Using GIS To Measure In-Library Book-Use Behavior

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Abstract

This article is an attempt to develop Geographic Information Systems (GIS) technology into an analytical tool for examining the relationships between the height of the bookshelves and the behavior of library readers in utilizing books within a library. The tool would contain a database to store book-use information and some GIS maps to represent bookshelves. Upon analyzing the data stored in the database, different frequencies of book use across bookshelf layers are displayed on the maps. The tool would provide a wonderful means of visualization through which analysts can quickly realize the spatial distribution of books used in a library. This article reveals that readers tend to pull books out of the bookshelf layers that are easily reachable by human eyes and hands, and thus opens some issues for librarians to reconsider the management of library collections.

Full Text:

PDF

References


A. K. Jain, A Statistical Study of Book Use (Ph.D. diss., Purdue University, 1967), 128.


More descriptions about collection arrangements of MacKimmie Library can be found in reference 11, "GIS in the Management of Library Pick-up Books."


McGrath also excluded periodicals from his survey on in-library book use. W. E. McGrath, "Correlating the Subject of Books Taken Out of and Used Within an Openstock Library."

W. S. Pierce, Furnishing the Library Interior.

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Refbacks
- There are currently no refbacks.
The methodology used in creating and evaluating the data using a Geographic Information System (GIS). This discussion includes an examination of the various steps taken to clean and process the data, as well as the various tools used that are available in GIS, and the assumptions and tradeoffs through that process. This study will hopefully prove useful for replication of the various measures calculated in this study in the future. Tools and extensions described above were used in isolating and cleaning the data so that the connectivity measures could be calculated and analyzed. The tools and extensions are highlighted further in the study when they were utilized.