Foreword

Maps seduce with color and design and often with grace and style. Maps represent adventure, potential, plans, and hope. Cartography is a symbology that transcends languages and time. Maps are stores of coded spatial data, coordinate observations of coastlines and depths, transportation classification and networks, street name and address ranges. Maps represent the current and the past states of geography. These cartographically encoded geographies originated as numbers and are frozen in paper as maps.

Libraries define collections by their storage needs; map libraries are stacks of flat metal cases for large sheets of paper. The map library typically sits alone, off to the side, rows of grey, metal, map cases housing map sheets. However, the map library is actually a store of numeric spatial information in symbolic, viz. cartographic, form. Until the mid-1960s the map was the exclusive method for storing symbolic spatial information. Nineteen sixty four marked the beginning of geographic information systems or GIS. A GIS is a computer-based database for capturing, storing, analyzing, and managing data and associated attributes that are spatially referenced to the earth.

Twenty years ago, debate raged over the definition of cartography and maps. The International Cartographic Association (ICA) invited redefinitions of cartography in light of innovations in computer technology. Two camps emerged, stressing the importance of the map on one hand, and the spatial database on the other. M. Visvalingum articulated a middle ground, focusing not on product, but on content:

"*If cartography is concerned with the making and use of maps, then it is not just concerned with visual products: it is equally concerned with the processes of mapping, from data collection, transformation and simplification through to symbolism and with map reading, analysis and interpretation. These intellectual processes are expressed in terms of prevailing technologies and computer-based information technology is fast becoming the dominant technology of the day*" (Visvalingum, 1989).

Today the technology is shifting yet again. To paraphrase Visvalingum, as computers have become ubiquitous, network-based IT has become the dominant technology of the day. Web 2.0 is the move to the Internet as a platform. Spatial data has been networked almost from its inception. Now, with Google Map™, Google Earth™ has rapidly become the poster child of Web 2.0. Librarians have been slow to engage the requirements of managing datasets in libraries much less the unique requirements of spatial data. Libraries have been more effective at building digital surrogate collections than collecting, describing, and providing access to very large, complex, born-digital spatial data. This book also provides a much-needed text to challenge the dialogue of spatial data and information in libraries, and to teach the management of spatial information in library and information science programs.

This book provides a vocabulary for discussing how to build and manage digital spatial data collections in libraries, integrating traditional map librarianship and contemporary issues in digital librarianship. Augmenting the services of the map library, GIS, a geospatial database management system, has uses that transcend the paper map.

These uses have created expectations: "[m]aps and GIS are important sources for the production of geographic knowledge. What are the power-knowledge relations of mapping as they occur against the historical horizon of possibilities and how can that horizon be enlarged?" (Crampton, 2003, p. 53). These types of discussions have created a continuum of thought on what *is* critical GIS. Pickles (1995, p. 4), for example, describes it as a "part of a contemporary network of knowledge, ideology, and practice that defines, inscribes, and represents environmental and social patterns within a broader economy of signification that calls forth new ways of thinking, acting, and writing." How far GIS can redefine how we look at populations, location, and natural resources is still unknown. However, redefinition continues and affects use and user.

In *Ground Truth*, GIS was seen as a way to create "new visual imaginaries, new conceptions of earth, new modalities of commodity and consumer, and new visions of what constitutes market, territory and empire" (Pickles 1995, p. viii). *Integrating Geographic Information Systems into Library Services: A Guide for Academic Libraries* will create new ways of viewing geographic and library and information sciences within the academic setting.

References

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Patrick McGlamery, MLS, has over 17 years of experience as map librarian at the University of Connecticut Libraries. Before that he had worked at the Library of Congress Geography and Map Division for 5 years. He has been involved with computer mapping in a library environment since 1987. Mr. McGlamery is active in the American Library Association's Map and Geography Roundtable (MAGERT) and Library Information Technology Association, and in the International Federation of Library Association's Geography and Map Section. Librarian of MAGIC, UConn's Map and Geographic Information Center, Mr. McGlamery is participating in Simmons College initiative, funded by the Atlantic Philanthropies, to train Vietnamese librarians. He is currently teaching "Academic Libraries" and "Digital Libraries" in Hue, Vietnam from June to August, 2007. The final Fall semester will be in both Danang and Thai Nguyen.