

Canadian Geospatial Web Content User Needs

Natural Resources Canada

Executive Summary

March 2023

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Natural Resources Canada

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This report is based on 15 online focus groups that Quorus completed between February 20 and March 2, 2023. One session was with individuals working in industry verticals where geospatial content is used. All other sessions were with individuals from the general population, students, parents, and educators who all have an interest (e.g., academic, personal, etc.) in geospatial content. Focus groups spanned the country and lasted approximately 90 minutes. All participants were informed the research was for the Government of Canada. A total of 104 individuals participated in this study.

Cette publication est aussi disponible en français sous le titre : Besoins des utilisateurs de données géospatiales canadiennes en matière de contenu Web

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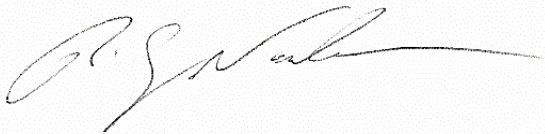


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Signed:

A handwritten signature in black ink, appearing to read "Rick Nadeau", is centered within a rectangular area that has a light gray, dotted background. The signature is fluid and cursive.

March 13, 2023
Rick Nadeau, President
Quorus Consulting Group Inc.

Executive summary

Background and research objectives

The Government of Canada provides geospatial data, maps, and resources to support objectives such as economic growth, environmental and emergency management, and social well-being. New public-facing web presences are being created to organize, develop, and direct content to the appropriate target audiences.

One of the web presences includes the newly launched GEO.ca web platform. It was developed to disseminate the growing collection of data and present this information in a cohesive, singular location. It provides an enhanced experience to users for accessing data and tools on geospatial products and initiatives, focusing on subject-matter and user experience.

Additionally, as part of expanding access to geospatial information, the Canada Centre for Mapping and Earth Observation has begun a renewal of the Atlas of Canada. The Atlas has a long history as an authoritative source of maps, data, and geographic information, providing a national view on Canadian issues.

There has been limited public opinion research on geospatial and mapping activities in the past. As a result, this research will begin the process to obtain information needed to develop and maintain user-focused websites that can leverage the Department's geospatial capacities. The research will help explore and develop an understanding of Canadians' need for and use of geospatial content, what type of content benefits them, and what is appealing to non-industry groups.

This research will focus on the general population to determine new geospatial-related content and information that can be made available through various web platforms. Obtaining this information will improve provision of citizen-focused content and ensure that open geospatial and Earth observation information is available to all Canadians.

The content across public-facing web presences will integrate Canadian citizen-focused content, provided as clear and accessible communication.

This development will increase awareness and access to geography, geospatial data, and related initiatives for personal, professional, and educational use.

Specific research objectives include, but are not limited to, capturing:

- What is the current level of knowledge and general attitude towards mapping and geospatial data products?

- What type of geospatial resources do people interact with?
- What is the preferred method to access geospatial information (i.e., data downloads, static maps, interactive maps, data ordering, text/informational, etc.)
- What geospatial-related content is most useful in daily life?
- What tools, resources, data, and content would be of most interest?

The research will be used to determine the general population's interest, awareness, and needs for geospatial data and information, and how to best communicate this information.

The findings will guide primarily new content for Canada Centre of Mapping and Earth Observation's GEO.CA and Atlas of Canada web platforms, and potentially other web products. These various platforms are to be public and user-focused and their content and site development should be informed based on user needs research in order to address the needs of all Canadians.

Methodology

This report is based on 15 online focus groups that Quorus completed between February 20 and March 2, 2023. Among non-industry segments, three sessions were held with members of the general population interested in maps, three were with post-secondary students, four with parents of children in high school and four with high school and post-secondary educators. One session was held with individuals working in industry verticals for which geospatial content is relevant to the work they do. Eleven sessions were in English and four were in French. All participants were informed the research was for the Government of Canada. Non-industry participants received \$125 for participating and industry participants received \$200. A total of 104 individuals participated in the focus groups. More details can be found in the methodology section later in the report.

Summary of research results

For most participants, the word "Atlas" invokes images of a book of maps, something they may have used or seen in the past, or that previous generations used. While interesting to some, they are generally seen as obsolete and not a commonly-used resource beyond when needed for school projects or for professional purposes.

Digital atlases are not something many have experience with beyond Google Maps or Google Earth. These were mainly used to get around or to search for specific locations. Students and educators may use them for specific projects and courses, and those in specific industry sectors may use them for their jobs as well.

When asked to explore three different digital atlases (Canadian Geographic's Indigenous Peoples Atlas of Canada, the Climate Atlas of Canada and NRCan's Crown-Indigenous Relations and Northern Affairs Canada Map Room), non-industry participants explained that they preferred the first two, as they had intuitive navigation, and were the most visually appealing, user-friendly, engaging and interactive.

Industry participants were also asked to provide feedback on the Climate Atlas of Canada and NRCan's Crown-Indigenous Relations and Northern Affairs Canada Map Room, as well as a more industry-focused site, the Geoportal of the Belgian Federal Institutions. Feedback on the first two sites was similar to what was expressed in the non-industry groups, while most had very positive feedback for the Geoportal. It, too, was said to be easy to navigate, featuring good interactive maps and the breadth and depth of information this group was looking for from a professional perspective.

Asked to brainstorm The Atlas of Canada, participants came up with a large variety of content they would like to see, namely:

- Maps
- Demographics/Statistics
- Navigation/Travel/Leisure/Events
 - Including Infrastructure
- History
 - Including Indigenous topics
- Climate/Weather
- Land use/Industry/Economic information
- Natural Resources
- Nature

Participants also had a broad wish list for the features of the Atlas, as follows:

- Intuitive navigation

- Interactivity
- Use of multimedia
- Accessible and appealing design, layout and information
- Access to and use of data
- Learning and teaching tools
- Integration with other software and links to other sites and further information
- Help and feedback features

Mostly, participants felt that the Atlas of Canada should be a stand-alone website or portal, rather than a (small) element of a broader “all things geography” website.

While digitized historical maps were of general interest and seen as something useful to add to a digital Atlas, they would have limited general appeal or usefulness unless they were enhanced with interactive features and/or the opportunity to easily choose and layer/manipulate data.

Educators and parents were interested in adding teaching tools or an Educators/Student section to the Atlas, which could contain features such as quizzes, lesson plans and project examples. In order for this to be appealing to students and useful for educators, it would have to contain the features from their wish list.

When looking at three different ways of presenting maps (a standard interactive map; maps presented through videos, animation and infographics; and a Story map), participants could see that all three approaches would appeal to some and could be useful in certain circumstances. They also said that a combination of the three could be useful.

- The standard interactive map was appreciated because it contained detailed data and allowed users to “choose their own story” and dig as little or as much as they wanted, mainly for research purposes.
- The example with the video was seen as not necessarily the most useful on its own, but having potential if it were integrated with other features and made to be more interactive or easily customized and manipulated.
- The story map was said to have the most universal appeal, as it combined the best of the features they liked in the other two approaches, namely its interactivity, design and effective use of both text and multimedia.

Having access to data behind the maps and information on the Atlas was something that many students, educators and industry participants saw as a key component to the usefulness of the

website. They would first and foremost want to manipulate (select and layer) data on the site itself, with an option to download the customized data or outputs (such as maps) they were interested in.

Industry participants were asked about their interest in user support. They generally said that it would be important to be able to get help navigating the site if they were having issues finding or accessing what they were looking for. This could be in the form of an online tutorial, a contact person, or a chat bot.

This group was also asked about their interest in receiving communication regarding information or data on the Atlas. While some said they would appreciate that, it would have to be customizable to their needs and interests, for example by having the option to subscribe to only receive updates on particular data or topics.

Overall, the Atlas, if it contains the content and features they most desire, is generally seen as a useful tool for the audiences in the focus groups.

Qualitative research disclaimer

Qualitative research seeks to develop insight and direction rather than quantitatively projectable measures. The purpose is not to generate “statistics” but to hear the full range of opinions on a topic, understand the language participants use, gauge degrees of passion and engagement and to leverage the power of the group to inspire ideas. Participants are encouraged to voice their opinions, irrespective of whether or not that view is shared by others.

Due to the sample size, the special recruitment methods used, and the study objectives themselves, it is clearly understood that the work under discussion is exploratory in nature. The findings are not, nor were they intended to be, projectable to a larger population.

Specifically, it is inappropriate to suggest or to infer that few (or many) real world users would behave in one way simply because few (or many) participants behaved in this way during the sessions. This kind of projection is strictly the prerogative of quantitative research.

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