Setting The Crowd in Motion
Some inspiring crowd sourcing examples

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Table of Contents

- The researchers perspective
- Portals, projects, blogs and conferences
- Conclusions
The Vaux family

The Vaux Family: A Legacy of Glacier Photography

March 21st, 2012

By Matthew J. Beedle

1905 Photo: Whyte Museum of the Canadian Rockies (V653/IA-1354, Vaux Family Funds)
The researchers’ perspective
Science 2.0

- Acknowledgement by the EC of the systematic change on all levels of science, not just in open science and citizen science
  - Faster
  - More open
  - More distributed
  - More networked

- Stakeholder consultation (7/2014 – 9/2014) on
  - Awareness
  - Opportunities, and are the stakeholders sharing this opinion
  - Potential policy implications

- Open Science: Outcome of the Public Consultation on ‘Science 2.0: Science in transition’
Key Drivers? *Citizens acting as scientists*
Main barriers? Quality, Infrastructure, Privacy & Copyright
Policy intervention needed?

On what issues within 'Science 2.0' do you see a need for policy intervention?

- Mean ranking position
- Mean
- Mean - std
- Mean + std

Issues:
- Open access to publications
- Open access to research data
- Assessment of quality of research
- Alternative regulation systems
- Text and data mining
- Open source
- Open code
- Data-intensive science
- Research metrics
- Citizen science

Rank: the lowest need (1) to the highest need (11)
The researchers’ perspective

- Citizen science ranked lowest (4.7 score on a scale of 1-11)
- Consulted participants where related to the research community
- Some awareness on the importance of involving the larger public in research:
  - New media and Open science can help bring science closer to the public through various means (e.g. open labs, engagement of scientist with local communities)
  - Involving the public in a constructive dialogue could help make research more responsive to societal challenges (e.g. shift research to more locally relevant problems)
- More debate needed on the role of citizens in science, crowdfunding and the setting of research agendas:
  - Citizen involvement and democratic policymaking must not compromise the intellectual freedom of science
  - LERU warned that citizen science might not be appropriate to provide an opinion in some subject areas (e.g. where high level of technical expertise is needed)
  - EC to help broker discussions regarding the purpose of citizen science (as public engagement or robust research) and what the role of universities should be
Policy actions

- Overall, 43% of the participants from research community stated that citizen science could have a mutual benefit.

- **Policy recommendations relating to civil society groups and societal engagement included:**
  - Enhance recognition of organisations and platforms that bridge the gap between science and society, such as NGOs, science journalists, Wikipedia.
  - Support development of citizen science platforms.
  - Support discussions on the role of citizen science.
  - Discuss and agree best practice in citizen science.
  - Encourage communication between scientists and citizens.
  - Rely on crowdfunding as an additional source of funding rather than a substitution to traditional funding sources.
From policy to practice

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Budapest, 10/07/2015
Citizen Science Portals
ZOONIVERSE

People-Powered Research

The Zooniverse provides opportunities for people around the world to contribute to real discoveries in fields ranging from astronomy to zoology. Welcome to the largest online platform for collaborative volunteer research.

Get involved now!

https://www.zooniverse.org/

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ZOONIVERSE

- Developed and maintained by the Citizen Science Alliance (CSA)
- CSA is a collaboration of scientists, software developers and educators
- Internet based citizen science projects on multiple topics and domains
- Close to 900,000 people engaging in the 'Zooniverse' citizen science projects
- Goal
  - Enable researchers to engage with a large community of volunteers (>10,000 – 10,000 of volunteers)
  - To produce results that would otherwise be impossible or impractical to achieve
  - Provide an opportunity for volunteers to make a contribution to the research in question and understand the scientific process

http://www.citizensciencealliance.org/
ZOONIVERSE – Operation War Diary

The story of the British Army on the Western Front during the First World War is waiting to be discovered in 1.5 million pages of unit war diaries. We need your help to reveal the stories of those who fought in the global conflict that shaped the world we live in today.

GET STARTED!

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ZOONIVERSE – Operation War Diary

- Around 1.5 million pages of unit war diaries covering activity on the Western Front
- Volunteers are asked to classify the type of page and then tag key data
- Goal: a detailed index of the people who appear in these pages and learn more about what they were doing

- Tutorial and guidance
- Trial version
- Forum
ZOONIVERSE – Operation War Diary

Welcome to Operation War Diary!

Become a Citizen Historian and help Imperial War Museums and The National Archives reveal the story of the British Army on the Western Front during the First World War.

Continue with this 10 minute tutorial and get started
ZOONIVERSE – Operation War Diary

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<table>
<thead>
<tr>
<th>Place</th>
<th>Date</th>
<th>Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falovoda</td>
<td>May 1900</td>
<td>Adderhot 1900</td>
</tr>
</tbody>
</table>

Battalion mobilised.

10.55 Battalion transport, 3 officers (Maj. T. A. Hope Lee McKenna) and 112 N.C.O.'s and 800 N.C.O.'s left for Havre, 103rd Transport. 4p.m. Battalion transport arrived at Havre at Rest Camp.

4p.m. 2nd Transport, 17 officers 372 N.C.O.'s left for Le Havre. 2 Transport 3rd Transport, 9 officers 358 N.C.O.'s left for Le Havre. 2 Transport arrived. 8.05p.m. 2nd Trainload arrived. 8.35p.m. 3rd Trainload. 5 min. 10.30p.m. 2nd Trainload arrived. Both Trainloads embarked. Fine night. P.
SCISTARTER – Search on type of activity

http://scistarter.com/

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SCISTARTER – Search on Topic
Citizen Science blogs
About Citizen Science

What the heck is 'citizen science'?

I'm glad you asked! The term 'citizen science' has been used in relation to several concepts over the years, but for the purposes of this blog, citizen science refers to science conducted by average citizens, e.g., people who are not full- or part-time professional scientists but nevertheless have a keen interest in scientific inquiry.

And so what's this blog for?

This blog has two goals. The first goal is that it will become a comprehensive resource for all things related to citizen science: books, papers, discussions, and so on, but especially project listings... categorized and tagged so you can quickly and easily find something you're interested in.

The second goal is that it convinces you that you can, in fact, do science too, and that you go get your hands dirty and do some... and in so doing, that you connect with other people who share your passions. The coolest thing about living in the 21st century is the fact that many of...

http://www.citizensciencecenter.com/
Citizensci

Projects, people, and perspectives fueling new frontiers for citizen science

Did you know ‘storm spotters’ in your community keep you safe during severe weather?

By Carolyn Graybeer
Posted: June 29, 2015

Welcome Google! If you find this page useful, you might want to subscribe to the RSS feed for this topic.

http://blogs.plos.org/citizenscisci/

Did you know ‘storm spotters’ in your community keep you safe during severe weather?

By Carolyn Graybeer
Posted: June 29, 2015

Welcome Google! If you find this page useful, you might want to subscribe to the RSS feed for this topic.

Find out more about Dragonfly Monitoring and other great citizen science projects on SciStarter!

“T’m an aquatic entomologist, and dragonflies and damselflies are the most colorful and noticeable insects in the habitats in which I work,” says Dr. Celeste
Citizen Science projects
VeleHanden (NL)

https://velehanden.nl/

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Project & Approach

- Initiative of the City Archive of Amsterdam (since Nov. 2011)
- Public Private Partnership, 4 types of participants
- Tool for the Heritage sector to provide access to collections with help from the citizen
- Indexing, describing and tagging of material
- Rewards for contributors: material and immaterial
- + 1500 volunteers in first project year
- Personal profiles: + men, 50 – 70 years
- Forum: discussion, support of newcomers by other participants
- Quality control (every scan/item described twice, 3th person checks and validates)
A success story?

- Many volunteers, not so many archives and projects
- Prone to error? Doubts and concerns on crowdsourcing
- Real (if perhaps unconscious) reason?
Trial version

Uitleg bij de indoxoerofening
Klik door deze 4 stappen voor u van start gaat met de indexoerofening:

<table>
<thead>
<tr>
<th>Stap 1</th>
<th>Stap 2</th>
<th>Stap 3</th>
<th>Stap 4</th>
</tr>
</thead>
</table>

Stap 1
Bekijk de gescande pagina rechts op het scherm.
Zoek de velden die moeten worden ingevuld.

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Paleography not my biggest strength
Some conclusions
Pleasure, profit and praise

- Motivation of the Crowd
- Support
  - Instructions in several different places and formats
  - Trial version!
  - Assistance from project staff
  - Forum facility so more experienced members can help
  - FAQ and links to useful pages
  - Improves quality, helps people to stay motivated
- Subject and context of a particular project important as well!
Benefits for researchers, citizens and society

Scientist:
- Citizen scientist provide new data and can raise new question relevant for society (environment, justice, public health...)

Citizen:
- The citizen acquire new learning and skills and gain a deeper understanding of the scientific work in appealing ways

Society:
- Restoring public trust in science
- Re-orienting science towards the real problems in society and environment
- Installing democratic governance of science
Many challenges

- Establishing a relationship between researchers, CHI and the public
- Wide disagreement with respect to the question if citizens can, or should be able to deliberate on scientific matters
  - Fear of losing control
  - Reliability of the data closely linked to reputation and authority
- Researchers and specialists need to accept a change of role from gatekeeper to facilitator
- Appropriate technologies needed for
  - engagement with citizens
  - the creation of new knowledge out of this abundance of data
- Data quality assurance & Data policy
References

- Validation of the results of the public consultation on Science 2.0: Science in Transition [Research and Innovation, European Commission]
- Science 2.0 Conference 2015: Talk Dr Jean-Claude Burgelman, Head of Unit A6, DG Research and Innovation, European Commission
- Embracing the vision of Citizen Science: An historic opportunity for science centers
- White paper on citizen science for Europe [Socientize]
- Crowdsourcing: Prone to Error? [Ellen Fleurbaay, Alexandra Eveleigh]
- Civic Science for sustainability: Reframing the role of experts, Policy-makers and citizens in environmental governance
- Zooniverse
- Citizen Science Alliance
- Scistarter
- Citizen Science Center
- Citizensci
- Digitalkoot
- VeleHanden
Questions?

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www.civic-epistemologies.eu

...on Digital Meets Culture:
www.digitalmeetsculture.net