ISSUES ON OPEN DATA ACCESS AND INTELLECTUAL PROPERTY RIGHTS FOR CARTOGRAPHERS

Lucia Lovison-Golob
Co-Chair
Open Data Access and Intellectual Property Rights Working Group
Project Director/Librarian
Afriterra Foundation
http://www.afriterra.org
lovison@afriterra.org

Introduction

In the spring of 2008, the ICA Working Group on Open Data Access and Intellectual Property Rights (ODAIPR) was established. Its activities cover the full range of open data access and intellectual property rights related to cartography, from historical maps to multimedia digital cartographic data. The cartographic data can be either used locally within several devices (such as PCs, mobile telephones, or others) or pushed over a network (such as in real-time via the Internet through geospatial services or through telephony or through other networks). In this article, after a brief introduction to Afriterra Foundation data policies, I present the results of a survey conducted by the ODAIPR Working Group with the objective of identifying the main issues and needs of the geospatial and cartographic data users and producers.

Afriterra Foundation, the organization within which I work, has one of the largest collections of historical and rare maps of Africa in the United States. Afriterra Foundation is a non-profit library whose mission is to assemble and preserve the original cartographic record of Africa for a deeper educational experience. Since Afriterra is a resource provider of cartographic data, both online and onsite, we have developed specific policies in relation to the different means of disseminating the data. Afriterra online policies cover the search of our electronic cartographic database, the pan and zoom of our high-resolution cartographic imagery, and the online multidisciplinary forum where users add comments and provide feedback. We also have online policies that require acknowledgement by the user of any Afriterra data and any of its derivatives by crediting the Afriterra Foundation as the source of the data, images, products, and services. Our onsite policies are more restrictive because they require the use of personnel for managing requests and physical access to printed cartographic material. Afriterra issues are not unique among the many organizations that deal with cartographic materials, procedures, and processes. In order to assess how generalized this situation is and as a member of the ODAIPR WG, Afriterra Foundation has prepared a web site http://sites.google.com/site/odaipr/, also accessible through http://www.afriterra.org, where the ODAIPR WG members share knowledge and activities. The web site provides resources and examples of open data access policies such as the ones adopted by Afriterra Foundation as well as those adopted by other countries and organizations such as the Creative Commons. At the web site, interested parties can complete the ODAIPR WG

survey   ,
and new responses will be added to the existing survey results.

This article summarizes the initial results of the ODAIPR WG survey from June to August 2009. The survey's purpose is to identify practical approaches and models for managing geospatial data and services and to assess the ODAIPR policies in different countries and organizations. The survey results provide a baseline for future activities to harmonize different policies regarding geospatial data. For example, the survey results will help to identify which policies for open access to geospatial data are supported by which institutions. A total of 55 percent of the organizations that received the survey, freely available in Internet, completed it as of August 1, 2009.   The responding organizations come from 15 different countries: Australia, Austria, Brazil, Canada, Denmark, France, India, Italy, Netherland, Philippines, Saudi Arabia, Singapore, South Africa, United Kingdom, and United States. About 91% of the respondents indicated that they had access to personal computers and email, while 85% had access to the Internet, and 90.6% belong to organizations with a web presence. Fewer of the participants regard themselves as data producers (58.5%) than as data consumers (66%). Within the data producers, about 20% disseminate the data digitally, and 54% maintain their data with some degree of protection mainly through copyrights, trademarks, patents, licensing while 46% do not. (Figures 1 and 2).

Figure 1

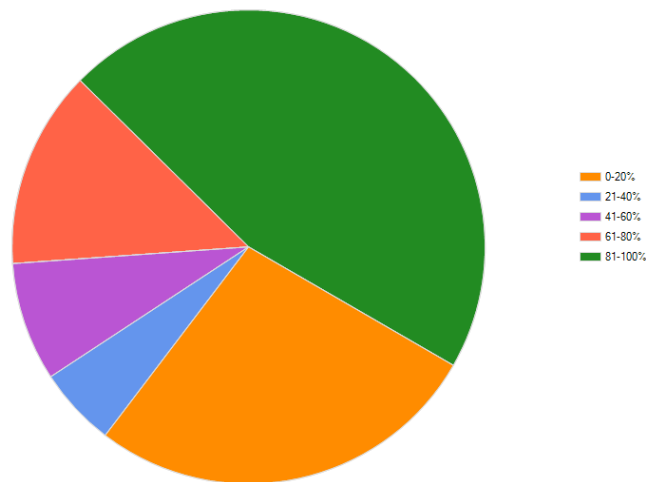**If you are a geospatial data producer, are your data protected through the following (please check all that applies)?**
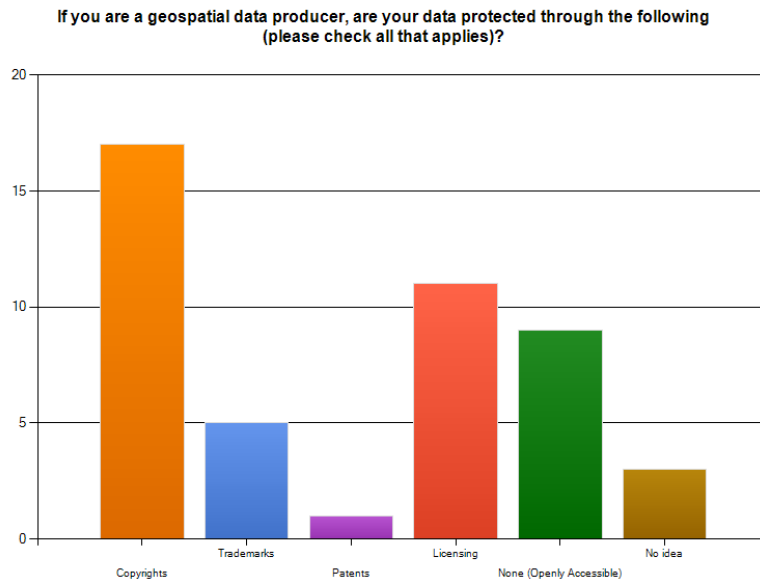
Figure 2

Most of the data producers use either copyrights (17%), a commercial license (12%); but 11% use either the creative commons licenses or the science commons licenses.

Data users of public/government data represent 63% of the respondents, whereas 72% of the respondents seem to operate primarily in the public sector and only 33% operate in the commercial area. Most of respondents (55%) place restrictions on the use of their data. All users would like to have the possibility to download raw data clipped to the geographic extent specified or their region of interest.

Among the website activities that are supported by the different organizations responding to the survey, the most frequently used function is by far web search (27%), while the least frequently used function is data analysis (6%) followed by data collection (12%)(Figure 3).

Which of the following activities are currently supported and/or will be supported from your website? (Please select all that apply.)
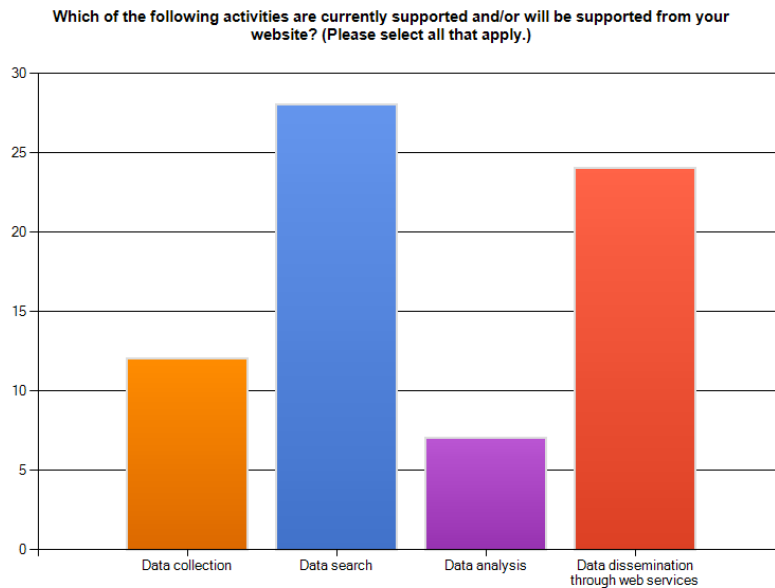
Figure 3

All the respondents considered the key issue of geospatial data management as the access and control of geospatial and cartographic data. Respondents identified several obstacles to the management and access of data, and in particular they described access to good data quality very important to totally important in the overall success of a project. Among the respondents, there is no consensus on the definition of "open data access." While many parties, such as Sir Tim Berners-Lee and the U.S. government are calling for putting government and academic data on the web at no charge, large numbers of people and institutions are working to prevent open data access.

Respondents indicated numerous reasons for assuring that cartographic (and non-cartographic) data, especially government data, are accessible online: 1) to contribute to basic information for innovation , 2) to increase accountability, 3) to assure the reusability of data, 4) to decrease the cost of data, 5) to increase their transparency, 6) to keep up with the extremely diverse and hyper dimensional cartographic and geodata production , and 7) to manage more efficiently the data collection and maintenance, and the digital rights monitoring. Many institutions, among which Afriterra Foundation, are strong supporters of assuring open access to cartographic data.

Practical approaches and models for managing geospatial data and services range from restricted conditions, to payment at a market price, to payment for cost recovery, payment for a nominal fee, and royalty free (RF) licensed data. Almost 60% of the respondents believe that the modest knowledge on security standards regarding geospatial and cartographic data over the internet is an important issue, and they have a keen interest in using certified data. About 71% of the respondents have used digital right management at some point, but only a small percent of the survey respondents (9%) use some digital right management tool for serving geospatial data as data producers.

Most respondents wanted to know more about Intellectual Property Rights in their own countries as well as internationally, although 91% were overwhelmed by the topic's regulatory complexity. More than 73% of the survey respondents expressed an interest in the ODAIPR WG organizing a technical session with presentations and workshops dedicated to the discussion of critical issues such as copyright, security, and privacy (for health-related data) applied to geospatial and cartographic data.

A substantial group of respondents are interested in undertaking programs to promote the transfer of knowledge and skills between different countries and entities with respect to open data access and intellectual property rights for geospatial and cartographic data. In fact, 24 respondents from different industries and countries have volunteered to participate in ODAIPR WG activities. Additional ODAIPR WG survey results will be shared at the conference, and the final summary will be posted at the ODAIPR WG web site and published in the ICA Journal.

Summary

The ODAIPR WG survey has served to identify practical approaches and models for managing geospatial data and services, although additional work is need to characterize the main ODAIPR policies in different countries and organizations. While a small but increasing (1, 2) number of entities support open data access, the survey demonstrated a great need and interest for better understanding the meaning of open data access and for developing knowledge and skills for the management of geospatial and cartographic data, eventually through a technology transfer plan. These issues will become priorities of the future activities of ODAIPR WG.

References:
1- "Putting Government Data Online"
2- http://www.w3.org/DesignIssues/GovData.html
3- http://www.whitehouse.gov/open/
4- "Mapping The Future," Kathryn Brown, Science, 6 December 2002
5- Afriterra Foundation http://www.afriterra.org