Podcast Review #5

(Main Topic: Comparing GIS analysis and web mapping. News: Lunar World Win, Froogle with Google Maps (A Very Spatial Podcast - Episode 19)

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Jesse and Sue were joined by Frank and talked about the day's news starting with the recent GIS day event [I wonder if it is a recognized Federal holiday ? ☺]. They quickly switched to discussing NASA's new Whirlwind dataset which requires quite a lot of processing capacity. But they have good images of the moon surface also! Finally, Froogle now has a GIS mapping feature as well as the other Google search engines.

The main topic today is a discussion of web mapping compared to GIS mapping and analyses. Geography is all about relationships. Relationships like a dataset compared to other datasets, itself, or even portions of the dataset relative to itself, or other datasets. Essentially, geography is a spatial relationship between one thing and another. Geographic analyses are a multi-step process. It first requires a clear question that is spatially involved. Next, it requires an understanding of the nature and background of the data (e.g. earthquakes). Finally, the GIS needs in general should be well understood, as well as the needs in relation to the specific data at hand. For example, to determine a viewshed for nationally registered locations impeded by cell tower we will need to go through all of the above mentioned steps. The next decision is to determine how to disseminate or represent information. This is where web mapping community comes into play.

The main difference between GIS and web mapping is that GIS is a set of analysis tools which are often used to test hypotheses. Web mapping was designed more to serve or present information and analyses results. While web mapping is considered more passive it is important to realize that it has a much wider audience. Also, web mapping is increasingly adding tools that are similar to GIS tools. While these tools are rudimentary and limited in scope (e.g. buffering, routing, distance, etc.) they are an important step in the blurring of the lines between GIS and web mapping services. A last important lasting difference is that GIS starts with nothing and only a question or set of questions exist. As opposed to web mapping where a foundation is already laid (e.g. data) before question is asked.

Of course, web mapping is a lot cheaper (GIS programs are expensive), but is only used to answer easily answered questions. Mapquest was a first good venue of web mapping. While some of the data was flawed causing errors, this mostly passive data set was widely accepted as an innovative addition to the internet at large.

Even though web mapping was first called internet GIS it was was not really the case. However, true internet GIS is now becoming more widely available (e.g. ArcServer, and other free source applications). The podcast hosts suggested a new category – midway between the two extremes. This is/would be a nice middle ground for many users. A subsequent workforce of persons well grounded in GIS with some technical background will grow in demand. This new category was suggested as User Augmented Mapping (UAM) where information exploration occurs over the internet. It will consist of taking an existing product and augmenting it. This would still be very different from GIS where all is made from scratch/nothing.

The future looks like web mapping will continue to grow in popularity and usage. For example, new statistics show that use of web mapping jumped 33% as opposed to overall usage jumped only 7%. Shows many people that their work does or can also have a spatial component. Also, analysis in field/real time will be desired as UAM increases.