Worldwide status of national geoportals 2016

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Abstract

A geoportal is a type of web portal that is used to find and access geographic information and associated geographic services (e.g., display, editing, analysis) via the Internet. Geoportals are important for the effective use of geographic information systems (GIS) and are a key element of Spatial Data Infrastructure (SDI) (Crompvoets, 2016).

Over the last two decades, many governments and private companies have invested tens of billions of US Dollars in the development of geographic information, largely to serve specific communities (e.g., agriculture, urban/rural planning, and mining) within local, state, national, international, and even global contexts. The focus has increasingly shifted towards a platform for integrating geographic information by means of SDIs. SDIs facilitate access to existing geospatial data and services necessary to successfully use GIS. Moreover, SDIs facilitate the exchange and sharing of geospatial data between stakeholders within the geographic information community. This community mainly includes mapping agencies, universities, governmental and nongovernmental organizations, and private companies.

Geoportals can be considered as gateways to SDI. They are not a repository where data are simply stored, but can be seen as a one-stop shop for geospatial data, sourced from numerous agencies. The performance of geoportals can vary enormously depending on numerous factors, such as the functionalities offered, the quality of the information offered, and a user’s capacity. In 1994, the US Federal Geospatial Data Committee (FGDC) established the National Geospatial Data Clearinghouse, aimed at facilitating efficient access to the overwhelming quantity of existing geospatial data (from federal agencies) and coordinating its exchange, with the objective of minimizing duplication (in the collection of expensive geospatial data) and assisting partnerships where common needs exist. The NGDC is considered the earliest implementation of a geoportal. Since 1994, the number of countries implementing national geoportals has steadily grown. As of February 2014, around 120 countries have an operational national geoportal in place and 12 countries initiated projects to launch a geoportal in the short-term (Crompvoets, 2016). Most countries in Asia, Europe, the Middle-East, Oceania, North America, and South America have established a geoportal for their nation, whereas most countries in Africa still have not established such a portal. However, several African initiatives to launch national geoportals appear promising. These national geoportals are evolving worldwide in tandem with national SDIs. A body of literature published in scientific/popular journals and conference proceedings describe the existing experiences (e.g., see conference papers of the Global Spatial Data Infrastructure Association).
National geoportals are continuously evolving. In this context, it is important to have a longitudinal perspective when establishing and maintaining national geoportals. A first detailed study of monitoring all national geoportals worldwide started in 2000 (Crompvoets, 2016). This paper presents the worldwide status of national geoportals in 2016.

References