How to support participation and quality contribution on websites for crowdsourcing cultural heritage

Donelle McKinley
School of Information Management,
Victoria University of Wellington
nonprofitcrowd.org @nonprofitcrowd

NDF2015 conference, 13 October 2015, Wellington, New Zealand

The Questions

What are the aspects of design that influence participation and contribution quality on websites for crowdsourcing cultural heritage?

Which aspects of design are more influential than others?

How could websites for crowdsourcing cultural heritage better support participation and quality contribution?

Potential benefits of crowdsourcing

- Promote and stimulate interest in collections
- Signal the institution's openness and approachability
- Achieve goals that are otherwise too costly and labour-intensive
- Better reflect the diversity of visitors
- Tap into expertise outside the institution
- Engage visitors in new ways
- Raise the profile of research
- Demonstrate relevance
- Enable new research questions to be explored

Common challenges

- Crowdsourcing is still in an experimental phase and projects aren't always cost-effective
- Common project constraints include limited time, resources and expertise
- Guidance for designing and evaluating websites for crowdsourcing cultural heritage is limited and fragmented

A (Proposed) Solution

A set of 21 design principles that draws on existing guidance for:

- Highly interactive websites (Petrie & Power, 2012)
- Online communities (Kraut & Resnick, 2012; Preece & Shneiderman, 2009)
- Crowdsourcing (Howe, 2009)
- Crowdsourcing cultural heritage (Hansen et al., 2013; Holley, 2009, 2010; Lascarides, 2012; McKinley, 2012, 2013; Romeo & Blaser, 2011)

Available from http://nonprofitcrowd.org/crowdsourcing-heuristics/

How influential are these design principles on participation and contribution quality?

Online questionnaire completed by 251 respondents, which included:

- Former, current, and prospective users of websites for crowdsourcing cultural heritage
- People from NZ, Australia, UK, USA and elsewhere
- People affiliated with the cultural heritage sector, tertiary institutions, and other professions

How could websites for crowdsourcing cultural heritage better support participation and quality contribution?

A sample of 20 websites was evaluated using the new design principles. The sample encompassed:

- Multiple host types: galleries, libraries, archives, museums, research institutions, and collaborations
- 10 common process types: transcribing, recording/creating content, tagging, correcting/modifying content, contextualisation, cataloguing, commenting, critical responses and stating preferences, georeferencing, linking, and mapping
- **6 common asset types:** text, image, ephemera/intangible cultural heritage, geospatial, numerical or statistical information

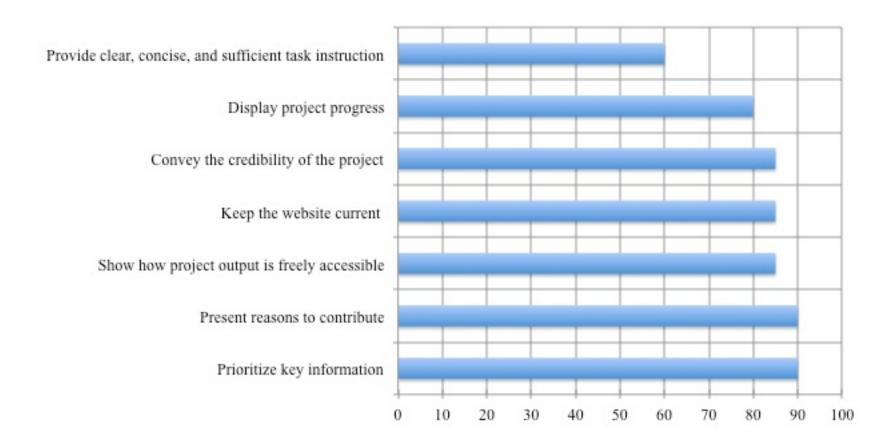
How to support participation and contribution quality on websites for crowdsourcing cultural heritage

- 1. Inform users
- 2. Support users
- 3. Engage users
- 4. Nurture and sustain the user community

How to inform users

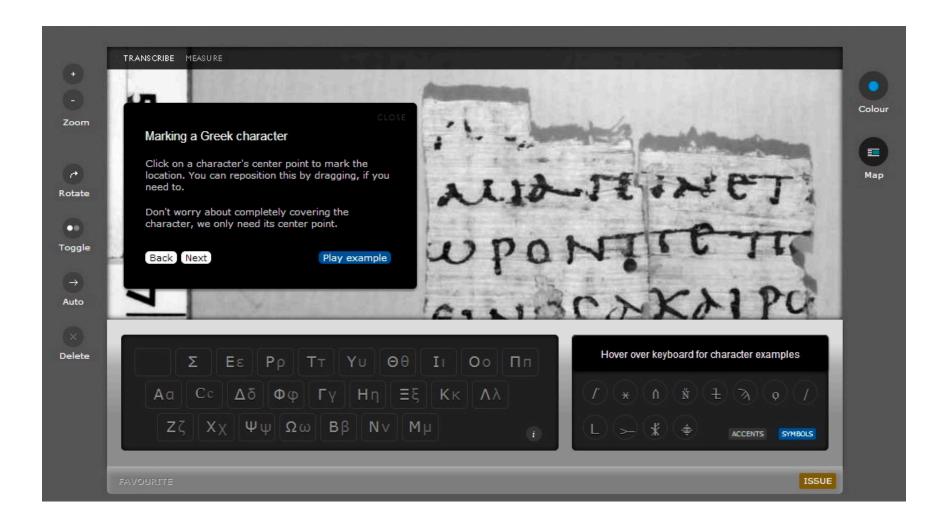
- Provide clear, concise, and sufficient task instruction
- Show how project output is freely accessible
- Keep the website current
- Prioritize key information
- Present reasons to contribute
- Display project progress
- Convey the credibility of the project

Opportunities to inform users more effectively



Percentage of sample that fully complied with design principles for informing users

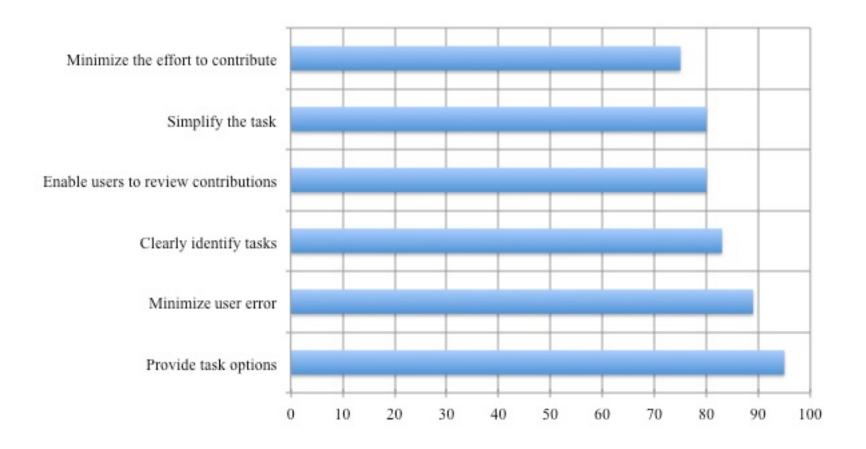
Ancient Lives: An example of clear, concise, and sufficient task instruction



How to support users

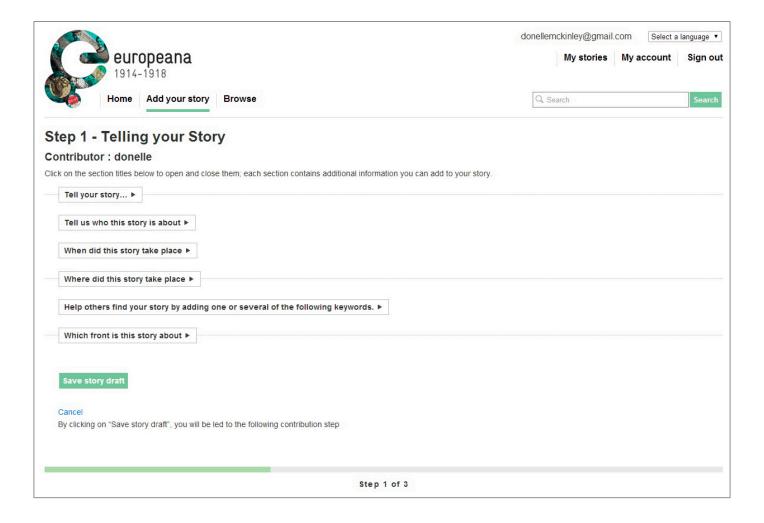
- Minimize the effort to contribute
- Minimize user error
- Enable users to review contributions
- Clearly identify tasks
- Provide task options
- Simplify the task

Opportunities to support users more effectively



Percentage of sample that fully complied with design principles for supporting users

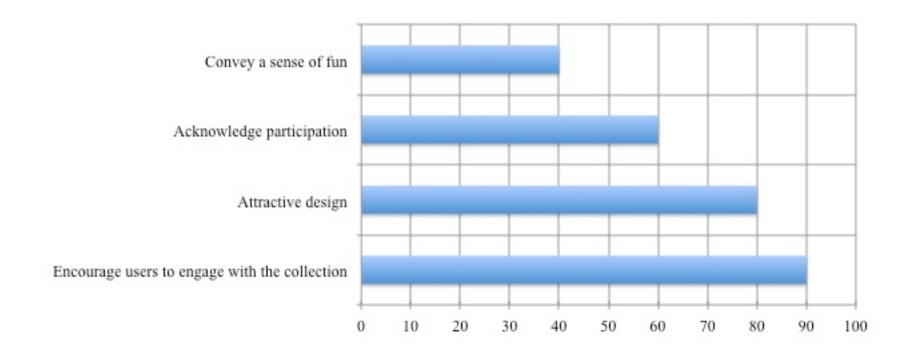
Europeana: An example of minimizing the effort to contribute



How to engage users

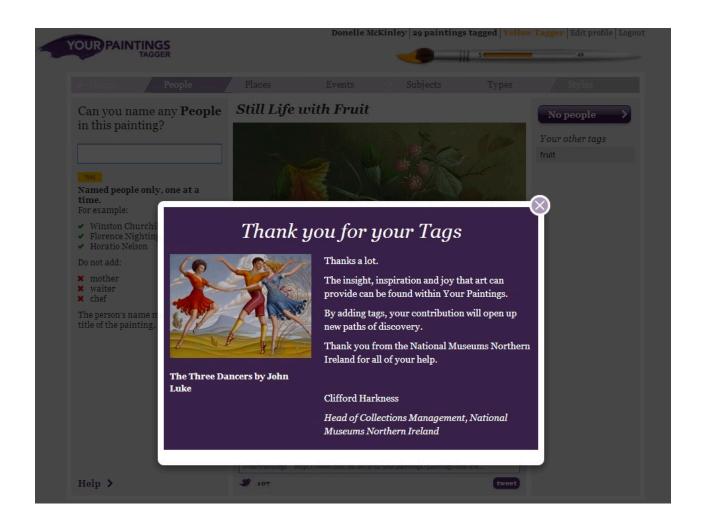
- Attractive design
- Acknowledge participation
- Encourage users to engage with the collection
- Convey a sense of fun

Opportunities to engage users more effectively



Percentage of sample that fully complied with design principles for engaging users

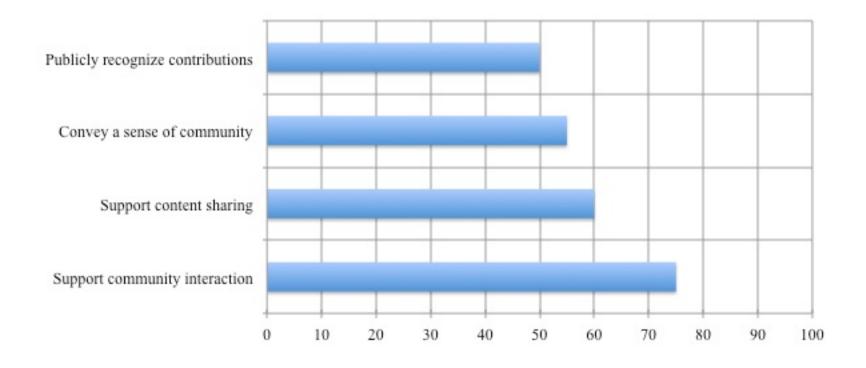
Your Paintings Tagger: An example of acknowledging participation



How to nurture and sustain the user community

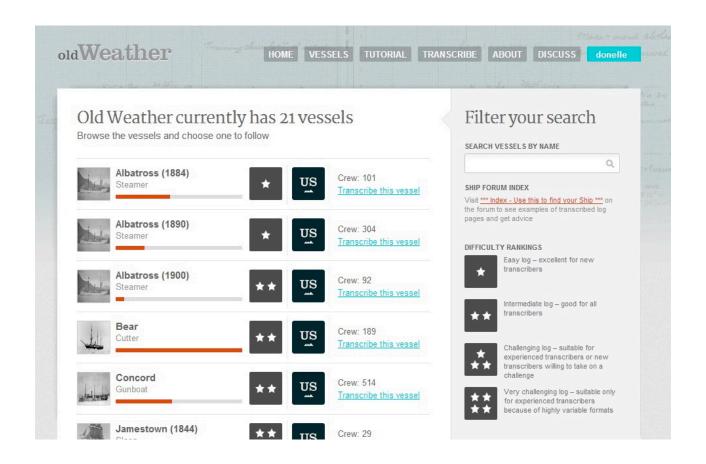
- Convey a sense of community
- Support community interaction
- Publicly recognize contributions
- Support content sharing

Opportunities to nurture and sustain the user community more effectively

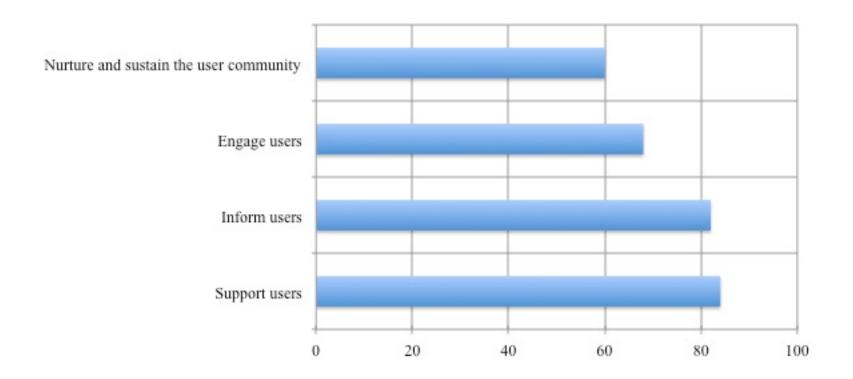


Percentage of sample that fully complied with design principles for nurturing and sustaining the user community

Old Weather: An example of conveying a sense of community



Opportunities to better support volunteer participation and quality contribution



Percentage of sample that fully complied with design principles in each category

Thanks!

For the full set of design principles and other crowdsourcing resources visit nonprofitcrowd.org

For research updates and all things crowdsourcing cultural heritage follow @nonprofitcrowd

References

Dunn, S., & Hedges, M. (2012). Crowd-Sourcing Scoping Study: Engaging the Crowd with Humanities Research. London: Centre for e-Research, Department of Digital Humanities, King's College London. Retrieved from http://crowds.cerch.kcl.ac.uk/wp-content/uploads/2012/12/Crowdsourcing-connected-communities.pdf

Hansen, D. L., Schone, P. J., Corey, D., Reid, M., & Gehring, J. (2013). Quality Control Mechanisms for Crowdsourcing: Peer Review, Arbitration, and Expertise at Familysearch Indexing. In *Proceedings of the 2013 Conference on Computer Supported Cooperative Work* (pp. 649–660). New York, NY, USA: ACM. http://doi.org/10.1145/2441776.2441848

Holley, R. (2010). Crowdsourcing: How and Why Should Libraries Do It? *D-Lib Magazine*, 16(3/4). doi:10.1045/march2010-holley

Howe, J. (2008). Crowdsourcing: why the power of the crowd is driving the future of business. New York: Three Rivers Press.

Kraut, R. E., & Resnick, P. (2012). Building successful online communities: evidence-based social design. Cambridge, Mass.: MIT Press.

Lascarides, M. (2012). Next-Gen Library Design. Chicago: ALA Tech Source.

Petrie, H, & Power, C. (2012). What do users really care about?: a comparison of usability problems found by users and experts on highly interactive websites. In *CHI '12 Proceedings of the 2012 ACM annual conference on Human Factors in Computing Systems*. (pp. 2107–2116). doi:10.1145/2207676.2208363

Preece, J., & Shneiderman, B. (2009). The Reader-to-Leader Framework: Motivating Technology-Mediated Social Participation. *AIS Transactions on Human-Computer Interaction*, 1(1), 13–32.

Romeo, F., & Blaser, L. (2011). Bringing Citizen Scientists and Historians Together. Presented at the Museums and the Web 2011, Philadelphia. Retrieved from http://www.museumsandtheweb.com/mw2011/papers/bringing_citizen_scientists_and_historians_tog