

The Fluid Project

An Open Source Community for Inclusive Design

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Topics We'll Cover



- Fluid Vision
- UX Toolkit: walkthroughs, patterns, and more
- Components
- Project roadmap
- How to get involved





What Is Fluid?

An community source project which creates a user experience, tools, and software capable of addressing the needs of a diverse set of demanding and creative users and projects.

Core Institutions: University of Toronto | University of California, Berkeley | York University | University of British Columbia | Cambridge

Other Participating Institutions: Michigan State | University of Colorado | University of Michigan | Georgia Tech | UK Open University | Your University Here

Participating Projects: Sakai | uPortal | Kuali Student | Moodle | Open Collections | ATutor

Corporate Partners: Sun Microsystems | IBM | Mozillla Foundation | Unicon



Who Are We?



- Fluid is intentionally open and distributed
- Fluid is Sakai, Moodle, Kuali, OpenCollection, uPortal, Etc..
- We're members of many communities
- All solving UX issues together
- Collaborate as an integral part of development teams
- Engage across projects -- what is of cross-cutting importance?
- Consult



Fluid Vision



- Foster user experience design and development within academic community source projects
 - ...so that they can fulfill their potential as platforms for innovation
- Build a presentation layer that supports:
 - Cross-application sharing of designs
 - The diversity of needs are unique within higher education
- Support, evangelize, and educate about the precarious values of usability, accessibility, quality assurance, and more
- Create a broad and deep community of UX expertise
- Encourage and model investment in these values and expertise



The Fluid Approach to UX in Community Source



- UX is a challenge for all open source projects and all institutions
 - (UX is a challenge for most software projects)
- Cross-project collaboration:
 - Share scarce UX resources across projects
 - Solve common & high priority challenges
 - Recognize recurring user interface idioms and needs
- Breaking down cultural & geographic barriers:
 - Can non-technical people get involved and to gain respect in OSS?
 - Can designers and developers speak a shared language?
 - How do you conduct UX activities in a distributed environment?
- A two-fold approach:
 - Social: build a community around UX
 - Technical: new UI development tools

Encompassing Principle

Fluid

focus on user goals: Tools must be usable and undemanding

Designing software that works - for everyone

- Users should focus on teaching, learning, research and administrative tasks... not on operating the tools
- Institutions should invest in furthering research and learning not in...ballooning support needs
- Institutions should not be concerned with cost of tool rejection and difficult implementations
- Tools should be platforms for innovation



"You say tomato, I say tomato, lets call the whole thing off"



- Academic communities are very diverse
- They differ greatly in their preferences, needs, habits, concepts, comforts, convictions....
 - Institutional preferences and branding
 - Conventions of academic discipline
 - Linguistic differences
 - Perspectives vary related to role (student, staff, faculty)
 - Different teaching approaches
 - Different learning approaches
 - Different research approaches



The academic community fosters and thrives on diversity!

Accessibility & Usability challenge today



- Legal commitment to equal access (Rehab 508, Section 255, ADA, state commitments, institutional policies)
- "Consistency will solve the problem"
- "One size fits all" has significant limitations
 - Constrain user experience for those meant to help
 - Accessibility guidelines seen to constrain creativity
 - "Accessible for everyone, optimal for no one"

We can't afford to be this limited!



Fluid: "Flexible User Interface"



- Swappable styles
- Modular, reusable UI components
- Web 2.0 -- engage me -- focus

Either runtime transformation for unique needs of the individual

Or customization through configuration





Community source UX in higher education has a unique opportunity



- Co-located with our users
 - Our workplace is our laboratory
 - Gather ideas and feedback
 - Observe and involve our users
- Have explicit mission to meet teaching, learning, research, and public service needs (we have permission!)
- Highly motivated staff



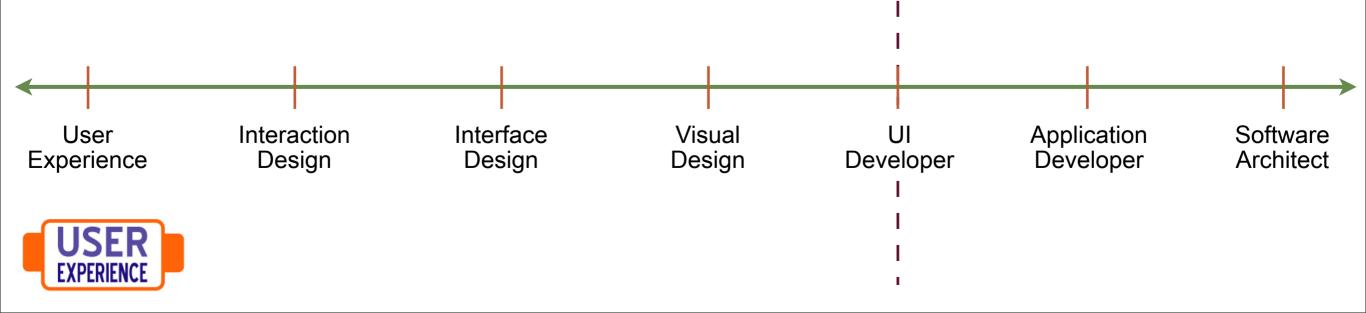


- Systemic problem of poor and inconsistent user interface
- Poor UX an impediment to adoption & support challenge
- Tackled at the end or in-production
- Redundantly developed
- Inadequately tested and refined
- Often left to programmers
- UX designers not well integrated into development culture
- · Range of design roles not understood nor invested in



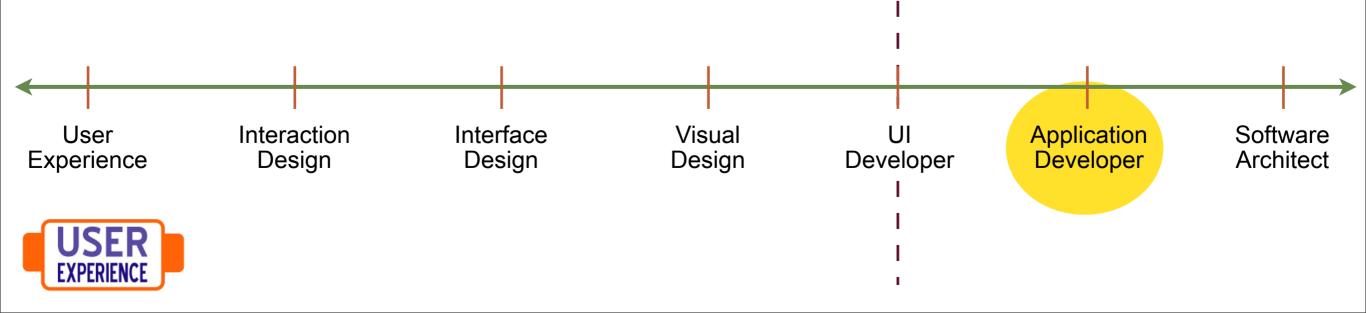


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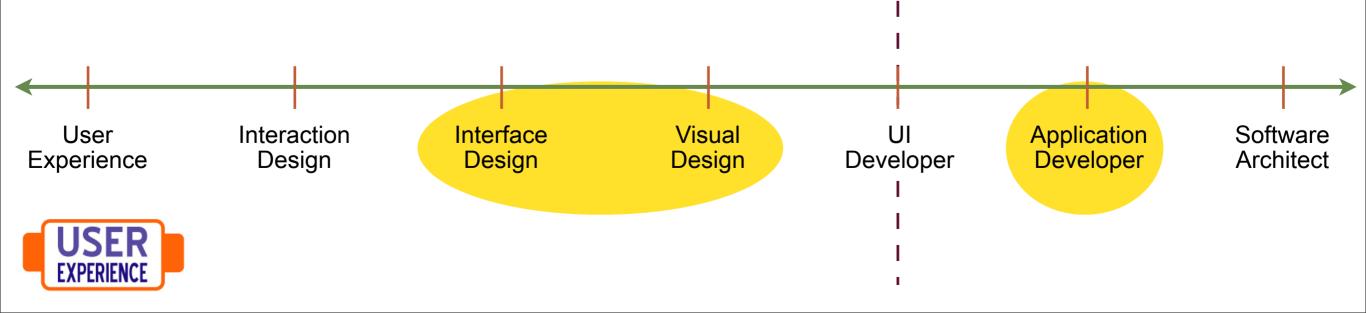


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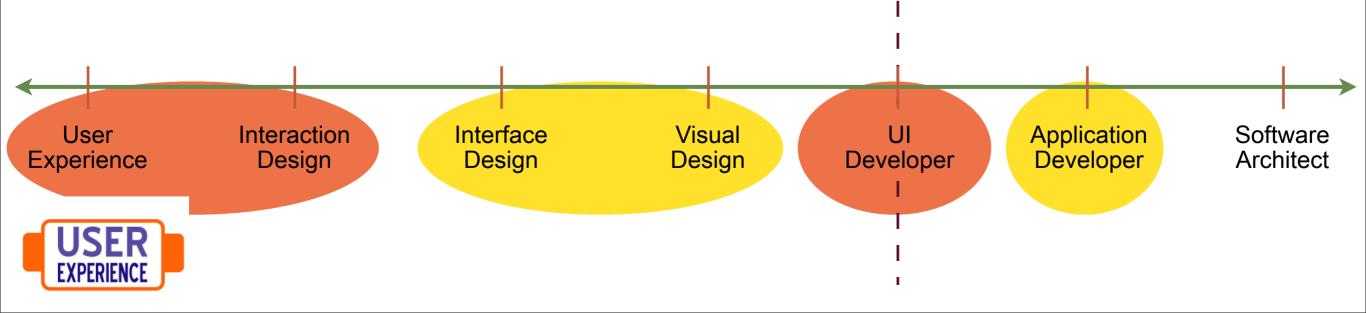


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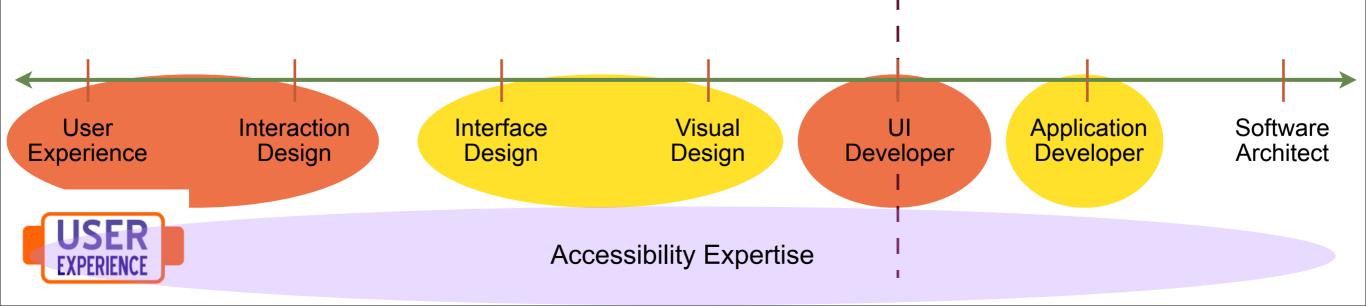


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Tackled at the

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User

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Usability/Accessibility in Open Source Software

Poor UX an impediment

Instructional Support

Instructional Design Services

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User Research

Interface

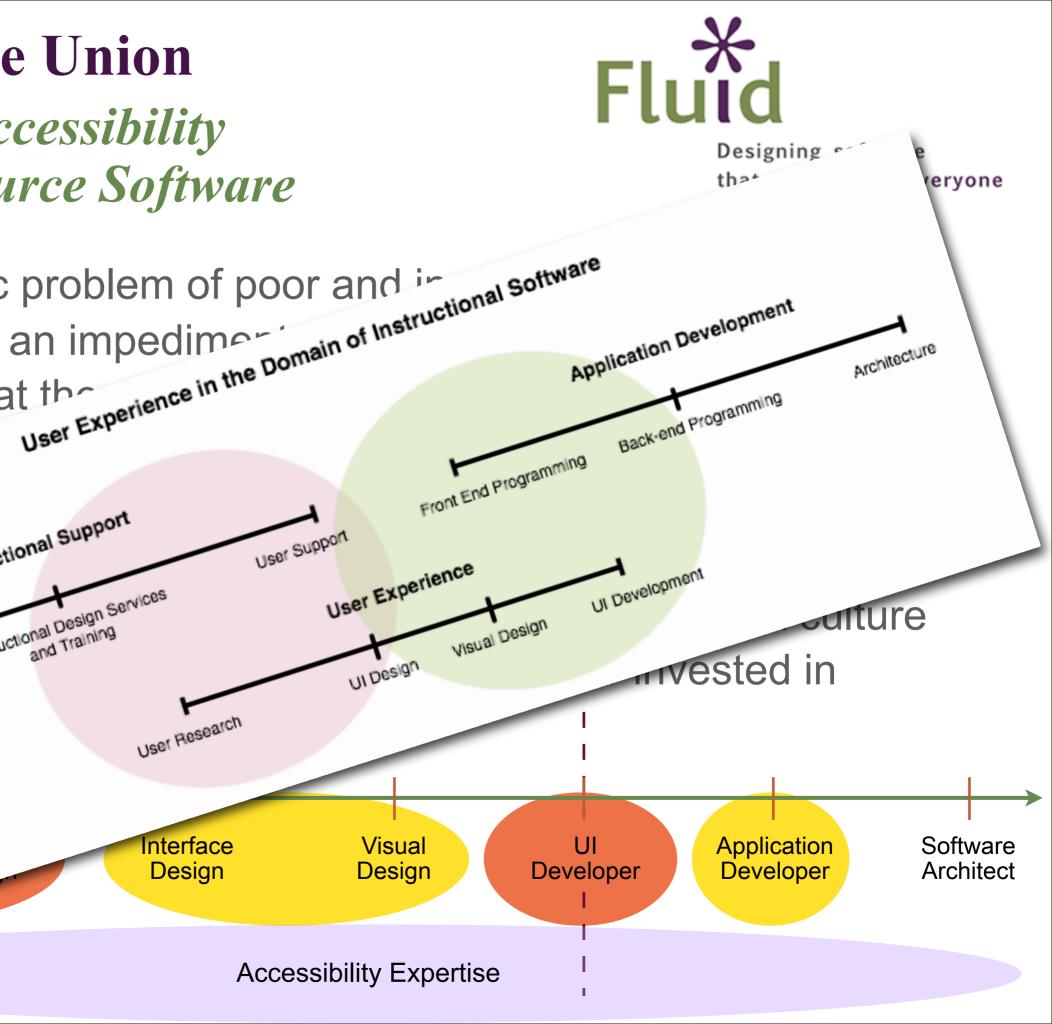
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User Support

UI Design

Visual

Design

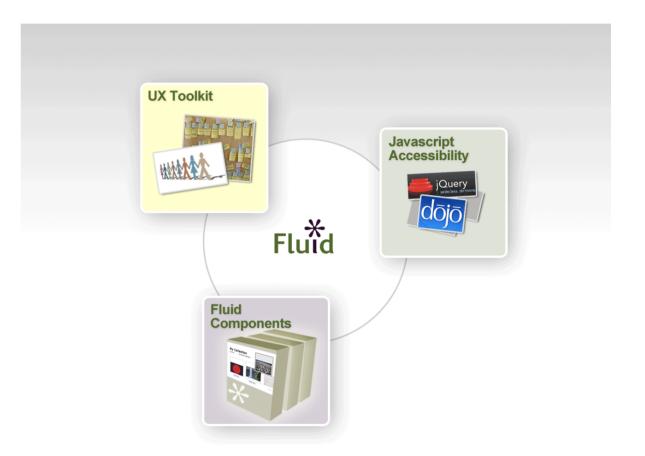


What are we Building?

Fluid

Designing software that works - for everyone

- Rich, flexible, reusable user interface components
- Lightweight JavaScript development tools
- User Experience Toolkit
- Great Interaction Designs



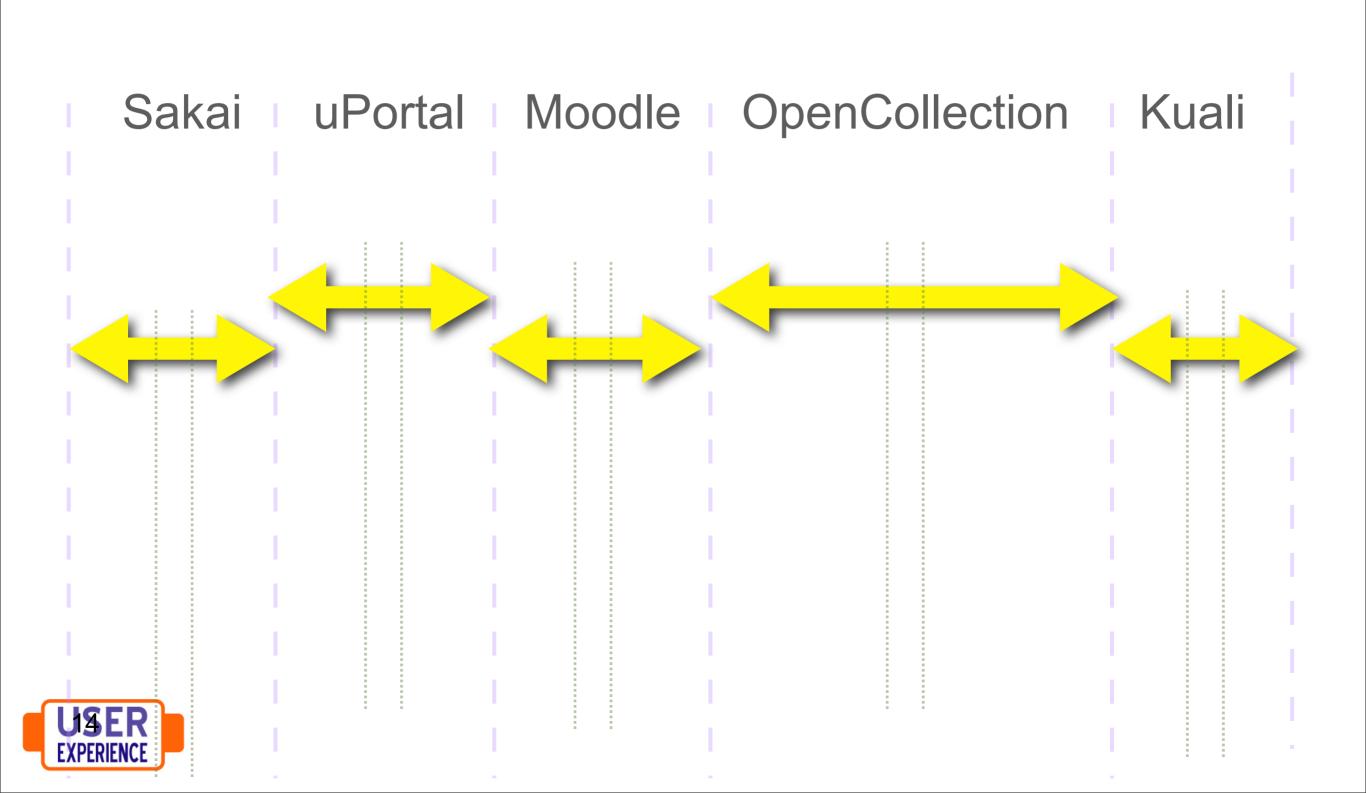
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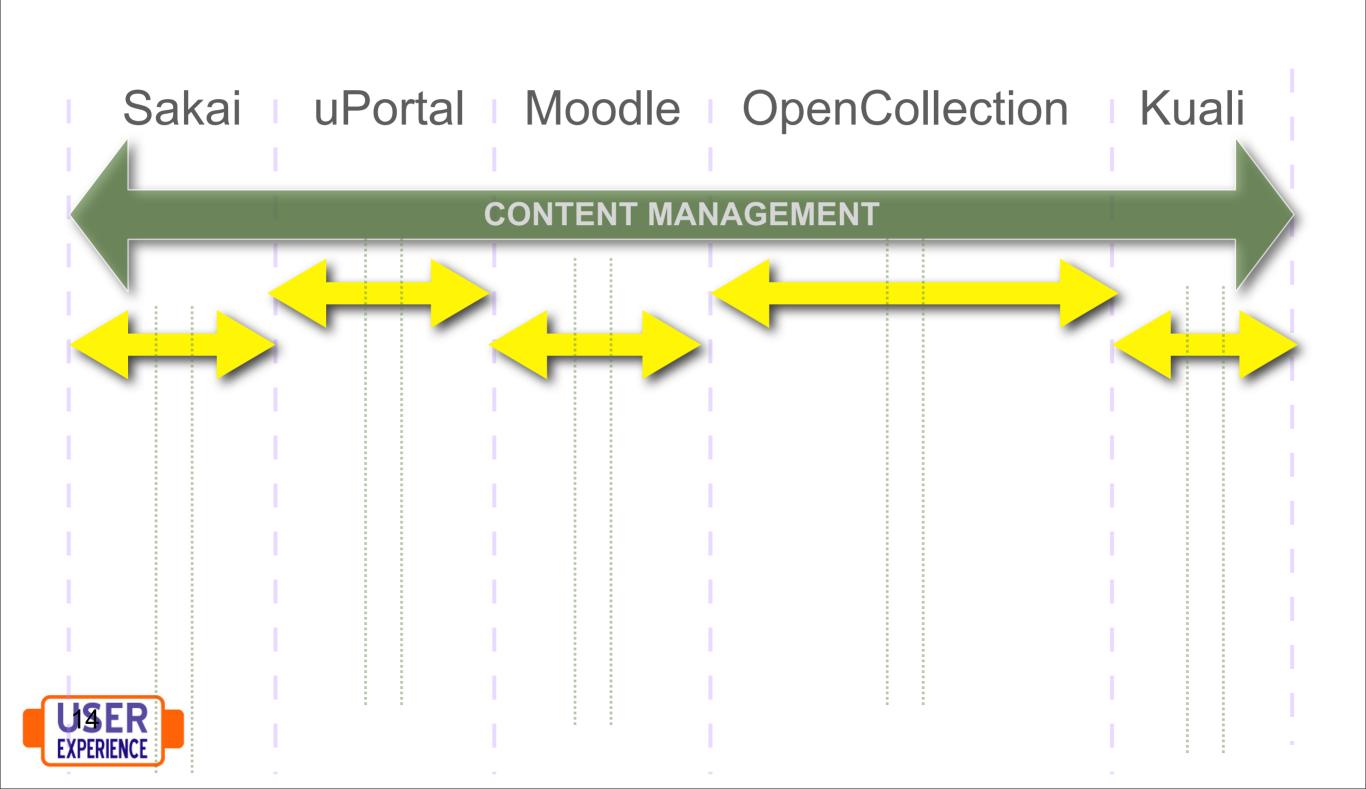


	Sakai	uPortal	Moodle	OpenCollection	Kuali
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Sakai uPortal Moodle OpenCollection Kuali

CONTENT MANAGEMENT

File Uploading

Reworked, lightweight File Picking

Tagging and Tag Clouds

Smart folders, "playlists," contextual filtering

Favourites and Clipboard/File Basket

Infrastructure: Accessible Thick Box, Tree, Sortable Tabs

Drag and drop portlets



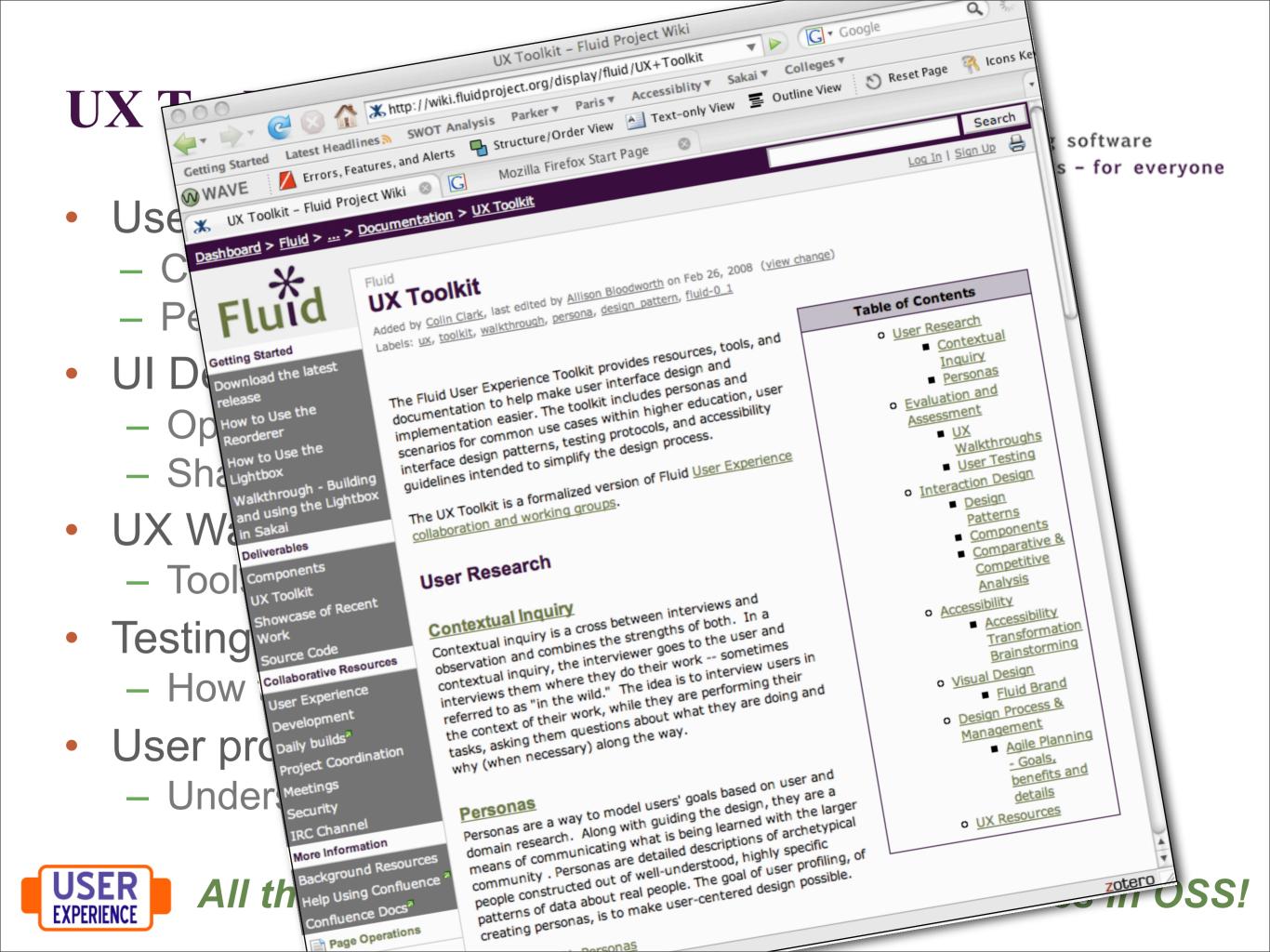
UX Toolkit



- User Research Tools
 - Contextual Inquiry
 - Persona development
- UI Design Patterns:
 - Open Source Design Patterns Library
 - Shared design advice and guidance
- UX Walkthroughs:
 - Tools for assessing your user experience
- Testing techniques and guidelines
 - How to test your designs and talk to users
- User profile library:
 - Understanding higher education users and beyond



All the stuff you need to design great interfaces in OSS!



User Research:

Contextual Inquiry



Contextual inquiry is a cross between interviews and observation and combines the strengths of both. In a contextual inquiry, the interviewer goes to the user and interviews them where they do their work -- sometimes referred to as "in the wild." The idea is to interview users in the context of their work, while they are performing their tasks, asking them questions about what they are doing and why (when necessary) along the way.

Interview

(Process influenced more by designers)

Contextual Inquiry

(Process influenced by both designers and end-users)

Observation

(Process influenced more by end-users)



UI Design Patterns



- A pattern is a proven solution to a common problem in a specified context
- Practical tool to help designers and developers choose the right interface for the job
- Open Source Design Patterns Library:
 - The first truly open, collaborative pattern repository
 - Map to components
- Share patterns across communities
 - Tag, customize, adapt for your context
- Advice on how to use Fluid components





UX Walkthroughs



- What are they?
 - Assess where you are: identify user pain points
 - Identify "componentizable" solutions
 - do the same thing across apps
 - Drive development priorities
- What is Fluid providing?
 - Simple, approachable techniques for usability and accessibility assessment
 - A tool that communities can use to assess their own usability and accessibility
 - Anyone can do a UX walkthrough!
 - Try out our checklists and heuristics



UX Walkthrough General Protocol and Approach - Fluid Project Wiki G · Google http://wiki.fluidproject.org/display/fluid/UX+Walkthrou http://wiki.fluidproject.org/display/fluid/UX+Walkthrou T Reset Page Colleges ▼ Getting Started Latest Headlines SWOT Analysis Parker Paris Accessibility Sakai Latest readilines of Structure Order View Text-only View Couldness of Structure Order View Audo Video Collection Database **UX Walkthroughs** Fluid UX Walkthrough General Protocol and Approach Related Links UX Walkthrough Checklist: The * UX Walkthrough General Proto... checklist to use when doing your own Fluid UX This document provides background information on performing a UX Wallshard the Posterior discontinuous for marketing and provided discontinuous for marketinuous for marketi walkthrough. Walkthrough. Detailed directions for performing an evaluation of Walkthrough. UX Walkthrough waikthrough. Detailed directions for performing an evaluation on protocols and protocols and protocols and protocols and protocols and protocols. Report Template: How to Use the Introduction The template used to record Reorderer How to Use the your walkthrough Walkthrough - Building Lightbox and using the Lightbox The Fluid approach to UX walkthroughs is a kind of combination of results, Checklists pages. referencing any the riuld approach to UX walkthroughs is a kind of complitation of heuristic evaluation and cognitive walkthrough. Heuristic and hence the interface to a sustain as whole and hence done by evamining the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the interface to a sustain as whole and hence the sustain as well as a sustain as whole as The Fluid Approach neuristic evaluation and cognitive walktrirough, neuristic evaluation and hence done by examining the interface to a system as whole, and hence done by examining the interface to a system as whole the interface to a system as needed instructions. done by tracing the user actions and accordance and mence isn't specific to any particular user task. Cognitive walkthrough for the user actions and accordance and accorda What is P Deliverables Notes on the done by tracing the user actions, and associated cues and feedback, and associated cues and feedback. Components walkthrough done by tracing the user actions, and associated cues and reeuback, for one or more particular tasks, and as such, don't attempt to cover the entire interface for a pontrivial eventum. On the other hand. the entire interface for a nontrivial system. On the other hand, a - Simple. UX Toolkit process Showcase of Recent the entire interface for a nontrivial system. On the other fland, a task cognitive walkthrough can pick up issues in working through a unable that can be hard to detect when evanising the interface as that can be hard to detect when examining the interface is contained to detect when examining the interface is contained to detect when examining the interface is contained to the adoption of out of accessib triac can be maru to detect when examining the interface as a whole, relating especially to the adequacy of cues and feedback in context. Source Code Collaborative Resources A tool that Our aim for Fluid, "Software that works - for everyone", takes in USability a User Experience our aim for riuld, Software that works for everyone, takes in accessibility as well as usability. Rather than having the harmonic incomplished in the harmonic in accessionicy as well as usability. Kather than having two separate than have a unified inspection that addresses both inspections, we want to have a unified inspection that addresses is well as a capacity of the capacity o Development • Anyone d paily builds Project Coordination Try out ou Meetings and subtasks that use Security areas, if we can. Choosing what to examine that have some functional affinity, that is, parts IRC Channel "Ido the same kind of thing". We believe More Information Background Resources

John Using Confluence

Designing Components



- Components are recurring interactions:
 - Navigation: wizards, sequences, workflows
 - Content: file management, uploading, finding content
 - Direct manipulation of objects
- They are often larger than "widgets"
- Choosing components is based on:
 - Talking with users (all that user research!)
 - Analysis of existing applications across projects
 - Solving the most frequent and severe problems
- Some Examples...



Designing Components



Designing software that works - for everyone



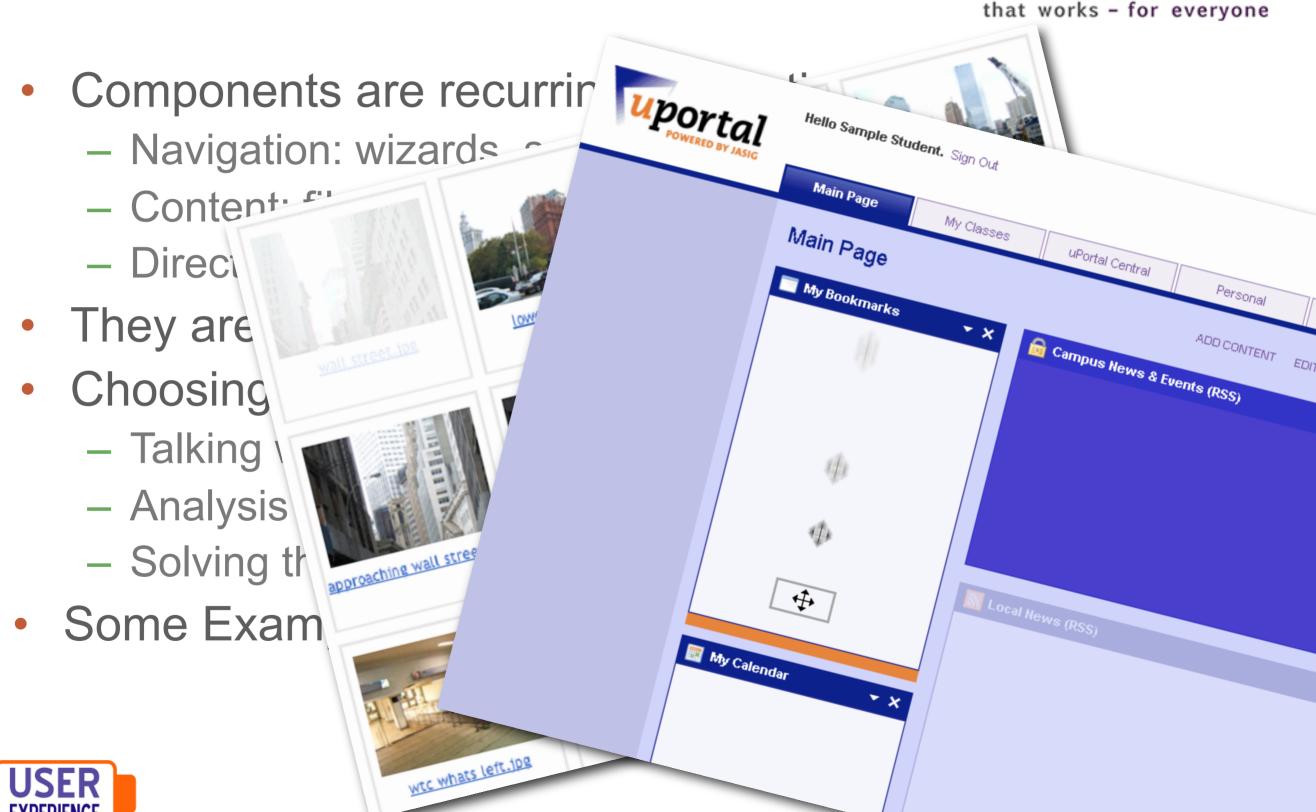
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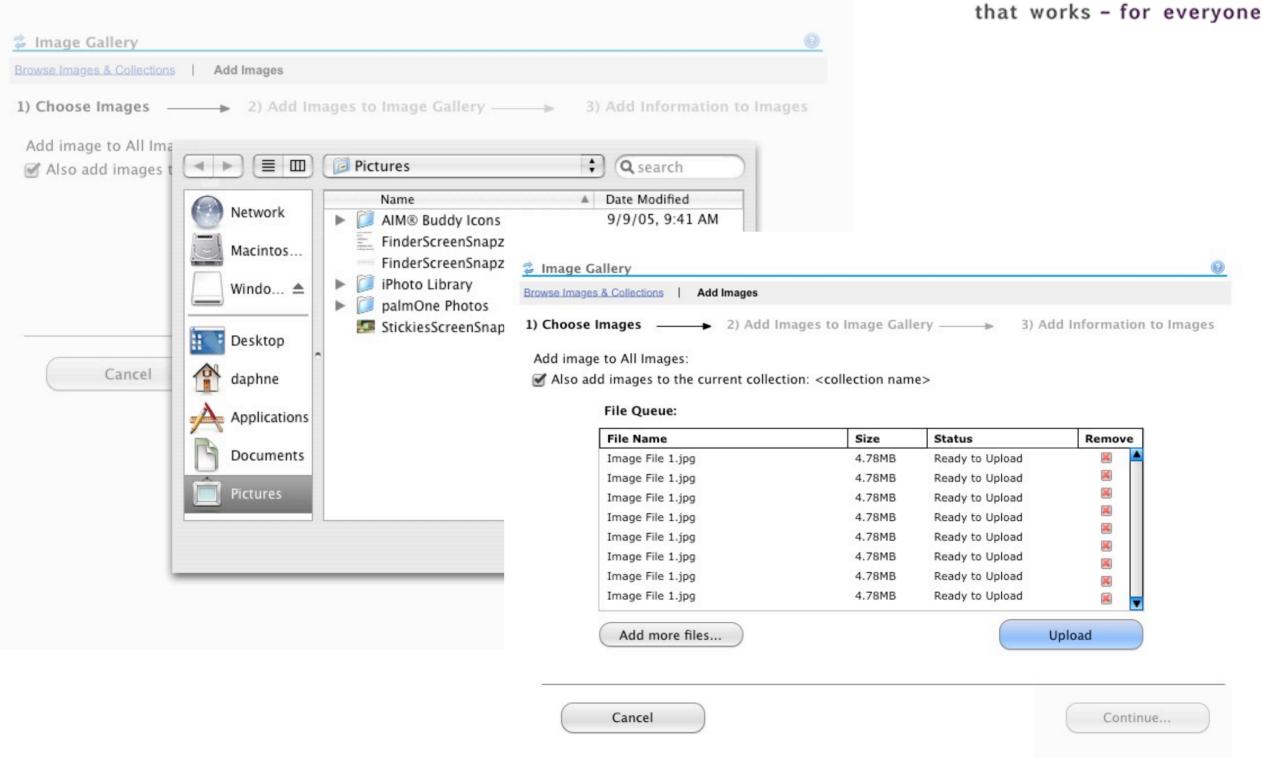
Designing software that works - for everyone



File Upload



Designing software
that works - for everyone





Smart Pager



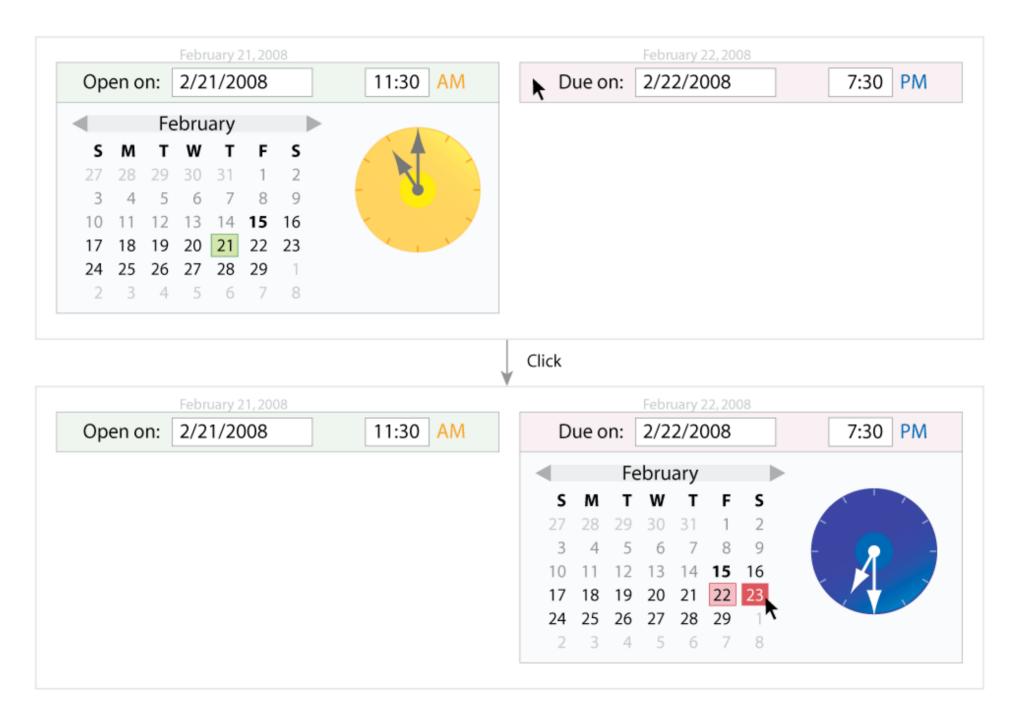
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Time/Date Picker



Designing software that works - for everyone





Component Roadmap



- Focus on file management and navigation
- "My files available from anywhere"
- Embeddable components:
 - File Uploading
 - Reworked, lightweight File Picking
 - Tagging and Tag Clouds
 - Smart folders, "playlists," contextual filtering
 - Favourites and Clipboard/File Basket
 - Infrastructure: Accessible Thick Box, Tree, Sortable Tabs
 - Drag and drop portlets





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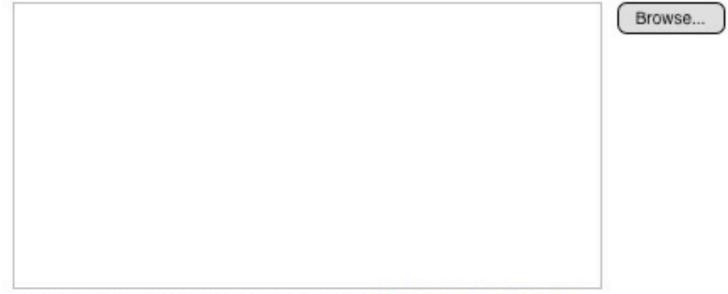
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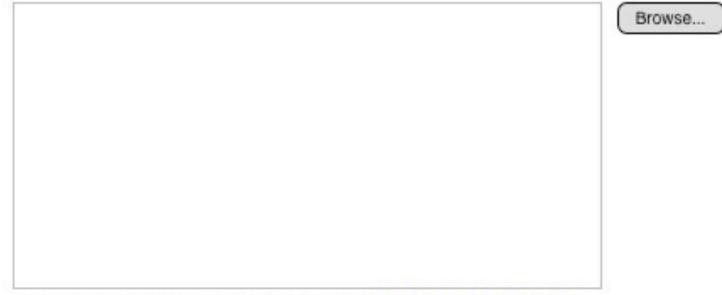
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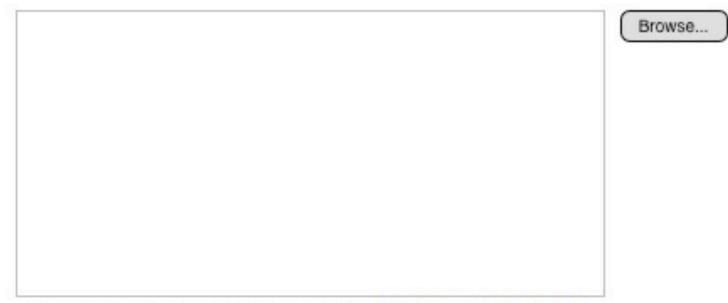
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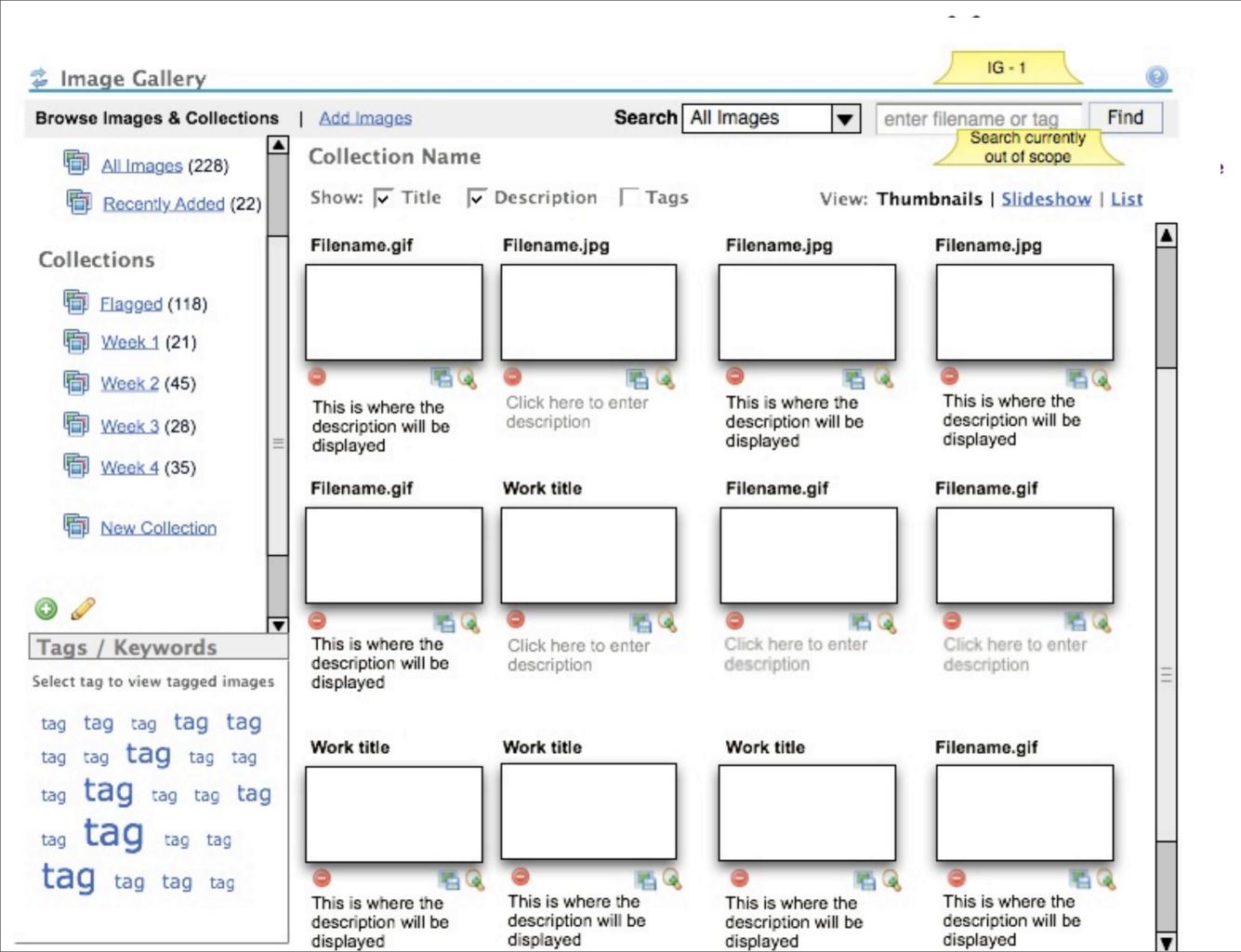
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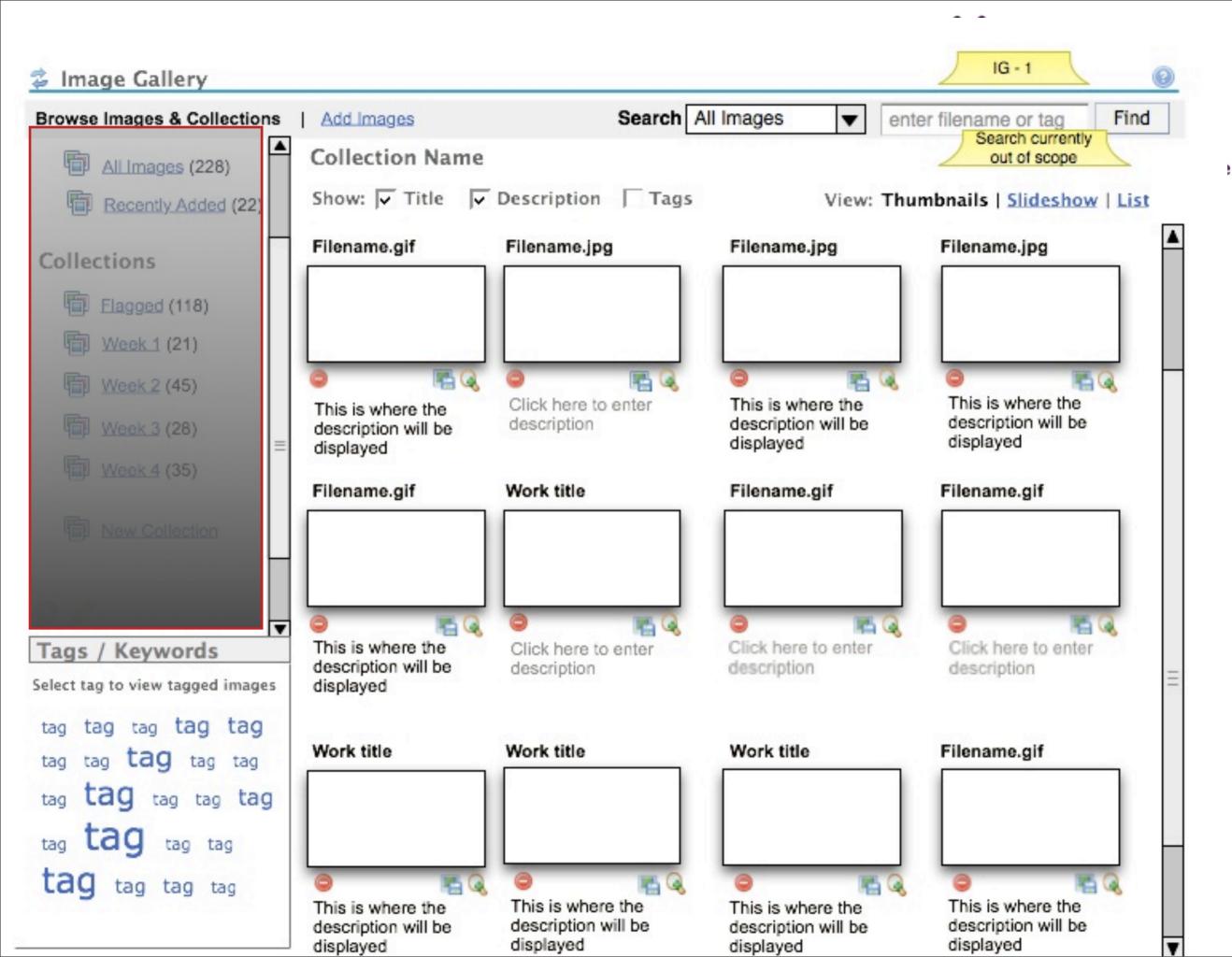
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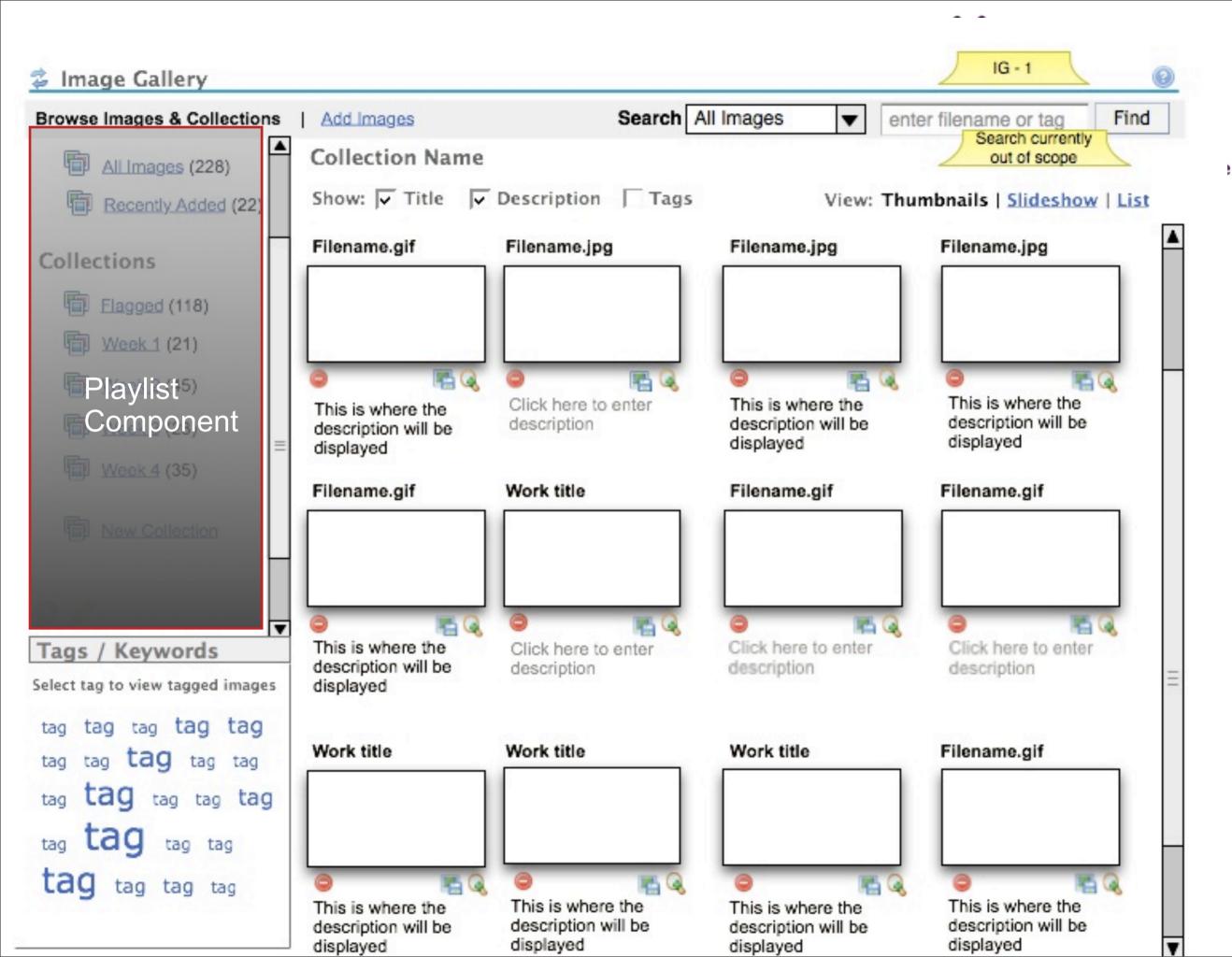
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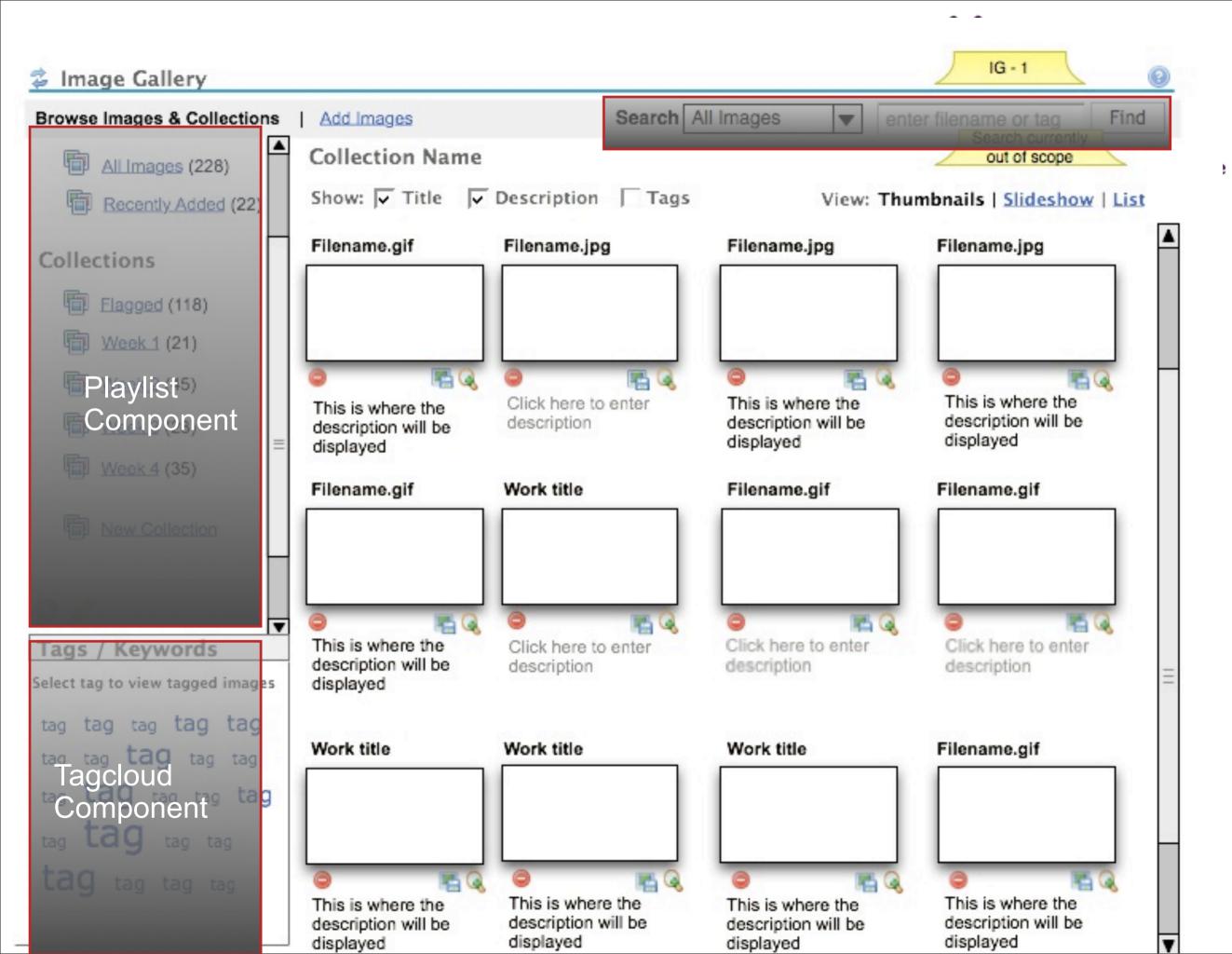
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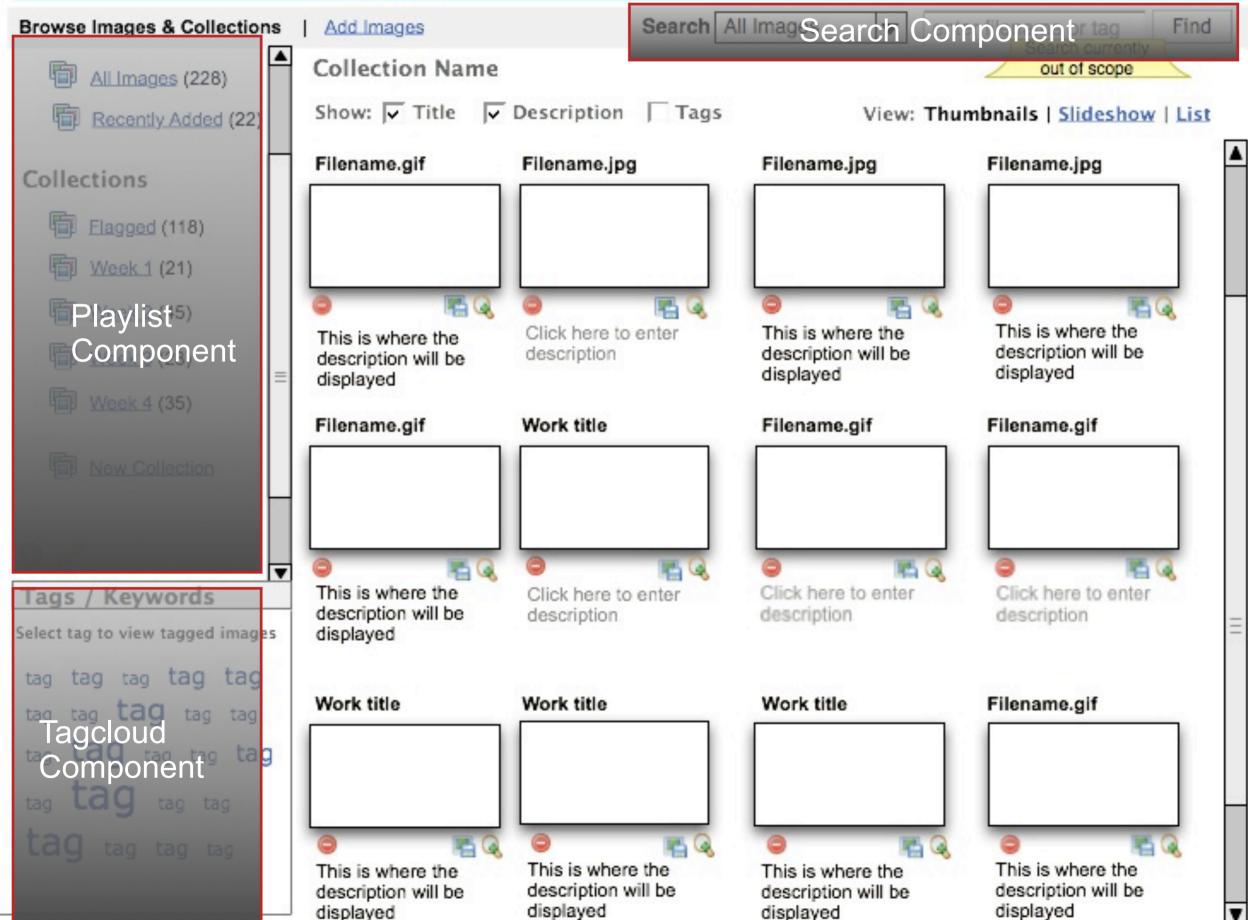
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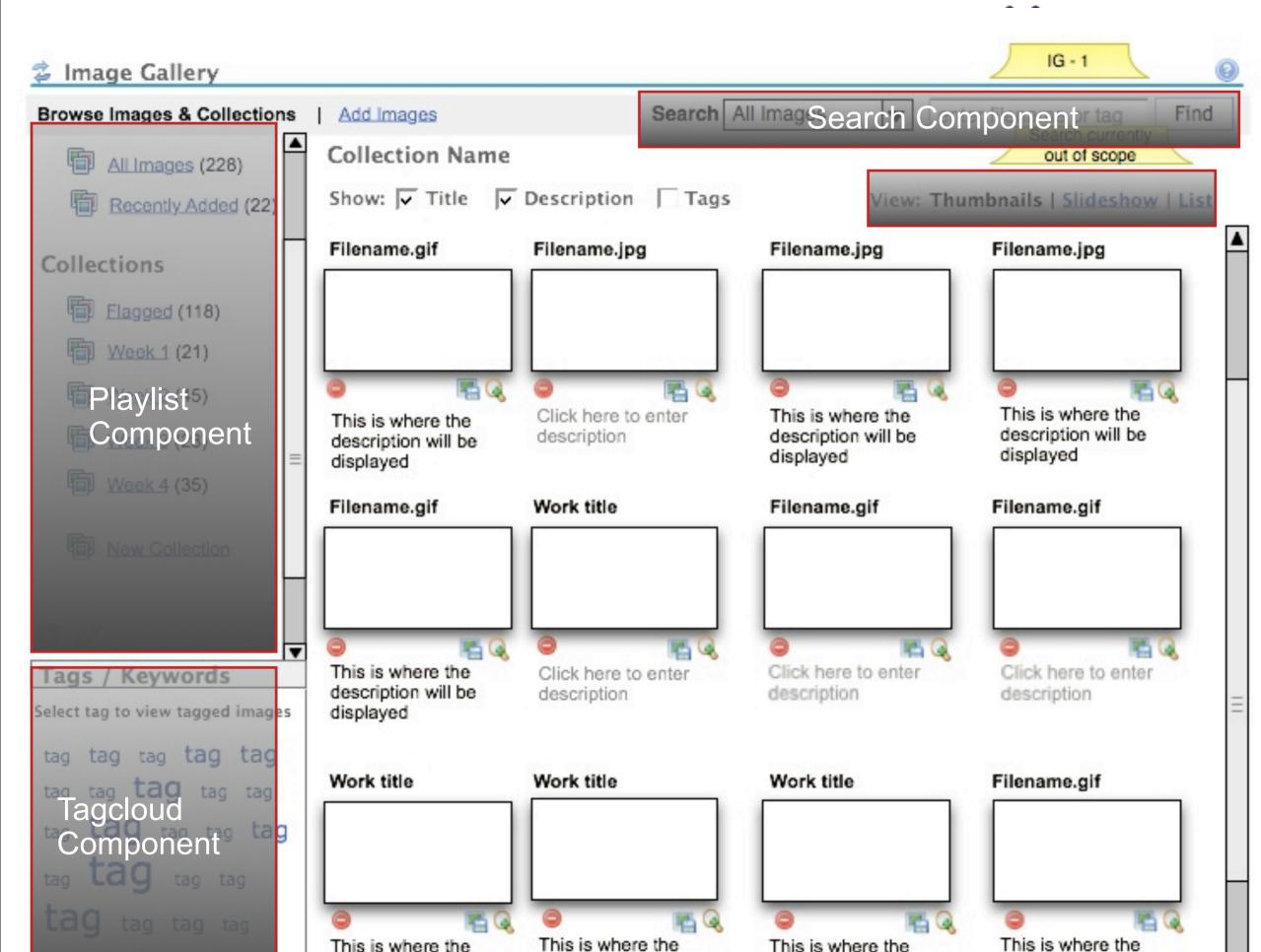
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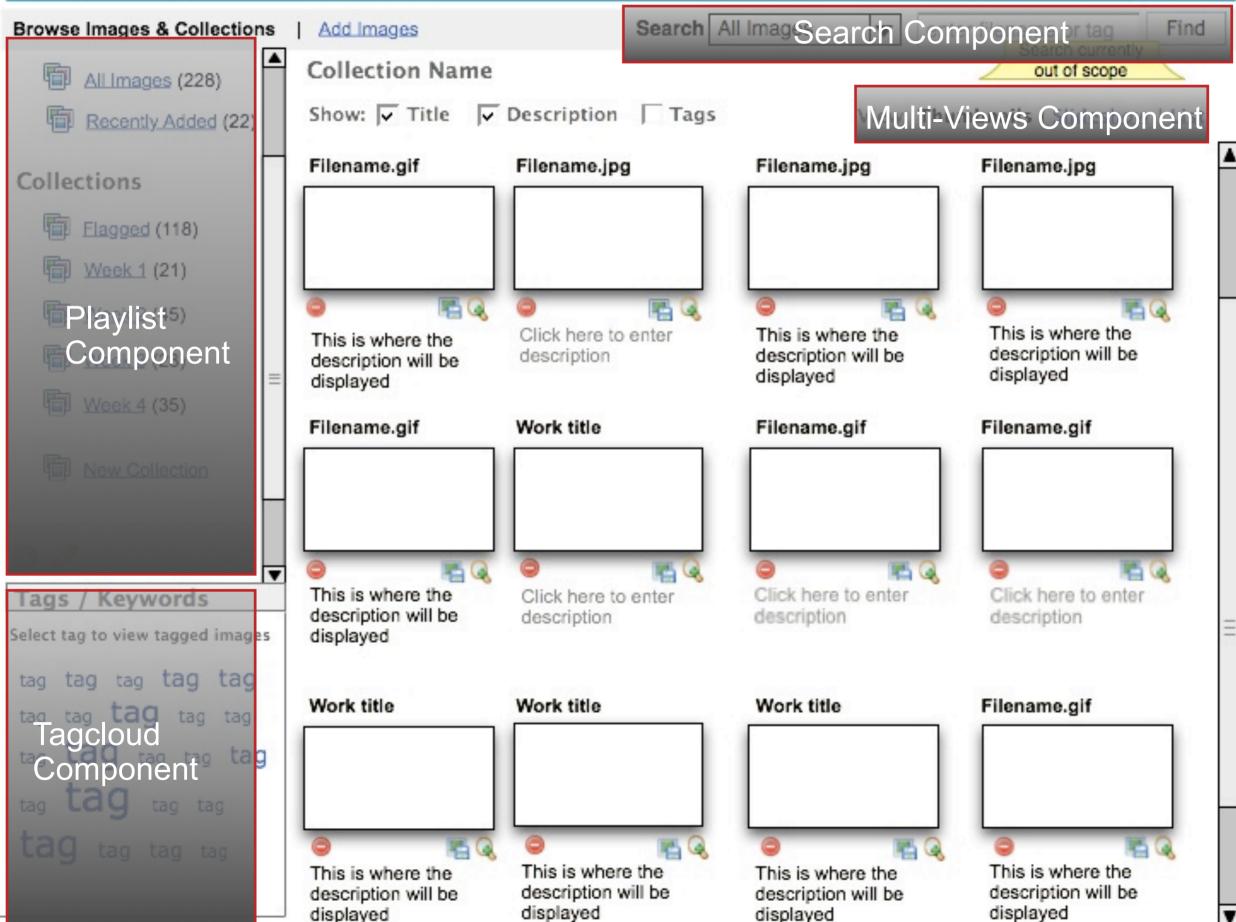
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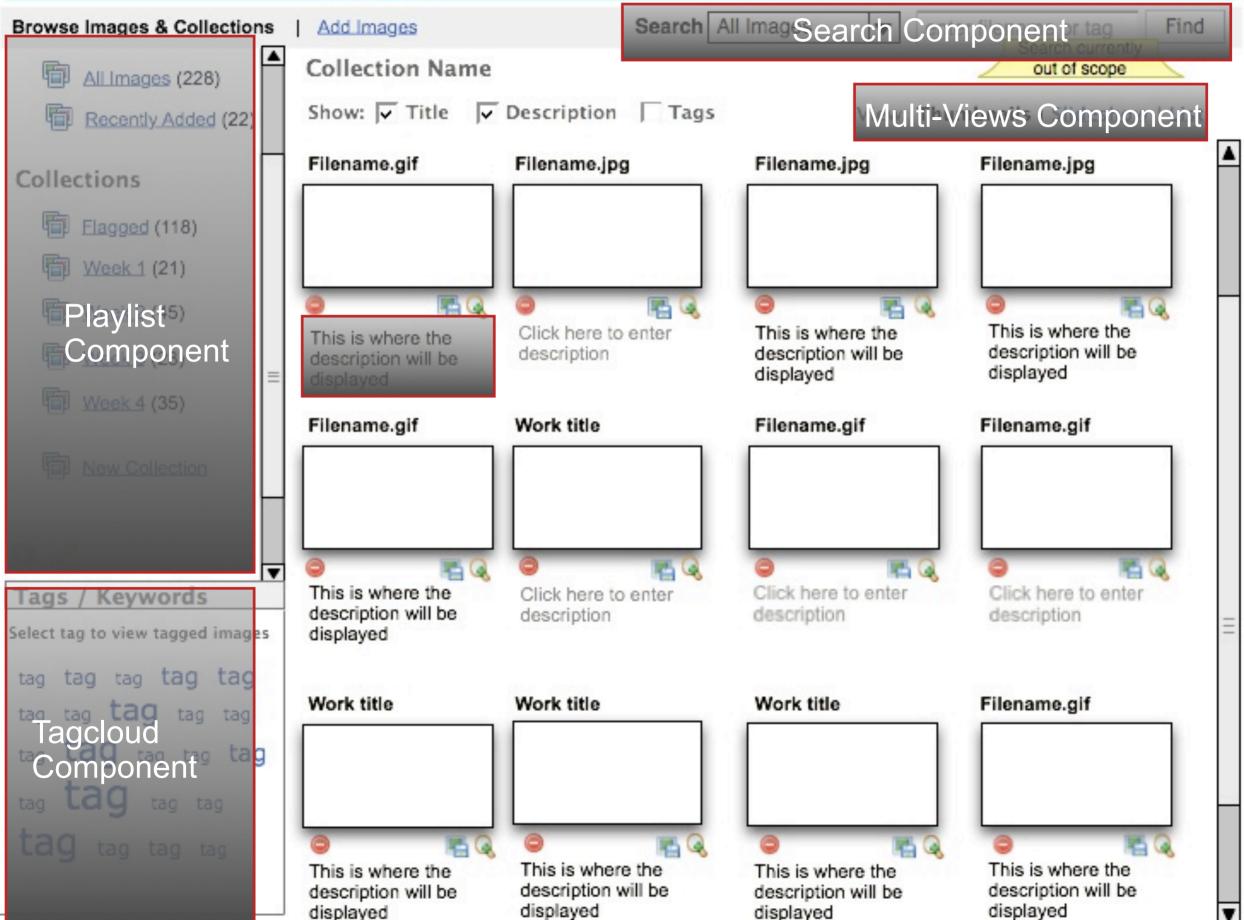
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Multi-Views Component

Find





- Our main educational effort
- Everyone should have a basic UX vocabulary
- Share a repertoire of viable UX techniques
- Opportunity for designers and developers to collaborate
- Loose agenda, open participation



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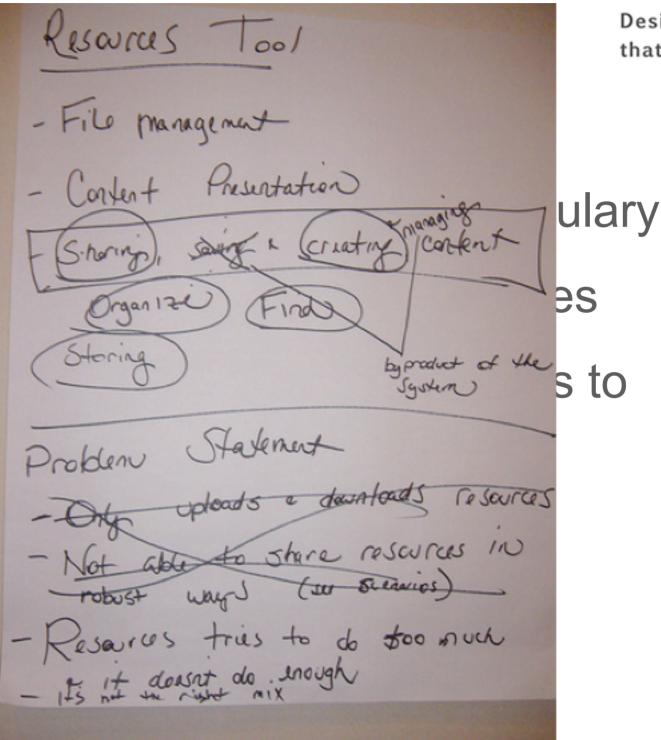
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Designing software that works - for everyone





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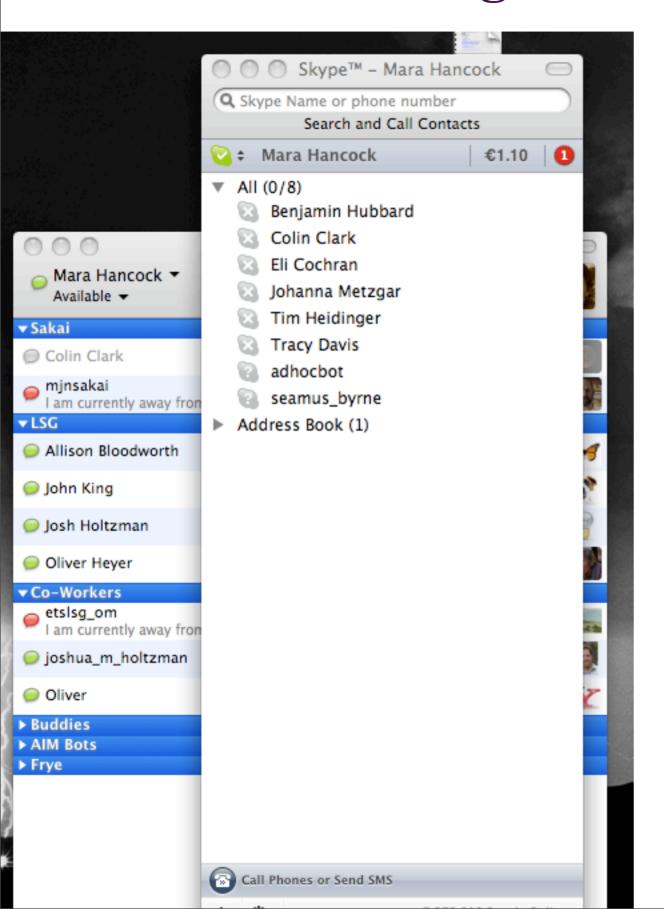


Distributed Design





Distributed Design

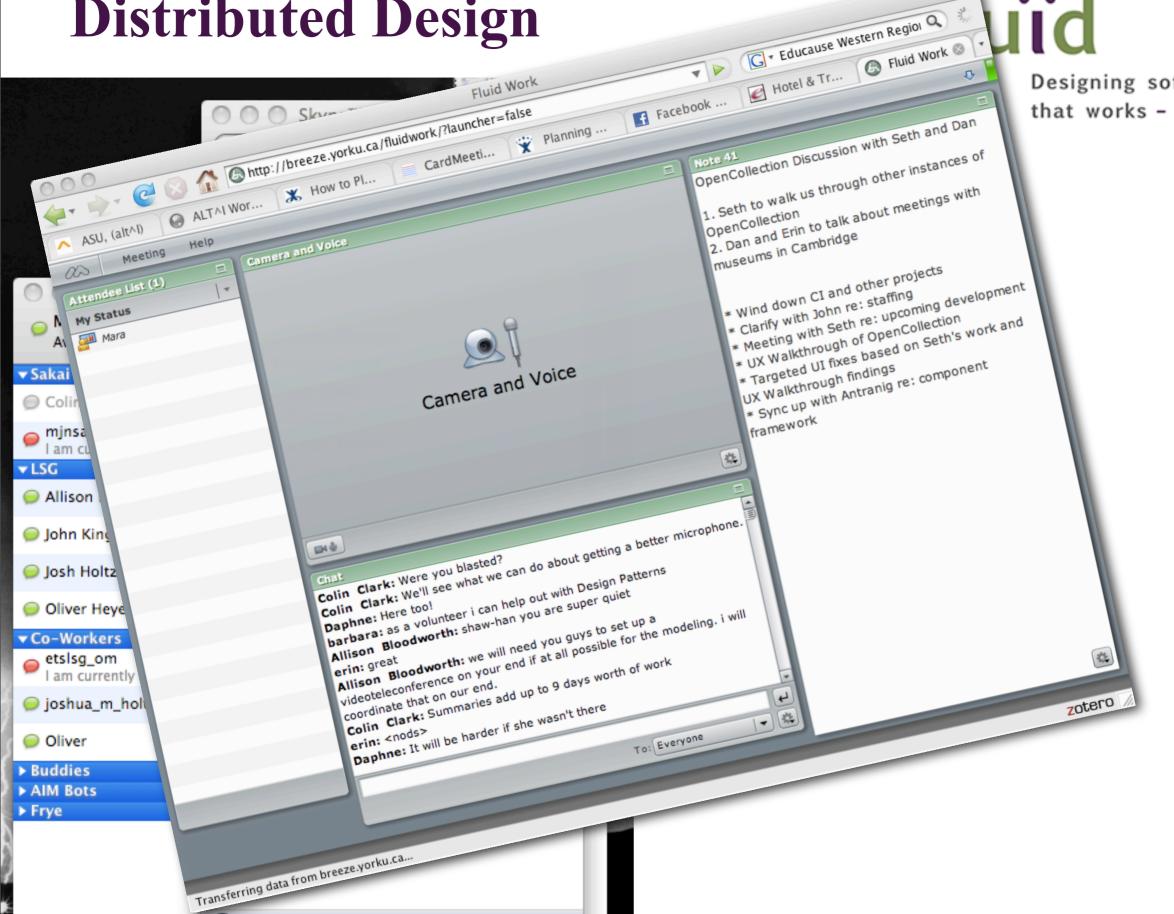




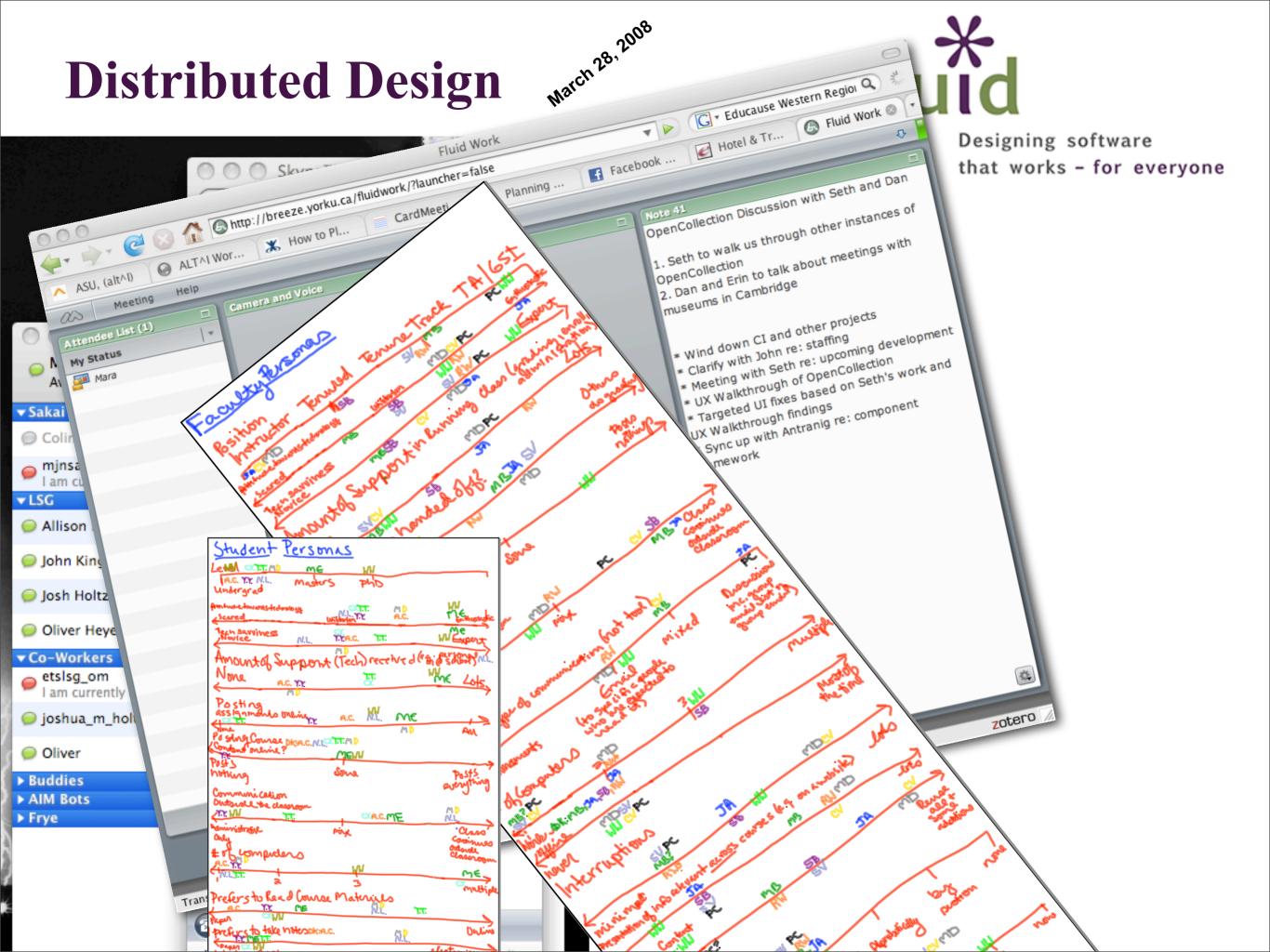
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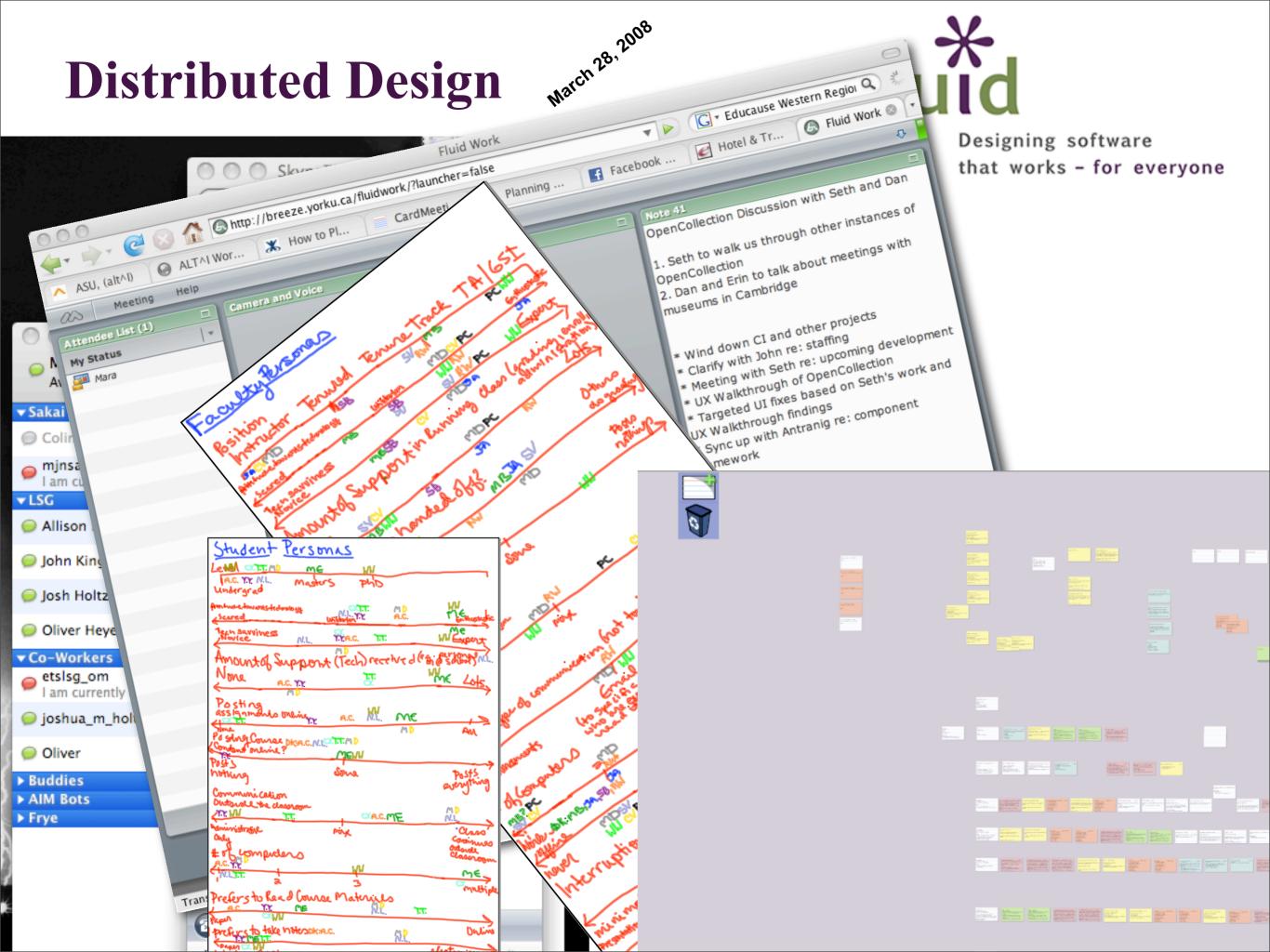
Distributed Design

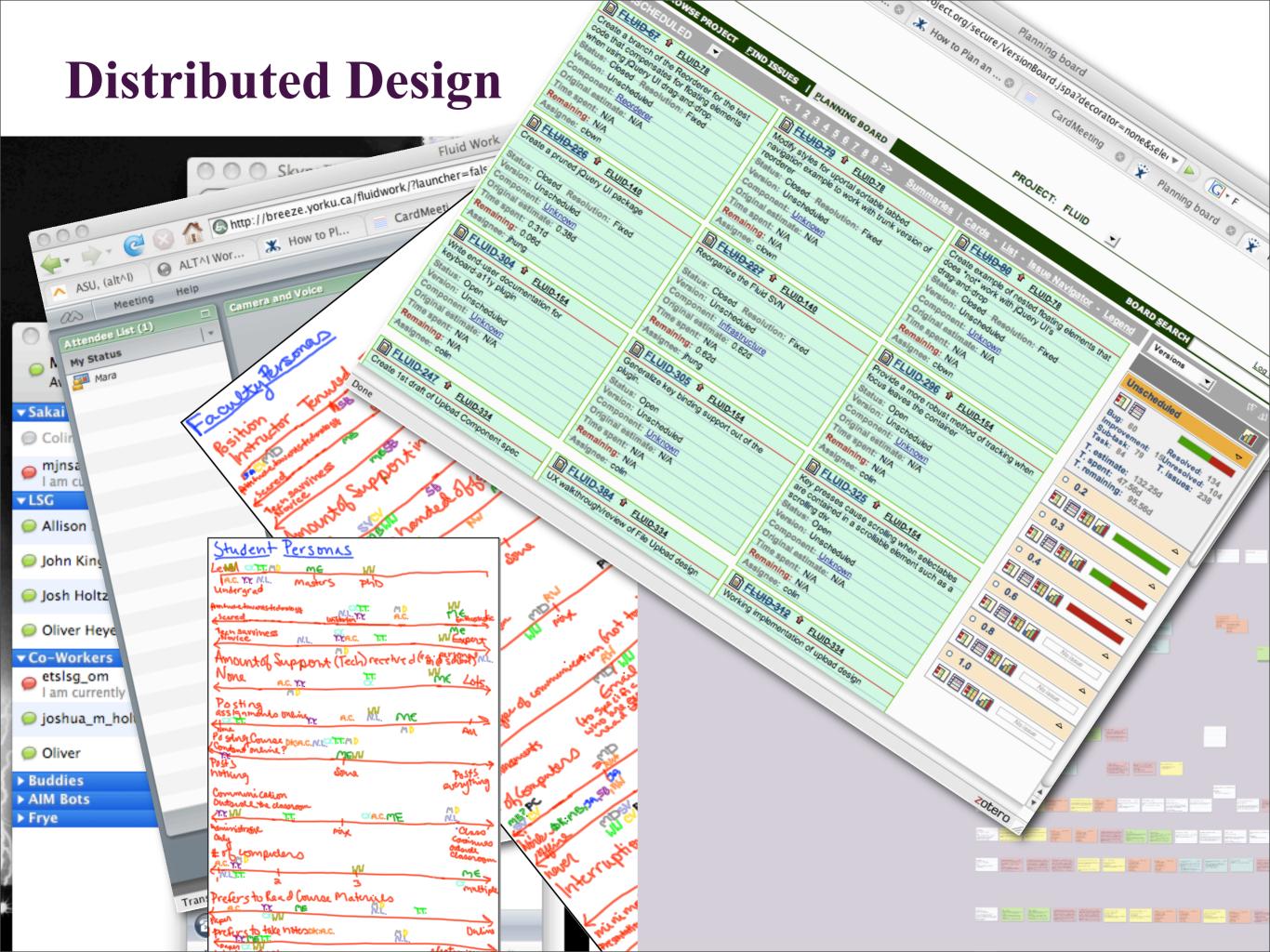
Call Phones or Send SMS



Designing software that works - for everyone







Virtual Usability Lab



- Open source distributed usability testing
- Competition to expensive tools like Morae
- Powerful tool for usability testing
 - Before and after survey questions
 - Remote screen recording
 - No installation required
 - Mouse and keyboard tracking
 - Designed within a community that needs it!

http://www.vulab.ca/



Technical Goals

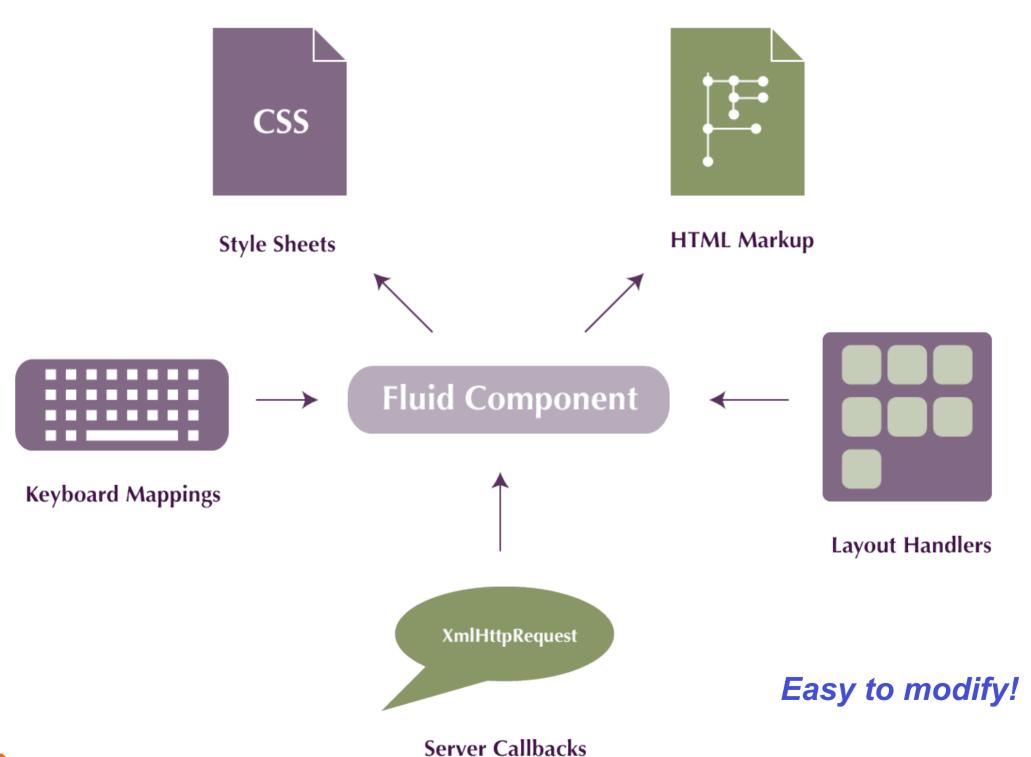


- Make it easier for developers to build better, more accessible user interfaces
- Support collaboration with designers
- Foster sharing of design and code
- Adaptable for a variety of tools and workflows
- Embrace the Web
- Support diverse presentation frameworks
- Don't reinvent the wheel: leverage good existing technologies and fill the gaps



Component Composition (Flexible and reusable)







Fluid Framework Illustrated



Designing software that works - for everyone

Components

UI Adaptation Engine

Reorderer

Text Editing Service

Dependency Management

Template Renderer

Accessibility Plugins

DOM Binding

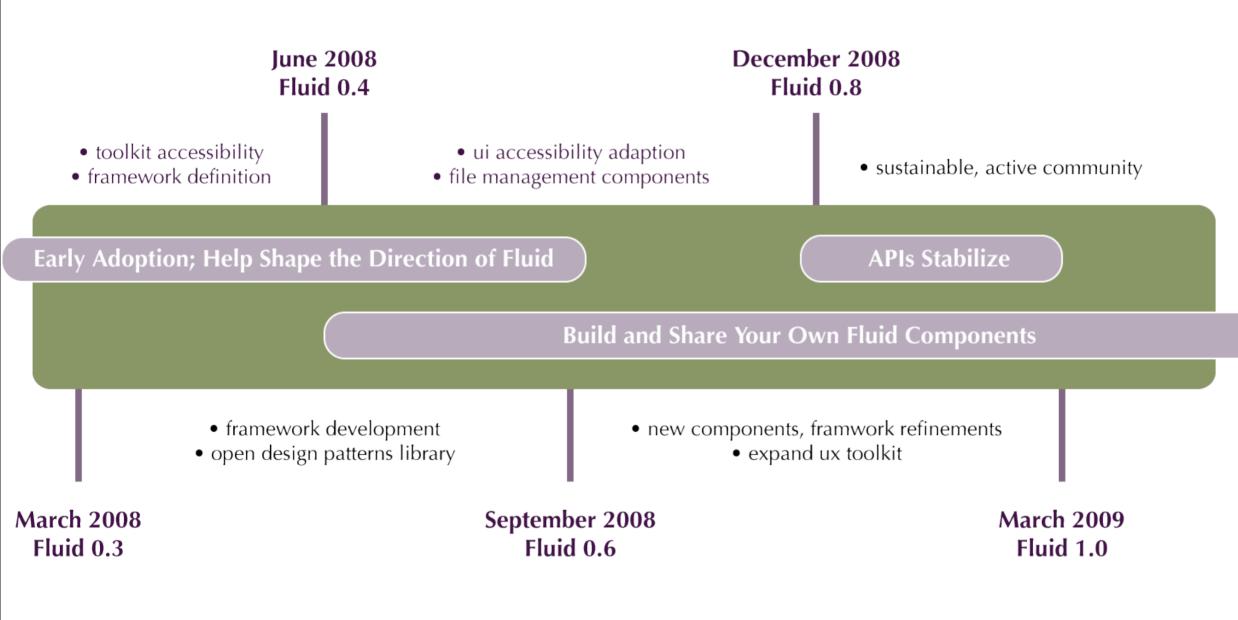
Universal View Bus (AJAX)

jQuery



Roadmap





We welcome participation!



How You Can Help



- Join our mailing lists
- Share code
- Help with design effort
 - UX Walkthroughs are fun and easy
 - Contextual inquiry
 - Component design teams
- Use and extend Fluid components in your tools
- QA: design test plans, help with testing
- User testing
- Share design patterns



Join in....



Fluid Project Web Site:

http://fluidproject.org

Our wiki:

http://wiki.fluidproject.org

Our source code:

https://source.fluidproject.org/svn

Our mailing lists:

fluid-work@ for community collaboration fluid-talk@ for anything you're interested in

