

Sharing initial concerns about arts, humanities and social sciences citizen science research projects

Dra. Núria Ferran-Ferrer

Workshop on innovation policies for Cultural Heritage Institutions
National Széchényi Library, Budapest, 10th July 2015



1. My Knacksack

- **Learning support in/lecturer at:**
 - Information and Communication Studies
 - Qualitative Research Methodologies
 - Computer, Multimedia and Telecom Studies
 - Design Methods and UX
- **Research projects:**
 - Open Access to Science (currently under Spanish government funding).
 - Open Educational Practices and Resources (OLCOS project, EU 5th Framework).
 - Cultural Objects in Networked Environments (COINE, EU 4th Framework).



2. Conducted research (I)

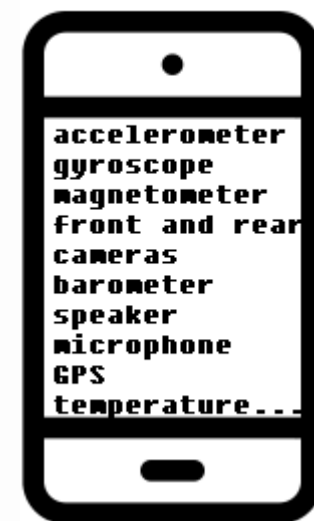
- **Research questions:**
 - Citizens only collecting and processing data?
 - Is there AHSS citizen science projects?
- **Content Analysis:**
 - 4 platforms of citizen science (Wikipedia, SciStarter, CitSci and Precipita)
 - More than 800 projects
 - 4 studied variables:
 - Disciplines (sciences/social sciences, art and humanities)
 - Task and phase on the research process
 - Design (bottom-up/top-down)
 - Aim (big data/not)

2. Conducted research (and II)

- **Interviews:**
 - **Participants:**
 - 5 initiatives: national library, national film library, public libraries network, cartographic institute, Tapias Foundation (contemporary art museum).
 - Barcelona Lab's citizen Science Office and First CS Contest.
 - **Main questions about the...:**
 - Promoters:
 - On purpose or it became citizen science? Why this type of project: low cost/civic participation/...
 - Volunteers:
 - Calls / rewards / needed competencies / do you keep contact data / Tasks/...
 - Researchers:
 - Avaluation of outputs / Perceptions on quality of data / ...
 - Process of participation:
 - Training of volunteers / Infrastructure / Verification processes / ...

3. Citizens as sensors

- **Exponentially growth on**
 - Devices which capture, produce and transmit data
 - Sensors of smartphones
 - Social network
- **Projects are fostered from top-bottom**
 - Volunteers participate in data collection phase
 - Volunteers used for collecting large volume of data
- **Low cost mean for obtaining massive quantities of data**
 - Hunter, J.; *et al.* (2013). “Assessing the quality and trustworthiness of citizen science data”, *Concurrency and Computation: practice and experience*, 25: 454-466.





Bui with tagul.com

4. Citizen science's concept: restricted or free

Lewenstein, B. V. (2004) "What does citizen science accomplish?"

<http://ecommons.library.cornell.edu/handle/1813/37362>

Meanings of Citizen science:

1. Participation of nonscientist in the collection and analysis stages
2. Engagement of nonscientist in true decision-making
3. Engagement of research scientists in the democratic and policy process.

4. Citizen science's concept: restricted or free

- Decalogue of BCNLab Citizen Science Office :**

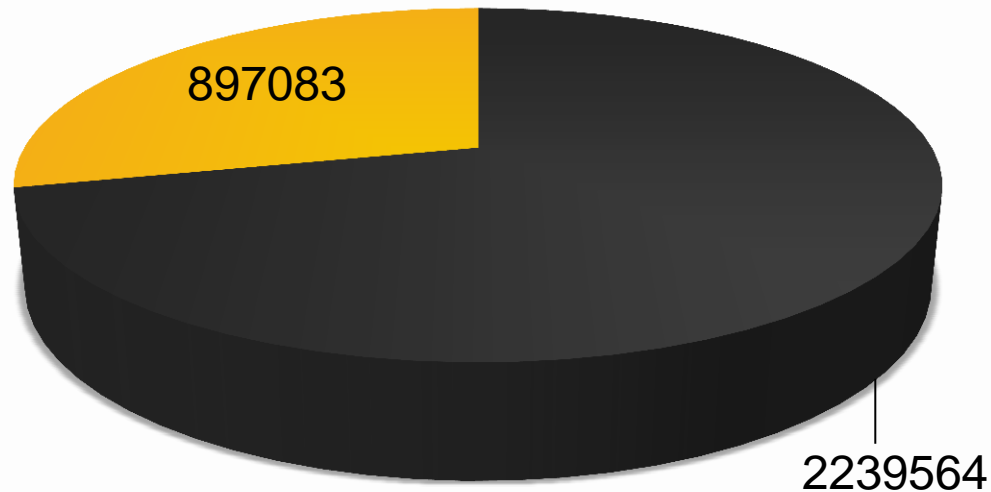
Scientific research carried out, partially or completely, by non-professional scientists

- Creation of new knowledge.
- Participation in at least one stage.
- 4 levels of participation: crowdsourcing / Distributed intelligence / Participatory science / Collaborative science.
- Projects must obey a policy of open data and open code and must follow CC licences (when possible).



5. Hidden disciplines

Research and innovation internal investment in Higher Education Spanish Institutions
(in thousands of €)



- Sciences and Engineering 70%
- Social Sciences and Humanities 30%

Source: INE, 2013.

5. Hidden disciplines

There is potential for Citizen Social Science

- PURDAM, K (2014). “Citizen social science and citizen data? Methodological and ethical challenges for social research”. *Current Sociology* (62), pp.374-392.

Unbalanced proportion of physical and natural projects in relation to art, humanities and social sciences (AHSS)

- Wikipedia: list of 81 projects. Only 1 is about linguistics.
- SciStarter: 23 categories. Only 2 categories on AHSS: archeology and education.

6. Tip of the iceberg

- **The label “citizen science” (CS) is still unknown and unclear.**
- **CS is not the main aim but to strength the link adm-citizens / heritage / low cost data...**
- **Technology is not an issue. Need for coaching on:**
 - How to involve citizens / problem definition / design projects...
 - Ethical issues
- **Inspiration in previous initiatives when designing new CS projects.**
- **No worries on validity of the data.** Absence of prank data.
- **Need for volunteer leaders despite the bottom-up design.**
- **Need for deepen engagement. Not only gathering and processing data’s tasks.**
- **Importance of keeping participants’ data.**
They are willing to participate in new scientific adventures!

7. Appealing for further research

- **Increasing variety: topics, types.**
- **Barely scratch the surface with current mobile technology or Internet of Things.**
- **Convergence with other movements:**
 - Open source / data / content...
 - Civic participation / Activism...
 - Do It Yourself
- **Links with education and training.**
- **Becoming mainstream: easier to publish in indexed journals.**

Thanks for your attention!
Looking forward to your comments

Dra. Núria Ferran-Ferrer
@nferranf
nferranf@uoc.edu



**Universitat Oberta
de Catalunya**