Mary Whelan has worked at the Arizona State University Libraries as the Geospatial Data Manager since 2008. Her primary responsibilities are to manage the ASU GIS data repository and to provide research support related to the discovery and use of geospatial data. Whelan’s undergraduate and graduate training is in North American archaeology with an emphasis on paleoecology. She was an Anthropology professor at the University of Iowa for 15 years before changing careers and going into GIS. In her ASU Libraries position she works closely with the staff of two digital repositories, the ASU institutional repository (http://repository.asu.edu/) and an archaeology disciplinary repository called tDAR (the Digital Archaeological Record: http://www.tdar.org/).

**Perspective Statement**

Donna Haraway in her influential book *Primate Visions* focused on that highly developed human sense that has so powerfully shaped our species’ development: sight. Look at a list of books in the university library and you understand it in a distant, categorical way, but look at a map of the places referenced in those books and you see patterns that weren’t obvious, you think of questions that hadn’t occurred to you before. Harvard’s GeoHollis Beta project is an interesting example of this (https://www.youtube.com/watch?v=ULkZE8TVP3I).

One of my first jobs after I moved to Arizona was at ADOT, the Arizona Department of Transportation. The engineers there were very interested in a geo-catalog of past projects—their vision was of a map interface showing Arizona highways where a user could draw a box around an area and get search results that included reports on all of the projects ADOT had ever done along that stretch of highway.

After starting work at ASU I was approached by a Humanities professor who asked for help on a project she was working on with Hispanic communities in Phoenix. She wasn’t interested in the City of Phoenix, for which I could have provided a shapefile. She was interested in “the Valley.” This is the common colloquial name for the greater Phoenix metropolitan area. As such, everyone knows what it is (like culture) but can’t define it very precisely, which makes it problematic to represent in a GIS. People would largely agree on the core cities included in the Valley (Phoenix, Scottsdale, Mesa), and would generally agree on what is too large an area to include (Does it include all of Maricopa County? Probably not) but the edges are fuzzy.

A few years ago I got the opportunity to work on an international project to integrate two domain repositories containing archaeological reports and data, one covering Great Britain (http://archaeologydataservice.ac.uk/, ADS) and the other mainly focused on North America
TAG, or the Transatlantic Archaeology Gateway, integrated search results from each repository to return a comprehensive list to users. However, metadata records in the different repositories were largely incompatible: what we in the States call the Woodland cultural period doesn’t exist in Britain. Something they call Neolithic is roughly similar, but dates to a time thousands of years earlier. Our (imperfect) resolution was to ask users to specify Where (draw a search box on a map), When (use a slider bar to delimit years), and What (controlled vocabulary) they were looking for. We then “mapped” the metadata elements in the different repositories to the extent possible in order to facilitate the integration.

Experiences like these have shaped my vision of spatial discovery, and left me both hopeful and intrigued. There is clearly a growing demand for easy-to-use, web-based services that incorporate georeferenced or geo-enabled data. The use cases above raise some of the intriguing challenges that meeting that demand would entail – metadata, standardized or interoperable systems, fuzzy spatial extents, taxonomic issues (controlled vocabularies, thesauri, ontologies), and the need for gazetteers that have a temporal dimension (name, older name, archaic name).