Position Request

<table>
<thead>
<tr>
<th>Proposer</th>
<th>Jenny Marie Johnson (contact) for Ad Hoc Group for the Provision of Geospatial and Numeric Data (see attached list of participants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position Title</td>
<td>Geographic Information Science (GIS) Librarian</td>
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<tr>
<td>Rank</td>
<td>Assistant or Associate Professor</td>
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<tr>
<td>Est. Salary</td>
<td>$45,000-65,000</td>
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<tr>
<td>Reports to</td>
<td>See attached scenarios</td>
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</tbody>
</table>

**Need/Rationale**

Geospatial analysis is core to examining relationships and causality, making predictions, planning, and making decisions. Access to geospatial data and fluency in GIS analysis techniques is vital to many disciplines at UIUC. Heavy use of GIS, both in instruction and research, is common in the colleges of Agricultural, Consumer, and Environmental Sciences; Engineering; Veterinary Medicine; and Liberal Arts and Sciences. Within Liberal Arts and Sciences, GIS is used in social, physical, and life sciences including the departments of Geography, Geology, Atmospheric Sciences, Biology, Political Science, and History. Additionally, the School of Architecture, the departments of Landscape Architecture and Urban and Regional Planning, Graduate School of Library and Information Science, and the state science surveys located on campus have strong interests in GIS. Typical uses within these disciplines require ready access to quality data and software. These geospatial data sets, and the software used to manipulate them, are often difficult to locate and understand without assistance. This position will enable better use of GIS by a wide variety of campus users.

The uses of GIS by the groups mentioned above are often focused on sustainable natural resource management and health-related projects. This addresses the campus’ strategic priorities of sustainable environment/energy and health. There is a surprising amount of interest in GIS and health issues at UIUC, especially in the area of monitoring disease vectors for both human and non-human concerns. Typical health-related uses involve crop disease monitoring and West Nile Virus monitoring. Other key subjects involved in GIS include river and water resource management, sustainable agriculture, and land use planning and policy analysis for sustainability and recreational uses. Additionally, GIS has been used to measure the economic and societal impacts of legalized gambling, to discover the relationship of education and employment to voting patterns, and to analyze the location patterns of registered sex offenders. These subjects are extremely cross-disciplinary and often involve many parties across campus.

Many GIS research projects create unique new data sets that are important intellectual property of the University, but this property falls into obscurity due to lack of archival planning and awareness. This position will help assure ready and long-term access to important intellectual property by participating in the development of the IDEALS institutional repository and by canvassing university departments to obtain GIS related products that should be archived. The Library has been approached on numerous occasions to assist in the maintenance of geospatial data sets built either through funded research or through dissertation research. Lack of a dedicated GIS Librarian has definitely impeded our ability to function in this capacity.

There will also be a need to convert historical analog products into digital products. Much of our existing historical products are in the public domain and will be a fertile ground for conversion into digital products. Efforts of the GIS Librarian in this realm will make our important, traditionally-formatted geospatial information assets into vital new resources that can be widely used by many.

We need to plan for moving geospatial reference away from its overwhelming reliance on analog materials toward using digital resources. At the same time, we must maintain and enhance the value of the analog collection in which we have invested so heavily. A high degree of user support is necessary to locate and interpret traditional cartographic materials. This model, because of the complexity of data sets and manipulation/analysis techniques, will need to be
replicated for work with geospatial data. Creating a portal to geospatial data, the GIS Librarian will move the profession and services offered from traditional map librarianship towards geoinfomatics with an increased interest in modeling geospatial data and in techniques applied to geospatial information systems for data management, retrieval, and analysis.

| Description and Job Duties | Lead person in the Library’s delivery of digital geospatial data and associated geographic information systems (GIS) services. Coordinates all aspects of the Library’s digital geospatial information program that resides at the intersection of user needs, technology, and data content. Provides reference service, research assistance, and instruction in the selection and possible uses of digital geospatial data through in-person and remote one-on-one interactions, workshops/seminars, websites, blogs, and other avenues of widely distributed communication; works closely with implementers of Learning Commons to incorporate and support geospatial analysis tools and data in the suite of Learning Commons offerings. Collaborates with Map and Geography Librarian; Government Documents Librarian; ACES Librarian; the proposed Social Science, Business and Government Data Librarian; and others in the Library, on Campus, and in the local and state-wide geospatial community to create a collection development plan and acquire digital geospatial data through purchase, deposit, scanning analog materials owned by the Library, licensing or other access agreements, and gifts. Develops campus clearinghouse and archive for digital geospatial data. Selects monographs and journals relating to GIS research, development, and application. Organizes and describes data using appropriate metadata schema, including MARC and FGDC. Works closely with Library Systems Office and possibly CITES to mount and maintain data on Library or University servers and to provide access through web-based interfaces or other appropriate means. Works with Associate University Librarian for Information Technology Planning and Policy, Map and Geography Librarian and other unit heads, and Library Systems Office to plan and implement a core geospatial data services center in the Map and Geography Library and satellite centers in other appropriate locations throughout the Library. Works with teaching faculty to implement GIS modules in courses. Prepares datasets to support course assignments. Acts as Library’s delegate to the Campus committee of the University Consortium for Geographic Information Science. Serves as Library’s contact person for campus site-license software such as ESRI and ERDAS products. Develops and maintains close liaison relationships with local and state geospatial data producers. |
| Evolving to meet future Library needs | The GIS Librarian is a position needed now and into the future as digital geospatial data becomes increasingly ubiquitous. The trend of distributing geospatial data only in digital form is going to continue to grow. Although analog products will still be produced, scholars at all levels will require access to data available only in digital form. As the number of data sets explodes, potential data users also will require increasing amounts of assistance in determining which data set or version of a data set is best suited to their research needs. The GIS Librarian will serve as consultant, teacher, research partner, and sounding board. |
Reports To Scenarios

The GIS Librarian will report to the AUL for Services, with an advisory committee composed of the ACES Librarian, Map & Geography Librarian, and the Natural History Survey Librarian. It is expected that the membership of this advisory committee will fluctuate and will likely be expanded over time.

Advantage: Having the position report to the AUL for Services assures that all disciplines involving GIS are well represented, with added flexibility for addressing new initiatives as they unfold.

The GIS Librarian will report to the Map and Geography Librarian, consulting widely throughout the Library with subject and technical specialists.

Advantage: This position is the first step in bridging between the current emphasis of the Map and Geography Library to a unit that offers an integrated service spanning a spectrum from manuscript materials to digital data. With the possible future changes that may be needed to create an integrated service unit to serve the new School of Earth, Society and Environment, in particular splitting the collections of the Map and Geography Library into two segments (geography and cartography/remote sensing/GIS), the Map and Geography Library will become a geospatial information services unit without disciplinary affiliations that focuses solely on geospatial resources in all formats. The Map and Geography Library holds the Library’s core collection of monograph and serial materials on GIS practice, developments and research and a rudimentary collection of geospatial data on CD-ROM. The paper-based collection of maps, atlases, and aerial photographs along with intimate knowledge of the collection here and an idea of paper resource possibilities located at other institutions will be necessary to assist many GIS users as a very small proportion of geospatial information is already in digital format. Students and researchers without strong ties to the mapping sciences instinctively already are coming to the Map and Geography Library for assistance in “making maps.” Services that we might wish to emulate include those offered at Princeton (http://gisserver.princeton.edu/), University of Minnesota (http://www-map.lib.umn.edu/acic.html), Harvard (http://hcl.harvard.edu/libraries/#hmc), and University of Connecticut (http://magic.lib.uconn.edu/).
Ad Hoc Group for the Provision of Geospatial and Numeric Data

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