

Abstract

Preserving and Adding Value to Scientific Data: The Cybercartographic Atlas of Antarctica

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The Cybercartographic Atlas of Antarctica, <http://www.carleton.ca/gcrc/caap/>, is part of the Cybercartography and the New Economy Project (CANE), <http://gcrc.carleton.ca>, funded by the Social Sciences and Humanities Research Council of Canada under the Information for the New Economy Project <http://www.sshrc.ca>. It is also a case study for the large archival project on electronic records, InterPARES 2, <http://www.interpares.org/>. The Atlas is an official project of the Scientific Committee for Antarctic Research (SCAR) and involves partnerships with a number of Antarctic research centres world-wide.

This paper will describe the value added to scientific data on Antarctica by utilizing cybercartography. Cybercartography can be defined as "The organization, presentation, analysis and communication of spatially referenced information on a wide variety of topics of interest and use to society in an interactive, dynamic, multidisciplinary, multisensory format with the use of multimedia and multimodal interfaces" (Taylor, 2003). It has seven major elements: it is multisensory using vision, hearing, touch and eventually smell and taste; it uses multimedia formats and new telecommunication technologies; it is highly interactive and engages the user in new ways; it is applied to a wide range of topics of interest to society, not only location finding and the physical environment; it is not a stand alone product like the traditional map but part of a information/analytical package; it is compiled by individuals from different disciplines; and it involves new research partnerships among academia, government, civil society and the private sector.

The Atlas uses a Web server distributed approach and an open source philosophy. Interoperability among the databases in several participating nations has been achieved. A challenge for the Atlas is effectively describing the multimedia data used and preserving that data. This has required extending existing metadata standards and finding ways to archive the product.

Both the challenges of preserving and adding value to scientific data will be described in the paper.