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#### **CIVIC EPISTEMOLOGIES**

*Civic Epistemologies: Development of a Roadmap for Citizen Researchers in the age of Digital Culture* 

# Citizen Science and Memory Institutions: Opportunities and Challenges

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INFORUM, 26-27 May 2015





- Brief introduction on citizen science in the cultural heritage domain
- Main challenge: why citizen science is still not very popular in the cultural heritage sector?

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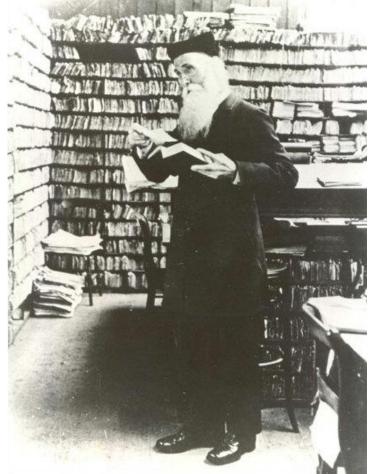
- Involvement in scholarly projects designed by academics
  - Unprofessional researchers
  - Voluntary participation
- Activities may vary but currently those most popular involve data collection or data entry
- Crowdsourcing is one possible method (but it is not necessarily aimed at research tasks!)



## A historical example

In July 1857 the 'Unregistered Words Committee' of the Philological Society of London issued a circular asking for volunteers to read particular books and copy out quotations illustrating 'unregistered' words and. The volume of the "unregistered" material was such that in January 1858, The Philological Society decided that "efforts should be directed toward the compilation of a complete dictionary, and one of unprecedented comprehensiveness." It took a while, but in April 1879, the newly-appointed editor James Murray issued a new appeal to the public, asking for volunteers to read specific books in search of quotations to be included in the future dictionary. Within a year there were close to 800 volunteers and over the next three years, 3,500,000 quotation slips were received and processed by the OED team.





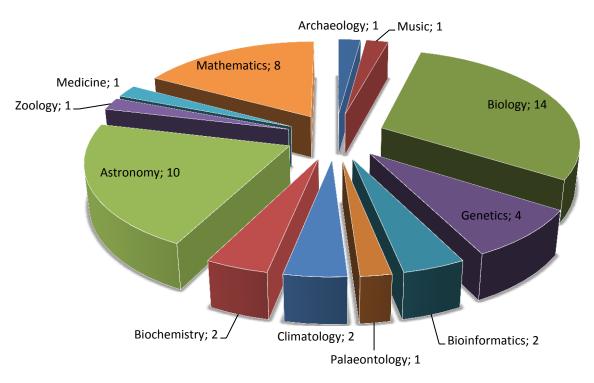
Sir James Murray before 1910 in the Scriptorium, Banbury Road







Distribution of 47 citizen science projects across domains, based on (Franzoni, Sauermann 2014)

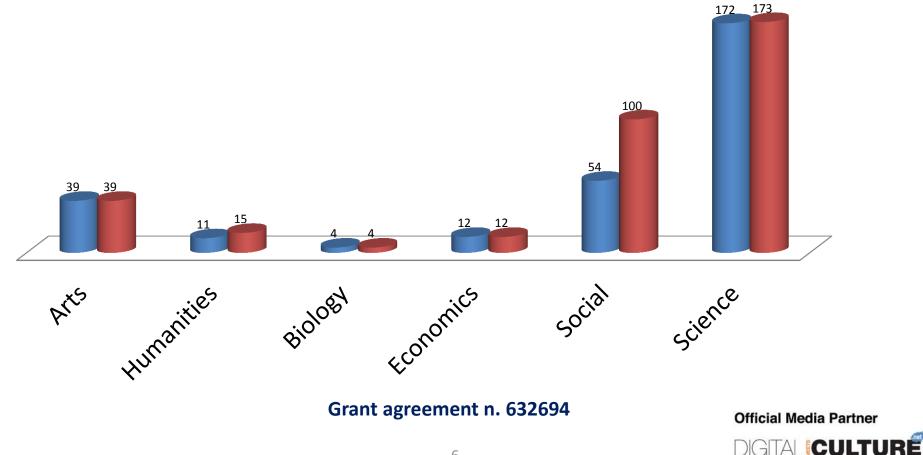






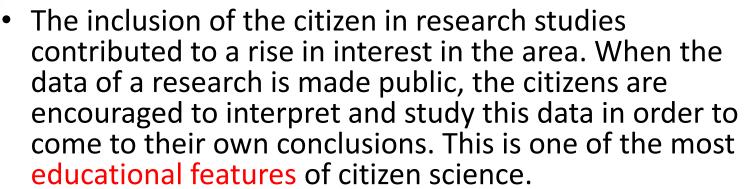
## ... and in a specific platform

#### Number of projects across disciplines in the CrowdCrafting platform, in December 2014 and March 2015



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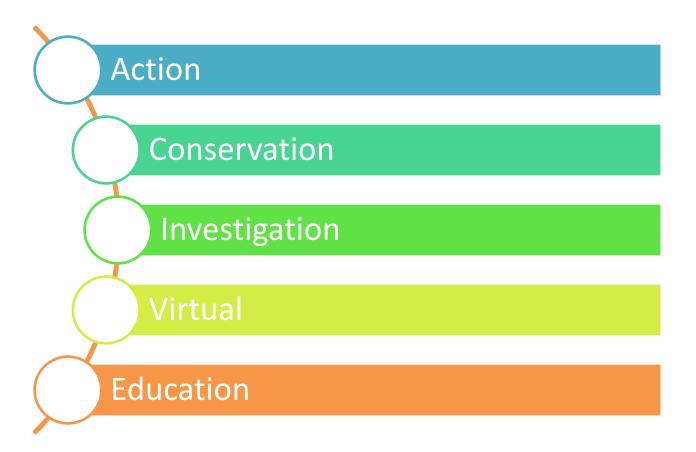
- Citizen science is a good way to get cheap or free labour, skills and computation power. This could also potentially be a source of finance.
- This kind of research is the best way for citizens to understand and appreciate science. (they also get to see how their tax money is being utilized)







#### Andrea Wiggins, Kevin Crowston



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## **Citizen science and CH**

- Research focus still relatively unpopular
- Crowdsourcing is being used/explored potentially some of those initiatives could be refocused around research activities
  - Correction and transcription
  - Contextualisation
  - Complementing collections
  - Co-curation
  - Crowdfunding







http://trove.nla.gov.au/system/stats?env=prod

Since its launch in 2008, the Australian Newspapers site (now included in the library's 'Trove' service) had seen over 142,000 members of the public carrying out 143,214,802 lines of text corrections and adding over 82,000 comments.







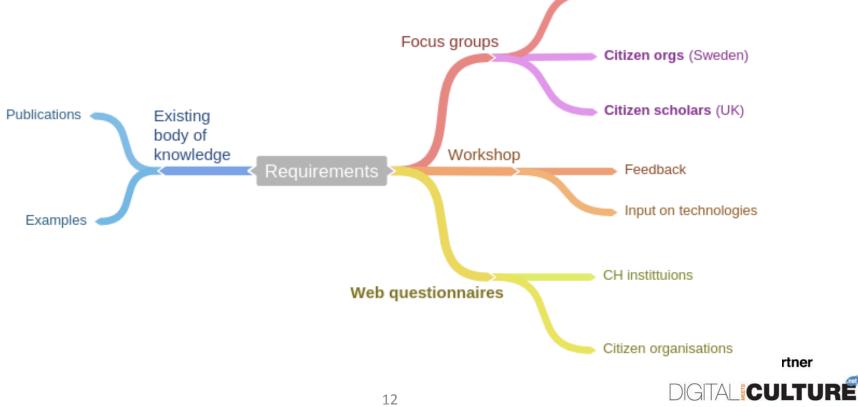
## Some general challenges

- Matching projects and people
  - Competitiveness for people? (e.g. 800 000 people are estimated to participate in the Zooniverse platform)
- Division of labour and integration of contributions
- Trust in citizens' contributions
- Motivation and its fluctuations
- What do the citizens gain (in terms of "scientific literacy")
- How/what domains are addressed in citizen science projects; issues of quality and quantity of research output; data ownership and data interoperability





 Aimed at developing a roadmap on citizen science in CH taking into account requirements of stakeholders



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Project meetings and public events organised by CIVIC EPISTEMOLOGIES –

#### you are welcome to join!

- Workshop on Innovation in CH institutions, Budapest 9-10 July 2015
- Final International Conference, Berlin 12-13 November 2015

**Third parties event where the participation of CIVIC EPISTEMOLOGIES is planned** 

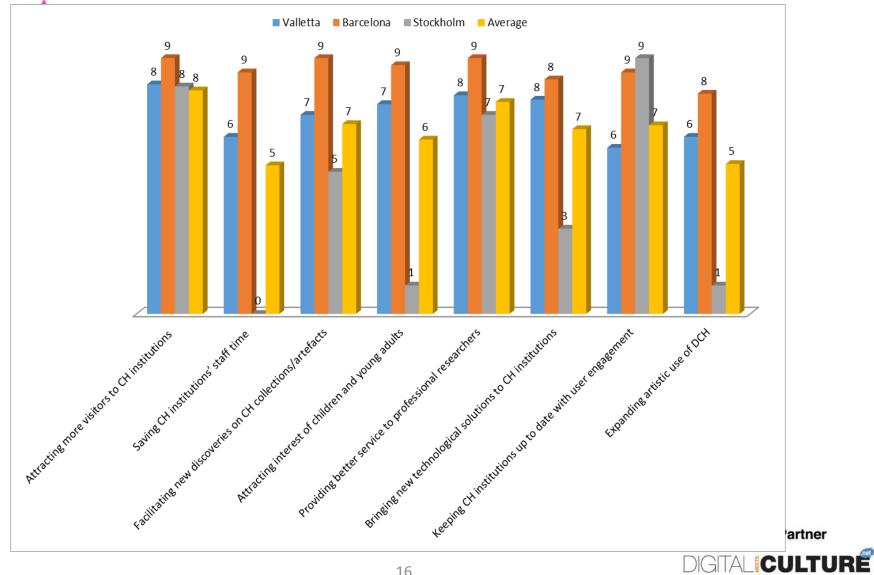
- EGI Conference 2015 "Platforms for citizen science" session, Lisbon 19 May 2015
- ELPUB 2015, Malta 1-3 September 2015
- Digital Heritage, Granada 28 September-2 October 2015
- ICT2015, Lisbon 20-22 October 2015 (proposal for a networking session under submission)
- DCDC Discovering Collections Discovering Communities Conference, Manchester 12-14 October 2015

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## **Findings: benefits from citizen science**

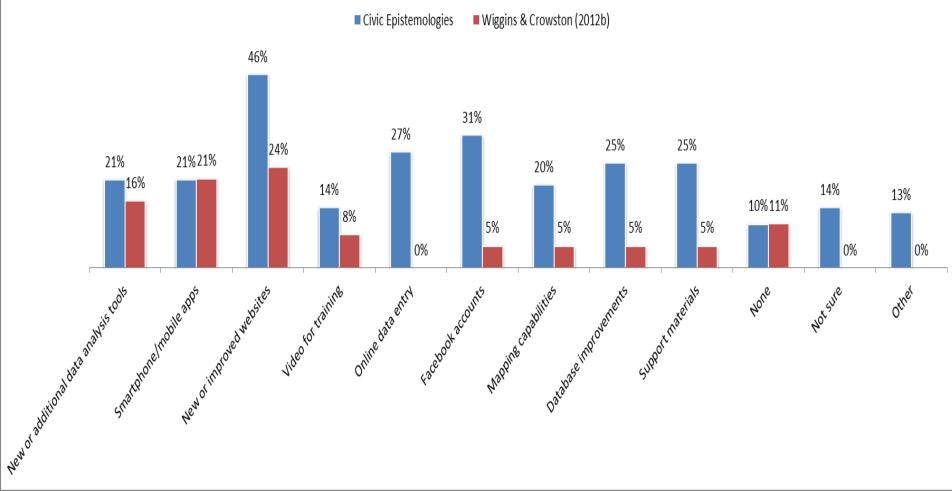












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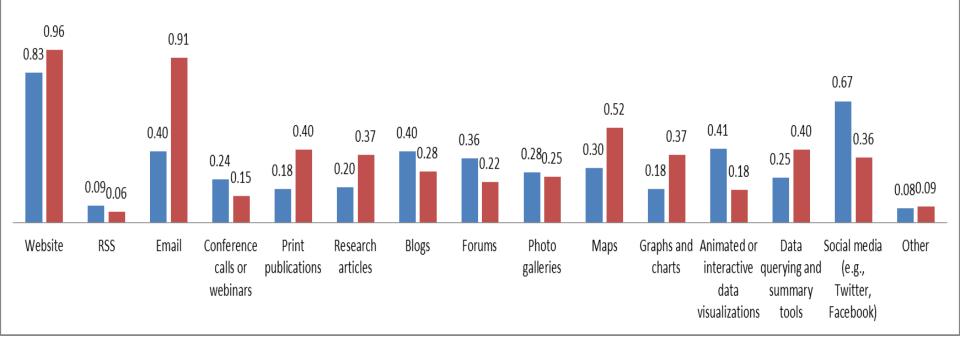




### **Communication tools**



Civic Epistemologies Wiggins & Crowston (2012b)



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Civic Epistemologies Wiggins & Crowston (2012b) 53.30% 45.30% 37.30% 36.84% 36.00% 32.00% 32.00% 24.00% 21.05% 20.00% 18.70% 15.79% 16.00% 14.70% 5.26% 5.26% 5.26% 5.26% 5.26% 0.00% 0.00% 0.00% Competerension of project database, website and data entry... Decision support recommendations for management activities Webbased analysis tools for dilital photos Mobile applications for data entry Realtine and othanic visualisations Aninated and interactive mans Real time 30 visualisation tools Goode Faith 36 technology other



#### Mark

Mark is a 40-year old CH professional from Malta with a role in defining the policies of his institution.

Mark is regularly using CH collections not only for professional reasons but also because he has strong personal interest in the area. Mark is not quite sure how to use the digital collections of his institution for artistic purposes.

He is not that familiar with citizen science and has not played an active role in such projects but could be interested to try it in the future.

Mark sees a range of benefits from using citizen science – mostly related to an improved relation and services offered to the general public but also to the visibility of his institution.

Mark is convinced that the main benefit from citizen science is not cutting any costs but better engagement with the general public.

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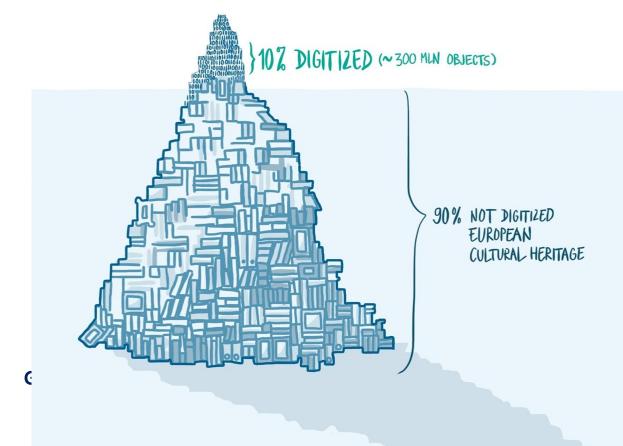
- Broadening and deepening relationships with audiences
- New dimension of engagement
- Measuring impact and value (and creating value using new business models)



# Memory institutions and citizen science – possible scenarios



- 1. Competition (data created/analysed by machines vs by people)
- 2. Facilitation (citizen science seen as method to generate big data)
- 3. Interpretations (using humans to contextualise data applications)
- 4. Complementarity (combining both in various combinations)
- 5. Strategic partnerships







## JISC advice

#### Tips...

- Make your challenge BIG! The closer to impossible it seems, the more people will want to help and be a part of it
- Let users know how well they are doing, either collectively or individually: competition and achievement work
- Make it easy to use, contribute and submit
- Keep the site active: you need to do some work too.
  Developing communities that are active and evolving takes effort and work
- Be open and assume contributors are correct. Adding lots of checks and barriers will only act to discourage activity and creativity – also it is very unlikely you will get any vandalism or misuse

"Capturing the Power of the Crowd and the Challenge of Community Collections", JISC, 2010

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#### Join us in Budapest and/or Berlin!

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- Final International Conference, Berlin 12-13 November 2015

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Contact us on:

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