GIS class activity: Critiquing Crummy Maps

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Introductory notes:

**Map design**

What makes a good map?

* Ease of use, readability
* Clarity of purpose (it’s obvious what the map is for); a title can help
* Simplicity, lack of clutter
* Sufficient information to make the map usable
* No details that distract from the use of the map (like too many fonts, garish colors, etc.)

**Additional considerations for digital maps**

* Map should be usable at as large a range of scales as possible (scale-dependent display is important)
* Map should have metadata available; sources should be properly cited
* Data should be as current as possible unless the map is historical
* Map should be georeferenced (that is, its geographical location should be established with a coordinate and/or projection system).

Unless you have to have adjacent polygons the same color (such as in an election map), it helps to set polygons apart by using several colors.

The four-color theorem is a mathematical theorem that states: if a plane is divided up into polygons (aka a map), four colors are necessary to give a different color to areas that share borders (not corners)

**Activity**

Show examples of crummy maps. (See PowerPoint file for maps). Distribute printed copies and have students look at them in small groups. Afterward, the class can list the maps’ problems together.

Slide 1. World urbanization map

Problems:

Too many shades of grey too close together in color

Huge areas all one color—not enough detail to be helpful. Siberia is not heavily urbanized!

Does the term “urbanization” refer to the land area or the population?

Slide 2. Malta map

Problems:

Which way is north?

Exactly where are Gozo and Comino relative to Malta?

The towns are not given points, so you can’t tell exactly where they are

What and where is Valletta? (Confusing labeling)

What is the scale of the map?

Slide 3. Washington state traffic map

Problems:

Which way is north?

What does the height of the bars in the graph mean?

Which interstates are shown?

Lots of blank, useless space

Impossible to measure anything accurately

Slide 4: Parade route map

Problems:

What day and time is the parade?

Which way is north?

What direction is the parade going in?

How can the parade (apparently) go down two streets at once?