Apps for the Field: Mobile Data Collection using ArcGIS Online

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GIS Librarian
Access to Esri Software

- Site license agreement for Idaho higher education institutions
  - Teaching/research/administration
A web-based collaborative mapping platform hosted by Esri
- Enables users to create, manage, analyze, store, and share maps, apps, and data.

Continued progression from desktop to web GIS
ArcGIS Online Accounts

- Organizational account
  - University of Idaho
    - Research and Teaching Portal
    - Administration Portal
Apps for the Field

**Collector for ArcGIS**
Efficient, accurate data collection on smartphones or tablets replaces paper forms. Respond, record, work on- or offline, and sync automatically.

**Navigator for ArcGIS**
Improve workforce reliability. Navigate directly to assets even when offline. Interact seamlessly with Collector for ArcGIS and other apps to save time.

**Operations Dashboard for ArcGIS**
Get a real-time view and common operating picture. Add data feeds to events or daily operations. Integrate maps, charts, gauges, and histograms.

**Explorer for ArcGIS**
Access asset data, search for places and features, or sketch on the map to highlight important aspects. Share useful maps with the public.

**Workforce for ArcGIS**
Staff and apps can work together. Sync with other apps to get assignments, navigate to them, and collect data in one workflow, on one mobile device.

**Survey123 for ArcGIS**
Use a form-based survey interface in a lightweight, intuitive app. In just a few clicks you can collect, manage, and analyze survey results.
Collector & Survey123

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Survey123 for ArcGIS
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Map-centric
Opens a map

Form-centric
Opens a list of questions
# Comparison of Functionality

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Survey123</th>
<th>Collector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection style</td>
<td>Formcentric</td>
<td>Mapcentric</td>
</tr>
<tr>
<td>Supports capture of new data</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Supports editing existing data</td>
<td>Coming soon</td>
<td>Yes</td>
</tr>
<tr>
<td>Smart forms</td>
<td>Yes (XLSForm)</td>
<td>No</td>
</tr>
<tr>
<td>Works offline</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Supports anonymous access</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Platforms</td>
<td>iOS, Android, Windows, Windows Phone, Mac, Linux, Web</td>
<td>iOS, Android, Windows</td>
</tr>
<tr>
<td>Technical Support</td>
<td>Esri and the community</td>
<td>Esri and the community</td>
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</tbody>
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Collector for ArcGIS

- Map-centric collecting and updating data in the field
  - Collect points, lines, areas, and related data
  - Fill out map-driven forms
  - Attach photos
  - Work offline
  - Use professional-grade GPS receivers
Requirements

- Android | iOS | Windows 10
- ArcGIS organizational account
  - Publisher role
- Maps can include data from ArcGIS Online or ArcGIS Server

Installation

Organize items by folders
  • Under ‘My Content’ create a folder
Document items
Create a group(s)
  • Type: Private, organization, public
  • Contributors: Members or only group owner
Share
  • Group
  • Organization
  • Everyone (public)
My First Collection

- Sign in to ArcGIS Online using web browser
- Click ‘My Content’
- Click ‘Create > Feature Layer’
  - Choose ‘Field Notes’ template & follow prompts
- Click ‘Open in Map Viewer’
- Take defaults and click ‘Save’
  - Enter a title, tags, description
- Click ‘Home’ > ‘My Content’
  - You’ll see the hosted feature layer and web map items
- Sign in to collector & start collecting
Setting Options

- **Data (hosted feature layer)**
  - Update features or only attributes, edit all features or only your own features, etc.

- **Web Map**
  - Offline mode
    - Enabled by default in our example
Get More Advanced

- ArcGIS Desktop/Pro
  - Create a feature layer in geodatabase
    - Coded domains
  - Create related tables
Form-centric data gathering

- Design surveys with predefined questions
- Similarities to Qualtrics
- Attach photos
- Work offline
Can use a web browser to design & complete survey

- https://survey123.arcgis.com/
Survey123 – App to Create Advanced Surveys

- **Survey123 Connect App**
  - Create and publish advanced surveys
  - Install on Windows/Mac/Linux to create and share a survey
  - Supports XLSForms specification
    - Form standard created to help simplify the authoring of forms in Excel.
Survey123 – App to Complete Surveys

- Survey123 for ArcGIS
  - Collect data online or offline
  - iOS/Android/Microsoft
Esri e-Learning

- Collector
  - [www.esri.com/training/Bookmark/rJ6IAGknl](http://www.esri.com/training/Bookmark/rJ6IAGknl)

- Survey123
  - [www.esri.com/training/Bookmark/BJPGRfk2l](http://www.esri.com/training/Bookmark/BJPGRfk2l)
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