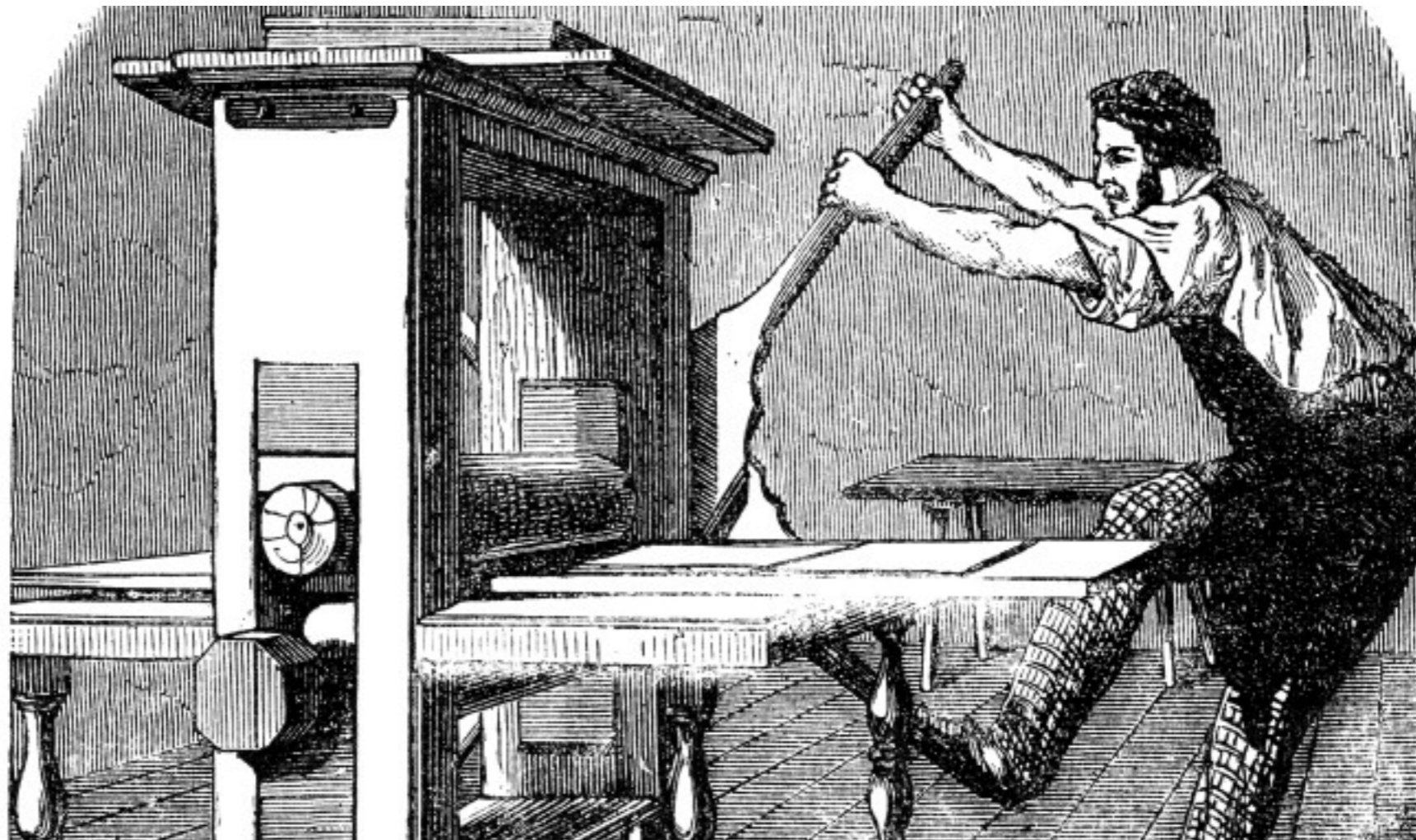
- Director of Development and Professional Services
- Palantir.net
- *Drupal 7 Module Development* co-author
- Web professional since 1998



Why?

Moving to Drupal

Need for Organizational Change



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Usually comes down to issues around control with lots of politics that center around time to market, technology integration and budget issues

What Kind of Issues Drupal Solves Well



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Licensing issues, Platform integration because of Open API system and vendor lock-in

Where Drupal Needs a Little Help



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Establish a common language

“There’s a module for that”

Implication

“Your site is practically already built!”



“The CMS should be flexible and customized”

Implication

“...but it should act like shrink-wrapped software with documented manuals and no bugs.”



“Of course the designs are final”

Implication

“Just a few
tweaks are
expected and
shouldn't impact
functionality.”



“Drupal is free”

Implication

“Of course it is
going to be
cheaper!”



Be Honest



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Get real or the project could fail

What?

Planning your migration

Goals and Targets

- Business Process
- Business Logic
- Business Data



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The goals of your migration have 3 primary parts. We'll look at each one.

Be realistic.



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Before starting the project, make sure your goals are reachable

Business Process



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Process is based on the people you have and the tasks they can perform with the tools you give them.

Business Logic



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Logic is how the machines interpret human actions. Remember that logic is stupid. Drupal is a piece of business logic: it is a system for managing your web application.

Business Data



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Business data is the raw information that powers your application.

This is work.



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Migrating those 3 things to Drupal is hard work. Don't take that lightly. It can be hard to stop a large, moving enterprise.

Make it Easier



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However, you can make the task easier on yourself and your team.

Culture of transparency

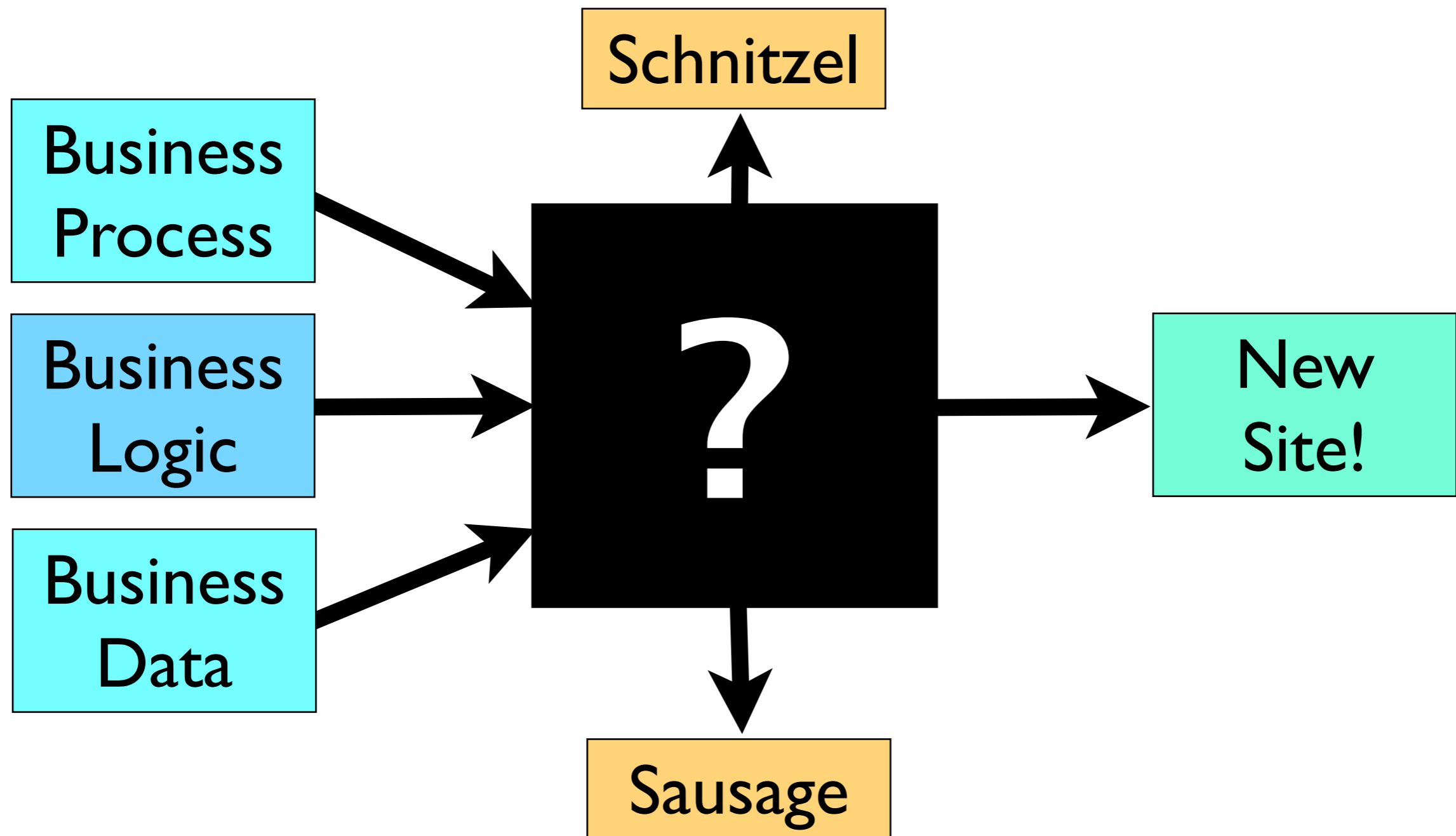
- Open sharing of information
- Clear definition of roles
- Agreement on key issues
- Shared responsibility



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Adopting Drupal is great introduction to transparency in the enterprise. Open Source Software thrives on transparency and dies under secrecy. How do we do it?

Avoid the “black box”



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Typically, business folks toss requirements “over the wall” to the programming team. If you don’t know what their process is, you cannot reliably predict the outcome.

Communicate!



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Communicate frequently and honestly with all members of the team.

Planning



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The new Drupal project may look like a green field, but it is not.

Ask the right questions



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If you skip over the tough questions, you'll face tougher choices in the long term.

Migration v. Integration

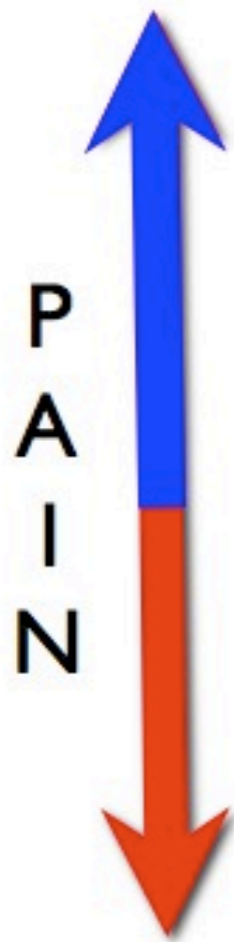
- Single use?
- Repeated process?
- Plan for the future



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Are you doing a one-time data and process migration, or are you integrating one or more systems? Your approach varies based on the answer. (We're going to assume one-time for this talk.)

Is Your Data Any Good?



- MySQL / pgSQL data
- SQL data
- XML data
- HTML
- A bunch of old Word documents

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Can you perform an automated migration of Business Data? Maybe. An army of interns typing all day may be cheaper.

What's Your Plan B?



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You must have a plan B, if the data migration goes wrong.

How Do We Review?

- How will editors interact with the data?
- What is our publishing workflow?
- How are updates handled?

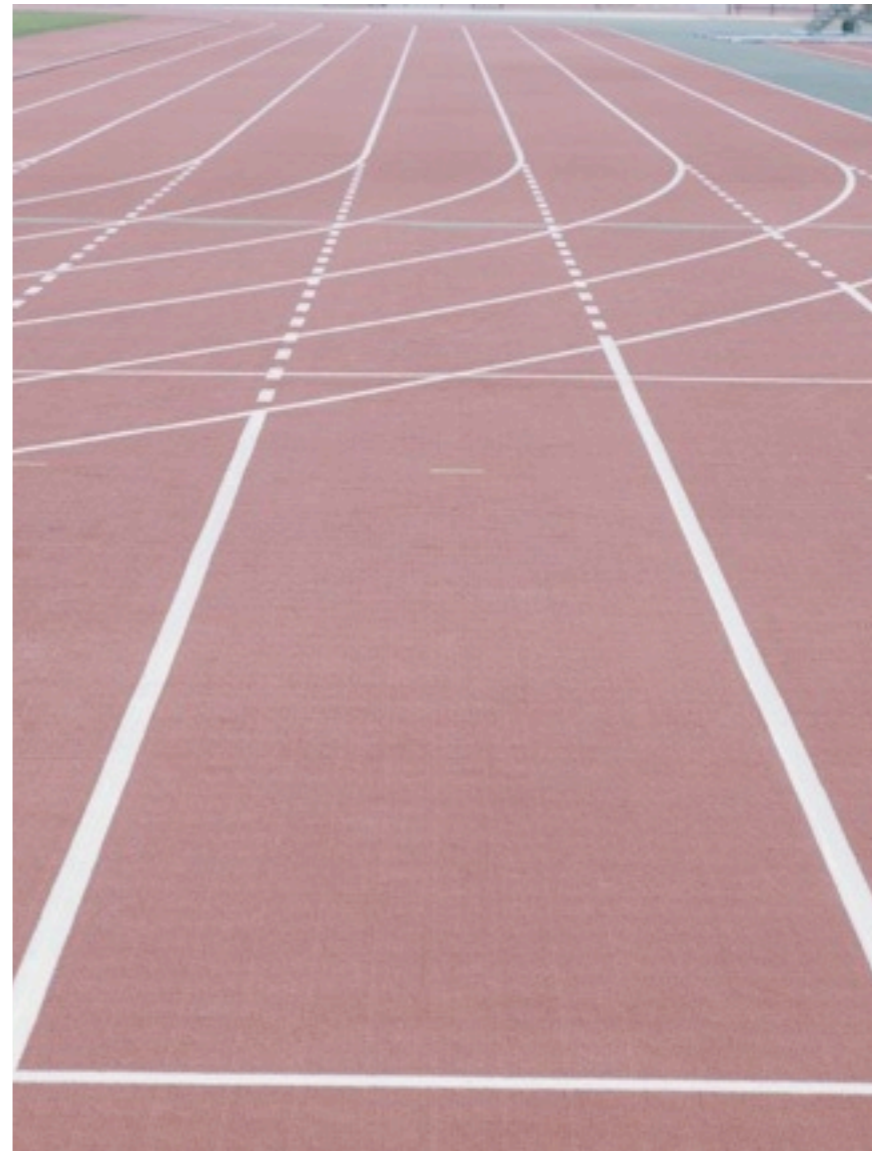


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Once the data is migrated to Drupal, your people and process will take over. Plan for that now.

What is Our Process?

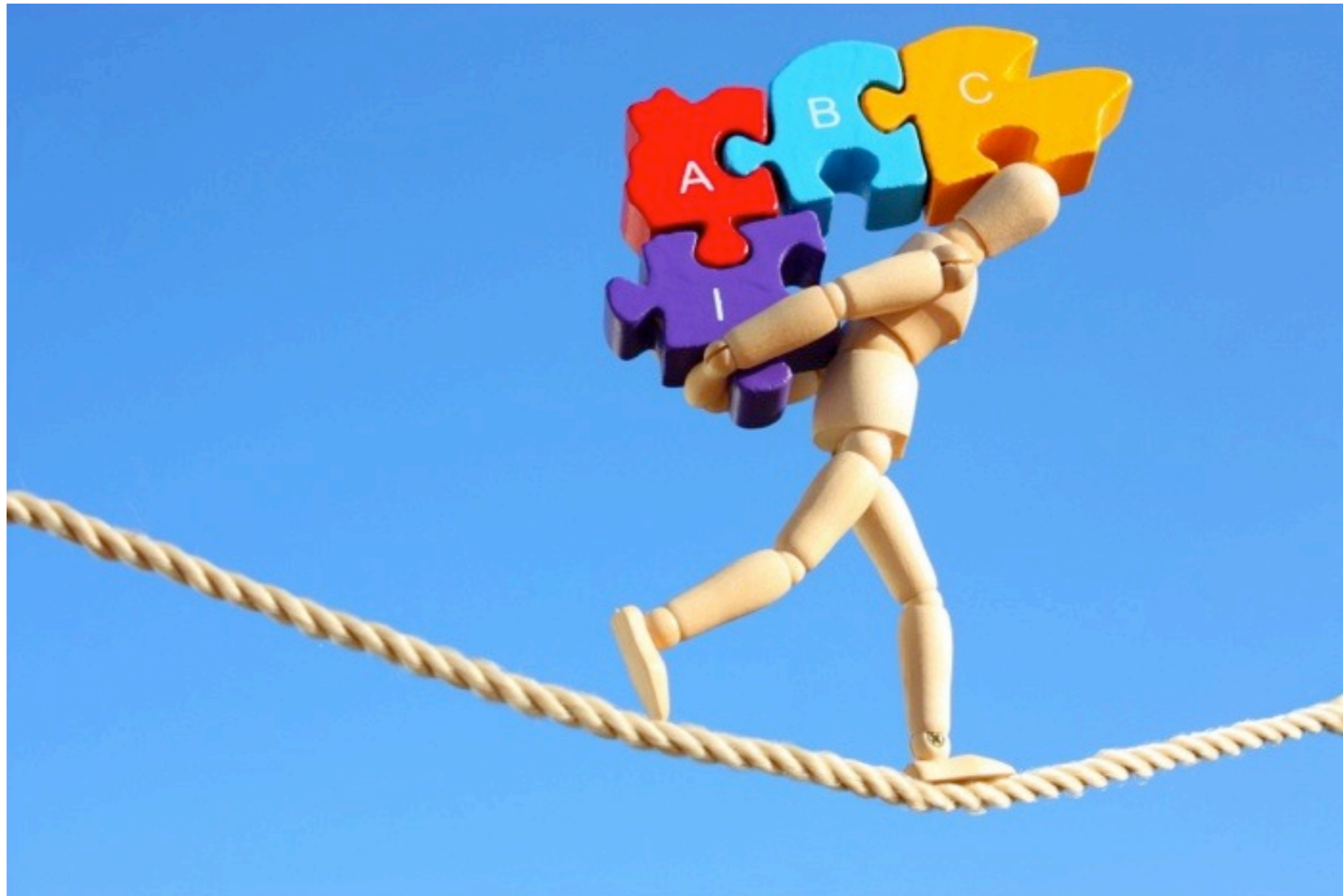
- Who migrates the data?
- When is migration run?
- What is dependent on migration?
- Find the critical path



Who?

Identifying the team

People are the Biggest Risk



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Not the technology

Type of Change



Speed of Change



Evangelist



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Description - Brought Drupal to the organization or pushed for a major over hall of the existing implementation

Caveats - Depending on how they “sold” Drupal (which is often an oversell with Drupal Speak terms) to the organization will determine how to handle the rest of the tribe members.

What to do with them - Manage expectations and bring everyone back to reality

Passive-Agressive



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Description - Expresses aggression in non-assertive (i.e. indirect) ways

Caveats - Although not a very vocal tribe member, the passive aggressive often uses subversive emails and conversations to pass blame and avoid doing their job

What to do with them - Point out the inconsistency between their words and actions

Openly Hostile



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Description - Openly antagonistic to the project. They will be the first person to say I told you Drupal was a bad idea

Caveats - Often motivated by fear and they often feel they should be leading the project effort

What to do with them - Assign an important job in the project to this person or completely eliminate them. There is no sitting on the fence or shades of grey

Know-it-all



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Description - Often a very experienced technical person but they are new to Drupal.

Caveats - Confusion drives this person and they will complain about the inadequacies of Drupal but not really know Drupal

What to do with them - Train these people as soon and as much as possible!

Apathetic



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Description - The apathetic will sit on the sideline and make no meaningful contribution to the project

Caveats - Usually much of the editorial staff is apathetic and unfortunately they don't say much about the CMS until the new product is already built

What to do with them - Preview as much of the early build through demos and test accounts

The Protector



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Description - Keeper of the budget and sustains the migration effort through resourcing

Caveats - Sometimes unclear who this member is and how much power they have

What to do with them - Make this tribe member your friend. Take them for dinner and drinks. Schmoozing!

The Chief



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Description - The mover off all things related to the migration effort. Understands the strategy, language and players associated with getting the job done

Caveats - Not always well liked and may need to be hard on other tribe members

What to do with them - Empower this tribe member with real authority

People are Key Assets



How?

Executing your plan

Identify the Team

- Internal or External?
- Data Architect
- Programmer
- Business Analyst
- Editor
- Project Manager
- Stakeholders



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Who are the members of the migration team. Are they employees? Note how many of them are coders.

Write Code



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OK, we have a plan, let's write some code!

Don't Rush Ahead



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You are not ready yet.

Map Data Sources

Field	Type	Import	Notes
title	string	Yes	Story title
abstract	text	Yes	Body copy
last update	date	No	Not needed
topics	string	Yes	From TOPIC list

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You have to analyze your source data. If you don't know what you have, you cannot move forward. Machines (and programmers) can only guess. NEVER GUESS.

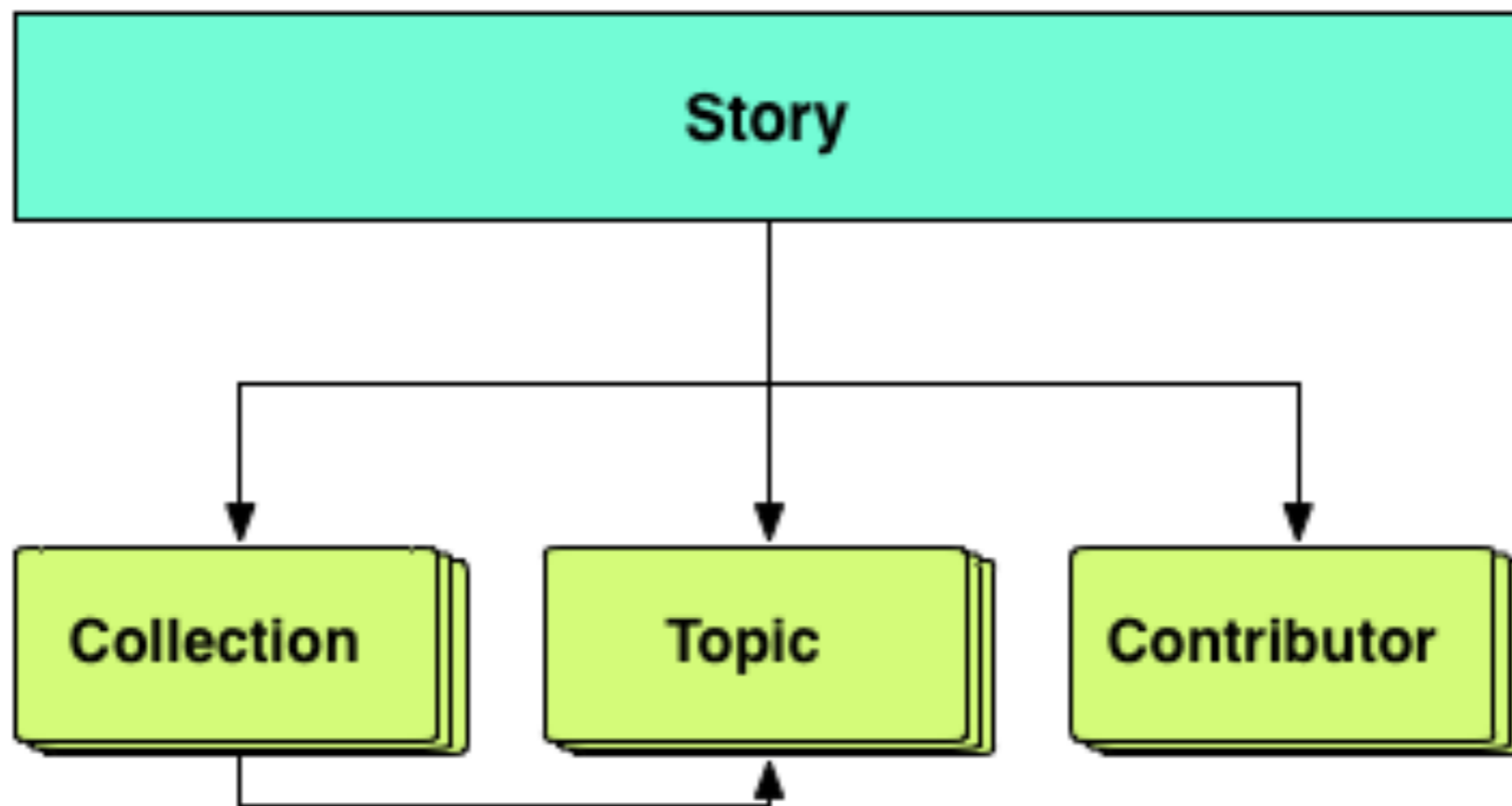
Map Data Targets

Field	Type	Multiple	Source
story.title	string	No	title
story.field_body	text	No	abstract
story.field_topics	string	Yes	topics

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How does the source data map to the Drupal structure being built? Generally, this mapping has to be completed before the site build begins.

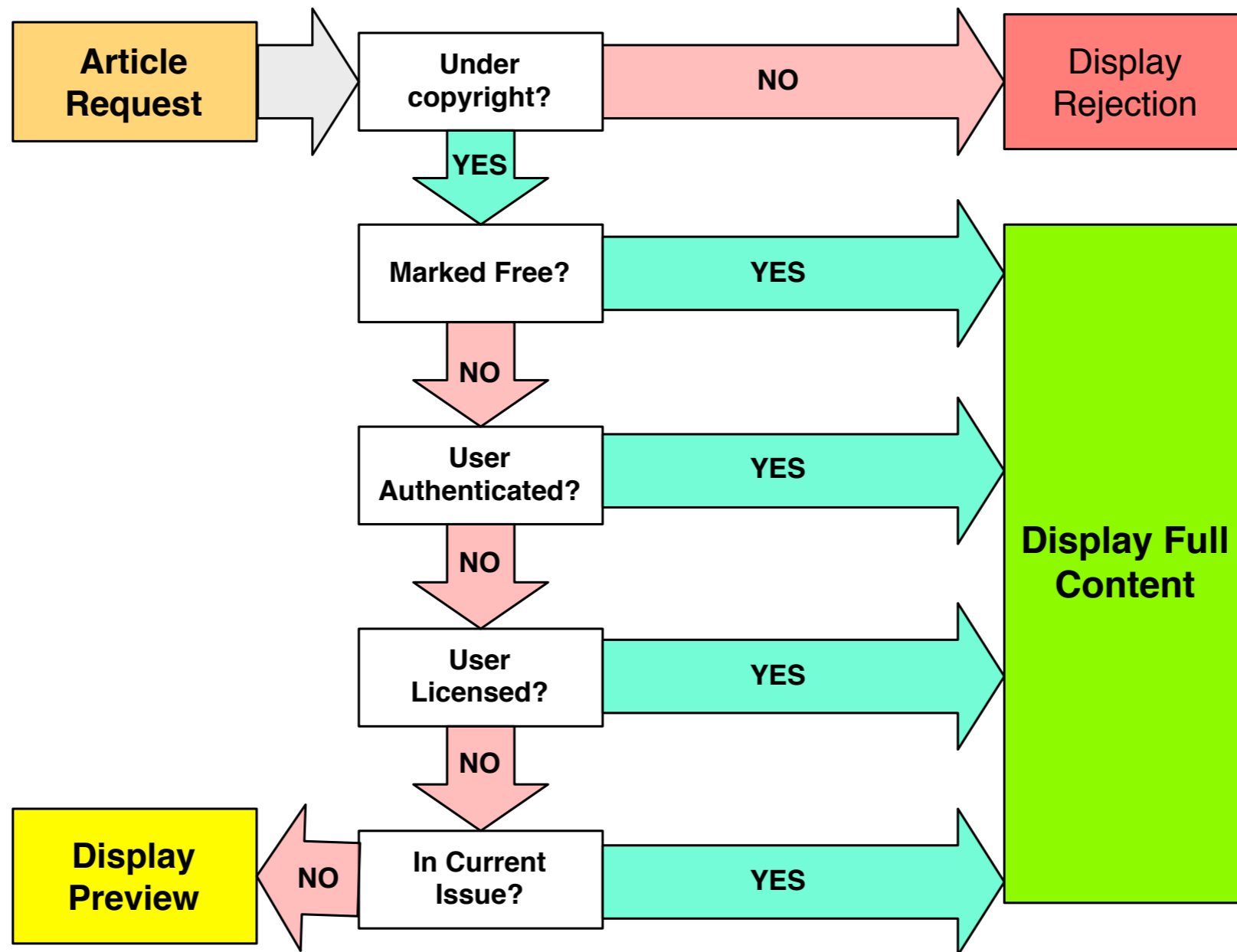
Map Data Relationships



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Make sure you capture the relationships among data. These affect how data is edited and displayed in Drupal.

Track Business Logic



Catch Exceptions

Field	Condition	Action
story.title	If empty	Skip record
story.title	If ALL CAPS	Flag for review
story.title	If not UTF-8	Convert to UTF-8
story.body	If HTML	Flag for review

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Exceptions -- instances where expected behavior is not present -- can cause major problems during a data migration. Explore your data sets thoroughly.

Track Risks

Risk	Chance	Impact	Mitigation
Bad data	Low	Critical	Delay until corrected
Missing documentation	High	Critical	Delay until corrected
New scope	Moderate	Moderate	Define impact
Server not ready	Low	Fatal	Project delay

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Use best practices in risk management to ensure project success. Do not ignore problems. Identify them and solve them as a team.

Go?



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Who decides when it's time to go? Group agreement? PM? Stakeholder?

Write Code



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Now you can write the code!

Drupal Tools

- Migrate module
- Feeds module
- Drush
- Devel
- Views

<input checked="" type="checkbox"/>	Migrate	7.x-2.2
<input type="checkbox"/>	Migrate Example	7.x-2.2
<input checked="" type="checkbox"/>	Migrate Extras	7.x-2.x-dev
<input checked="" type="checkbox"/>	Migrate UI	7.x-2.2

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Some handy tools in Drupal. We like Migrate module. If you see these topics on the schedule, you might consider going.

Other sessions

- Drupal to Drupal Migration
- Migrating to Drupal
- Using Feeds for Advanced Data Migration
- Using a Migration Framework



Migration Mappings

DESTINATION	SOURCE	DEFAULT	DESCRIPTION	PRIORITY
field_story_asset_id	ea_asset_id		The DMA asset id	OK
field_story_collections	collections		Node reference to collections. See prepareRow()	OK
field_topics	topics		Term reference to topics. See prepareRow()	OK
title	title		Computed field. See prepareRow()	OK
body	abstract		Computed field. See prepareRow()	OK
status	status		Computed field. See prepareRow()	OK
field_story_broadcast_date	broadcast		Computed field. See prepareRow()	OK
field_day_of_year	broadcast_day		Computed field. See prepareRow()	OK
field_story_series	series		Computed field. See prepareRow()	OK
field_story_program	program		Computed field. See prepareRow()	OK
field_story iptc_data	iptc_data		Computed field. See prepareRow()	OK

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Migrate module provides user interfaces for seeing how your data is being handled. This lets non-programmers review and approve work.

Build Editorial Tools

TITLE	ASSET ID	BROADCAST DATE	COLLECTION	IMPORT ERRORS	EDIT LINK
Outlining a plan to return the republican party to prominence in Minnesota	10346963	Nov 9, 1974			edit
Discussion of appeal process in regards to Wounded Knee incident	10345016	Nov 8, 1974	Pine Ridge		edit
U of M board of regents meeting regarding mineral industries and former university president Moos	10345069	Nov 8, 1974			edit
Minnesota mining industry wants more interest and development on the part of the University of Minnesota	10345122	Nov 8, 1974			edit
Workshop on direction of public television including speaker Bill Moyers	10345175	Nov 8, 1974			edit
Government attorney discusses potential appeal after dismissal by judge in Wounded Knee case	10345334	Nov 8, 1974	Pine Ridge		edit
State representative Arlen Erdahl discusses loss in 1974 election	10345493	Nov 8, 1974			edit
Results of mediation regarding racial, cultural, and administrative tensions at reformatory	10345546	Nov 7, 1974			edit
Minnesota state senator Robert Ashbach discusses legislative issues	10345599	Nov 7, 1974			edit
Report from Minnesota pollution control agency prevents new coal terminal facility in Pig's Eye	10345652	Nov 7, 1974			edit
National farmers organization hopes to solidify collective bargaining to set prices	10345705	Nov 7, 1974			edit
The importance of the jury system and its impact on the American citizen	10345758	Nov 7, 1974			edit

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Remember to provide your editors with tools -- usually built with Views -- to make finding and updating content easier. You can even track exceptions in your code.

Track Changes

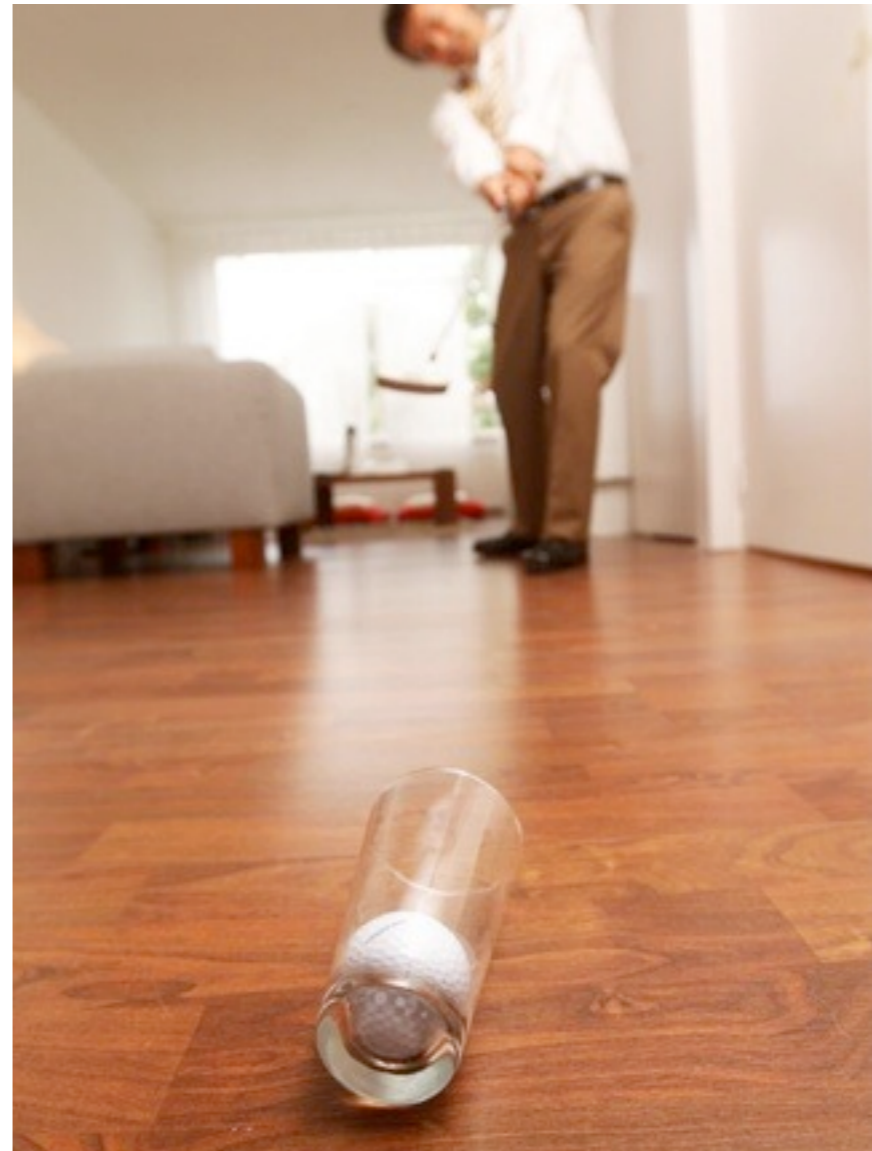
Change	Date	Authors
First migration plan drafted	10 AUG	Ken
Updated risks	12 AUG	Nicole
Added exceptions for stories	15 AUG	Ken
Removed Authors from migration	17 AUG	Nicole

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Track any changes made to the data schema or migration plan. Your future self will thank you.

Test

- Did target objects get created?
- Did fielded data come across?
- Were relationships maintained?

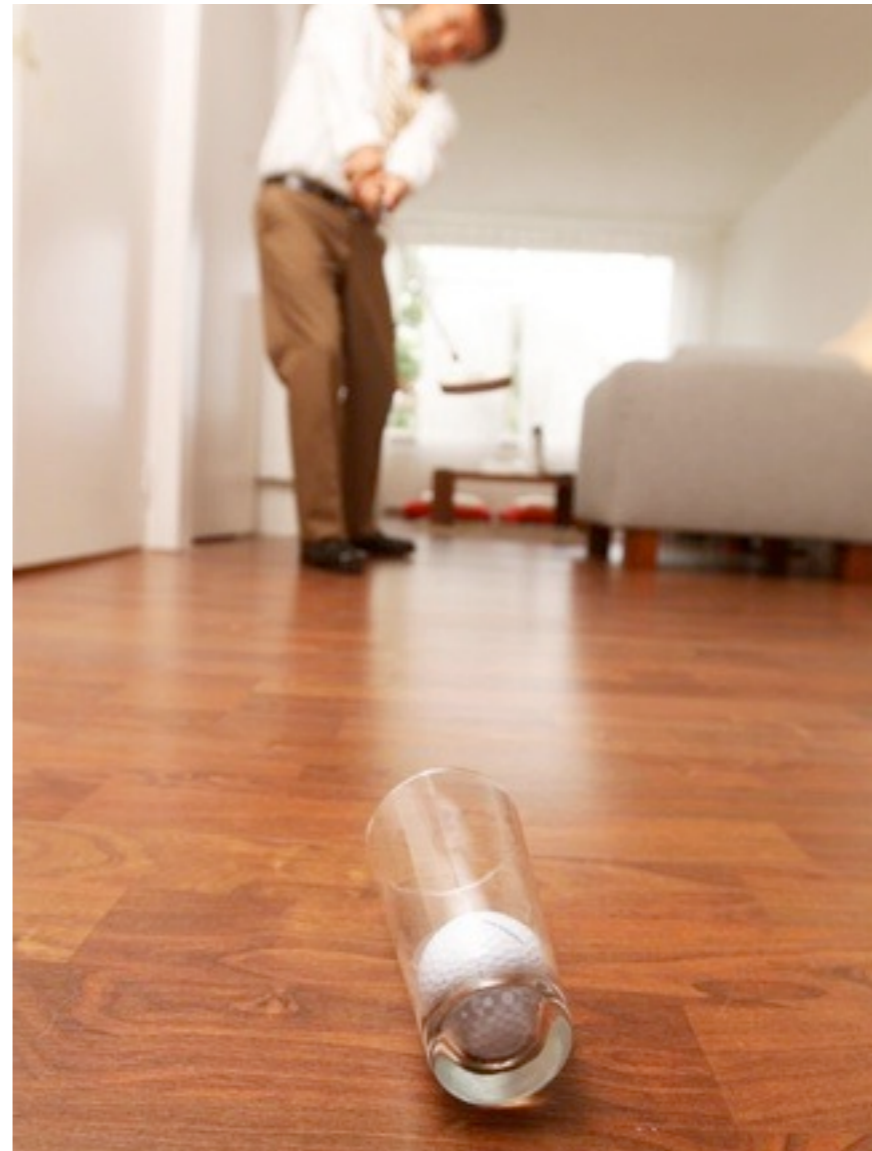


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When the code is done. Test it. Make sure it does what you expect.

Test Again

- Is the process repeatable?
- Does it work on all systems?
- Can it be performed by the team?



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Check all variables that might affect a migration. (Note that Migrate module makes running import tests quick and easy.)

Review

- Human editors **must** review
- Small details matter
- There is no substitute



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When the programmers are confident, send in the editors to take a hard look at the result.

When?

Applying the lessons

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When you start your project, remember these key points.

Successful Migrations

- Don't Rush
- Manage Risk
- Plan Ahead
- Communicate
- Leverage Assets



Questions?

Knowing the unknown



What did you think?

<http://munich2012.drupal.org/program/sessions/migrating-drupal-who-what-why-and-how>

Click the “Take the Survey” link.

Thank You!