Challenges in VGI for scientific projects

Finding users

Advertising: from traditional media to more recent media but also word of mouth, reviews, links, etc.

Four parameters:
- The innovation
- The communication channels
- The time
- The social system

"Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system." (Rogers, 2003)

"Who are the users?"; "In which context do we situate the intended users (work, free time, etc.)?"

Connect as early as possible with users in order to engage them as soon as possible in the process

High quality data

Quality means "the totality of characteristics of a product that bear on its ability to satisfy stated and implied needs" (ISO).

Different kinds of error (Huisman and De By, 2001):
- Mistakes,
- Imprecision (variations in the data measurement)
- Classification errors (attribute quality)

Data quality depends on:
- The background and training of the users
  Data that is produced by local observers has the potential to be more accurate than data that is collected through other techniques.
- The GPS reception problems
- The users' authentication
  "Login authentication ensures that error reporting and change submission are only performed by authorized users." (Hickling Arthurs Low Corporation, 2012)
- The users' restrictions on participation (e.g. modifying others users' contributions)
- Etc.

Different possibilities to analyze data:
- Automated methods
- User-controlled methods

Keeping and involving users

It depends on the users' initial intentions and reasons (health concerns, learning new skills, making social connections, having fun, etc.).

Strong encouragement from a trusted friend or respected authority

Application usability:
- Adapted to the people who will use it,
- As simple as possible,
- "How it Works" explanation,
- Be careful about the time it takes to contribution

Subject vitality & size of the community:
- Mixed form of VGI and social networks
- Quick feedback

Legal issues

Different issues need to be considered. E.g.
- Who is the owner of the data – the person who digitized an object or the person on whose property the object is situated?
- Who is to be hold liable if the data is not correct?
- Can you re-utilize VGI data for a different purpose?
- Under what license is the data published?
- VGI data is boundless, but how about different legal rights in different countries?