FLUID Project Launch Meeting

April 19-20, 2007

Agenda

- Introductions
- Roles, Partners, Participants
- Communication Plan
- Collaboration Supports
- Governance
- Risk Management

Agenda

- Review of Deliverables
- Review of Technical Architecture
- Overview of Proposed Process
- Getting Started Plan

Overview of the FLUID Project

The Context for FLUID

- Poor usability and accessibility is a significant barrier for community source
- Now is a critical time to address the usability concerns of our communities
- Our goal is to incrementally improve overall user experience

FLUID in Community Source

- Our goal is to incrementally improve the user experience of Sakai, uPortal and Kuali Student
- Holistic approach: integration of UI technology and user experience design
  - **Social**: creating community supports/process
  - **Technical**: UI dev tools

Design Deliverables

- Start with heuristic analysis and usability reviews
- Establish a baseline of usability and accessibility: know where we need to improve
- Shared library of design models: personas, scenarios, etc.
- UI Design Patterns
- U-Camps
- Iterative design and testing of FLUID components

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Design and Development

- The last thing community source needs is yet another presentation technology
- To be different, the technology needs to be fundamentally driven by user needs
- Agile development model: close interaction and accountability among designers and developers

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What are we going to build?

- A living library of flexible UI components that can be used across applications
- A new component framework built specifically to improve usability
- Easy to wire up new components or customize properties of existing ones
- Components are more than widgets

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Core Architecture

- Component framework
- Repository of shared components
- Semantics and specifications
- Integration

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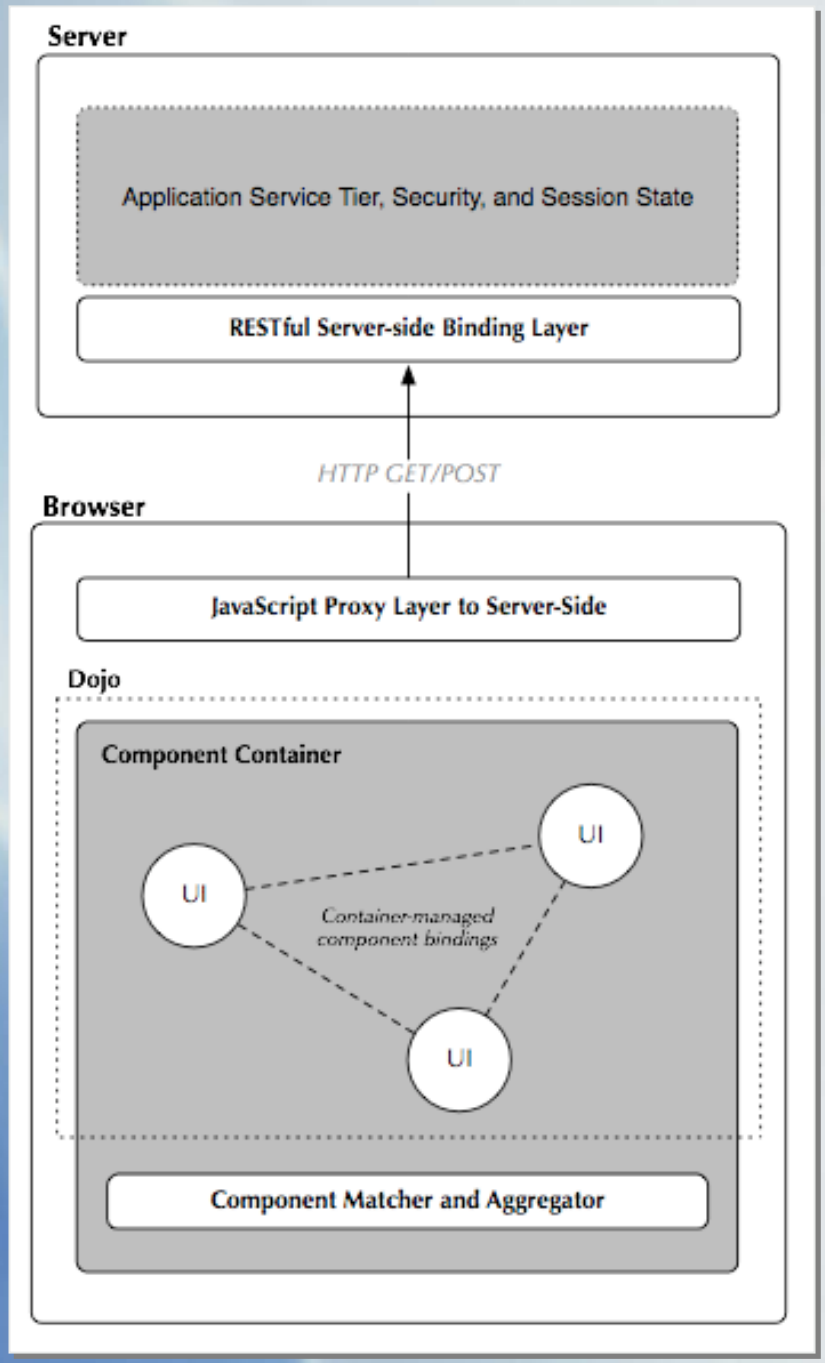
A bit about the technology

- Leverage existing presentation frameworks
- Based on AJAX and DHTML; gives us degree of presentation technology independence
- Advanced customization based on user preferences
- Decouples UI from application logic
- Enables easy switching of components to meet diverse user needs

FLUID in an SOA Context

- Reusable component library provides a source of consistency for developers of new services and portlets
- Recurring patterns throughout toolset
- Build FLUID into cross-cutting areas such as portal navigation
- High degree of customizability for institutions and individuals


Server
Application Service Tier, Security, and Session State
RESTful Server-side Binding Layer
HTTP GET/POST
Browser
JavaScript Proxy Layer to Server-Side
Dojo
Component Container
UI
UI
UI
Container-managed component bindings
Component Matcher and Aggregator

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FLUID Accessibility

- Leverage ARIA and ongoing toolkit accessibility work for Dojo, YUI, etc.
  - Ajax will be accessible, just a matter of time
- Transformation enables equivalent, accessible components designed for specific users and uses
- Accessibility from the ground up

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Integration

- Early and often
- Heuristics to measure improvements
- Testing harness at first, project integration as soon as possible
- Requires regular collaboration with partner projects
- Litmus test of project usefulness

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Design, Development & Testing Process

FLUID Deliverables

- Designer's Toolkit
- Components
- Framework

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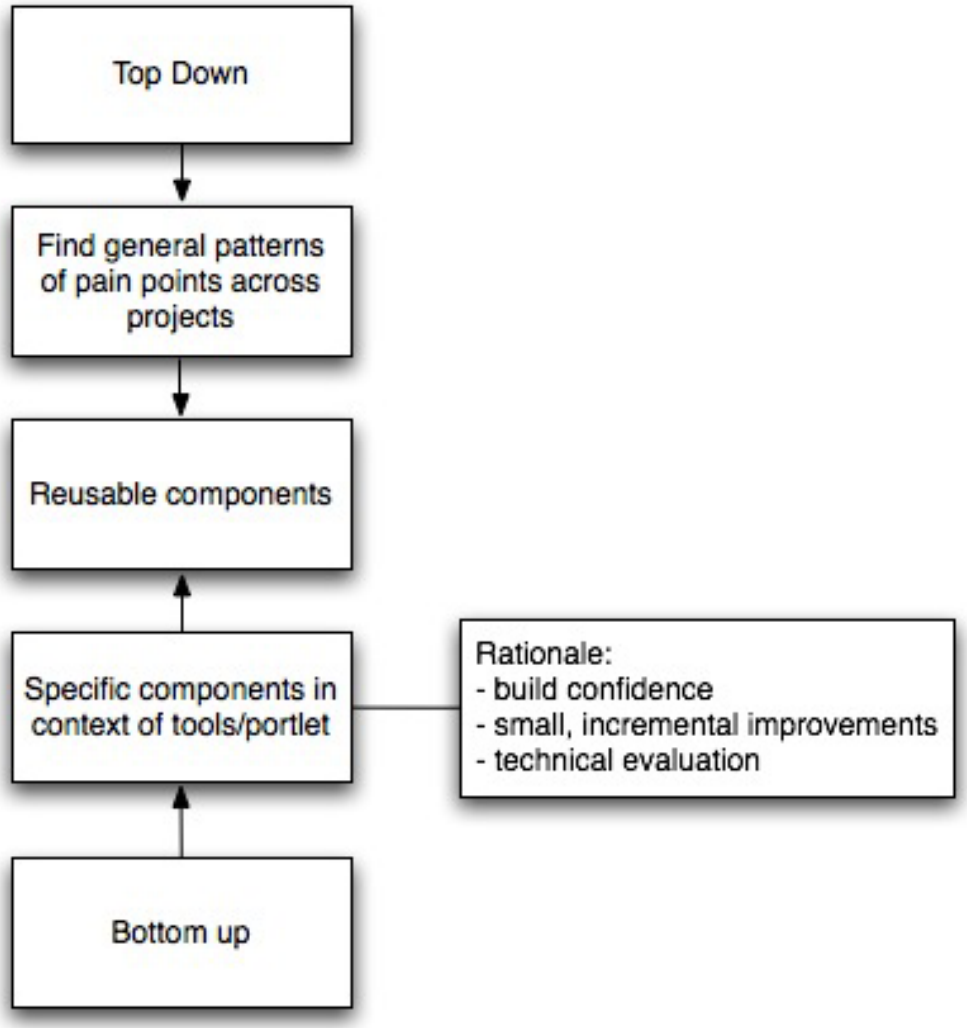
UX Drives Development

- Heuristic analysis
  - Expert analysis of usability problems
  - Low cost and fairly quick
- Usability synthesis
  - Identify and communicate what we already know
- Usability testing

Component Identification



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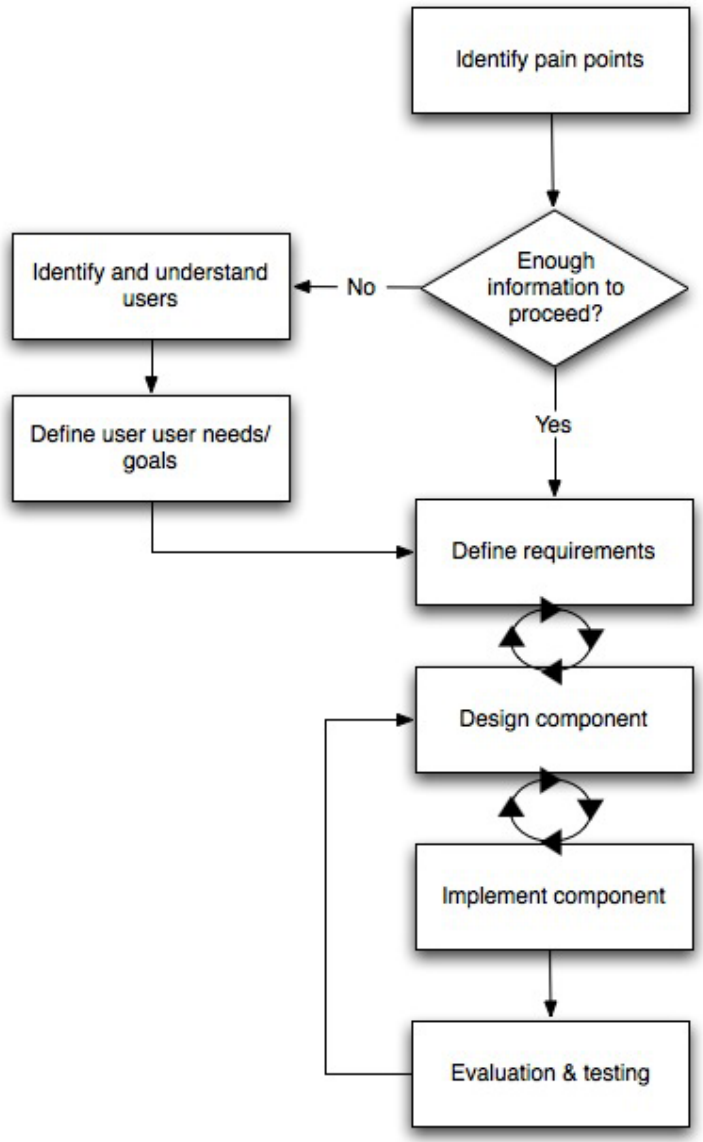
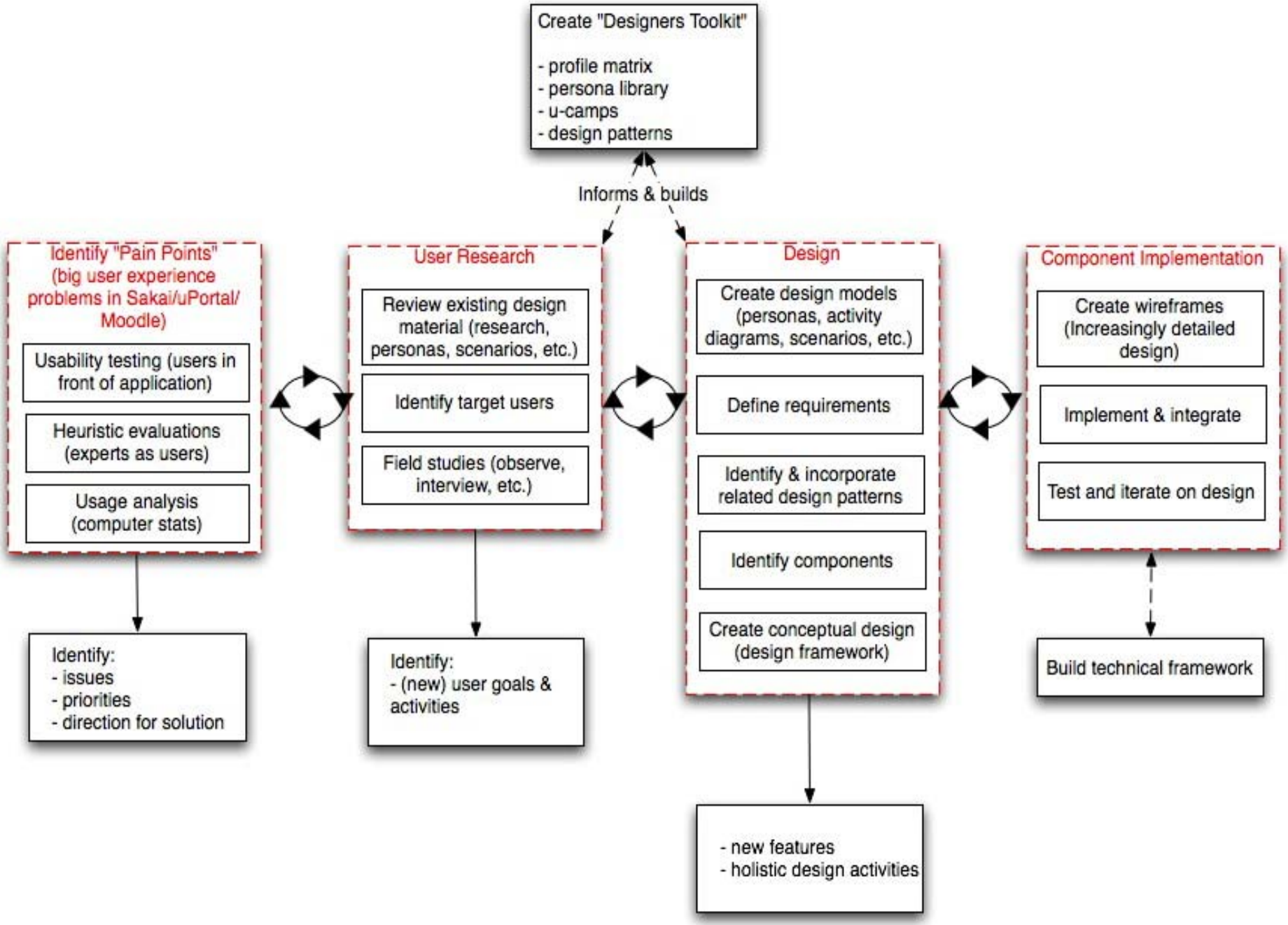
Component Lifecycle




Create "Designers Toolkit"
- profile matrix
- persona library
- u-camps
- design patterns
Informs & builds
Identify "Pain Points" (big user experience problems in Sakai/uPortal/ Moodle)
Usability testing (users in front of application)
Heuristic evaluations (experts as users)
Usage analysis (computer stats)
Identify:
- issues
- priorities
- direction for solution
User Research
Review existing design material (research, personas, scenarios, etc.)
Identify target users
Field studies (observe, interview, etc.)
Identify:
- (new) user goals & activities
Design
Create design models (personas, activity diagrams, scenarios, etc.)
Define requirements
Identify & incorporate related design patterns
Identify components
Create conceptual design (design framework)
- new features
- holistic design activities
Component Implementation
Create wireframes (Increasingly detailed design)
Implement & integrate
Test and iterate on design
Build technical framework

Milestones & Short Term Goals

- Choose technology frameworks: May
- Evaluate technology in practice
  - Develop real components with candidate technology
- Create prototype image gallery components
  - Design, develop, integrate, test, iterate
  - Create accessible alternatives or equivalents
- Aim for a demo at the June conferences
  - Sakai
  - JA-SIG

Criteria for Choosing Initial Components

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- Align with local needs/priorities
- Simple “known” design
- Complex technically
- Test AJAX accessibility
- Generalizable
- Addresses “pain point”
- Accessible alternatives
- Learn early!!!!!!!

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Starting Point: Image Gallery

- Create new components for organizing image resources
- Support drag-and-drop and other familiar idioms
- Create exemplary accessible version
- Support JSR-168 for Sakai/uPortal
- Leverage existing design material

Eileen Otrovsky

Resourceful Adaptor

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Description

- 19th Century Russian Avant Garde Art Movement Professor
- Jumped on digital band wagon a few years back.
- Overwhelmed by creating first course gallery on-line & didn't feel directly rewarded for 25 hours of work.
- Reuses class images from semester to semester
- Department providing access to online image resources
- Has 1000 images in personal collection
- Starting to use ppt in interesting ways to present images in lecture

Goals

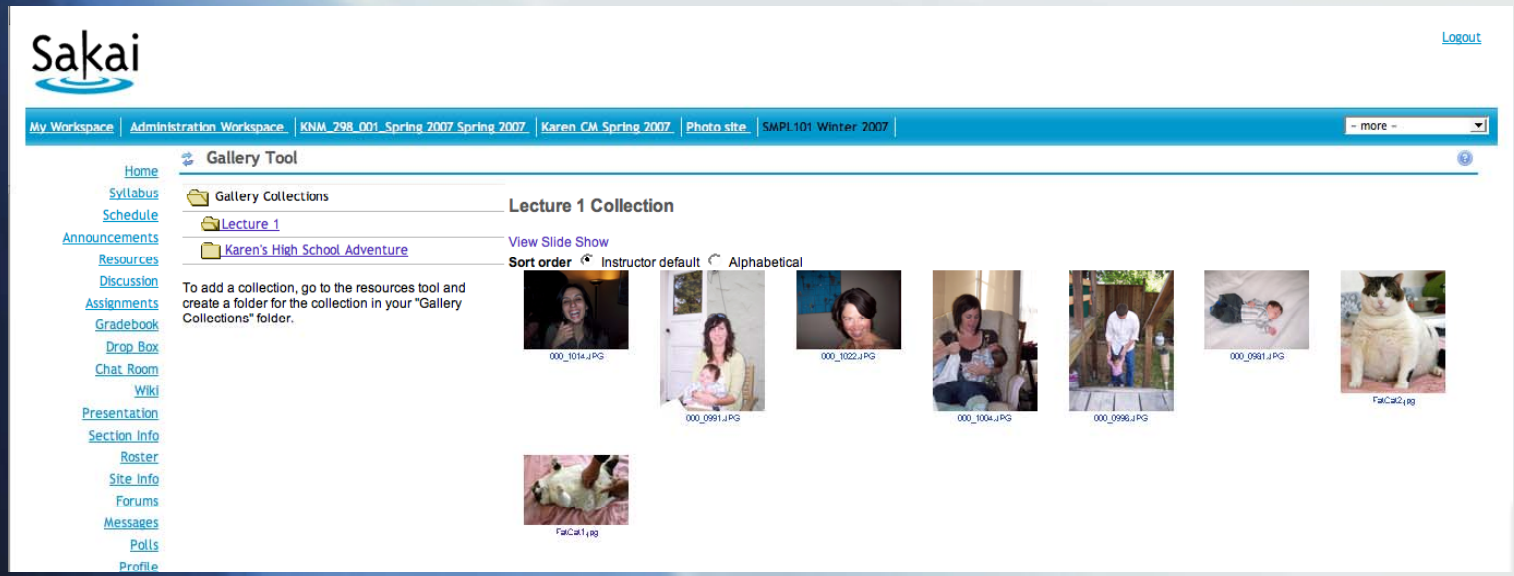
- Spend time on activities that support her research and writing.
- Decrease barriers between her students and the content
- Allow her students and TAs to leverage her collection
- Inspire students to consider Art History as an intellectual pursuit
- Easy access to relevant images.
- Stay Organized
- Get Published

The First Component

- Pain point: Users cannot organize their images in meaningful ways
- Pattern: Reorganize images within a collection/album
  - not between collections/albums
- Components:
    - Drag & Drop
    - Accessible alternative

The First Component - Con't

- Potential Scenarios:
  - **Reorder images within an existing album**
  - Reorder the list of albums
  - Several albums of images from lectures throughout the semester. Now I want to create a new collection for student's to use for studying for an exam



The First Component - Con't

- Image Organization Accessibility
  - What does accessibility mean in this context?
    - Keyboard control
    - Low vision / screen reader
      - Screen magnification
      - High contrast
    - Etc.
  - Create scenarios for accessibility
  - User research

U-Camps

- Design workshops & talks
- Hands-on activities related to UX
  - heuristic reviews
  - design advice/reviews of in-progress software
  - prioritization and synthesis of pain points
- Opportunity to bring developers and UX people together
- Brainstorm: what is the perfect U-Camp?
  - triage and prevention
  - live demos and accessibility reviews
  - usability testing clips

Summary

- The FLUID Project is a reality:

www.fluidproject.org

- Design and development work is ramping up
- Goal: incremental, achievable improvements
- Join our community, we need your input!