



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

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Context

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 Diganosis?

User Comunnity: 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**”

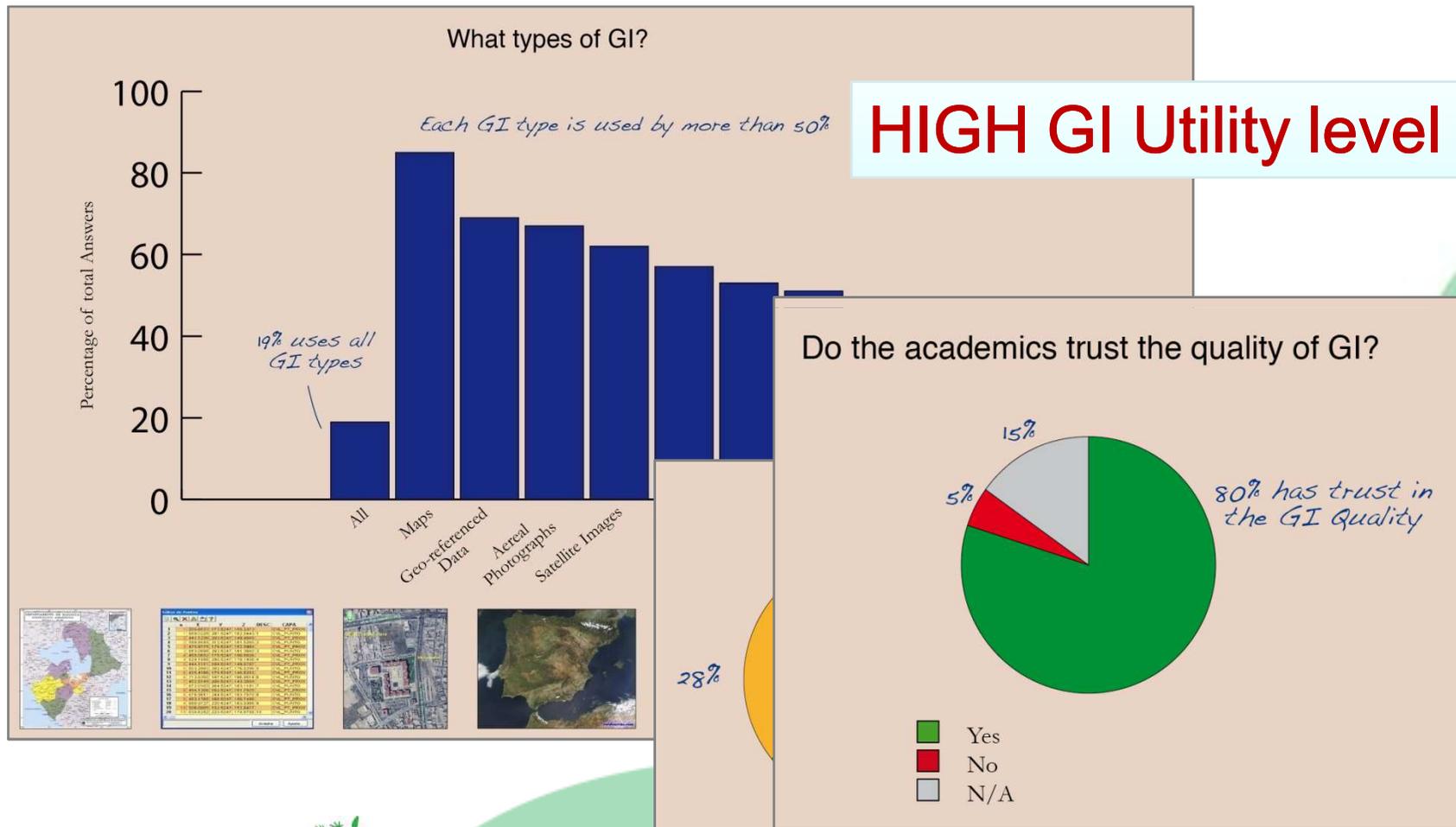
User survey: 12 Web-based questions
107 academics from 25 Spanish Universities

Distribution of the Answers by different Science and Technology Fields



Results

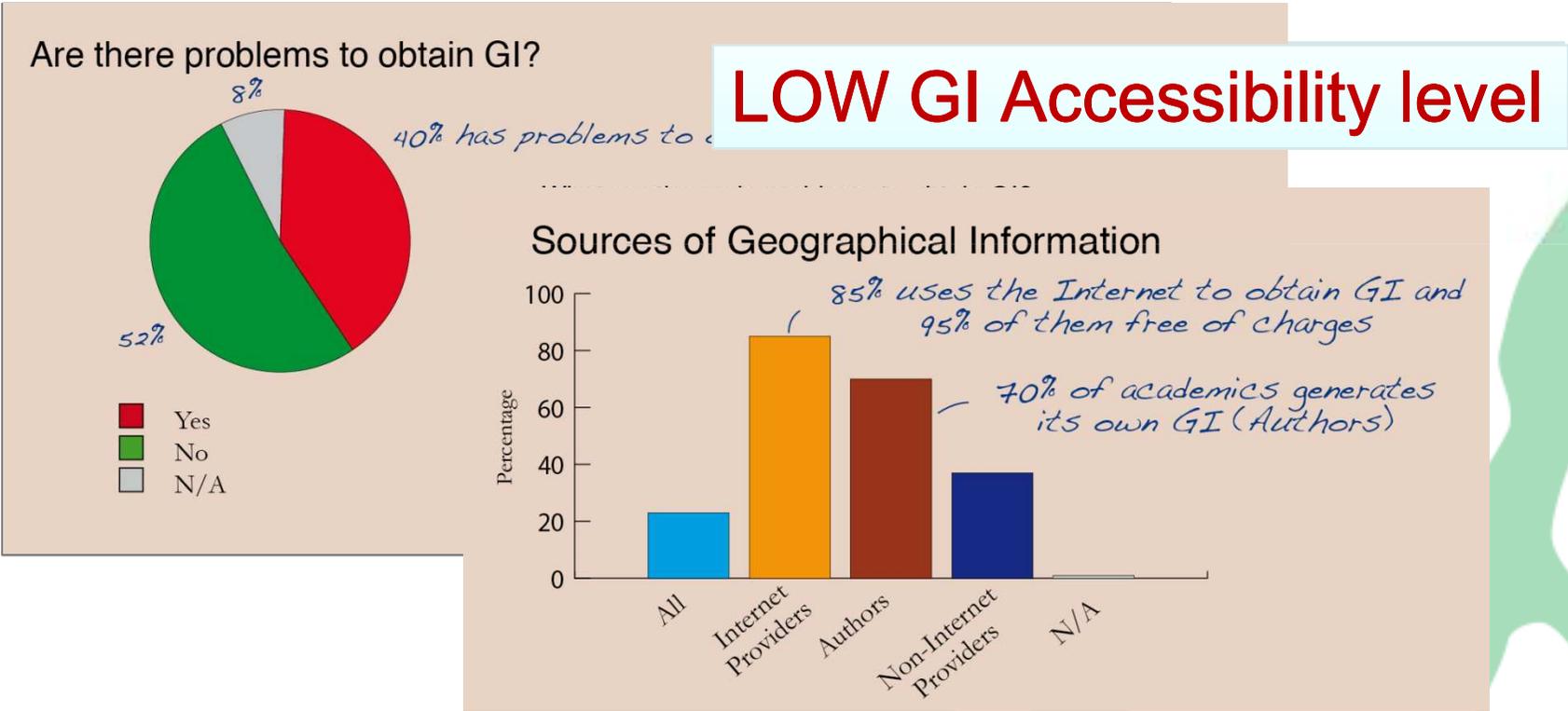
“Academics **need** to use **GI**” → **Utility**: capacity of GI to satisfy the user needs



Results

“...they don't use GI because they have **problems to access it**”

➔ **Accessibility** as access facilities to be able to use by the users



Conclusions

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

HIGH GI Utility level

MEDIUM GI Usability level

LOW GI Accessibility level



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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