

Geographical data in light of information access and preservation

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Geographic data have the common thread of showing or providing information about demarcated areas or places on the earth's surface that may be defined with geographic location or positional reference points. This data may be divided into three main categories: remotely sensed data (aerial photographs and satellite images), cartographic data (digital geographic information and maps) and other statistical geographical data (censuses and surveys). Maps and aerial photographs have traditionally been in the form of paper and films, but digital technology has opened the way for satellite data, geographic information systems and global positioning systems. New media like the World Wide Web has been used in Iceland for visually presenting geographic information, particularly in various web portals, but without a uniform and comprehensive policy. This category of geographical information needs a general overview, while the preservation and security of such data lacks a coordinated policy and overview.

New technology brings new problems, including the preservation of digital data. Paper and films that are stored under optimum conditions have a rather long lifetime, while the life of digital data is relatively short. Data are scattered, and they are often only viewed according to their form, for example publications, computer data, manuscripts or documents, and less in accordance with content. Where geographical data has been catalogued, this work has often been based on cataloguing rules that apply to other types of material. Catalogues are seldom published for geographical data outside those organisations that preserve such material, and it is rare to be able to search this data by entering coordinates or geographic location.

The aim of this research is to create a clear overview of geographical data in Iceland, categorise and define dissimilar types and forms of data that have been collected, and analyse preservation and security matters in this field. Methods will be pointed out that will improve the presentation of geographical data through the systematic cataloguing of metadata and web solutions. The final stage of the research will involve presenting a proposal setting out a policy for cataloguing, presenting and preserving geographical data in Iceland.

Walford's (2001) methods of grouping geographic data into main categories will be used, and they will be analysed in accordance with their form. In this way, it will be possible to make decisions on how data should be catalogued and presented. Work will be based on Goodchild's (1998) ideas on accessing geographical data, and Boxall's (2003) ideology utilised and implemented in relation to preservation and access of information (Geolibraries, Geoportals and Metadatabases). One survey will be made among those who work with Spatial Metadata, and another survey on security matters as they relate to geographical data in the main libraries and organisations that preserve such information.

This research is in its early stage, and is intended to map the position of these matters in order to obtain an overview of geographic data in Iceland. It will then be possible to coordinate cataloguing and distribution among diverse groups, thereby achieving greater efficiency and access. Finally, a proposal will be made regarding preserving source materials and their transferral into digital form. This will have two benefits: the source material will be preserved, and the data will be made accessible on the Net with various solutions that utilise spatial metadata.

References

- Boxall, J. (2003). Geolibraries: geographers, librarians and spatial collaboration. *Canadian Geographer* 47(1), 18-27.
- Goodchild, M.F. (1998). The Geolibrary. In S. Carver (ed.) *Innovations in GIS 5* (p. 59-68). London: Taylor and Francis.
- Walford, N. (2001). *Geographical data. Characteristics and sources*. West Sussex: John Wiley & Sons.