

Academic BRASS

Published by the
BRASS Business Reference in Academic Libraries Committee

Vol 5(2), Fall 2010

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Geomarketing Reference Services: A New Specialization for Business Librarians

Academic libraries have always been actively involved in the acquisition, management and provision of geographic information. As this information has “gone digital”, librarians increasingly recognize the need to transition from a relatively static role as map repositories to a more active, service-oriented role as providers of geospatial data and geographic information systems (GIS) services. Despite this realization, “adoption of GIS into regular library services has been slow in non-research libraries” (Gabaldón and Repplinger).

Librarians can no longer afford to remain behind the curve when it comes to GIS services. As geospatial applications become increasingly interoperable and as GIS enters the mainstream in the form of applications like Google Earth and a plethora of mobile web mapping services, the demand for data and GIS-related services is growing dramatically. Libraries, as established centers for information and learning, have a central role to play in facilitating the management, discovery and use of geospatial data. Demand for librarians with geospatial research abilities goes well beyond academic positions; the need also exists in public, school, special and other types of libraries (Wiemar and Reehling).

The classic business maxim of “Location, location, location” has never held truer for businesses. Companies are engaging in increasingly competitive and rapidly changing environments; they need to consider how consumer demand for products can vary by location, how the efficient supply of products is impacted by geography, and how spatial analysis can be used to manage operating costs or determine optimal locations for new retail outlets. Geomarketing, the analysis of geographic information for marketing and business decision-making purposes, is a growing field, and business librarians are ideally positioned to provide geospatial consultation services to the public.

What types of geomarketing services can a business librarian offer?

Geomarketing consultation services fall into three major categories:

1. **Analysis of consumer behavioral patterns** – Consumer purchasing behavior is dramatically impacted by geography. The spatial aspects of consumer behavior have historically been oversimplified, and common assumptions are becoming outdated as consumers become more mobile and as their shopping patterns become more complex and dynamic. Geospatial analysis can readily combine geography, consumer movements and consumer lifestyle segmentation data to develop more accurate models of shopping behavior.
2. **Spatial analysis for determining optimal retail locations** is a major focus for GIS-based business research. Different techniques can be employed to determine individual store locations, the efficiency of supply chain networks, and even overarching models to plan the development of store networks. Small business owners can calculate their current trade zone and use this information to develop refined geo-merchandising strategies that will expand their business reach.
3. **Product formulation, price setting, and promotional efforts** –The “4 P’s” of marketing are place, product, price, and promotion. Most geospatial analysis tends to center on place, but business librarians can also provide research services to help business owners determine regional product differentiation strategies, optimal product price levels, and improve their regional advertising strategies.

...But isn't GIS expensive?

Providing GIS services requires five major ingredients: hardware, software, data, people (you!), and a suite of defined services that you offer. These services can be as extensive or as basic as your knowledge and library's budget can support. In general, more expensive solutions will support more sophisticated analysis capability, but will also require more developed expertise.

Librarians just starting out can develop a proof-of-concept service at no cost by using an existing computer and one of many open source GIS applications. Business librarians with a modest budget and limited GIS knowledge can take advantage of moderately priced, user-friendly GIS options developed for libraries, including:

- SimplyMap (<http://www.geographicresearch.com/simplifymap>)
- Business Decision (<http://businessdecision.info>).

Finally, academic business librarians at institutions that already offer ESRI ArcGIS, the most sophisticated GIS application on the market, can subscribe to the product's ESRI Business Analyst extension. This module was designed as a user-friendly geospatial business analysis tool for use by business analysts without formal GIS training as well as professional geospatial

analysts. It is designed around the primary geomarketing perspective of a store retailer seeking to better understand their customers, to assess the competitive situation and performance of their existing store network, and to strategically expand their territory.

Those considering geomarketing research services are highly encouraged to review my three “Recipes for GIS Service Models” included in a recent presentation on GIS and Libraries (<http://www.slideshare.net/arabicsmith/go-geospatial-gis-for-libraries>).

How does a business librarian go about developing GIS expertise?

The admittedly steep learning curve associated with GIS impacts librarians as well as patrons. Business librarians cannot expect to successfully implement geomarketing services without possessing the requisite knowledge. Survey evidence (Galbadón and Replinger) suggests that a major factor hindering library adoption of GIS services is the lack of properly trained library personnel. The current demand for GIS librarians far outstrips supply (Wiemar and Reehling), with little remedy in sight.

Wiemar and Reehling note the chronic lack of formal GIS training in library science graduate programs, and propose a curriculum for Geographic Information Librarianship (GIL), which they identify as a new area of specialization for librarians. They identify a lack of trained LIS faculty as the likely reason why most library science programs do not include GIS electives. For this reason, they propose three possible models for a GIL curriculum, the first two of which would not require library science teaching faculty to lead GIS courses:

- Model 1: A dual master’s degree program in both LIS and GIS/Geography
- Model 2: The combination of an LIS degree and a master’s level certificate in GIS
- Model 3: A set of focused electives within an LIS program which lead to a GIS specialization

As a recent library school graduate and a newly minted academic business librarian with an interest in GIS, I pursued the second model for formal training. An increasing number of universities offer graduate certificate programs in GIS, including my own. For those not so fortunate as to have an on-campus program, many excellent and affordable GIS programs are now offered online (<http://gislounge.com/distance-learning>).

Formal training is not the only path to developing GIS savvy. Growing GIS knowledge within the library through mentoring programs has also been suggested as a means for developing needed expertise. Ricker argues that “the implementation and development of effective mentoring is crucial to the growth and success of GIS librarianship and staffing” (350), due to the severe shortage of available trained personnel and the lack of widespread training programs. She identifies ways in which GIS mentoring differs from other forms of library mentorship and recommends multiple strategies for successfully implementing a GIS mentoring program within academic libraries. If formal training is not a route for you, try to connect with another librarian or teaching faculty member on campus that can guide your self-training.

Conclusion

Geomarketing is growing in importance to business analysis and decision-making and academic business librarians are well advised to develop it as a specialized business research service. At the University of Central Missouri, for example, I have used my GIS training to lead business faculty training workshops, support marketing student research projects, and even assist the university with the strategic mapping of potential donors. The services you offer will differ according to library type and user needs, but will be highly valued and distinguish you in a world that is rapidly becoming "Geo-Everything" (Johnson, Levine, and Smith 15).

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