Internet Mapping in the Kootenays

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Abstract

Within the contemporary context of Internet mass geomedia, this paper considers the use and delivery of interactive Internet map services in the Kootenay region of southeast BC.   An inventory and typology of web sites created and maintained within the region is presented and compared with other sites delivered by developers outside the region in BC and Canada. Little is known about the perception of these sites and whether or not they provide useful and used spatial information.   A questionnaire to participants in a recent workshop for the Columbia Basin Biodiversity Atlas provides some data on how a geospatially-literate user group perceives and uses Web-mapping services.

Background and Relevance

Web-mapping has gained ubiquitous public adoption through a wave of new applications providing services ranging from visualization (Google Earth) to location or direction finding (Map Quest). This new virtual enlightment ripples through the geospatial community as established software vendors continue the move forward into Internet mapping, GIS departments provide access to a wider range of information over the net, and the Open Source community takes notice.   The newness of both the technology and public interest in it however means that not much research has been done using Internet mapping or investigating the relationship between the media and its audience.

Methods and Data

The inventory of web-sites was developed through web-searches and through networks. Geomatics agencies within government were queried.   The inventory is largely complete for Kootenay-based interactive Internet map services (as opposed to static maps available by download from sites or included in pages as images).

The Biodiversity Atlas workshop, held in Nelson on October 22, 2007, brought together twenty-six representatives from academia, federal, provincial and regional government agencies, and NGOs to provide direction for this online resource.   At the end of the day long workshop a questionnaire was circulated and 16 completed forms were collected. Questions about frequency of use of Internet Mapping sites, degree of GIS experience, and the sites used by participants were included as well as questions about the participants experience at the workshop and questions in regards to Atlas development.

Results

At present interactive Internet map services within the region are primarily within the domain of governments at the local (Revelstoke and Castlegar) and Regional District (Regional District of Central Kootenay (RDCK) and Regional District of Kootenay Boundary (RDBK)) level, and academia (Selkirk College).   In all cases organizations have selected software developed by leading GIS software vendors over Open Source solutions.

All sixteen workshop questionnaire respondents had at least a good understanding of the capabilities of a GIS, while 62.5% worked with GIS regularly.   This geospatially literate group all used Internet mapping sites at least once a month, with 50% accessing such sites on a daily basis.   The most common sites accessed were BC government Internet mapping sites (75% of respondents) followed by MapQuest (68.8%) and Google Earth and Google Maps (both at 62.5%).   Yahoo maps was the least used of sites available for selection at only 6.3% of respondents.   In general, the more frequently a respondent used such sites, the more different sites they accessed, as the daily users (n= 8) averaged 4.5 sites, the weekly users (n=6) averaged 2.8 sites and the monthly users (n=2) averaged 3.5.   Only 37.5% of respondents used sites developed within the Kootenays (Selkirk College, 25%, RDCK, 12.5%).

Reasons for using Internet mapping sites varied from identifying data available within a given study area, to reconnaissance, to getting directions to somewhere, to accessing some GIS services without requiring GIS experience, to creating maps.

Conclusions

Internet mapping sites developed in the Kootenays are currently completely within the domain of government and academia and use software from traditional GIS vendors. The geospatially literate group surveyed used Internet mapping sites developed outside the region, including BC government sites and sites developed by Google and MapQuest, more frequently than sites developed in the Kootenays.   The BC government sites were used by the most respondents, suggesting that it is possible to build applications that can successfully compete with or complement the sites developed by the global Geoweb industry.   It is evident that GIS literate people are using these sites regularly and find them useful for a range of purposes.