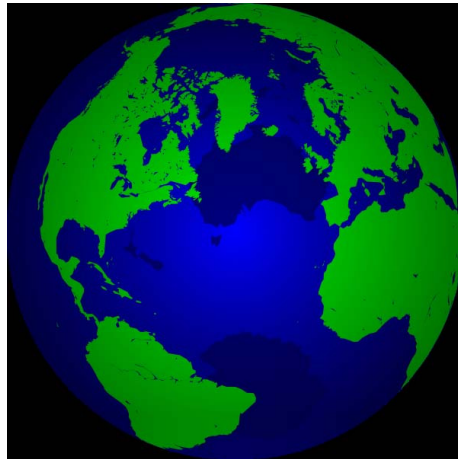


What is GIS?

GIS (Geographic Information System) is computer software that links geographic information (where things are) databases with descriptive information (what things are). Unlike a flat paper map, where "what you see is what you get," a GIS map can present many layers of different information.

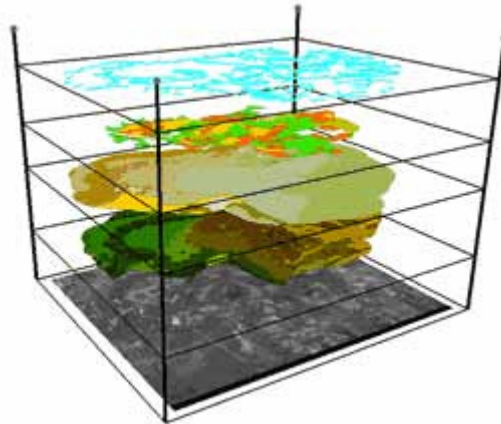


To use a paper map, all you do is unfold it. Spread out before you is a representation of cities and roads, mountains and rivers, railroads and political boundaries. The cities are represented by little dots or circles, the roads by black lines, the mountain peaks by tiny triangles, and the lakes by small blue areas similar to the real lakes.



A digital map is not much more difficult to use than a paper map. As on the paper map, there are dots or points that represent features on the map such as cities, and lines that represent features like roads and rivers.

All of this information - where the point is located, how long the road is, and even how many square miles a lake occupies - is stored as layers in digital format as a pattern of ones and zeroes in a computer.



Think of this geographic data as layers of information underneath the computer screen. Each layer represents a particular theme or feature of the map. One theme could be made up of all the roads in an area. Another theme could represent all of the lakes in the same area. Yet another could represent all the cities.

The themes can be laid out on top of one another, creating a stack of information about the same geographic area. Each layer can be turned off and on, as if you were peeling a layer off the stack or placing it back on. You control the amount of information about an area that you want to see, at any time, on any specific map.



(From "Geography Matters", ESRI press)

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