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Process of Planning a Community Indicator Portal: Geospatial Web Tools for Community Wide Decision Making and Advocacy

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Introduction

This poster demonstrates the process of integrating results collected from a series of community workshop surveys and other sources of public involvement that shaped a blue print of a community portal. The blue print reviews current best practices of community portals that use state-of-art geospatial web technologies. The geospatial web tools will allow user to visualize, compare and extract community indicators such as community assets, services, demographic profiles, including population composition, economy and employment, children and family, special needs, health and mental health, education, as well as community infrastructure, such as transportation, land use, and housing. Through various means of communication, the project team was able to demystify the intricate geo-spatial web tools and complex data structure, and eventually build consensus among diversified community interest groups

USABILITY ASSESSMENT

Figure 1: community interest Groups/Stakeholders

There are 9 different areas of interest groups or stakeholders with over 50 people representing community issues represented in figure 1.

Shared decision-making process of the Portal regarding:
1) How should the portal help one conducting one's job
2) What data and information should be included
3) Desired functions including geo-web tools.

Building consensus through:
1) A project planning website for sharing documents, comments, phased plans and workshop results.
2) Conducting three community workshops: Create understanding of project purpose and process among the stakeholders, funders and the project team.

Survey results versus mock-up evaluation:

Highest ranking for "Maps" function (circled in figure 2): Workshop survey among 28 stakeholders' ranks "Maps" function highest. It allows the users to visualize demographic or other community indicator about or across a geographic area.

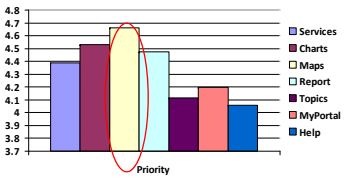

Figure 2: Ranked preference of portal functions

Presentation of a mockup of geo-web tools (shown in figure 3): Concerns of "too much mapping."

Figure 3: A mock-up of portal's Maps function

This level of inconsistency is common, particularly when a large number of people with different technical and professional background are participating the decision-making process.

PROBLEM STATEMENT

How Geo-spatial web tools are perceived and comprehended by the community determines on how usable these tools would be. Many still perceive the sole function of geo-spatial web tools as maps, and unwilling to spend too much efforts in using them. The first and foremost function of a geo-spatial web tool is to a data container and data filter, regardless of visualization or not. As most of the community indicators have geo-tags, the technical perspective of the project often hinders the communication between the project team and the stakeholders. While an academic team tends to think often times, from technical perspective, the project purpose can be lost without translation and through communication, particularly among a large groups of people with different backgrounds.

SOLUTION

Best Practice Study → Workshop 1 Survey → Project Planning Website → 1st Iteration
Revised Best Practice → Workshop 2 Presentation → Teleconference with Funders → 2nd Iteration
Workshop 3 Survey and Presentation → 3rd Iteration and Final Plan

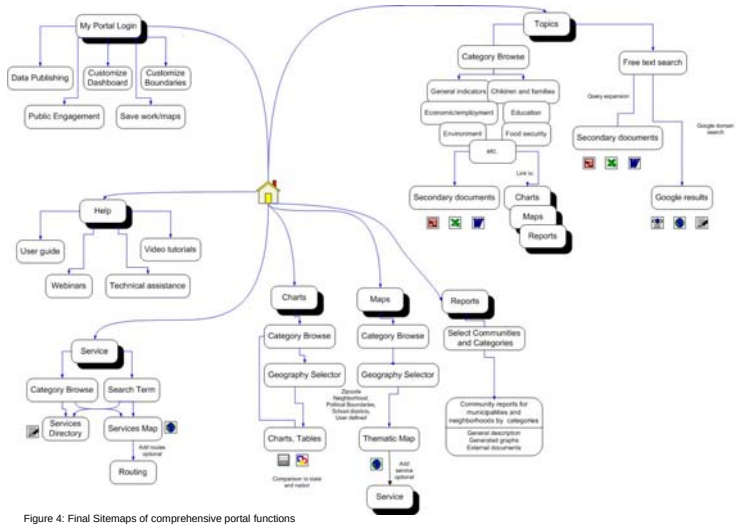

Figure 4: Final Sitemaps of comprehensive portal functions

Approach:

1) First workshop:
a) Presenting various different geo-web tools for community indicators after studying 17 different community portals;
b) Defining primary data indicators and secondary information;
c) Conducting usability assessment workshop survey.

Results were posted on a project planning website. When the first iteration came out, the community stakeholders didn't received it well, as many were intimidated by the complexity of the contents and tools.

2) Second workshop demonstrated a step-by-step mock-up interface. It was well perceived by those who were present at the workshop, however, the mock-up of the functionality and content led many to think that the portal has too many map-related functions. The sample data sets and data sources illustrated were partially misunderstood.

3) Continued collection of feedback from 50+ people, some conflicting with each other. The project team decided to post all feedback by categories (e.g. interface, data, technology) and this helped to build understanding and consensus.

4) Third workshop: Presenting options of portal functionalities by using best practice examples. A comprehensive sitemap (figure 4) with all desired functions was given to the attendees.

Figure 4 shows a sitemaps of a comprehensive community indicator portal. The basic entry points are provided:
- **Thematic search**: Access primary and secondary data through category browsing and free text search.
- **Select presentation format**: Charts, maps, and reports. The numeric indicators that supply the report can be dynamically generated, while the secondary documents and information can be updated by users through an authorized access metadata engine.
- **Select service** through category browse or search term. Mapping of desired community services (e.g. 211 services, Volunteered Pre-kindergarten, services for the elderly) Functions such as routing using public transit and/or bicycle/pedestrian are also included in the service function.

CONCLUSION

The decision making process for a large scale community indicator portal that provide centralized access to both numeric data sets and published information and documents is as complex as it is necessary. Engaging a larger target information stakeholder group play an important role in getting things right before implementation and getting the words out and building consensus. The major challenges lays in communications among diverse groups. Technology platforms such as a planning websites which allow posting of events, milestones, documentations, and results are as important as in person group meeting and individual interaction. The one size fits all scenario remains to be a dream, as one interface can never please everyone, but if we reach a goal of 80% satisfaction rate, then we consider it a success.

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