

# AGILE WORKFLOW

BRINGING AGILE TO HIGHER ED WITHOUT SCARING ANYONE

Nick DeNardis / [@nickdenardis](https://twitter.com/nickdenardis)

# NICK DENARDIS

Perpetual minimalist. User experience crafter. Speaker. Realist.  
Web Director at [@waynestate](#). Library Scientist. Technical  
Director for [@TEDxDetroit](#). Organizer for [@hewebMI](#) and  
[@RefreshDetroit](#). [@GDIdet](#) teacher.

# AND... NOT A TRAINED AGILIST

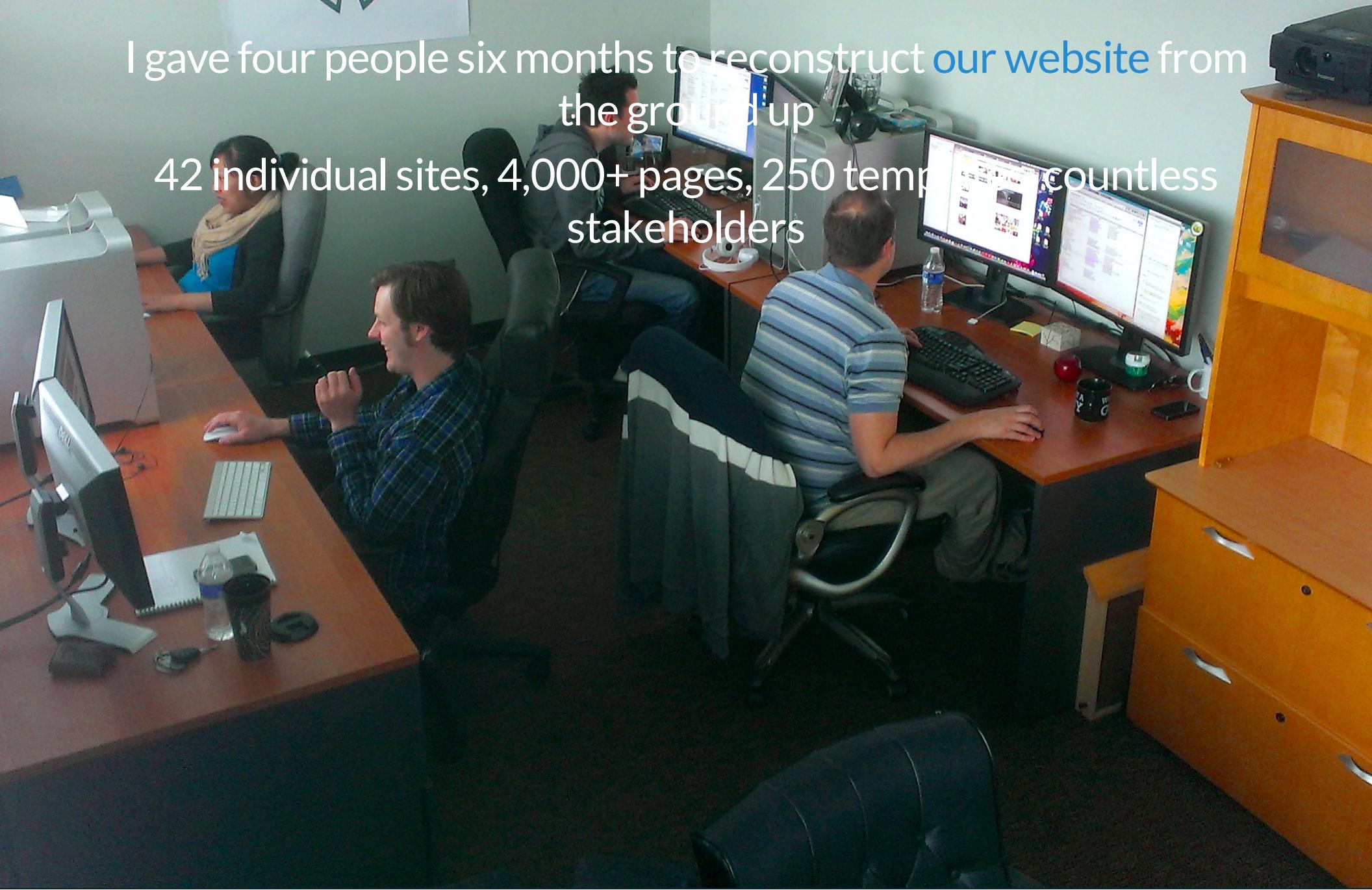
But I am a practitioner



# ONCE UPON A TIME...

I gave four people six months to reconstruct our website from the ground up

42 individual sites, 4,000+ pages, 250 temp, countless stakeholders



# THEY DID IT!

And thus begins our journey...



The image shows the Wayne State University website homepage. At the top, there is a green header with the university's name and logo. Below the header is a navigation bar with links for AIM HIGHER, ABOUT, ADMISSIONS & AID, CAMPUS CULTURE, RESEARCH, STUDENTS, NEWS & EVENTS, and ATHLETICS. A yellow banner across the page includes links for Faculty, Staff, Parents & Counselors, Alumni, and a GIVE to WSU button. The main content area features a large photograph of a female scientist in a lab coat and glasses, focused on a complex piece of equipment with many wires and tubes. In the bottom left corner of this photo, there is a red 'feedback' button. Overlaid on the bottom left of the image is a white callout box containing three sections: 'Visit our campus' with a map icon and 'IN PERSON' and 'ONLINE' buttons; 'Explore our programs' with a '13 SCHOOLS/COLLEGES' badge, '370+ ACADEMIC PROGRAMS' text, and a 'VIEW PROGRAMS →' button; and 'Become a Warrior' with a group of diverse students and a 'APPLY NOW →' button.

AIM HIGHER

WAYNE STATE  
— EST. 1868 —

Login Search

ABOUT ADMISSIONS & AID CAMPUS CULTURE RESEARCH STUDENTS NEWS & EVENTS ATHLETICS

for Faculty | Staff | Parents & Counselors | Alumni GIVE to WSU

feedback

Visit our campus

IN PERSON ONLINE

Explore our programs

13 SCHOOLS/COLLEGES 370+ ACADEMIC PROGRAMS

VIEW PROGRAMS →

Become a Warrior

APPLY NOW →

# HIGHERED IS BUILT ON PROCESSES

Let's embrace that

# CONTEXT

# THIS TALK IS ABOUT TEAMS

2-10 people, local preferred

# MY TEAM != YOUR TEAM

Not a step by step guide

# THIS TALK IS ABOUT WEB SOFTWARE

Anything else you take away from it is a bonus

# 'AGENCY' WITH 'CLIENTS'

Managing a product could be it's own talk

# AND YOU..

Using any agile practices?

Who is using traditional waterfall?

Who oversees a team?

Who is on a team?

Who *is* the whole team?

# agile, not Agile

Agile is short for "agility"

# AGILE MANIFESTO

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

*“To heal the divide between  
business and development”*

*~ Kent Beck*

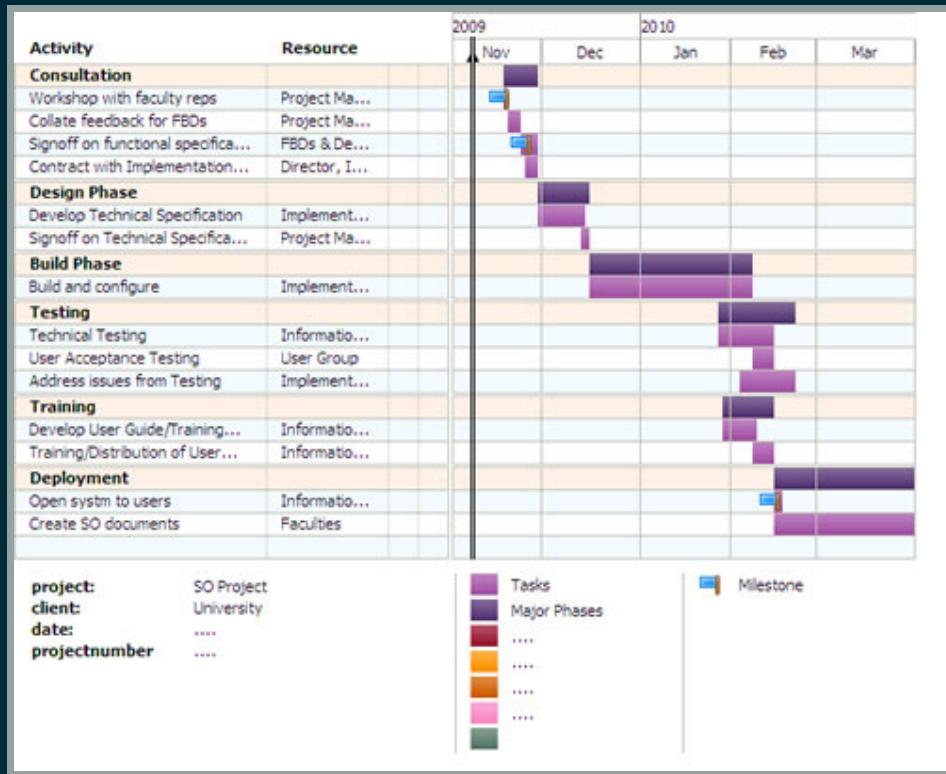
# IMPROVE

No process or person is perfect

# WHAT'S WRONG WITH WATERFALL?

## Semantic Diffusion

The original ideas, as they get passed from person to person get more diffused (more and more fuzzy).



# DO WE HAVE TO GO ALL IN?

Nope.

But all team buy-in is important

Everyone must be willing to try ideas for some time before  
dismissing them.

# THE STARTING POINT



# RETROSPECTIVES

Start here if you do anything at all

Once a week, or every other week

It's about improving slowly over time

# FOUR QUESTIONS

1. What went well?
2. What didn't go so well?
3. What have I learned?
4. What still puzzles me?

**REPEAT.**

# INDIVIDUALS AND INTERACTIONS

Projects rarely fail because of technology

Communication (or lack of it) is the root cause of disaster projects

# CLIENT CONTACT

Project Manager? Designer? Developer? Writer? ...

All of them.

# CUSTOMER COLLABORATION

# INITIAL EXPECTATIONS

Client: This agency is going to make me more money

Agency: This client is going to pay the bills

# COLLABORATION VS COOPERATION

Introduce feedback loops as early as as often as possible.

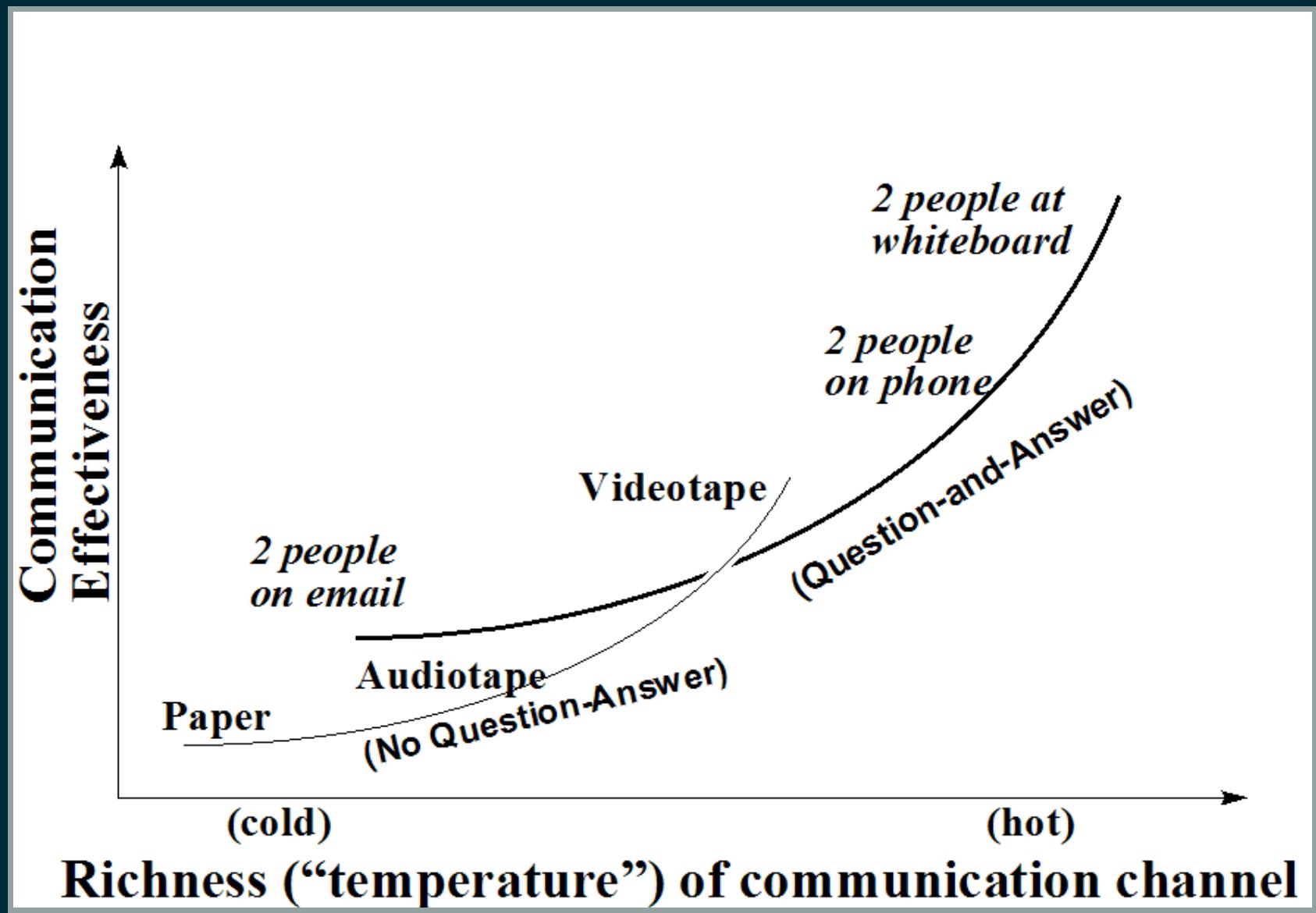
# COOPERATION

Going along with someone else's idea, they have already figured it out and you're along for the ride.

# COLLABORATION

Build something together, something new happens.

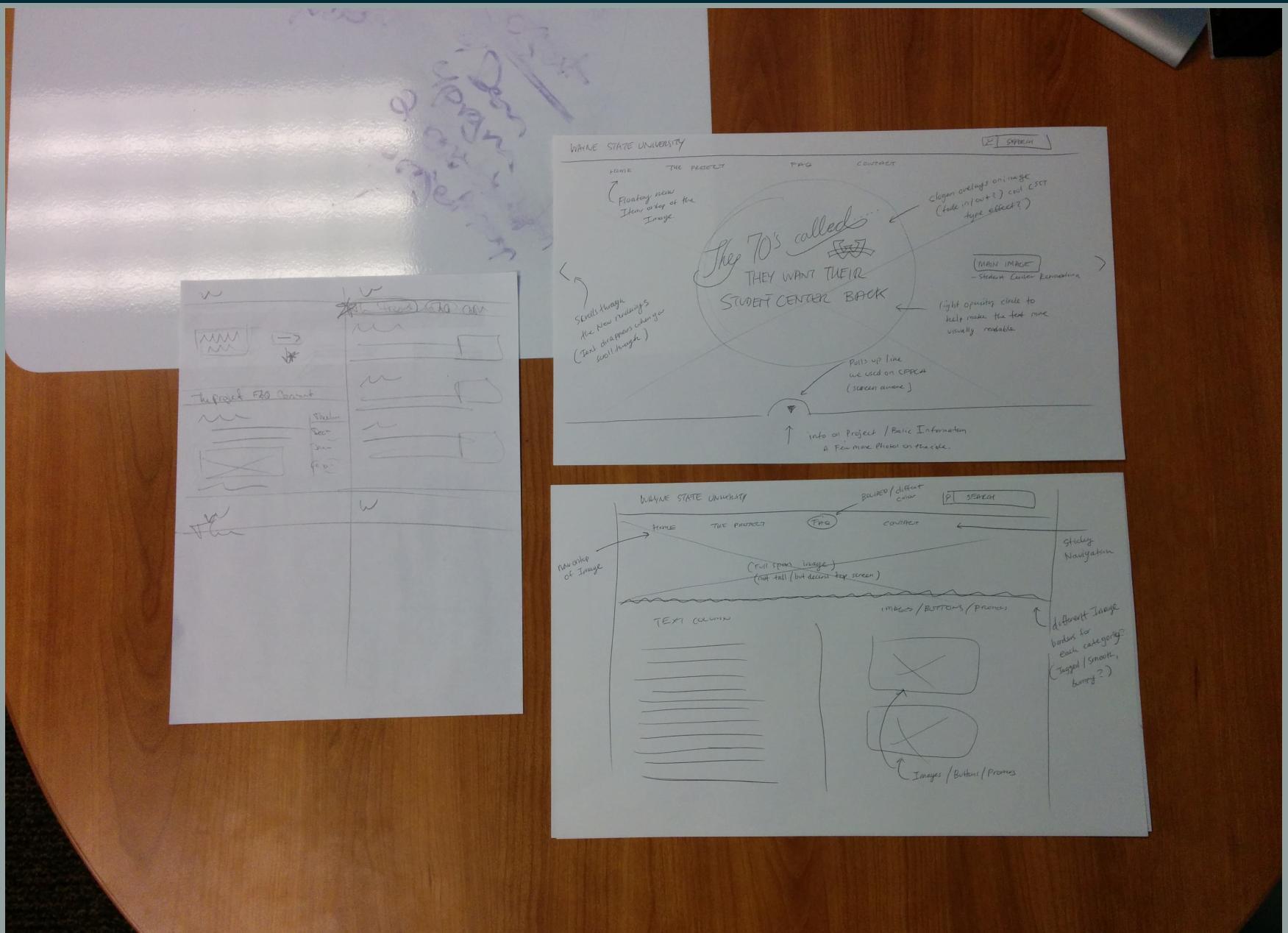
Working then handing off and pipelining means there isn't a collective knowledge unless you document it

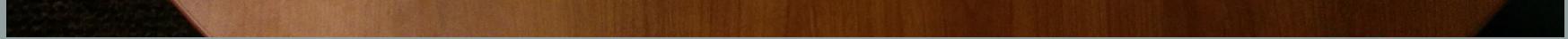


Dr. Alistair Cockburn, 2002

# COLLABORATIVE DESIGN

- Define minimum requirements and constraints
- 15 mins - Break out individually and create wireframe sketches
- 5 mins/person - Individual presentation of wireframe to the group
- Group critique on individual's wireframe with feedback focused on clarifying the presenter's design
- 15 mins - Break out individually for iteration on their own most well-received wireframe
- 5 mins/person - Presentation/group critique
- 30 mins - Sketch a single solution based on wireframes and feedback
- At the end (2 hours) a single wireframe built by the group is complete







# RESPONDING TO CHANGE

# SUCCESS

What does it look like?

# PLANNING UP FRONT

success == according to plan

# ADAPTIVE PLANNING

Plan and execute many times on a project  
(every sprint)

# POINT NORTH



<http://pointnorth.io/>

# ALIGN AND GUIDE YOUR PROJECT

North is a set of standards and best practices for developing modern web based properties. Included are standards and best practices for all aspects of a project, from kick off through development. North encourages an agile, content-first, approach to product development and a mobile-first, in-browser, system based approach to design and development.

## EXAMPLE SPRINT PROCESS

### Stages (2 weeks per sprint)

- **Sprint 1 - Discover/Scope & Information Architecture approved.**  
This includes defining and approving the menu items, templates needed, promotional areas, events calendar url, who needs access/trained on the CMS.  
Deliverable: Development base website in the CMS with menus, pages and promotional areas built. Client will have access to add content.
- **Sprint 2 - Wireframes approved**  
Using the existing College of Nursing website constraints Web Communications will create a structure that fits the C2 Pipeline program needs.  
Deliverable: Wireframe of website to accommodate all areas
- **Sprint 3 - Final design of website approved**  
Building on the wireframes Web Communications will add the visual elements and style to the website to match the existing College of Nursing website style.  
Deliverable: Final graphic design of website
- **Sprint 4 - Template programming complete**  
The approved design of the website will be programmed and meshed with the CMS website so any transitioned content will be visible in the new look  
Deliverable: A final programmed website in the CMS for Nursing to review
- **Sprint 5 - Content review/editing/approval for launch**  
All content should be in the CMS and visible in the final templates. Nursing will confirm that all content has been added before Web Communications does a final run through of all pages/links/images and stage the website for launch.  
Deliverable: A final review URL for the website and signoff to launch
- **Sprint 6 - Website launched**  
Once the signoff is signed Web Communications will push the website to production and do any post launch testing.  
Deliverable: Website will be publicly available at the final URL

# WORKING SOFTWARE

# RELEASES, SPRINTS, ITERATIONS

Pick a cycle and stick to it

If it isn't in the cycle, it isn't important

M

Day  
Approval (NICK)  
start (2:00 pm)  
Client Availability

### Line (premises)

out / Rob out

6

### ANSWER QUESTIONS

What did you accomplish?

What are you working on?

Is anything black in you?

- 39 total working hours - Subtract any Extra roles, Support, & Variation
- Stand ups at 9:30am everyday
- Ask for everyone's working time on build days
- Build days - contact clients for their availability
- Build days - make a Priority List
- Build days - make an Internal Review List

W

TH

F

ROB # 745  
746 • • • • •  
DAN # 248 • • • # 2135 •  
CHARLES # 2671 • # 2672 • •  
RONALD # 2101 • # 2830 • •  
TOM # 719 • • • •

Jenn out / Nick home

Tom #719 ..

Jenn out / Ro home

Dan off

- small tasks
- innovation
- meetings
- system's improvement

ANSWER

### - First internal reviews

Nick off / Dan off

Nick hane

END OF SPRINT  
20 Nickoff / Roboff / Tomboone 21

Nick off / Chris off

Nick off

ROLES/SUPPORT	PERSON	TIME
SOCIAL MEDIA	TENN	10 HRS
PRIMO DESIGN		12 HRS
INFO REVIEW	NICK	3 HRS
SUPPORT	CHRIS	36 HRS
WEBSITES	JENN	5 HRS
WEB PUBLISHING	TONI	2 HRS

Task #	Chris	Tom	RQ	Dan	Jenn	Nick	Rob
206 206 Student Center Prog.	36	36	36	24	24		30
206 ATEC contact image			3	4	1		7
207 207 Parking	1	X		1+1			
208 208 Guest Housing Form	2	X	1	1	1		
210 210 SLIS homepage		8 Y					
211 211 RFC Prog.				4, 2			18
212 212 Eng. Career Services				4			
213 213 Student Center Landing page							
214 214 Education Content	2			1+4			
215 215 C2 Pipeline link			1				
216 216 Diversity Content				1			
217 217 BEST launch							
218 218 Tech Solutions	4		2				
219 219 TheFinalDish BASE/ STYLING	7						
220 220 HARVEST CLEAN UP	.5						-5
221 221 FPGM Launch							
TIME REMAINING	19	5	28	33	16	6	5

+ ADD

Any Project Any Team

Reports Time Sheet

User Guide Support



More &gt;

## Sprint - Work by Person

filter off ...

focus X

grid grid grid

Action

Work

Backlog

My Mapping

Work by Person

Sprint - My Work

Sprint - Work by Person



Future Sprint - My Work

Future Sprint - Stories

Future Sprint - Work by Person...

Current Iteration Plan

Open Bugs

Tasks

People

Future Progress

Requests Queue

Request Progress

Sprint - Backlog

Requests Backlog

Sprint - Work by Project

Task View



## Sprint - Work by Person

filter off ...

focus X

grid grid grid

Action

&lt; Person / State

&lt; To Do (Open)

35

&gt; Planned

&lt; In Progress

13

&lt; Waiting on Client

6

&lt; In Testing

8

&gt;

Chris Pelzer

11

Take the Front Door base template and

5h

Program the Macombs page to

2h

Site setup with base template

2h

Program the 3 static promos on the

2h

Program the listing and view pages for

4h

Create the display for Registrar calendar

2.5h

Create a class to use for FAQs and apply

1h

Need news items back on Parking

2h

Add the "Back to Top" link like Online

1.1h

Daniel Greco

6

Engineering Career Services e-newsletter

5h

Homepage Template Programming

4h

Fill in the yourfuture.wayne.edu

3h

Jennifer Di Sano

25

Program the Macombs page to

2h

Mockup the Parents landing page based

+1 2h

Homepage Template Programming

4h

Program the 3 static promos on the

2h

Initial Promotions

1h

Get the requirements for the schedule that

2h

Finish content migration...(Split)...

4h

FBO Procurement content review and

1h

Create a class to use for FAQs and apply

1h

FBO FP&amp;M content review and

1h

FBO Division content review and approval

1h

FBO VP of Finance content review and

1h

Content, review and approval

1h

Content review and send to client for

1h

Content review and approval

3h

Need news items back on Parking

2h

Contact client and ask them about

7h

Selected cards 0

About

Map

# WALKING SKELETON

Tiny implementation that performs end-to-end function.



# THIN VERTICAL SLICE

Layer of the implementation that spans every component.



Fork me on GitHub

# git-flow cheatsheet

created by [Daniel Kummer](#)

Tweet

365

efficient branching using git-flow by [Vincent Driessen](#)

translations: [English](#) - [Castellano](#) - [Brazilian Portugues](#) - [简体中文](#)  
[\(Simplified Chinese\)](#) - [日本語](#) - [Türkçe](#) - [한국어\(Korean\)](#) - [Français](#) -  
[Italiano](#)

## About

git-flow are a set of git extensions to provide high-level repository operations for Vincent Driessen's branching model. [more](#)



# CONTINUOUS INTEGRATION/DEPLOYMENT

The screenshot shows the Codeship web interface. At the top, there's a navigation bar with the Codeship logo, a dropdown menu 'Choose a project...', a 'We're hiring' link, a 'Docs' link (marked as 'NEW'), and a user profile for 'Nick DeNardis'. Below the navigation is a message: 'Want to talk to us? Just send us a message!'. The main area displays a list of build logs for a repository named 'waynestate/go'. Each log entry includes a green checkmark icon, the author's name ('nickdenardis'), the branch ('develop' or 'feature/stats'), the commit hash, and the duration and timestamp of the build. The logs are ordered from newest at the top to oldest at the bottom.

Build Status	Author	Branch	Commit Hash	Duration	Timestamp	Action
✓	nickdenardis	develop	6740c612	1 min 51 sec	4/18/2014 10:00	>
✓	nickdenardis	develop	ebd44faf	1 min 55 sec	4/18/2014 9:53	>
✓	nickdenardis	feature/stats	8ca204a1	1 min 58 sec	4/18/2014 9:49	>
!	nickdenardis	feature/stats	e08ce7d2	2 min 17 sec	4/18/2014 9:26	>
✓	nickdenardis	develop	74298df5	0 min 53 sec	4/15/2014 8:29	>
✓	nickdenardis	develop	a9b9c8c7	1 min 5 sec	4/15/2014 2:42	>
!	nickdenardis	develop	f271b47d	0 min 29 sec	4/15/2014 2:15	>

# NO ESTIMATES, ONLY BUDGETS

Basecamp just posted a good article that sums it up.

Drive development with budgets not estimates

Project Lifespan: 22 Oct 2013 – 13 May 2014

Custom ▾

Time Report > College of Nursing >

Read Project Notes

## [W14-0006] College of Nursing C2 Pipeline Program subsite

Hours Tracked

**38.36**



Billable Hours

■ 33.23 Billable  
■ 5.13 Unbillable

Billable Amount

**\$2,139.00**

Uninvoiced Amount

**\$2,139.00**

[Create Invoice](#)

Budget: Hours per task

Budget: 32.00 hours

Spent: 33.23 hours



-1.23 left (-4%)

Tasks	Staff	Budget	Export ▾	Detailed Report	Print
Task ▲		Budget	Spent		Budget Left
<strong>Budgeted</strong>					
Content Review & Approval					
		6.00	0.33		5.67 (95%)
Frontend Programming (template)		11.00	17.55		-6.55 (-60%)
Graphic Design		8.00	11.25		-3.25 (-41%)
Information Architecture (UX)		2.00	0.60		1.40 (70%)
Project Management		5.00	3.50		1.50 (30%)
Total		<b>32.00</b> \$1,875.00	<b>33.23</b>		<b>-1.23</b> -\$264.00

# XP/PAIRING/SWARMING

**WHY WASTE THE TIME OF MULTIPLE PEOPLE  
ON A SINGLE TASK?**

# INCLUDE THE CLIENT?

As often as possible.

# HAVE YOUR CLIENTS WRITE/SIGN OFF ON ACCEPTANCE TESTS

WAT?!?

# ACCEPTANCE TESTS

A php framework for testing your business expectations.

Behat

**Feature: News Items**

In order to announce highlights we need a place on the homepage

As a user

I should be able to see updates from the department

**Scenario:** The news area on the homepage should disappear if there are no news

Given there are no active news items

And I am on "/"

Then I should not see "News & Announcements"

**Scenario:** The news area on the homepage should show a max of four items

Given there are five news active news items

And I am on "/"

Then I should only see four items

Then I should see "More news items"

```
Feature: SomethingNew
  In order to add a feature to the site
  As a client
  I should be able to define how it works and when it does not

  Scenario: The news area on the homepage should disappear if there is no news
    Given there are no active news items
    And I am on "/"
    Then I should not see "News & Announcements"

  Scenario: The news area on the homepage should show a max of four items
    Given there are five news active news items
    And I am on "/"
    Then I should only see four items
    Then I should see "More news items"

9 scenarios (6 passed, 2 undefined, 1 failed)
33 steps (25 passed, 4 skipped, 3 undefined, 1 failed)
0m3.937s
```

```
# app/tests/acceptance/SomethingNew.feature:6
# FeatureContext::visit()
# FeatureContext::assertPageNotContainsText()

# app/tests/acceptance/SomethingNew.feature:11
# FeatureContext::visit()
# FeatureContext::assertPageContainsText()
```

You can implement step definitions for undefined steps with these snippets:

```
/**
 * @Given /^there are no active news items$/
 */
public function thereAreNoActiveNewsItems()
{
    throw new PendingException();
}

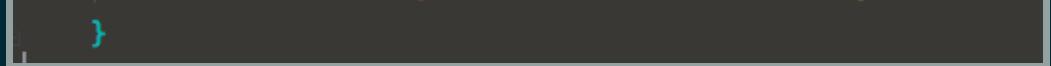
/**
 * @Given /^there are five news active news items$/
 */
public function thereAreFiveNewsActiveNewsItems()
{
    throw new PendingException();
}
```



```
/*
 * @Given /^I am not logged in/
 */
public function iAmNotLoggedIn()
{
    $this->assertPageNotContainsText('Logout');
}

/*
 * @Then /^I should see the login form/
 */
public function iShouldSeeTheLoginForm()
{
    $this->assertPageContainsText('User Login');
    $this->assertElementOnPage("input#accessid");
    $this->assertElementOnPage("input#password");
    $this->assertElementOnPage("input#submit");
}

/*
 * @Then /^I should not see the login form/
 */
public function iShouldNotSeeTheLoginForm()
{
    $this->assertPageNotContainsText('User Login');
}
```



# RECAP

agile, not Agile

Retrospectives

Customer collaboration

Working software every release

Defined release schedule

Budgets, not estimates

Pairing/swarming

# MY HOPE

There is always room for improvement in your process.

# RESOURCES

- Agile Manifesto
- Point North
- Drive development with budgets not estimates
- Git Flow Cheatsheet
- Codeship.io - Continious integration and deployment.
- Target Process
- Behat - Behavior driven development
- This talk on GitHub
- Follow me on Twitter

# THE END

BY NICK DENARDIS / @NICKDENARDIS

<https://github.com/nickdenardis/agile-workflow>