User Experience and Interface Design for Web Apps

Kiefer Ipsen
Jeremy Bartley
Overview

1. What constitutes a good User Experience?
2. Planning a Project
3. Understanding Users
4. User Interface (UI)
5. Process/Tooling
6. Messaging updates to your Users
1. What constitutes a good User Experience?

- In a brand
- In a website
- In a mapping application
Good User Experience in a Brand
Benny Gold
Good User Experience in a Website
Mailchimp
Good User Experience in a Mapping Application

- Crime Mapping
- City of Philadelphia
- Public Information Map
- Seasketch
- Missouri University Building Information
2. Planning a Project – Redesigning ArcGIS Online Gallery

- **Gather Requirement**
  - Objectives
  - Type of Project

- **Project Goals**
  - Technical
  - Where it fits in context
Project: Redesigning ArcGIS Online Gallery
Gathering Requirements

- Objectives
- Type of Project
  - New
  - Existing

1. Information Hierarchy
2. Wireframes
3. Usability Study of Wireframes
4. Test Users
5. Success!
Objectives

- 8 week deadline
- Needs to match new design system
  - Grid
  - Responsive
  - Header
  - Buttons
- Update Gallery to Support Multiple Views
  - Organization’s Featured Content
  - User’s Favorite Content (NEW)
  - Esri’s Featured Content (NEW)
Esri’s Featured Content

• Provide view of ‘Esri Curated Content’
  - Best available content from Esri and Users
• Include both Maps and Apps
  - Maps: web maps, story maps, mapping apps
  - Apps: platform apps
• Feature Content that is Relevant to Users
  - Global content
  - Platform apps (applicable globally)
  - Local content
Type of Project

- New
- Existing
  - Redesign
  - Evolution
  - Why
Project Goals

- Technical
  - Front End
  - Back End
- Where in context

1. Information Hierarchy
2. Wireframes
3. Usability Study of Wireframes
4. Test Users
5. Success!
3. Understanding your Users

- Test, test, test
- Usability
- User Trends
- Creating User Profiles
- Educating your Users
Test Everything
5 Usability Tips

- Availability & Accessibility
- Clarity
- Learnability
- Credibility
- Relevancy
Understanding User Trends
Creating User Profiles

http://ideastomakemoneyathome.blogspot.com/2013/01/earn-money-at-home-drawing-caricatures.html
Educating Your Users
4. User Interface (UI)

Zillow, ArcGIS Explorer, Pinterest, Path
Appealing

https://dribbble.com/shots/943079-Webapp-Dashboard/attachments/106141s
Memorable

http://apple.com
Keeping a System

### Buttons

<table>
<thead>
<tr>
<th>State</th>
<th>Little icon button</th>
<th>Default state</th>
<th>Hover state</th>
<th>Pressed state</th>
<th>Disabled state</th>
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</table>

TOC > Controls > Buttons >
5. Process/Tooling

- Sketching
- High Fidelity
- Prototyping
- Building
- Deploying
Sketching
Prototyping
High Fidelity
Building
Deploying

6. Messaging updates to your Users

- Internal
- External
- In Product
The July 2014 update adds enhancements to the map viewer organization. It also introduces the release of ArcGIS Open Data.

Release of ArcGIS Open Data

ArcGIS Open Data allows organizations to use the ArcGIS platform. Data includes several enhancements since the beta release.

Create presentations

Use the map viewer to create a presentation of your map. Customize pop-ups, basemaps, and titles.

Map viewer

- You can now create labels for features in a layer. To do this, for example, the name or type of feature. The map viewer will color the labels. You can control the text size, color, and style to help with presentations.
Evolving the product – Communicating your changes

• Internally within the team
• Internally within the company
• Externally with your users
Rule for Determining Max and Min Scale

When user adds a layer, we want to provide a best default visible scale range before proceeding to visualize it. Outside this range, it's not recommended to visualize the layer anymore, although the user can opt to expand the range if needed.

The scale range is bounded by a max zoom level and a min zoom level. Based on the geometry of the input layer, we come up with the following rules to determine the max and min zoom levels:

Min zoom

Min zoom is always set to the full extent of a layer, regardless which geometry type the layer has, or if all features are shown. A map’s spatial reference is often different from a layer’s. We use a project task to convert the spatial reference of the layer’s extent to the map’s spatial reference.

Max zoom

Max zoom is controlled by the extent of the smallest geometry we want to show. At a certain level, this smallest geometry would get too large to create a meaningful visualization. For different geometry types, we come up with different rules to control the max zoom.

Live Examples

Points: http://jyang/samples/draw-layer/visible-scale.html
API: "sampleFeatures()" and "suggestVisibleRange()" in http://jyang/samples/draw-layer/utils.js
Across Internal Teams

<table>
<thead>
<tr>
<th>ArcGIS.com Release Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release Plans - 1.6.*</td>
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<tr>
<td>Release Plans - 2.1 - Dec 2012</td>
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<tr>
<td>Release Plans - 2.2 - March 2013</td>
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<td>Release Plans - 2.3 - June 2013</td>
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<td>Release Plans - 2.3.1 - September 2013</td>
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<td>Release Plans - 3.0 - December 2013</td>
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<tr>
<td>Release Plans - 3.1 January 2014 - CANCELLED</td>
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<td>Release Plans - 3.2 - March 2014</td>
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<td>Release Plans - 3.3 - April 2014</td>
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<td>Release Plans - 3.4 - July 2014</td>
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<tr>
<td>ArcGIS Online 2.3 Status</td>
</tr>
<tr>
<td>ArcGIS Online 2.2 Status</td>
</tr>
<tr>
<td>ArcGIS Online 2.1 Status</td>
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# Release Schedule

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>Code and String Freeze. Deploy Web site and services to QA (Internal)</td>
<td>Jun 11</td>
</tr>
<tr>
<td>Release on QA for Testing, Stabilization, Localization (External)</td>
<td>Jun 18</td>
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<tr>
<td>Beta Program Testing (Two Weeks)</td>
<td>Jun 19 - Release</td>
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<tr>
<td>Mock Release</td>
<td>June 27 from 1pm - 3pm Pacific</td>
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<tr>
<td>Deploy Web site to Production (Public)</td>
<td>ETA Jul 2</td>
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</tbody>
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## Communication Schedule

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>Publish and communicate an internal &quot;What's Coming&quot; doc</td>
<td>June 3</td>
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<tr>
<td>Partner communication</td>
<td>June 3</td>
<td></td>
</tr>
<tr>
<td>Distributor communication</td>
<td>June 3</td>
<td></td>
</tr>
<tr>
<td>Industry Manager Communication</td>
<td>June 3</td>
<td></td>
</tr>
<tr>
<td>What's coming blog post</td>
<td>June 3</td>
<td></td>
</tr>
<tr>
<td>Admin Subscriber &quot;what's coming&quot; email</td>
<td>June 3</td>
<td></td>
</tr>
<tr>
<td>Admin subscriber release email reminder</td>
<td>June 24</td>
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<tr>
<td>Publish and communicate an internal &quot;What's New&quot; FAQ</td>
<td>June 24</td>
<td></td>
</tr>
<tr>
<td>Chatter Post reminder</td>
<td>June 24</td>
<td></td>
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<tr>
<td>Partner email reminder</td>
<td>June 24</td>
<td></td>
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<tr>
<td>Distributor communication</td>
<td>June 24</td>
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<tr>
<td>Customer service reminder email</td>
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<tr>
<td>Tech support reminder email</td>
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<tr>
<td>Telebiz reminder email</td>
<td>June 24</td>
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<tr>
<td>What's new email to subscriber admin</td>
<td>July 1</td>
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</tbody>
</table>
What's new?

July 2014

The July 2014 update adds enhancements to the map viewer and managing your organization. It also introduces the release of ArcGIS Open Data.

Release of ArcGIS Open Data

ArcGIS Open Data allows organizations to use the ArcGIS platform to provide the public with open access to their authoritative data. Open Data includes several enhancements since the beta release in April. For more information, visit the new ArcGIS Open Data Help site.

Create presentations

Use the map viewer to create a presentation of your map. A presentation is a collection of slides that can show specific locations, layers, pop-ups, basemaps, and titles.
What’s New in ArcGIS Online (July 2014)

by Ben Bukiak on July 3, 2014

It’s time to refresh your browser – ArcGIS Online has been updated with the following new features and enhancements. This update includes improvements and additions for authoring web maps, creating applications, content and services, and administering organizations.

ArcGIS Content

ArcGIS includes a Living Atlas of the World with maps and layers from Esri, Esri partners, and thousands of other organizations worldwide. The Living Atlas combines reference and thematic maps with topics relating to people, earth, and life.

Living Atlas Application

With this release, a new Living Atlas of the World web app is now available, offering access to all data and also an enhanced user experience. This web app provides an effective way to explore the rich content of the Living Atlas collection.
Questions?