Rethinking How You Style Your Maps

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The gameplan

- Smart Mapping
- Data exploration
- Finding your map’s anchor points
- More signal, less noise
- Basemaps
- Arcade
Smart Mapping
Mapping made easy

http://www.esri.com/smartmapping
Beliefs versus Policy Support

Belief in climate change is the start of a conversation, which may or may not lead to concern, and perhaps action. Seeing a map of each question-response is informative.

It’s also useful to map each area of the country based on how they tend to answer questions about belief in climate change, versus willingness to take action.

We broke out the responses about Beliefs and questions about Policy Support into four quadrants, shown on this map.

Green areas are stronger believers in climate change, and also much more ready to act.

Magenta areas are also stronger believers in climate change, but show a hesitance to act.

Brown areas contain more non-believers in climate change, yet, oddly, they are more ready to act.

Gray areas aren’t buying into anything, not climate change, and not action.
Explore. Learn. Be Inspired.
Smart mapping

• It should be easy to make visually stunning maps that tell the stories you want to tell
• Smart mapping analyzes your data and suggests the best ways to represent it
• Responsive, immediate feedback helps you explore your data, and focus on the story in your data and maps
Map where, what, when, how much
Map “where” – the location of features

Los Angeles, California furniture sales

Sonic restaurants

Cape Cod, Massachusetts bus routes
Map “where” – the location of features

Enrich your locations to add value to your GIS data

Seinfeld’s Apartment Building
Map “what” – a dimension of features

- Think of your attribute data as dimensions and measures
- Common dimensions:
  - Type
  - Name
  - Class
  - District
  - Territory
Map “what” – a dimension of features

City of Lebanon, Oregon fire hydrants

Cape Cod, Massachusetts bus routes

Mall stores in Ontario, California

2017 Mid Year Priorities of State CIOs
Map “when” – a dimension of features

Show Time in Your Maps

Many datasets contain a date or time field, but showing them in the map can be a challenge. ArcGIS Online has new map styles that allow you to visualize information found in date and time fields. These new time styles reveal patterns of new and old, and showcase the age of things on the map.

These smart mapping styles allow you to view overall patterns of time.

For example, this map shows streets in Minneapolis based on when their condition was last inspected. White streets have been inspected more recently, while dark purple streets were inspected at an earlier date. You can immediately see a pattern of areas which might be due for another inspection.

To show time in your map, simply select the date/time attribute within your data.

1. Choose an attribute to show
   - Inspection date
   - Add attribute

Once you have selected your date/time field, you can choose to show time with a continuous timeline, or by the age of the features. The map you see here uses a continuous timeline style; the colors are shaded continuously across a range of date values.

Use Size To Show What’s New

Another way to view time is by Continuous Timeline.

This map uses size to show how recently a fire hydrant was built, in years. Larger hydrants are newer than older hydrants, which are older.
Map “how much” – a measure of features

- Think of your attribute data as dimensions and measures
- Common measures:
  - Totals
  - Percentages
  - Rates
  - Averages
  - Medians
  - Ratios
Map “how much” – a measure of features

- **Powerplant Production**
- **Earthquakes**
- **Truck traffic volume**
- **Population Change**
Map “relationships” – two attributes in your data

- Senior population
- CDC Death Rates
- Ocean Called
- Water usage
- Singles and Cheese
- Exports map
- Crop harvest
- Predominant Income Groups
- Voting results
More basemap options than ever!
Add clarity at each step

Reality → Data
Maps Charts User Experience → Interpretation
Data does not create clarity – people create clarity
Use, or Provide, Context

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A policy map
What is your map’s Basis of Comparison?
Let the problem speak

Urban heat islands in Los Angeles
Let the problem speak
Let the policy goal speak

CDC baseline 27.1%, HealthyPeople target goal: <24.3%
Blue indicates counties above or near target goal.
On June 30, 1999 the State of New Jersey enacted the Garden State Preservation Act. This map shows the impact of this bill on keeping New Jersey green.
Resources

Smart Map Tutorials
- How to Smart Map
- How to Smart Map: Color
- How to Smart Map: Color and Size
- How to Smart Map: Heat Maps

Videos
- Data Driven Design for Your Maps
- Smart Mapping
- Smart Mapping for Election Results
- Smart Mapping in ArcGIS Online
- Building a Web App for Data Exploration
- Predominance

Resources
- Developers
- ArcGIS Pro
- ArcGIS Online
- ArcGIS Enterprise
- Learn ArcGIS

Blogs
- See our Blog

http://www.esri.com/smartmapping

https://developers.arcgis.com/javascript
Blogs and Story maps
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