InterPARES 2 Project
International Research on Permanent Authentic Records in Electronic Systems

Characterization of Case Study Validated

Case Study 06: Cybercartographic Atlas of Antarctica

Geneviève Sheppard, UBC
with input from Tracey Lauriault

Version 1, January 2005

Relevance of the Case Study to InterPARES 2

The purpose of this case study is to examine the creation, maintenance and preservation of the Cybercartographic Atlas of Antarctica (CAA). The CAA uses "primarily open source technologies portraying, exploring and communicating the complexities of the Antarctic continent for education, research and policy purposes."[1] The relevance of this case study is to enable InterPARES to reach its goals with respect to the study of scientific activities that are conducted using experiential, interactive and dynamic computer technology.

Information about the Creator

The Creator is the Geomatics Cartographic Research Centre (GCRC), an organized research unit in the Department of Geography and Environmental Studies at Carleton University, located in Ottawa, Canada. The GCRC currently directs the Cybercartography and New Economy Project, established in 2003, of which the Cybercartographic Atlas of Antarctica Project forms a part. The CAA was approved by the Canadian Committee for Antarctic research in 1999 and later re-endorsed by SCAR in 2002. The mandate of the GCRC is to increase knowledge related to human interaction with geospatial information. The Centre fulfils its mandate largely through research in cybercartography and high resolution remote sensing for surveying and mapping and natural resource applications

The GCRC is directed by Dr. D.R. Fraser Taylor. He is assisted by twenty-one project members and research associates who are leaders in the field of geographic information processing. The CAA project itself is a managed through a partnership of research laboratories at Carleton University, an international team of Antarctica scientists and multimedia visualization experts. The CAA project, which operates on a task based approach, consists of thirteen collaborators and an Advisory Board, and there are numerous graduate students as well as two Post Doctoral Fellows participating in the management, research and development of the project.

[1] Case Study 06 Final Report, p. 1.

A project Manager and Assistant Office Administrator have also been assigned to the CAA project. He project also includes 2 technology specialists who are producing the atlas in collaboration with researchers. Numerous stakeholders, data providers and partners from industry, government and non-governmental organizations both in Canada and a number of other countries (see http://gcrc.carleton.ca and Appendices K – List of Data Sources and M – Atlas Framework in the final report).

Information about the Administrative/Management Function

The activity of the creator being investigated is the development of the CAA. The development of the CAA involves the creation of the CAA's content and the development of technology to render the creator's intent. The management of the CAA results in the creation of a variety of operational records such as contracts, correspondence, meeting minutes, reports and other documents directing the intellectual and technical framework of the CAA. Currently, there is no records management or archives program in place to ensure the preservation of the CAA and related documents. While the production environment and the selection of technologies along with the normative structures and documents being generated were selected and put in place with preservation in mind. The creator keeps the digital entities it creates in the production environment, but there are no record keeping system as such while code is captured in Subversion and all objects are described by the creators (see answers to core research questions 6 and 13 in the final report). Nevertheless, the project itself does run according to particular processes and procedures. Moreover, subject specialists working within the project adhere to the practices and procedures of their own disciplines. Individual content creators for the CAA define their own processes whereby content files for the Atlas are created. However, the creators must explain to the technical specialists the intended functionality of the content and how the data is to be presented. Furthermore, the content files created must all be integrated into the CAA's XML schema. The intent is to design the CAA interface to enable content creators to upload their own content themselves.

Information about the Digital Entity Being Studied

The digital entity being studied is a dynamic, interactive, Internet-based, open source atlas portraying, exploring and communicating the complexities of the Antarctic continent for education, research and policy purposes. The CAA is composed of a variety of digital entities in various media such as text, sound, interactive maps and moving image. The CAA is subject to version control and regular back-ups, but no actual preservation strategy has been developed for the CAA (see answers to core research questions 6 and 13 in the final report). However, the Carleton University Data Library is working to archive the CAA as it exists at the end of the project. External users have no access to the production environment of the CAA, but can access the CAA via the World Wide Web. Access to raw data used to create the CAA content may be protected by copyright or use agreements, although most of the data is publicly available through the Antarctic Treaty System.