



Designing software  
that works - for everyone

## **What Sakai users are up to -- Fluid content management research project**

**Daphne Ogle**, Senior Interaction Designer, UC Berkeley | Fluid Design Lead

## Agenda



- Context of our work
- What we did
- What we learned
- Effect on Fluid components

Context

What We Did

What We Learned

Effect on Components

# The Context...

**Context**

What We Did

What We Learned

Effect on Components

## The Fluid Project



- Helping make academic community source software useful, usable and accessible...
  - Education and design tools
  - User experience community building
  - Components & Design Patterns
- Designing general components work across tools and projects

**Context**

What We Did

What We Learned

Effect on Components

- How many of you know about the Fluid Project?
- Fluid is the context
- Talk to 1st bullet
- Since we are designing components that will live in many different applications and therefore many contexts, it is important for us to understand and get a feel for many of the contexts fluid components will live in.
- Do folks know what Fluid components are? Basically, they are reusable chunks of user interaction.

## The Research Project



- Meant to cover breadth rather than depth
- Focused on content management
- Distributed research team
- Iterative process → next iterations
  - studies abroad
  - staff user groups
  - details around workflow

**Context**

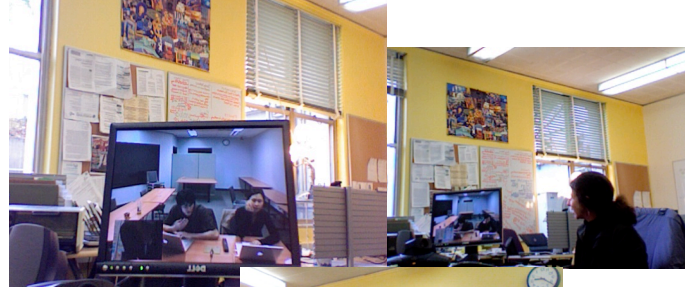
What We Did

What We Learned

Effect on Components

- Understand wide range of contexts & workflow Sakai users deal w/ in their work
- Content management based on UX Walkthroughs
  - Across projects
  - Based on pain points
- Distributed team
  - Researchers were fluid designers
  - 3 @ berkeley, 2 @ toronto
  - Spent a lot of time on IM, Breeze, video conference and the such
- Iterative process

## Distributed Research Team



Context

What We Did

What We Learned

Effect on Components

Describe set-up.

Challenges:

- Post-it notes finally came in mail after recreating the m all
- Keeping Toronto in the “mix”
- Allowing them to see what was happening since post-its went half way around the room
- Typical distributed communication challenges - non-verbal communication cues. Not everyone had met face to face.
  
- Researchers at both locations
- We are working together here grouping and categorizing hundreds of use cases on post-it notes.
- Describe setup
  - UoT on screen - 2 cameras on us, 1 on people, 1 on artifacts

## User Research Project Goals



- Big picture understanding of Sakai users
- Identify component candidates
- Inform component design
- Share learning with community

**Context**

What We Did

What We Learned

Effect on Components

- The goals for this project
- Understand behaviors and motivations around content management
  - Talk about Chuck's comment that use cases change when you become an instructor. This is a way for us to get into our users head so that we build systems that work for them.
- End goal is to have a comprehensive understanding. As I mentioned, this will happen iteratively
- Identify component candidates for helping users manage their content
- Inform component design through understanding goals and work practices
- Create user models to share learning with community

# What We Did...

Context

**What We Did**

What We Learned

Effect on Components



## Our User Research Process



- Planning
  - Project management
  - Identified target user groups
- Meeting with Sakai end users
  - Completed contextual inquiries
- Making sense of all that information
  - Analyzing
  - Creating models
- Sharing learning
  - Completed models

Context

**What We Did**

What We Learned

Effect on Components

•As I mentioned, this was the 1st iteration. Since we had Fluid UX folks at Berkeley and Toronto we focused our energy on those 2 campuses first.

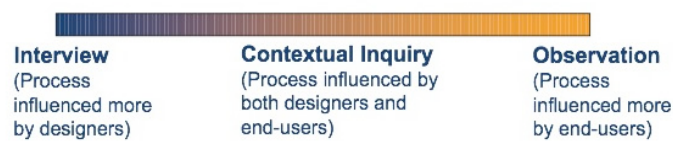
### •Planning

- Typical project management, goals, plan, timelines, deliverables, etc.
- Talk to as broad a group as made sense for our resources and time frame
- Faculty, students, teaching assistants & support staff from various disciplines, levels of experience and styles.
- Then we went out and met with users and completed Cis -- which I'll talk more about shortly
- The Cis gave us a lot of raw information that we then began making sense of through analysis and model creation.
- Those models become a way to share our learning with the larger community.

## Contextual Inquiries



- We met users in **context** in which they do their work
- Users are **partners** in design process
- Designers role is **interpreting** facts
- Interviews had **focus**



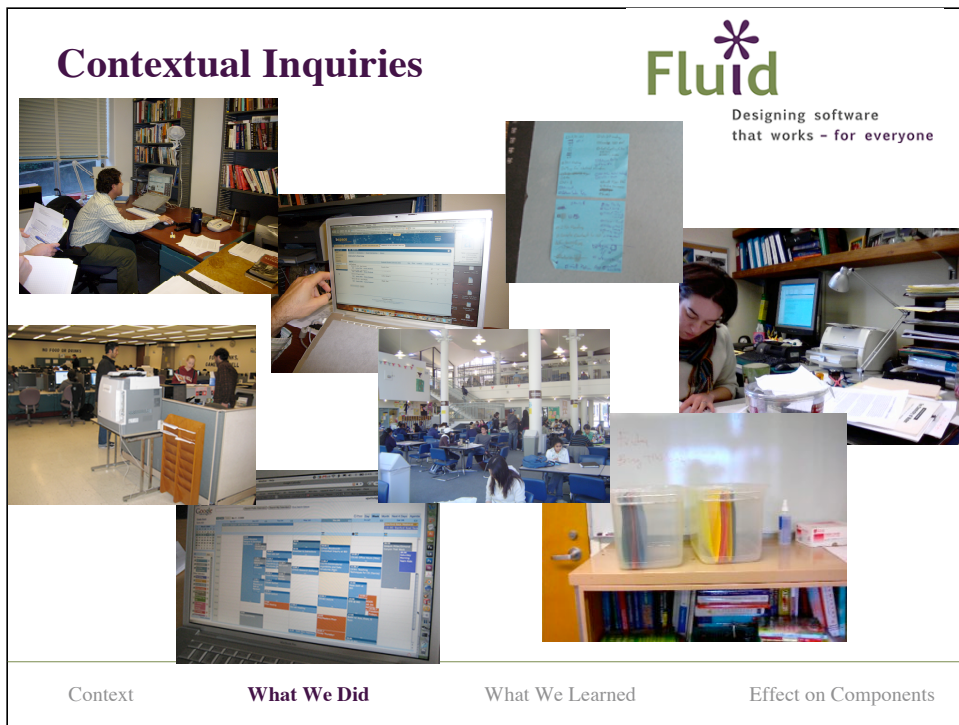
Context

**What We Did**

What We Learned

Effect on Components

- Cis are combo of interviews & observation
  - Best of both worlds
  - Start with “typical day” and decide where to dig in more.
- Partners
  - What’s working now, what’s not, what’s missing, what should the workflows support
- Interpreting
  - People become expert its suddenly difficult to describe in detail how to do it
  - Key is we are looking for partners across our Cis
- Focus
  - Go in with categories of information we want to know about like:
    - How do they organize content
    - What types of content do they have
    - How do they share and with who
    - Do they reuse content, how and when



- These are pictures from our contextual inquiries.
- They show us how important the user's context is.
- You can see many different work environments: faculty offices, student study areas and the such
  - In the student study area we found out that wireless isn't very reliable so students need to be able to work offline
  - In the library, students sign up for computers so they work on random machines -- browser bookmarks won't work for them.
- We captured little post-it note cheat sheets hanging next to the computer tell us where the participant needs help with their current system. This could be a great opportunity for us.
- We've got some organizational structures:
  - color coded hanging folders for different sections -- their used for turning homework in during lecture for the related lab sections
  - color-coded digital calendar for keeping track of work versus school and bike club

## Making Sense of All that Information



- Notes categorizing & synthesizing
- Identifying patterns across users
- Creating models
  - Personas
  - Use Case Frequency Matrix
  - Activity diagrams

Context

**What We Did**

What We Learned

Effect on Components

- After we met with users we walked away with this vast amount of information that we needed to make sense of.
- Chip away a little at a time
- We processed the information in phases:
  - Categorizing & synthesizing notes
  - Then we began to look across user to identify pattern in their roles, goals, needs, workflows, characteristics, etc.
  - And finally we created models of the patterns we were seeing. I'll show some of these later in the presentation.

## Sharing models



- Creation enhances learning
- Visual representation to share our learning
- Condensed version of what we learned
- Allows sharing in meaningful ways

Context

**What We Did**

What We Learned

Effect on Components

- As I mentioned, I'll be sharing some models we created in the next section.
- And they are all available on the wiki
- So, the creation of the models is part of our learning.
- So as we describe and define the personas, it makes us get clear about distinctions between the personas for instance.
- As you'll see... many of the models we created are also good concise visualizations of Sakai users and their behaviors.

# What We Learned...

Context

What We Did

**What We Learned**

Effect on Components

## What we learned



- Who is in the user community
- Their goals, needs, behaviors, characteristics...
- Contexts in which they do their work

Context

What We Did

**What We Learned**

Effect on Components

- At a high level, we learned about who Sakai users are along with their goals, needs, behaviors, characteristics and the context of their work.
- You saw some of the context in the pictures I showed of the contextual inquiries.
- This section is going to be a bit of teaser. I'll describe some of what we learned but there is just way too much to cover in this presentation.
- I will be providing links to all the models and work to create them at the end of the slides.

## The User Community



### Instructor Personas



Context

What We Did

**What We Learned**

Effect on Components

- These are the instructor personas we created from our research. You can get a feel for the diverseness of the user group.
- We talked to people in 3 different roles on campus that we had identified up front: instructional staff, learners and support staff.
- Role is just one distinction and in some ways not the most important.
- A variety of factors effect the users needs, goals, workflows and characteristics.
- Is the faculty tenured track or are they an instructor? And as you can imagine, these things mean different things on different campuses.
- What's are users level of technical abilities? And how about experience with CMS / LMS's?
- Is the class large with many related sections or a small class with no sections?



## The User Community



### Student Personas



**Christy Gonzola**  
(Undergraduate Student - Molecular & Cell Biology)

**Ashley Myles**  
(Undergraduate Student - Archeology)

**Shaina Wiseman**  
(Graduate Student - Land Development)

**Andy Wright**  
(Graduate Student - Information Studies)

Context

What We Did

**What We Learned**

Effect on Components

- Again, many factors drive the distinctions between these personas:
  - Is the student undergrad or grad and what year? Are they in science or humanities based discipline?
  - What's are users level of technical abilities? And how about experience with CMS / LMS's?
  - Is the class large with many related sections or a small class with no sections?
- Christy has low vision and uses assistive technology to complete her work.
- Ashley commutes. She's a good student but wants to get her work done as quickly and efficiently as possibly so she can spend time with friends and in her clubs and other extra-curricular activities
- Andy is tech-savvy and likes technology. He's anxious and willing to try to technologies and tools. He's and expert user and often use keyboard shortcuts
- Shaina is passionate about land development. She puts up with technology if it helps her in her work but she won't slog through for the sake of using technology. She is impatient with it.

## Instructional Support Staff Personas



**Michael Demsky**  
(Departmental Support - Biology)

**Anita Stalmach**  
(Departmental Pedagogy  
Support - Instructional  
Designer)

Context

What We Did

**What We Learned**

Effect on Components

- Michael supports his department doing all sorts of administrative tasks like course creation, managing rosters, uploading content and the such. He also helps manage labs and thinks of himself as a “lab mom”
- Anita is more focused on helping the faculty she supports use technology to support pedagogy. She work closely with a few faculty as opposed to Michael who support 1/2 his department on a regular basis.

## Personas



### Ahmad Yousef History Professor - Tenure-track



Enthusiastic educator

*"I want to inspire students and get them excited about my field of study, but I have to balance this with my own ambitions as a scholar."*

- On track for tenure
- Organizes online course contents chronologically
- Frustrated with slowness of LMS
- Open to new technologies but only as a means to an end

Context

What We Did

**What We Learned**

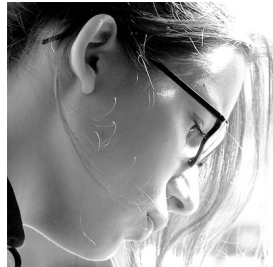
Effect on Components

- Here's a bit more information about Ahmad.
- On the wiki you can find and even more robust description of Ahmad, his needs and daily work.
- We capture a "tagline" which will help us remember Ahmad. These are 4 high level characteristics about Ahmad that drive his use of technology.

## Personas

### Christy Gonzola

#### Undergraduate Student - Molecular & Cell Biology



Student with visual impairment  
*"I can do everything you can. It just takes me a little bit longer."*

- has low vision and uses various assistive technologies
- spends a lot of time getting through school work
- social and loves to spend time with friends
- wants to reach out and help other students with similar challenges

Context

What We Did

**What We Learned**

Effect on Components

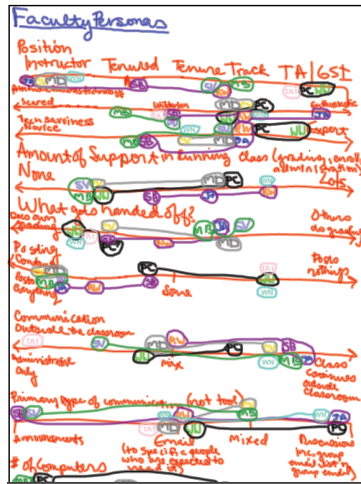
•And here's Christy. She's an student who struggles to balance social time with her friends with her school work as with many undergrad students.

•Christy uses assistive technologies like a screen reader to get her work done.

## Goals, needs, behaviors... Persona Scales



Designing software  
that works - for everyone



### Distinctions

- Roles
- Support running class
- Timing of posting materials
- Primary type of communication
- Number of computers
- Overall goal
  - change the field
  - teach students
  - get published
- Previous LMS use
- Years teaching
- Years at current institution
- Large, small or both classes
- Discipline

Context

What We Did

What We Learned

Effect on Components

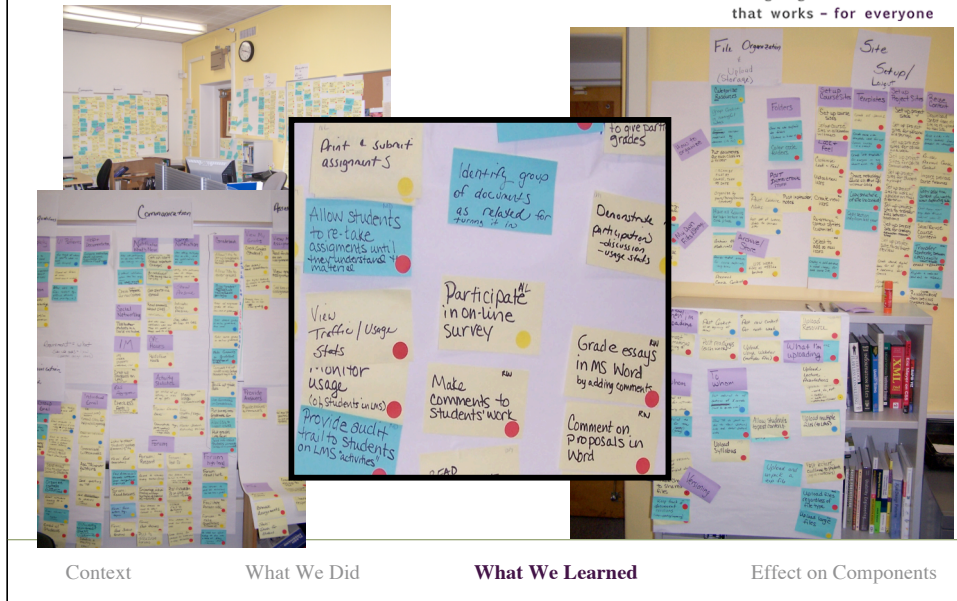
- We used this activity to help us identify the various personas
- This is the scale for instructors but we also did this for students and instructional support users
- Continuums are distinctions we saw between people
- I've pulled out some of the distinctions and listed them on the right. Each participant is placed on the continuum
- Then we look for patterns of people that have similar goals, characteristics and the such
- That's where the circles and line come into play
- Those participants become one persona.
- I don't expect you to be able to read the scales. It's more to get the idea of how we identified and defined personas.

## Goals, needs, behaviors...

### Affinity Diagrams

**Fluid**

Designing software  
that works - for everyone



- We also did quite a bit of work with use cases
- Affinity diagrams helped us identify patterns of user activities -- use cases..
- Pulled out use cases and described them in a simple sentence -- the "title"
- As we pulled use cases out of the processed notes, we wrote them on the post-it notes.
- Yellow post-its are current use cases
- Blue = future use case (in other words, they can't do them now)
- Blues are mostly identified from pain points we heard from users. The blue turns the pain point into an opportunity
- Grouped use cases based on similarity or relatedness
  - Similar to card sorting
- Because we had so many use cases we came up with categories as an initial organizing scheme
  - E.g. authoring, presentation, file organization, communication
- Placed post-it notes onto category sheets
- Placed duplicates on top of each other
- Found patterns
  - Within each category, we organized post-it notes into groups
  - Named the groups

## Goals, needs, behaviors...



### Faculty

- More faculty than we thought uncomfortable with technology
- Departmental champions for Sakai create sites for many others
- Lots of shared information across the department
- CMS/LMS/CLE is a means to an end

### Students

- Use technology for “socialness” -- aren’t necessarily tech savvy
- Facebook not for more formal relationships like school and work
- Email primary tool for collaborating
- Frustrated with differences between course sites and keeping track of many different calendars

### Support Staff

- Pedagogy focused, administrative support and “lab moms”
- Setting up sites, managing rosters, uploading content...
- Uncomfortable showing up as “instructor” in site

Context

What We Did

**What We Learned**

Effect on Components

There is way too much to tell you about in an hour presentation but I thought I’d share some highlights and surprises

## Goals, needs, behaviors...

### Use case frequency matrix



Instructors	Undergrad	Grad	Tas/GSIs	Instructional Support Staff	Use cases
		x			<b>Presentation &amp; Access</b>
x				x	<i>Share</i>
	x				Share articles w/ friends (RSS feed)
			x		Share teaching materials with othe
x					Share content with everyone on in:
			x		Share notes with friends
					Share powerpoint slides
			x		Share current even articles with sti
					Allow students to see other studen
					<i>Read/View</i>
	x				Read manual with instructions for :
	x				Read course articles & reading onli
		x			View video lectures sync'd with sli
	x				Review webcast of class
		x			Read course books & readings (offl
		x			Subscribe to RSS feeds
		x			Get general course information
	x				Refer to syllabus
					<i>Sort</i>
x					Sort announcements
Context	What We Did		<b>What We Learned</b>	Effect on Components	

- Work in progress but still worth showing in it's early stages.
- The use case matrix captures all the use cases we identified grouped in their categories from the affinity diagrams.
- An X means we heard the use case from a user in that role.
- Next step with this matrix is to add frequency -- so how often do they work on that use case AND identify other users that would also likely do those use cases and include their frequency.
- Just because we didn't see or hear about it in the 1 1/2 hours we spent the user, doesn't mean it's not something do.
- The matrix is more fodder in helping us identify potential components
  - What kinds of activities happen? What activities happen in several different functional areas? Where are users consistently enduring pain?



# Context REALLY matters



Designing software that works - for everyone

### Course Syllabus (subject to change)

**Week 1: Course Information**

**Topic: Introduction: Course and Expectations**

**Course Information:**

1. TA: [Name]
2. [Name]

**Homeworks:**

- [Title]
- [Title]
- [Title]
- [Title]
- [Title]
- [Title]
- [Title]
- [Title]
- [Title]
- [Title]

**Topic: Methods of Reading & Writing**

**Outline:**

1. [Topic]
2. [Topic]

**Homeworks:**

The screenshot shows a course website for 'CS160 User Interfaces'. It features a navigation menu on the left with links like 'Home', 'About', 'Syllabus', 'Assignments', 'Homeworks', 'Projects', 'Exercises', 'Notes', 'FAQ', and 'Contact'. The main content area includes a 'Main Page' with a header image and a list of 'Announcements' and 'Assignments/Exercises/Notes'. The page is titled 'CS270 Combinatorial Algorithms and Data Structures Spring 2008'.

Context
What We Did
What We Learned
Effect on Components

- We also learned about user's context
- We tend to use "context" a lot in design and it refers to a variety of different kinds of context but basically we mean anything that is related to the users work.
- In this case, we are looking at one grad students array of course sites - and this isn't even all of them
- It's important for us to understand the many different places she must go to manage her courses. It's a lot to keep to track of. Are there some things we can do to help bring all this information together or at least give them a similar experience across the various sites?

# Context REALLY matters



Designing software  
that works - for everyone

**Announcements**

View: All

Showing 1 - 1 of 1 items

Subject	From	For	Date	Beginning Date	End Date
<a href="#">The survey/quiz for Seminar 12 by Jose Carmena has been posted.</a>	Dorian Liepmann	site	Dec 5, 2007 8:15 pm	Dec 5, 2007 8:15 pm	Dec 1 pm

**Viewing assignment...**

Assignment for "New's test"

Created by	Alan Nelson
Date created	Feb 7, 2007 8:48 am
Open	Feb 7, 2007 11:38 pm
Due	Feb 14, 2007 11:00 pm
Accept limit	Feb 14, 2007 9:00 pm
Modified by instructor	Feb 7, 2007 8:48 am
Student submissions	None and assignments
Grade	Ungraded
Add due date to schedule	Yes
Alert	Yes
Honor pledge	No

Assignment instructions

Try this one if ready

Additional resources for assignment

[View all the resources for this site \(24 KB\)](#)

**Joe's New Site**

Home | Updates & Announcements | Assignments | Gradebook | My Profile | Messages (1) | Resources

Tools: Add Tools, Assignments, Gradebook, Calendar, Post Text, Blog

My Profile: Joe Professor

My Friends (0)

My Friends List

Home

Group Discussions

Test & Quiz Center

Add Page

Updates & Announcements

Make Announcement | View All

Today

Mike Smith updated his profile

Yesterday

Laura Roberts published a new blog post

Sites

Joe's Site | Edit Site List | Create a Site

Canvas Club

My New Test

My Content

ORIG21

AC2480

AC2480

Grading Table

View [All Sections/Groups]

Student Name | Find | Clear

Student Name	Student ID	Log	Points
MILES_SARAH	206439	15	17
TEST1_STUDENT2	206009	15	12
TEST1_STUDENT3	206070	15	19
TEST1_STUDENT4	206071	15	17
TEST1_STUDENT5	206072	15	26

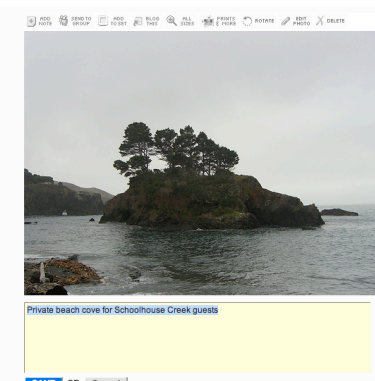
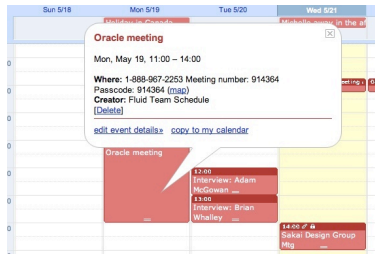
Context      What We Did      **What We Learned**      Effect on Components

- We also learned about the contexts in which Fluid components may live in.
- So what kinds of activities are users doing now where a fluid components might help
- You can see a variety of Sakai tools here and even future contexts from the UX Initiative project.
- Shortly, I'll talk about how key this is to our design of components.

## Context REALLY matters



Designing software  
that works - for everyone



<input type="checkbox"/>	User testing on layout customizer	No Folder	May 26, 2008	None	0 Low	o
<input type="checkbox"/>	Create draft personas	No Folder	May 26, 2008	None	0 Low	o
<input type="checkbox"/>	Map user research use cases to pager component	No Folder	May 26, 2008	None	0 Low	o
<input type="checkbox"/>	Map user research use cases to in-line editor component	No Folder	May 26, 2008	None	0 Low	o

Context

What We Did

**What We Learned**

Effect on Components

And here's another kind of context we learned about.

These are contexts user's are already familiar that we saw them use as we watched them use other applications in their normal day.

They have expectations about how inline editing works based on these experiences.

## What we ALL learn



- Who are users
  - Personas
- What they need
  - Affinity Diagrams
  - Activity Diagrams
  - Use Case Frequency Matrix
- Their expectations
  - Contexts of use

### Community Resources!

<http://wiki.fluidproject.org/display/fluid/Content+Management+Research+Models>

Context

What We Did

**What We Learned**

Effect on Components

- This is all information that is useful for us as we identify and build components AND they are community resources.
- Our goal is provide the information in meaningful ways to be used by the community.
- If you do use / or would like to use some of this information, we'd love to hear how its working for you.

## Effect on Components...

Context

What We Did

What We Learned

**Effect on Components**

## Effect on Components



- Identification
- Requirements gathering
- Informing design
- Iterative development

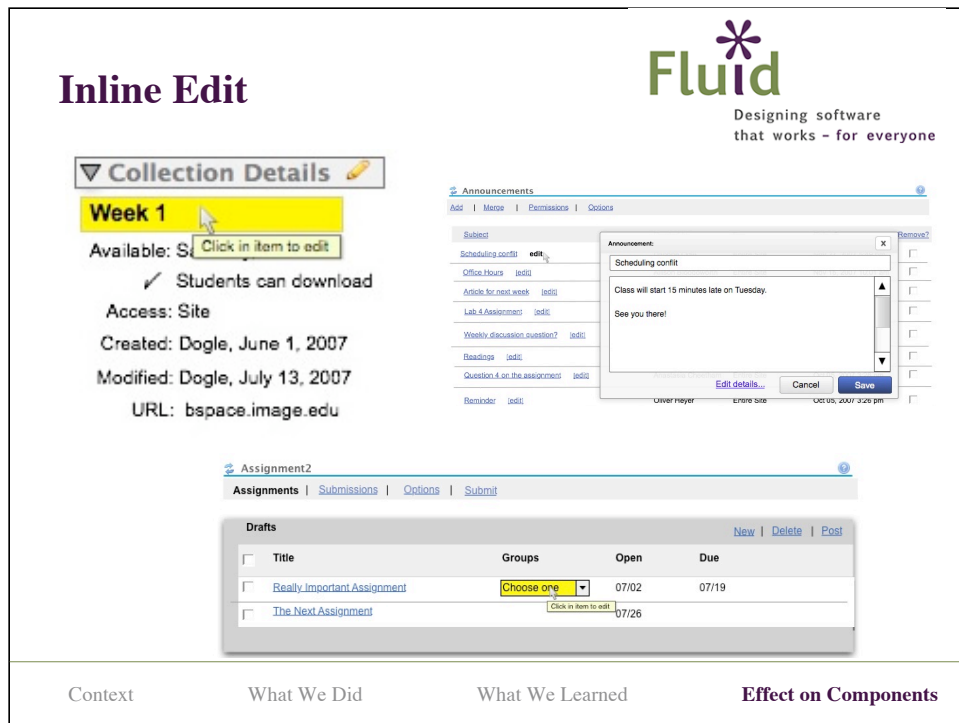
Context

What We Did

What We Learned

**Effect on Components**

- All of this information we've learned has and will help us identify components, create their requirements and inform their design.
- We are also using our understanding of users to define our iterations in development.



- Inline edit is one of the components we'll be delivering in our .04 release to come out at the end of the month.
- I'll use it as a case study to show how all the research we did helps us with our component and design pattern work.
- But you can see here, these are 3 different contexts in which we are thinking through where the inline edit component will potentially live.
- The top left is the Image gallery tool
- To the right you can see the Announcements tool. This context is different than the Image Gallery because the the thing that needs to be edited, the subject, is a link. So clicking on it already does something. So in this context we are thinking the user will need to click edit to open the overlay that still allows her to edit without leaving her context.
- Below is how the inline edit might work in the assignments2 tool which is currently being developed by G. We need to think about how it might work when you are editing a field controlled by a dropdown.

# Identification



Designing software that works - for everyone

Components	Pain Points	Roadmap	Work Started	Contextual Inquiry	UX Initiative	Useful to Community
Upload component v2.0	X	X			X	OC, uP, SAK
Tagging	X	X		X		uP, SAK
Tag cloud	X			X		uP, SAK
Suspend-Inject-Resume / Lightbox overlay (work started)	X		X	X	X	uP, SAK
IM /online status/My Friends	X			X	X	uP, SAK
Layout Customizer (work started)	X		X	X	X	uP, SAK
Getting Content In (file uploader is part of this)	X	X		X		SAK
Quicklinks/Favorites	X	X				uP, SAK
File Picker	X	X				SAK
Progress meter/bar (work started)	X		X	X	X	SAK, uP, OC
In Line Edit (work started)	X		X	X	X	OC, uP, SAK
File Manager views	X			X		OC, SAK
Version history	X			X		SAK
Components	Pain Points	Roadmap	Work Started	Contextual Inquiry	UX Initiative	Useful to Community
Smart Paging (work started)	X		X		X	OC, SAK
Google-like Search (global & context specific)	X				X	OC, uP, SAK
Attachment manager	X			X		SAK
Link manager external & internal	X			X		SAK
Content previewer	X			X		SAK

Context

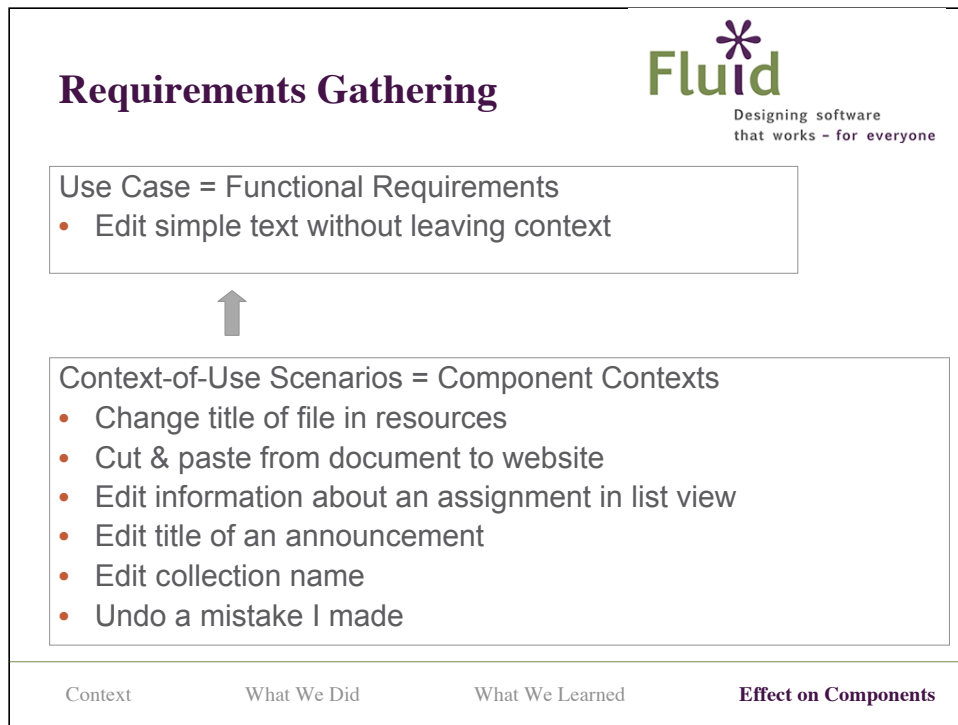
What We Did

What We Learned

Effect on Components

- This is our Component Identification Matrix
- One of the inputs into creating a component roadmap
- Meant to:
  - Validate choice of some upcoming Fluid components
  - Fill roadmap for future Fluid components
- Talk through columns in matrix
- Inline edit was identified as being useful from all perspectives. It wasn't something on our original roadmap but that's the point of us working closely with the community to make sure we are building components that are relevant to work going on now and what users need now





- In our research we identified many activities where in-line edit could be useful
- We looked at those contexts-of-use scenarios and abstracted use cases
- Those more abstract use cases become functional requirements for the general component -- so Edit simple text without leaving context is one of the requirements for inline edit.
- As you'll see shortly, we end up circling back to these contexts of use to help define the interaction of the component.
- In the end we came up with 5 main use cases the component will support
  - Edit simple text without leaving context
  - Edit text & give user extra protection from losing original information when it would be hard to recreate or highly destructive like with grades
  - Edit multiples pieces of data of once -- more like a form
  - Edit information that has constrained choices --like with a checkbox or dropdown
  - Edit dates.
- For more information on the requirements you can check out the Fluid wiki

## Inform Design



- Designing components in realistic contexts
  - Circled back to contexts of use to design workflow via storyboards
- Design integration assistance
  - Design patterns
- Define iterations & prioritized for implementation
  - Goal: something to release each 2 week iteration
  - Identified valuable chunks of functionality (to users)
  - Understand value of “chunks” to users

Context

What We Did

What We Learned

**Effect on Components**

- As I've mentioned several times, Fluid components live in real contexts. It's crucial we understand the contexts the components will live in so they will be useful in those contexts.
- We also want to understand the interaction around the component.
- The user's experience includes not only movement through the component but also the interaction before and after.
  - For instance our file uploader allows users to upload multiple files at once, and gives them feedback about the status of upload. But how the user begins the upload process and what happens once the files are uploaded is up to the integrating application. We are using design patterns to share design integration advice.
- The research also grounds us in user perceived value as we define what gets worked on in an iteration and in what order.

# Contexts-of-Use Scenarios



## What needs are we meeting?

### Allow user to edit simple text without leaving their context

- Change title of file in resources (Sakai)

Access	Created By	Modified	Size
Doogle_100_002_F06_Resources			
			Add
			Actions
			Actions
Entire site	Daphne Ogle	Nov 27, 2007 5:49 pm	5.1 KB
Entire site	Daphne Ogle	Nov 27, 2007 5:49 pm	153.1 KB
Entire site	Daphne Ogle	Nov 27, 2007 5:49 pm	212.1 KB
Entire site	Daphne Ogle	Nov 27, 2007 5:49 pm	35.5 KB

- Cut & paste from document to website
- Edit information about an assignment in the list view (Sakai)

### Assignment List

View Assignment List

Viewing 1 - 2 of 2 items

Show 200 items...

Assignment title	Status	Open	Due	In / New	Scale	Remove?
Ron's test	Closed	Feb 7, 2007 12:00 pm	Feb 14, 2007 5:00 pm	0/0	No Grade	
Homework 1	Closed	Feb 7, 2007 8:30 am	Feb 14, 2007 5:00 pm	0/0	0-100.0	

Context

What We Did

What We Learned

**Effect on Components**

- So again, context matters.
- We want to think through the design of our components in real contexts they are likely to live in.
- This is a page from the wiki and shows contexts of use we identified that are relevant to the inline edit component.
- In some cases the context of use is the entire story for a component like -- change title in resources
- In other cases, the component is part of the interaction to complete one of these scenarios like edit an assignment and send students an update.
- In other cases, the context of use scenario describes a portion of the interaction of a component like cut & paste from a document to course website.
- But it's important for us to understand the entire context the component will be used in.
- Next I'll show an example of how these contexts inform design.

## Storyboards



- Storyboard
  - Story about how the use case gets met with visual representation of the interface and interactions
- Each use case gets fleshed out in context(s)
  - Use case: Edit simple text without leaving context
  - Context of use scenario: Edit an image collection's name
- Context
  - Probable contexts in which components will live

Context

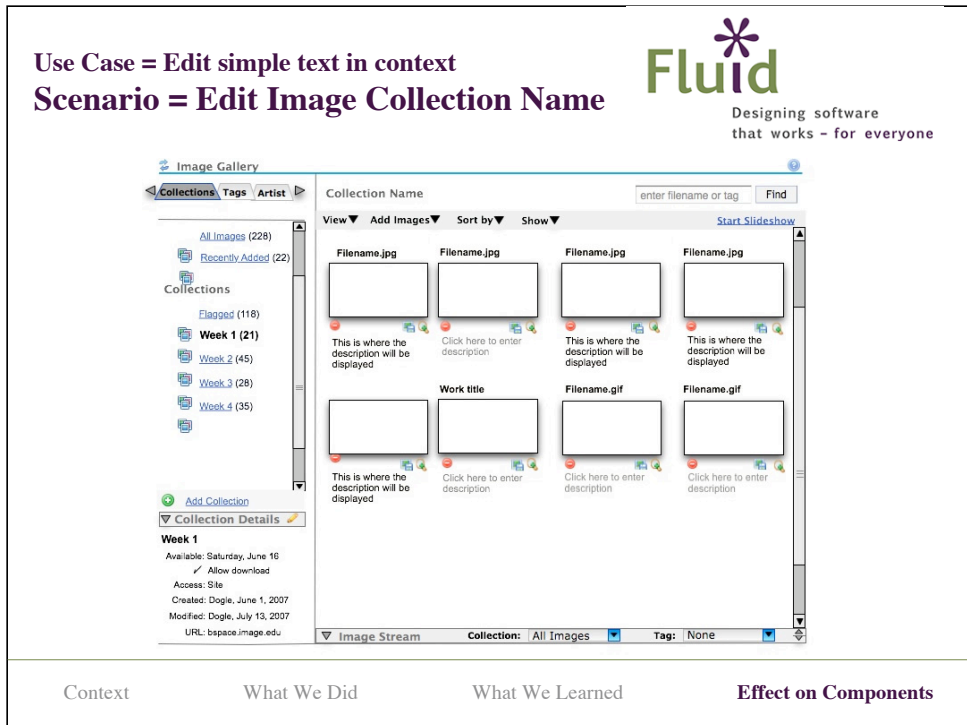
What We Did

What We Learned

**Effect on Components**

- Storyboards are the tool we use to help us think through the user experience of components in a particular context
- It typically includes pictures of the component. At this stage they are very rough ideas as we are iterating through them quickly.
- For inline edit we've done about a dozen different storyboards.
- Edit an image collection's name is one of those which I'll walk through next.
- We work through a storyboard with several contexts-of-use
- They really help us think through what part of the component is generic enough that it can be the same across contexts and what parts need to be configurable so they can work differently in different contexts.

**Use Case = Edit simple text in context**  
**Scenario = Edit Image Collection Name**



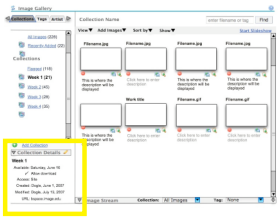
Context


What We Did

What We Learned

**Effect on Components**

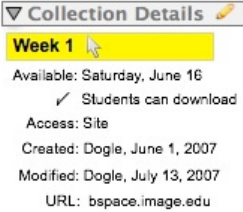
- This is the beginning of the storyboard.
- The user wants to edit the name of this collection that is currently week 1



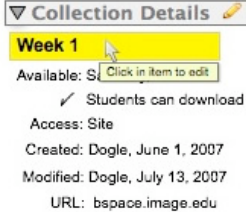


Designing software  
that works - for everyone


1) User rolls over title...



2) Hovers for < 2 seconds



3) Clicks for editable field

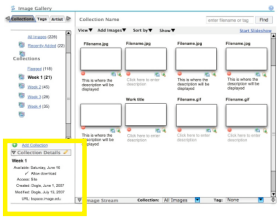



Context
What We Did
What We Learned
Effect on Components

What are we learning along the way?

### Discoverability

- We didn't want the hover message to display immediately because there are several fields on the page that are editable. The user would see all this flashing text as they moved the mouse across the page.
- In this case we show the message after 2 seconds.





Designing software  
that works - for everyone

4) Types new title

▼ **Collection Details** ✎

**Midterm Study Collection**

Available: Saturday, June 16

✓ Students can download

Access: Site

Created: Dogle, June 1, 2007

Modified: Dogle, July 13, 2007

URL: bspace.image.edu

5) Clicks out to save changes

▼ **Collection Details** ✎

**Midterm Study Collection** [\[undo edit\]](#)

Available: Saturday, June 16

✓ Students can download

Access: Site

Created: Dogle, June 1, 2007

Modified: Dogle, July 13, 2007

URL: bspace.image.edu

Context
What We Did
What We Learned
**Effect on Components**

- Undo. Since users can somewhat easily mistakenly lose previous information - highlight and hit space bar - we want to give them extra protection against this.
- The undo is temporary and only last as long as the user is on the page.
- One thing not shown is that after an undo, the user will be able to redo -- again protecting them from making unfixable mistakes.

## Design Patterns



- Give component integration advice
  - What is the interaction leading up to the component?
  - What happens once the user leave the component?
- Also, describes:
  - Problem being solved
  - Design rationale
- [Upload Design Pattern](#)
  - When implementing Upload component:
    - Return users to initial context with new files in view & distinguished
    - Allow sorting in meaningful ways
    - Offer easy-1-click interaction to delete

Context

What We Did

What We Learned

**Effect on Components**

•Design patterns help users know when and where certain component are relevant, why they are designed the way they are , about their accessibility structure and they give integration tips from a design perspective.

•They also help us describe the rationale for a component and describe what problem it solves and how. I'm not going to go into the details now because Allison will be giving a presentation on them tomorrow afternoon.

•Show file uploader pattern and the integration section

•For more information on design patterns



## Storycards: Iterative Development



- IE Story 1: Allow user to edit a simple, single piece of text without leaving their context.
- IE Story 2: Provide save and cancel buttons inline so that the user doesn't accidentally lose important information.
- IE Story 3: Provide date picker if editable information is a date
- IE Story 4: Allow editable field to be a dropdown, radio button or checkbox
- IE Story 5: Placeholder for error handling (i.e. name already exists)

Context

What We Did

What We Learned

**Effect on Components**

- These are story cards titles.
- Basically they are meaningful chunks of functionality
- Each card details the interaction and is usually paired with wireframes and/or a storyboard

**Thank You!**



Questions...

## Fluid Wiki Resources



- Fluid Wiki
  - <http://wiki.fluidproject.org>
- Content Management (CM) Research Overview
  - <http://wiki.fluidproject.org/display/fluid/Content+Management+ResearchCM>
- Research Models
  - <http://wiki.fluidproject.org/display/fluid/Upload+Design+Pattern>
- Inline Edit Design Overview
  - <http://wiki.fluidproject.org/display/fluid/Inline+Edit>