Telling Stories with Map Templates

Allen Carroll, Andrew Skinner, and Rupert Essinger
What We’ll Discuss Today

1. What are story maps?
2. Quick tour of recent story maps
3. Components of story maps
   - Including base maps (Andy)
4. Publishing Web maps into templates
5. Shortlist San Diego (Rupert)
6. Call to action

Questions and discussion
What are Story Maps?
What are Story Maps?

- Story maps combine intelligent Web maps with Web applications and templates that incorporate text, multimedia, and interactive functions.

- Story maps inform, educate, entertain, and inspire people about the world.
Story maps inspire and inform
They’re built with care and thought about your audience

Compiled on ArcGIS Online from desktop maps, services, CSVs

Repeatedly refined design, configured popups, edited titles and descriptions

Published into websites, apps, and templates that provide context and user experience
Why are we Making Story Maps?

Our team:
• Allen Carroll, David Asbury, Lee Bock, Stephen Sylvia
• Others: Andy, Rupert, Jim Bernie Szukalski, Herries, Esri’s marketing group, mobile team

Our goals
• Showcase important geographic information
• Develop new ways to tell stories with maps
• Demonstrate the power of ArcGIS as a communication platform
• Enable thousands of people to create and publish their own story maps
Quick Tour of Recent Story Maps
Demo

- Titanic
- National Mall Tour
- Feeding the World
- Civil War
- Olympic Torch Relay

storymaps.esri.com
Components of Story Maps
Assembling a Story Map

Raw Materials

- Map services
- Desktop map
- Tabular data
- Base map
- Multimedia content
- Text
Assembling a Story Map

Raw Materials

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- Tabular data
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- Multimedia content
- Text

Web Map(s)

Shared on ArcGIS Online

Ingredients:
- Basemap
- One or more services
- Point data from spreadsheet
- Maintains source info
- Lightweight, versatile
Assembling a Story Map

Raw Materials
- Map services
- Desktop map
- Multimedia content
- Tabular data
- Base map
- Text

Web Map(s)

Apps/templates
Apps provide:
- Format for title, text, legend
- Key functionalities, e.g., swipe tool, timeline
Assembling a Story Map

**Raw Materials**
- Map services
- Desktop map
- Tabular data
- Base map
- Multimedia content
- Text

**Web Map(s)**

**Apps/templates**

**Audience**
- Web
- Tablet
- Mobile
Choosing a Basemap

Andy Skinner
Choosing a basemap: Types of data

- Polygon data
Choosing a basemap: Types of data

- Polygon data
- Line and Point data
Choosing a basemap: Selected examples

- Imagery
Choosing a basemap: Selected examples

- Imagery
- Light Gray Canvas
Choosing a basemap: Selected examples

- Imagery
- Light Gray Canvas
- National Geographic
Choosing a basemap: Selected examples

- Imagery
- Light Gray Canvas
- National Geographic
- Street
Choosing a basemap: Selected examples

- Imagery
- Light Gray Canvas
- National Geographic
- Street
- Topographic
Polygon-based maps:

- Is the base detail relevant?
- Does the color palette work?
- Does transparency help or hinder?
Imagery
Polygon-based Maps

- Is the basemap detail relevant?
- Does the color palette work?
- Does transparency help or hinder?
Light Gray Canvas
Polygon-based Maps

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World Street
Polygon-based Maps

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World Topographic
Polygon-based Maps

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World Topographic Map revision
Imagery
Line and/or Point maps

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Light Gray Canvas
Line and/or Point maps

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National Geographic
Line and/or Point maps

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Does the color palette work?
World Topographic
Line and/or Point maps

- Is the basemap detail relevant?
- Does the color palette work?
- Does transparency help or hinder?
Other web map tips
How to make your Web maps Intelligent

• Eliminate!
• Simplify
• Make legends clear and simple
• Configure pop-ups
### Pop-ups from Spreadsheets

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Type becomes icon styles</th>
<th>Lat-Long for location</th>
<th>Image URL for photos</th>
<th>Links for “more info”</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-19 Bal St.</td>
<td>A striking Art Deco Residential</td>
<td>Lat-Long</td>
<td>73.93647</td>
<td><a href="http://placematters.net/node/97">http://placematters.net/node/97</a></td>
<td><a href="http://placematters.net/node/97">http://placematters.net/node/97</a></td>
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<tr>
<td>5 Columbus Circle</td>
<td>controversial modern Public Art</td>
<td>Lat-Long</td>
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<td>206 Bowery</td>
<td>The last surviving F. Residential</td>
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<td>211-215 Pearl St.</td>
<td>Facades of warehousing Industrial</td>
<td>Lat-Long</td>
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<td>27 Cooper Square</td>
<td>Former home of m. Residential</td>
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<td>Former home of m industrial</td>
<td>Lat-Long</td>
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<td>Ma Emporium of foods Market</td>
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<td>Site of photography Residential</td>
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<td>Unusual wooden fin infrastructure</td>
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<tr>
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<td>Lat-Long</td>
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<td>Women’s collabora Commercial</td>
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<td>Graffiti Mecca and Public Art</td>
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<td>647 Hudson St.</td>
<td>“Former home of sir Residential</td>
<td>Lat-Long</td>
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<td>700 Eastern Park Ave</td>
<td>Center of the institution</td>
<td>Lat-Long</td>
<td>73.93647</td>
<td><a href="http://placematters.net/node/116">http://placematters.net/node/116</a></td>
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<tr>
<td>ABC No Rio</td>
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<td>Lat-Long</td>
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<td>Gene General store that</td>
<td>Commercial</td>
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<td>Commercial</td>
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<td>73.93647</td>
<td><a href="http://placematters.net/node/119">http://placematters.net/node/119</a></td>
</tr>
</tbody>
</table>
Pop-ups from Spreadsheets

- **Name** for popup title
- **Description** for popup text
- **Type** becomes icon styles
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- **Links** for “more info”
Pop-ups from Spreadsheets

Name for popup title
Description for popup text
Type becomes icon styles
Lat-Long for location
Image URL for photos
Links for “more info”
Pop-ups from Spreadsheets

Before…

…After
Spend Time Configuring your Pop-ups!

Especially useful: “Custom attribute display” option

See white paper: “Designing Web Map Popups”
4 Publishing Web Maps into Templates
Templates!
What do templates do? They provide...

A place for title and subtitle

Multimedia and text windows

Social media links
Branding

Web map placement and controls

Most importantly, a simple user experience that supports the story
Basic Storytelling Template
Comparing unemployment and population change reveals regional patterns

Despite recent signs of recovery, unemployment remains a major national issue. How do patterns of unemployment relate to regional changes in population?

Unemployment rate: 2010

Population change between 2000 and 2010

Description:

Unemployment can be linked to many causes and effects. A recent analysis compared unemployment to population change, seeking answers to questions such as: Are people leaving areas of high unemployment to look elsewhere for jobs? Is an influx of new residents causing unemployment rates to increase? Or are other factors at work?

A map of U.S. unemployment reflects the widespread impact of the economic downturn. Rates are high in many areas; the reversal of low unemployment across the Great Plains is likely due to decreasing populations and a high proportion of older residents.

Although population increase is widespread across the nation, declines in the Great Plains seem to mirror that local labor forces are decreasing, and most remaining residents have found employment or are not seeking jobs. But what is happening elsewhere in the country?

To answer that question, a statistical analysis was used to detect variations in the relationship between unemployment and population change. Would unexpected patterns emerge? See the next map.
Access to basic health care is inadequate in many parts of the U.S.

The availability of basic health care varies radically from place to place across the nation.

To the left of the vertical slider box, counties outlined in orange had no doctor’s office in 2009, according to the Census Bureau. Clark County, Mississippi, for example, had a population of over 15,000 but no doctor’s office, while Manhattan had a doctor’s office for every 500 residents.

The map to the right shows the relative availability of primary health care providers by county. Enhanced access to health care is key to improving the health of Americans.

Doctor’s office data is from the U.S. Census Bureau’s County Business Patterns and Population Estimates program.

**Legend**

Left side:
- Counties with no doctor’s office
- People per doctor’s office in 2009:
  - Very high need
  - High need
  - Average
  - Low need
  - Very low need

Right side:
- Counties with no primary care providers in 2009
- People per provider in 2009:
  - Very high need
People Without Health Insurance

This map shows the percentage of people who did not have health insurance in 2005.

26% of Texans had no health insurance in 2005, a stark contrast to Minnesota and Iowa, where only 13% of people were without coverage. Proportions of uninsured are low in New England, and highly variable in the West. Multiple factors, among them immigration and poverty, are likely contributors to these regional differences.

LEGEND
People Without Health Insurance 2005
Percentage without Health Insurance by County
- Very High (More than 23%)
- High (20.1% - 23%)
- Average (17.1% - 20%)
- Low (14.1% - 17%)
- Very Low (Less than 14.1%)

Map showing the distribution of people without health insurance across the United States.
Side Panel Template  Provides tabbed themes and timeline

The history - and increasing threat - of Atlantic Coast hurricanes

Hundreds of hurricanes have struck the United States since 1950. As coastal populations steadily increase, the potential for a major disaster also rises.

Atlantic Hurricane Paths 1950 - 2011

Click play (above) to view year-by-year hurricane tracks.

Pause the animation and click on a hurricane track to view details. Points along hurricane tracks provide "snapshot" information about the storm.

Click the polater in the pop-up to view summary information about each hurricane.

This is awkward in its current form. If possible, we should present the general path info first, and implement a tabbed
Map Tour Template

Now accommodates web maps
Coming: Shortlist Template

San Diego Shortlist
The city, curated! A selection of cool places to check out.

![Map of San Diego with points of interest highlighted]
The Shortlist

Rupert
A “canned” demo:
Publishing Web Maps into the Side Panel Template

storymaps.esri.com
Publishing Web Maps into the Side Panel Template

A “canned” demo:

“Storytelling Side Panel” accommodates 2-4 web maps in tabs, plus time-enabled maps

Come back—we’ll be adding more templates
Publishing Web Maps into the Side Panel Template

...links to Side Panel template on ArcGIS Online
Publishing Web Maps into the Side Panel Template

Unzip and open “index” file
Publishing Web Maps into the Side Panel Template

Find the “ConfigOptions” section
Publishing Web Maps into the Side Panel Template

Copy the web map ID from the map’s URL...

![Web Map ID](example.com/image.png)
Publishing Web Maps into the Side Panel Template

…and paste it into the “webmaps” item in the index file
Publishing Web Maps into the Side Panel Template

Repeat the process for additional web maps…
Publishing Web Maps into the Side Panel Template

(be careful with details like syntax)
Publishing Web Maps into the Side Panel Template

...and test it by saving and opening the app in a browser!

The map looks good but the title doesn’t.
Publishing Web Maps into the Side Panel Template

Add a new title and subtitle in the config section...
Publishing Web Maps into the Side Panel Template

...and test it again!

But I don’t like the tab titles
Publishing Web Maps into the Side Panel Template

Edit the tab titles…
Publishing Web Maps into the Side Panel Template

…and test it yet again!  

Repeat X 50!
Publishing Web Maps into the Side Panel Template

Remember: Titles and summaries are on the web map description page

...they should be written to support your story
Where to Find Templates

Template gallery at storymaps.esri.com

Storytelling Templates group on ArcGIS.com

Application options in “Share” function on AGOL
About Storytelling Templates

- Javascript: They’ll work across platforms
- Open source: You can download and mess around with them
- We’ll continue to refine existing templates, and add new ones
Stay Tuned…

- “Shortlist” template
- “Briefing Book” template
- “Story Builder” mobile app
6 Call to Action
The Story Maps Effort is Part of a Bigger Shift

**GIS is emerging from the back office**
- Enabled by the Internet, the Cloud, mobile
- Accessible to many more people
- Available for new uses

It means that your roles are changing

It means thinking and acting in new ways
Traditional GIS

- Decision support
- Asset management
- Planning and analysis
- Field mobility
- Situational awareness
- Public awareness
The New GIS

- Decision support
- Asset management
- Planning and analysis
- Field mobility
- Situational awareness
- Public awareness
  
  and now…

- Emancipating data
- Briefing colleagues
- Involving constituents
  
  - Informing
  - Inspiring
  - Entertaining
Affecting Change

- GIS has been quietly changing the world
- It’s time to drop the “quietly”
- The old excuses are gone:
  - I don’t have the data
  - The bandwidth is inadequate
  - The tools aren’t there
  - People aren’t connected
- Now is the time!
Questions and Discussion
Steps to evaluate UC sessions

- My UC Homepage > “Evaluate Sessions”

- Choose session from planner
  OR

- Search for session

www.esri.com/ucsurveysessions
• Thank you for attending
• Have fun at UC2012
• Open for Questions

• Please fill out the evaluation:
  www.esri.com/ucsessionssurveys
  
  First Offering ID:  XXXX
  Second Offering ID:  XXXX