The development of an experimental approach for the generation of a usability hypothesis about the academic use of geo-information

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Usability analysis has been focused on testing specific GI tool interfaces. However, there is the need to better understand **how GI is used**.

**Research Objectives**

- Analyze GI user requirements and problems in order to develop a **GI Use Diagnosis** and

- Apply this diagnosis to specify well-based strategies and recommendations to reach a **better use of GI** (easier, more collaborative, effective...) within specific user communities.
¿How can we develop a GI use Diagnosis?

1. Select a **user community** (GI context of use).

2. Define a **hypothesis** that describes how this user community uses GI
   - **Utility**: capacity of GI to satisfy the user needs,
   - **Usability**: easiness to use GI by the users,
   - **Accessibility**: access facility to reach GI by the users

3. Carry on a user survey (questionnaire or interview) to obtain relevant information related to the hypothesis.

4. Analyze the survey results to obtain the GI use Diagnosis.
How can apply this GI use Diagnosis?

User Community: Academics.

Context of GI use: Education and research.

Hypothesis: “Academics need to use GI but they don’t do it because they have problems to access it”

User survey: 12 Web-based questions
   107 academics from 25 Spanish Universities
Results

“Academics need to use GI” → Utility: capacity of GI to satisfy the user needs
“...they don’t use GI because they have **problems** to **access** it”

- **Usability**: easiness to use GI by the users
- **Accessibility**: access facility to reach GI by the users

40% has problems to access GI

85% uses the Internet to obtain GI and 95% of them free of charges

40% of academics generates its own GI (Authors)
Conclusions

• The **GI use Diagnosis is necessary** to know about the real GI user communities needs and problems.

**Recommendation:**

The academics would profit from **the development of a collaborative environment** where they could share and access GI.

- Open questions.
- Future work.
Thanks!

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