

EcoGeo

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Topic of research:

The EcoGeo project has, as its main goal, the establishment of an economic evaluation model of the Geographic Information sector (including SD Infrastructures). The first phase of the EcoGeo Project (EcoGeo I, in 2006) has provided a visual representation of the overall flows of geospatial data between the main private and public contributors of the GI sector in Quebec. To achieve this, the EcoGeo I team, firstly, identified stakeholders involved on the Quebec market and, secondly, proposed a new visual tool (called Socioscope) to represent and analyze geospatial data flows of the distribution and dissemination of GI data. In EcoGeo's second phase, Socioscope will be upgraded and the value chain of the GI sector in Quebec will be defined.

Theoretical framework and applied methods:

EcoGeo phase II had several goals. The first one was to analyze the most important existing researches and different approaches to economically evaluating GI infrastructures. Although the literature, concerning GI use and assessment of the return on investment for general GI technology projects, have growth substantially in recent years, a scientific framework, enabling everyone to know which criteria could be necessary to determine and compare the value and the benefit associated with GI projects, still remains undefined.

One promising assessment approach is the value chain. Pricing in a value chain serves to determine the way in which the value created for the end user is distributed among the contributors. In theory, the value chain is one of the most suitable approaches to assess GI. However, it is also one of the most complex one due to the number of variables connected to how GI is produced and used. Therefore, it is often impossible to determine a single and constant value to specific GI and a concrete example of application of a formal economic analysis based on the value chain concept still does not exist.

For that reason we want to define on which basis or with which conventions it can be possible to evaluate the effectiveness of investments in the implementation of this kind of project, defining a list of the attributes which need to be considered. A high number of variables and factors are related to the production and dissemination of GI: context, attributes, timeliness, quality, accuracy, provenance, history (when data was collected, validated, and updated), among others.

Research question and case study:

Attempting to define the value of GI requires introducing several concepts dealing with value theory, the nature of information, and the value of information generally. First of all it is necessary to decide which type of value has to be considered, financial and/or socioeconomic value, the latter not always being easy to define because of the intangible assets. Hereinafter, it is necessary to describe the concept of value and value chain, defining the variables, attributes and costs which has to be considered trying to determine GI products value.

The research issue is to insert all this variables and attributes inside the value chain defined for Quebec province. The final goal of the project is to develop a case study and to provide an economic evaluation for a test-area inside the value chain: the ability to measure the GI economic value will provide key decision support for both institutional and private sectors.

Expectation to the workshop:

The workshop's goal is to allow the participants to better understand and explain why local/regional SDIs succeed (or fail) and how they can be institutionalised. We can affirm that the objective of our project, the definition of an economic evaluation model of GI, is helpful to reach this goal. The ability to economically assess the GI value will provide key support in strategic decisions and business efficiency, helping private companies to obtain a positive return on investments, but more importantly to improve citizens' quality of life and deliver more efficient government in the institutional sector.

I expect to individuate and define the links among our methodology and other theories and conceptual frameworks, and to deal with different methods referring to qualitative and quantitative measurement of GI/SDI effectiveness.