



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 632694



Setting The Crowd in Motion

Some inspiring crowd sourcing examples

Roxanne Wyns
CIVIC EPISTEMOLOGIES
LIBIS @ KU Leuven



Workshop on innovation policies in CH institutions
Budapest, 10/07/2015

KU LEUVEN



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



The Vaux family



GlacierChange.org *Our ever-changing glaciers: Imagery, science, and art*

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[← Blog archives](#)

The Vaux Family: A Legacy of Glacier Photography

March 21st, 2012 • No Comments

By [Matthew J. Beedle](#)

- Castle Creek Glacier – 55 Years of Retreat
- 2013 Field Research Teaser: Zillmer Glacier, BC
- 35 Years at Bear Glacier, BC
- Glacier Research History: The Beginnings of the Juneau Icefield Research Program
- Bridge Glacier and the Life-Cycle of a Calving Glacier



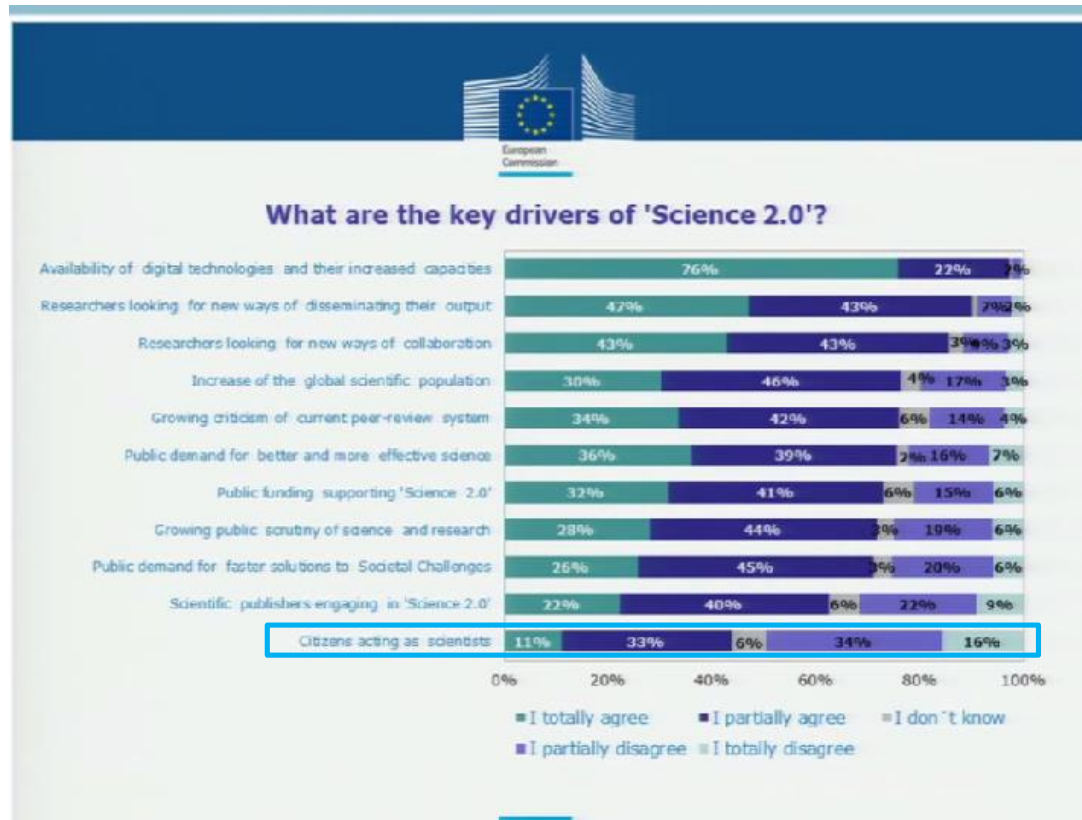
1905 Photo: Whyte Museum of the Canadian Rockies (V653/NA-1354, Vaux Family Fonds)

The researchers' perspective

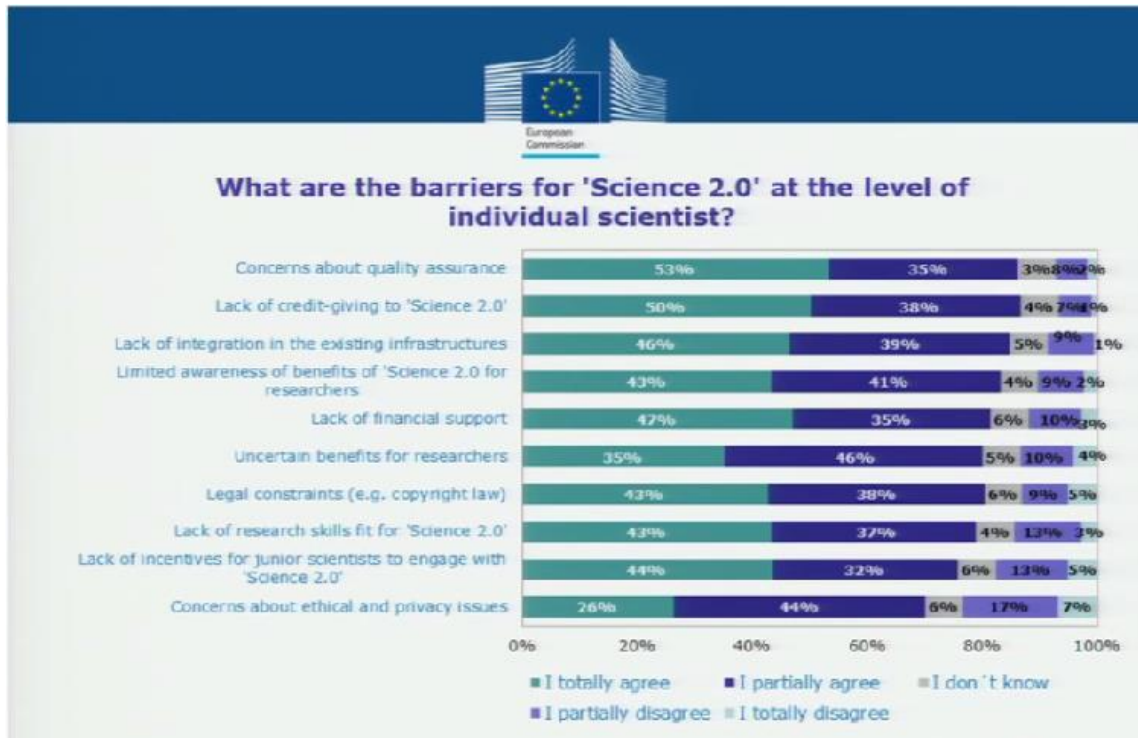
Science 2.0

- 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’

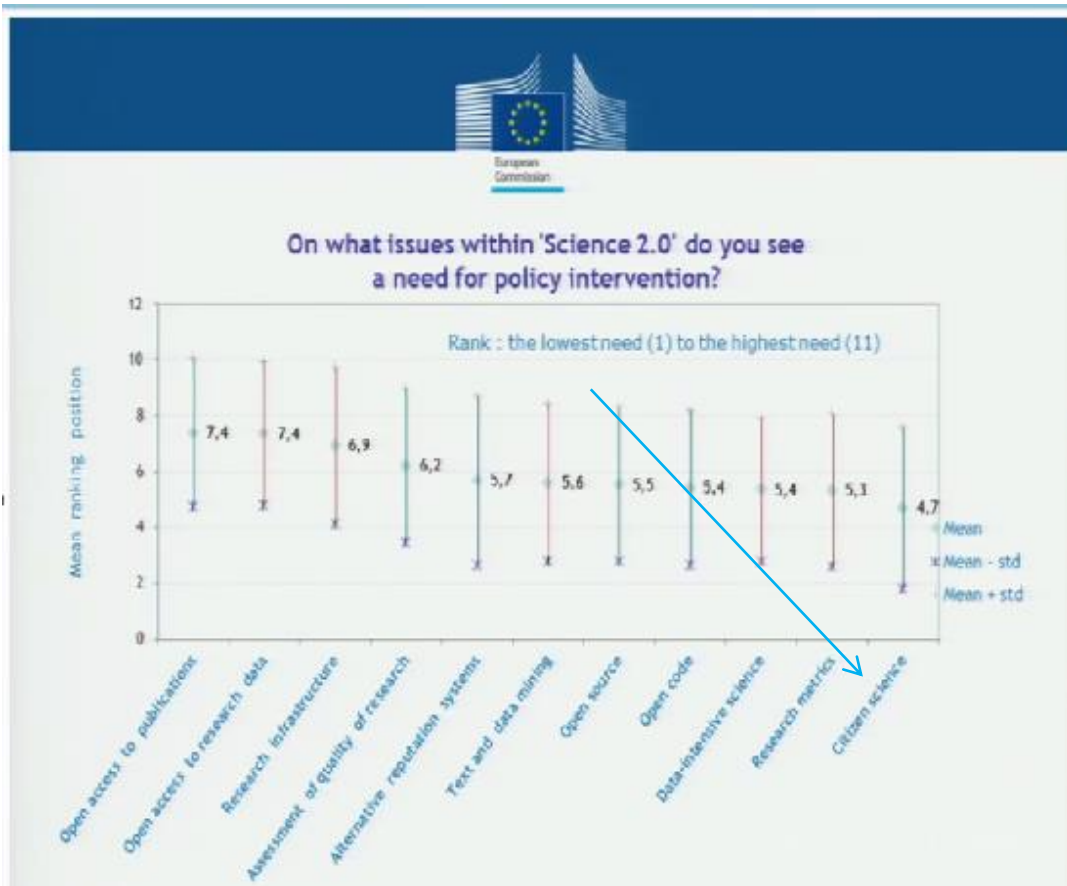
Key Drivers? *Citizens acting as scientists*



Main barriers? *Quality, Infrastructure, Privacy & Copyright*



Policy intervention needed?



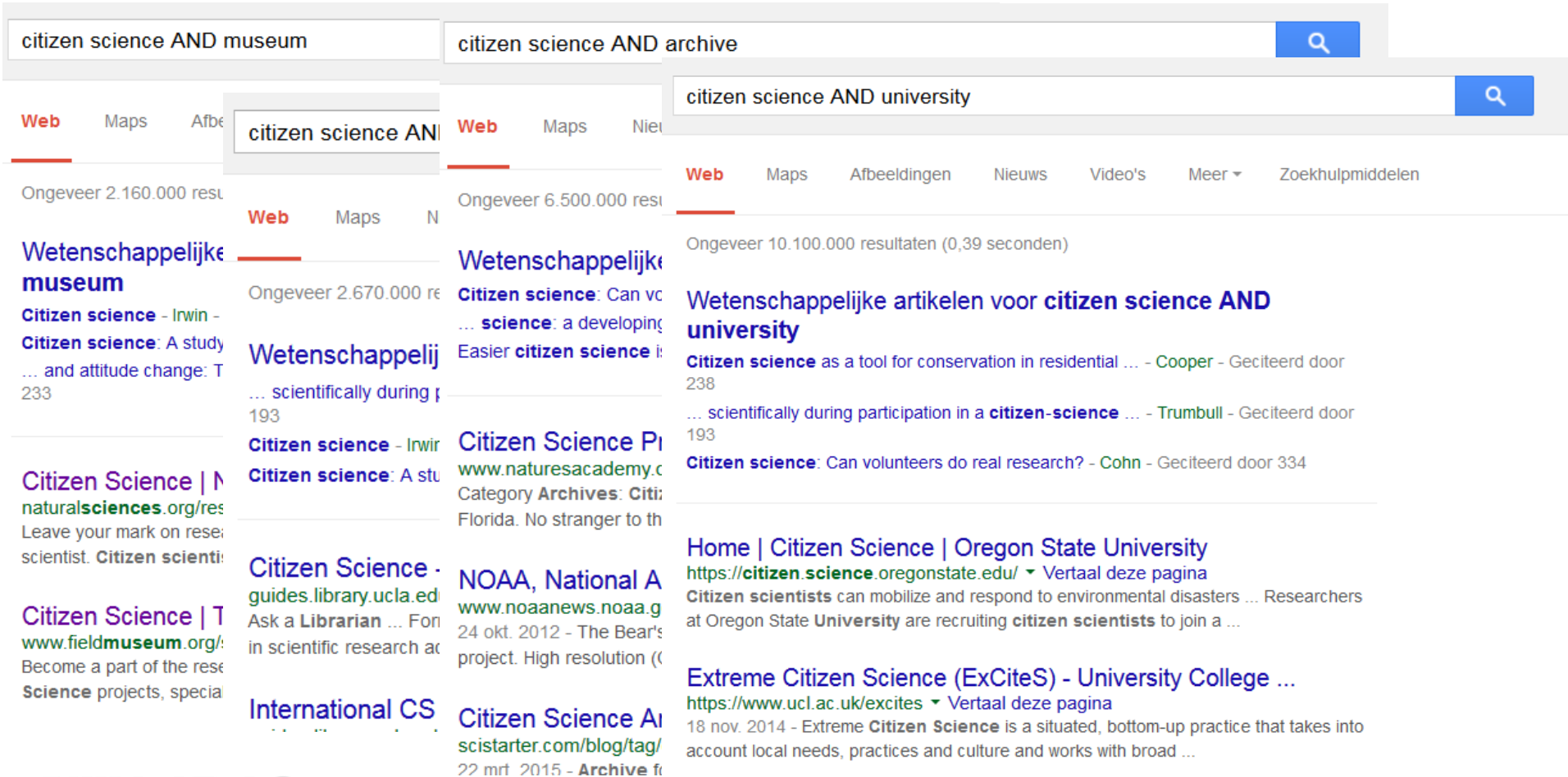
The researchers' perspective

- ❑ 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



The screenshot shows a search engine interface with two search bars. The left search bar contains the query 'citizen science AND museum' and shows approximately 2.16 million results. The right search bar contains 'citizen science AND university' and shows approximately 10.1 million results. Below the search bars, there are three columns of search results. The first column shows results for 'Wetenschappelijke museum' and 'Citizen science'. The second column shows results for 'Wetenschappelijke' and 'Citizen Science Project'. The third column shows results for 'Wetenschappelijke artikelen voor citizen science AND university' and 'Home | Citizen Science | Oregon State University'. Each result includes a title, a snippet of text, and the number of citations or a date.

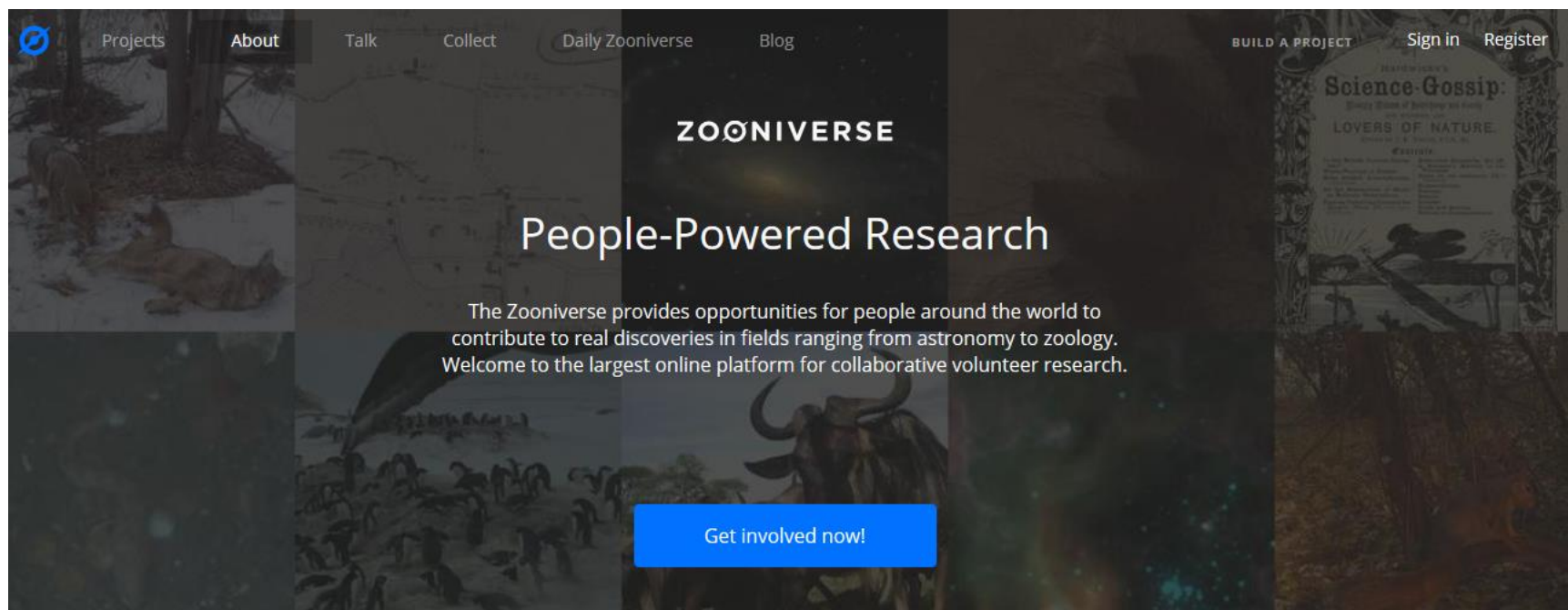


Citizen Science Portals

*Workshop on innovation policies in CH institutions
Budapest, 10/07/2015*

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ZOONIVERSE



The screenshot shows the Zooniverse website homepage. At the top, there is a navigation bar with links for Projects, About, Talk, Collect, Daily Zooniverse, and Blog. On the right side of the navigation bar, there are links for BUILD A PROJECT, Sign in, and Register. The main content area features a dark background with the Zooniverse logo and the text "People-Powered Research". Below this, a paragraph describes the platform: "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." A prominent blue button with the text "Get involved now!" is centered at the bottom of the main content area. The background of the page is a collage of various images, including a cat, a cow, and a historical document titled "Science-Gossip: LOVERS OF NATURE".

<https://www.zooniverse.org/>

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 – 10.0000 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

Snapshot Serengeti

Go wild in the Serengeti! We need your help to classify all the different animals caught in millions of camera trap images.

[Get Started](#)

Notes from Nature

Take Notes from Nature. Transcribe museum records to take notes from nature, contribute to science.

[Get Started](#)

Cell Slider

Analyse real life cancer data. You can help scientists from the world's largest cancer research institution find cures for cancer.

[Get Started](#)

Higgs Hunters

Uncover the building blocks of the universe. Help search for unknown exotic particles in the LHC data.

[Get Started](#)

Worm Watch Lab

Track genetic mysteries. We can better understand how our genes work by spotting the worms laying eggs.

[Get Started](#)



Operation War Diary

Explore soldiers' diaries from the First World War. Annotate and tag diaries from the First World War.

[Get Started](#)



Penguin Watch

Spy on penguins for science. Tag penguins in remote regions to help us understand their lives and environment.

[Get Started](#)



Disk Detective

Find the birthplace of planets. Help comb our galaxy, looking for stars that could harbour planet-forming disks.

[Get Started](#)



Cyclone Center

Classify over 30 years of tropical cyclone data. Scientists at NOAA's National Climatic Data Center need your help.

[Get Started](#)



Planet Hunters

Find planets around stars. Lightcurve changes from the Kepler spacecraft can indicate transiting planets.

[Get Started](#)

ZOONIVERSE – Operation War Diary




A screenshot of the website for "Operation War Diary". The header is dark with the site name "OPERATION WAR DIARY" and a menu icon. Social media icons for Facebook, Twitter, and RSS are on the left. Navigation links include HOME, DIARIES, CLASSIFY, FIELD GUIDE, PROFILE, ABOUT US, TALK, and BLOG. The main content area features a large, dark, grayscale photograph of a group of soldiers. Overlaid on this image is the text "OPERATION WAR DIARY" in large white letters, followed by "REPORTS FROM THE FRONT". Below this is a paragraph of text: "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." At the bottom of the image is a green button with the text "GET STARTED!".

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

 A Zooniverse project [SIGN UP](#)

OPERATION WAR DIARY ≡

HOME
DIARIES
CLASSIFY
FIELD GUIDE
PROFILE
ABOUT US
TALK
BLOC

Tagging the diaries

Select a tag for help and guidance with tagging that type of page.

Blank page

Cover page

[link](#)

Each diary section had a cover page with the name of the unit and dates included. When the diary was passed up the army chain of command and then into the care of The National Archives additional cover pages may have been added. You can include anything that just contains title information. Note the year as it may not be recorded on subsequent pages of the diary.

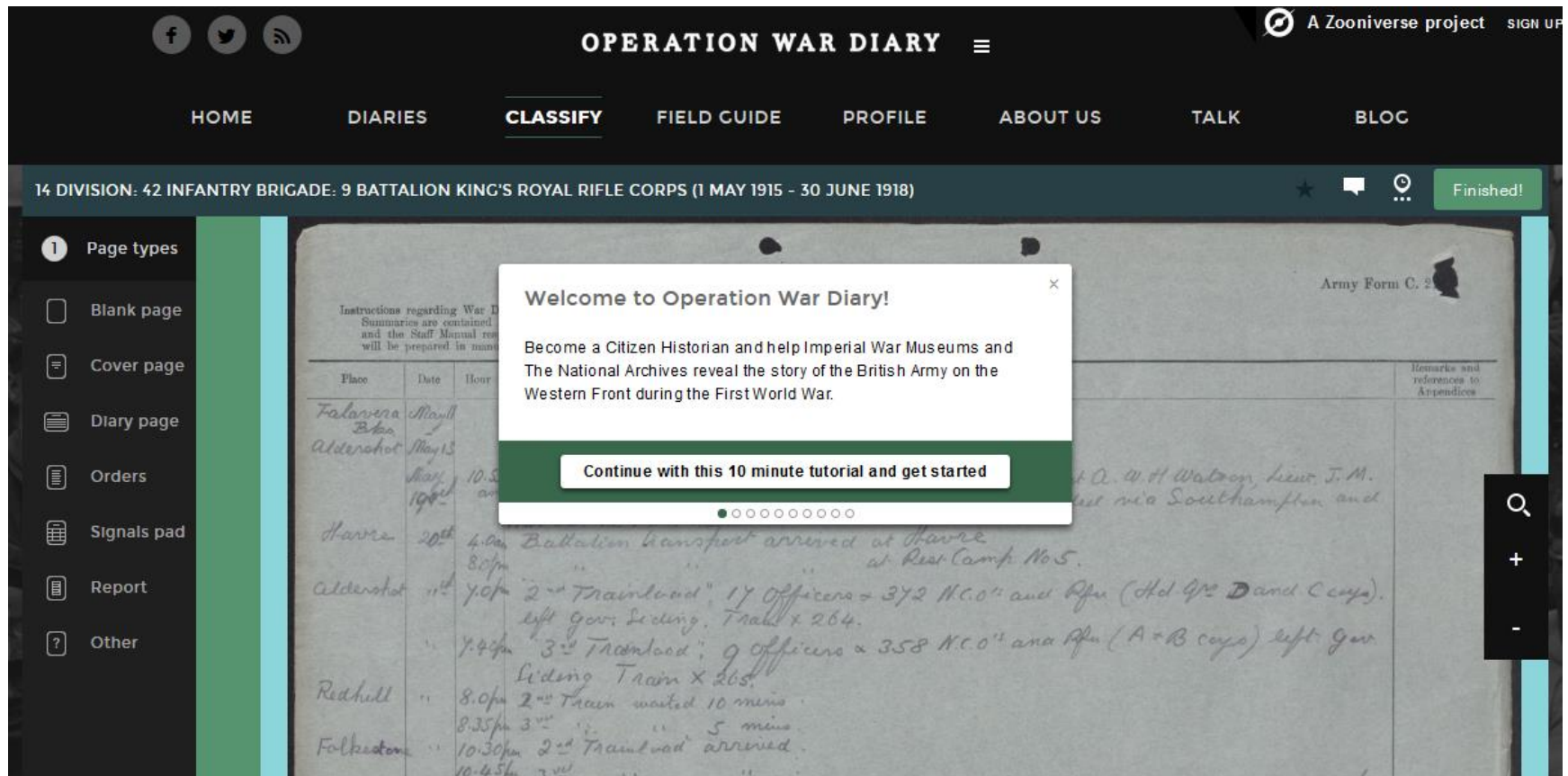
TRANSCRIBING THE DIARIES

Field Service Regulations Part II were issued in 1909 and re-printed in 1913. They gave clear guidance about the purpose of the war diary and how and when it was to be completed. But every diary is different! Help us reveal what information they contain by classifying each page of every diary. Using the descriptions of the type of content you are likely to find in each page type and the examples, choose one Classification: Blank Page, Cover Page, Diary Page, Orders, Signal, Report, Other

SEARCH

CONTINUE CLASSIFYING

ZOONIVERSE – Operation War Diary



The screenshot shows the 'OPERATION WAR DIARY' website. The navigation bar includes links for HOME, DIARIES, CLASSIFY (active), FIELD GUIDE, PROFILE, ABOUT US, TALK, and BLOC. The main content area displays a diary entry for '14 DIVISION: 42 INFANTRY BRIGADE: 9 BATTALION KING'S ROYAL RIFLE CORPS (1 MAY 1915 - 30 JUNE 1918)'. A modal window titled 'Welcome to Operation War Diary!' is overlaid on the diary page, containing the text: '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.' Below the text is a button that says 'Continue with this 10 minute tutorial and get started'. The background diary entry is partially visible, showing a table with columns for Place, Date, Hour, and Remarks.

Place	Date	Hour	Remarks and references to Appendices
Falaise	May 11		
Aldershot	May 13		
	May 19	10.5 am	
Harve	20 th	4.0 pm	Battalion transport arrived at Harve at Rest Camp No. 5.
		8.0 pm	
Aldershot	"	7.0 pm	2 nd Trainload, 17 Officers = 372 N.C.O.' and Rifle (Hd Coy D and Coy).
		7.4 pm	left Gen. Secing. Train X 264.
			3 rd Trainload, 9 Officers = 358 N.C.O.' and Rifle (A+B Coy) left Gen. Secing. Train X 265.
Redhill	"	8.0 pm	2 nd Train waited 10 mins.
		8.35 pm	3 rd " " 5 mins.
Falkstone	"	10.30 pm	2 nd Trainload arrived.
		10.45 pm	3 rd " " "

ZOONIVERSE – Operation War Diary

14 DIVISION: 42 INFANTRY BRIGADE: 9 BATTALION KING'S ROYAL RIFLE CORPS (1 MAY 1915 - 30 JUNE 1918)

Finished!

and the Staff Manual respectively. Title pages will be prepared in manuscript.

(Erase heading not required.)

Place	Date	Hour	Summary of Events and Information
Falaver Bk Adersht	1 May 1913		Battalion mobilised.

Battalion transport, 3 officers (Maj. J. A. Hope Lee, Kenna) and 112 N.C.O.'s and Pfn. left and proceeded, i.e. 1st Trainload.
Battalion transport arrived at Havers at Rest-Camp.

2nd Trainload, 17 Officers & 372 N.C.O.'s and Pfn. left Gov. Siding. Train X 264.

3rd Trainload, 9 Officers & 358 N.C.O.'s and Pfn. left Gov. Siding. Train X 265.

1st Train waited 10 mins.
8.35 pm 3rd Train arrived.
10.30 pm 2nd Trainload arrived.

Falkestone

Help

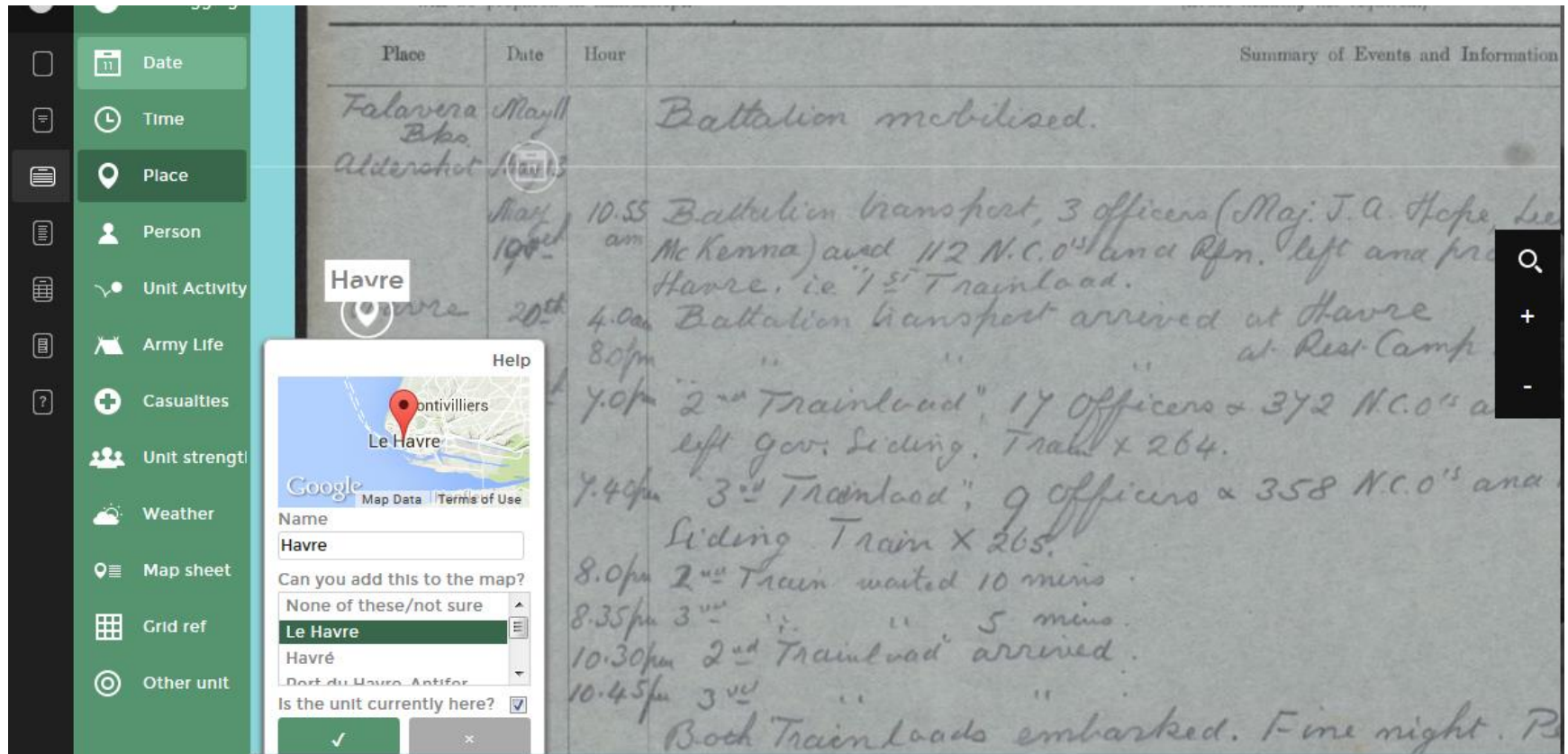
1 May 1913

May 1913

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

✓ ×

ZOONIVERSE – Operation War Diary



Place	Date	Hour	Summary of Events and Information
Falavera Bks	May 11		Battalion mobilised.
Aldershot	May 13		
May 19th		10.55 am	Battalion transport, 3 officers (Maj. J. A. Hope, Lieut McKenna) and 112 N.C.O.'s and Pfn. left and proceeded to Havre, i.e. 1 st Trainload.
Havre	20th	4.00 am	Battalion transport arrived at Havre at Rest Camp
		8.0 pm	" " " "
		7.0 pm	" 2 nd Trainload " 17 Officers & 372 N.C.O.'s and Pfn. left gvw. Siding. Train X 264.
		7.40 pm	" 3 rd Trainload " 9 Officers & 358 N.C.O.'s and Pfn. left gvw. Siding. Train X 265.
		8.0 pm	" 2 nd Train waited 10 mins.
		8.35 pm	" 3 rd " " " 5 mins.
		10.30 pm	" 2 nd Trainload arrived.
		10.45 pm	" 3 rd " " " "
			Both Trainloads embarked. Fine night. P.

SCISTARTER – Search on type of activity



ATTRACT MORE CITIZEN SCIENTISTS.
See SciStarter's Customized PREMIUM SERVICES.

close

scistarter ^{beta}
Science we can do together.

log in / sign up search: go

home project finder our blog

project finder

- pick an activity ▾
 - » At a science center, zoo or aquarium
 - » At home
 - » At night
 - » At school
 - » At sports stadiums
 - » At the beach
 - » Emergency

projects of the day

Aurorasaurus

goal Help build accurate predictions of visible aurora activities.

task Report on whether you can or cannot see the Northern Lights.

Like 7 Anywhere

<http://scistarter.com/>

SCISTARTER – Search on Topic

ATTRACT MORE CITIZEN SCIENTISTS.
See SciStarter's Customized PREMIUM SERVICES.

close

scistarter beta
Science we can do together.

log in / sign up search:

home project finder our blog

project finder

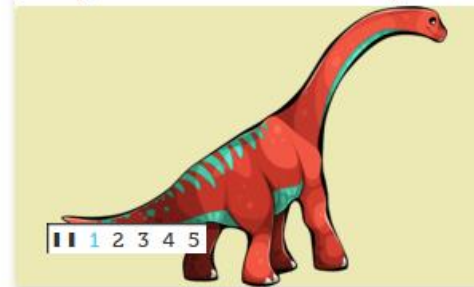
pick an activity

pick a topic

- » Animals
- » Archeology
- » Astronomy & Space
- » Awards
- » Biology
- » Birds



projects of the day



Aurorasaurus

goal Help build accurate predictions of visible aurora activities.

task Report on whether you can or cannot see the Northern Lights.

Like 7

Anywhere

Citizen Science blogs

*Workshop on innovation policies in CH institutions
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Citizen Science Center

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/>

Join more than 10,000 citizen scientists!

Email address:

SIGN UP

YOUR HOST, CHANDRA CLARKE



FOLLOW ME

CitizenSci

Dragonfly Watch – Find Those Fast and Furious Insects

Home STAFF BLOGS ↓ BLOGS NETWORK ↓ COMM

CitizenSci

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

« Older posts

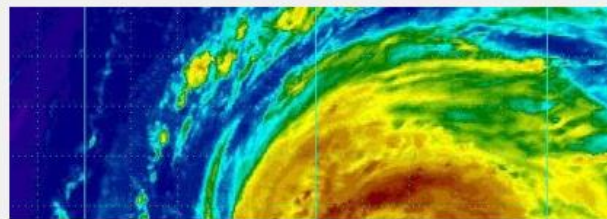
Did you know ‘storm spotters’ in your community keep you safe during severe weather?

By Carolyn Graybeal
Posted: June 29, 2015



Welcome **Googler!** If you find this page useful, you might want to [subscribe to the RSS feed](#) for updates on this topic.

SHARE 



<http://blogs.plos.org/citizensci/>

By [ivorster](#)

Posted: June 12, 2015

SHARE 



A tandem pair of Common Green Damselflies (*Anax junius*) laying eggs. © Dennis Paulson.

Find out more about [Dragonfly Monitoring](#) and other great citizen science projects on [SciStarter!](#)

“I’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

*Workshop on innovation policies in CH institutions
Budapest, 10/07/2015*

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VeleHanden (NL)

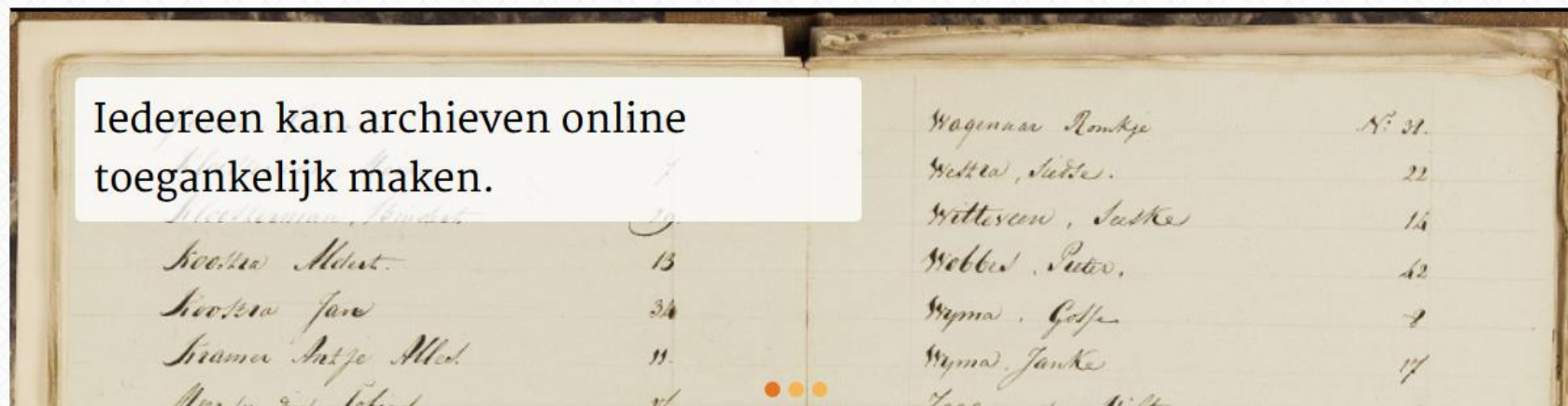


Home Projecten Deelnemers Nieuws Help

Inloggen

Aanmelden

Iedereen kan archieven online
toegankelijk maken.



Leuk en verslavend!

- Kies een project
- Voer gegevens in of beschrijf foto's
- Op je eigen pc of laptop
- Waar en wanneer het jou uitkomt

Aan de slag

Meedoen is eenvoudig, probeer het nu uit.

Oefenen

<https://velehanden.nl/>

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)

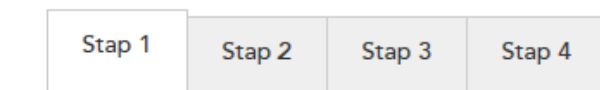
A success story?

- 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 indexeeroefening

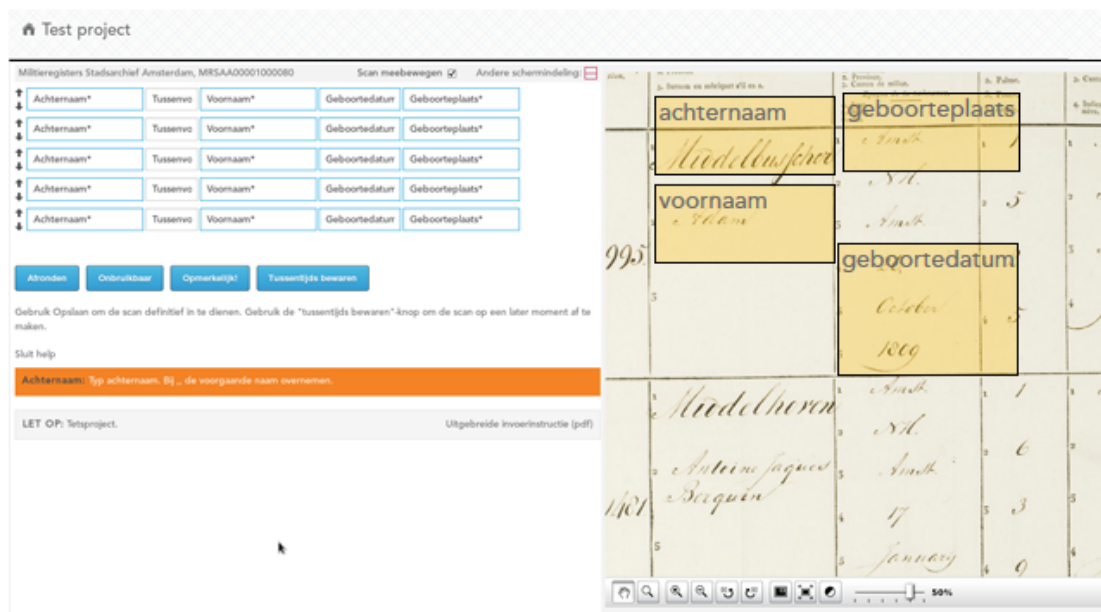
Klik door deze 4 stappen voor u van start gaat met de indexeeroefening:



Stap 1


Bekijk de gescande pagina rechts op het scherm.

Zoek de velden die moeten worden ingevuld.



The screenshot shows a web interface for a 'Test project' with a data entry form on the left and a scanned document on the right. The form has fields for 'Achternaam*', 'Tusservo', 'Voornaam*', 'Geboortedatum', and 'Geboorteplaats*'. The scanned document is a historical record with handwritten entries. Yellow boxes highlight the fields 'achternaam', 'voornaam', and 'geboortedatum' on the document, corresponding to the form fields. A red bar at the bottom of the form contains the instruction: 'Achternaam: Typ achternaam. Bij „ de voorgaande naam overnemen.'

Paleography not my biggest strength

 **Demo Militieregisters 1814-1941** Inloggen

MRSAA00001000003, Scans voor het invoervoorbeeld

LET OP! Dit is slechts een oefening. De gegevens worden niet opgeslagen en u krijgt geen punten.
 Wilt u meedoen met VeleHanden, log dan in en ga naar [het overzicht van projecten](#) en kies een project.

Bij meer dan één voornaam scheiden door een spatie.

4. Jour.
5. Mois.
6. An.

1 Amst

2 WA

100%

[Terug naar de uitleg](#)

Some conclusions

NORTH CAROLINA

VISITOR INFO PROG

- RES
- Online Coll
- R&C Blog
- Living Coll
- Citizen Sc
- Links

Lend a hand
Donate

Score: 8805 of 9850

Sheets like to be alongside each other. Remember, hydrogen bonds are great for your score. Tell me more...

foldit BETA
Solve Puzzles for Science

Shake Wiggle Freeze Protein Remove Bands Disable Bands Reset Puzzle

Ugah Colorado Kansas Missouri Indiana West Virginia Kentucky Virginia Tennessee Oklahoma

search

Chat - Group auto show
Chat - Puzzle Levels auto show
Chat - Global auto show

photographs of Alex Wild. What are you waiting for? [Download Dr. Eleanor's Book of Common Acts of New York City](#)

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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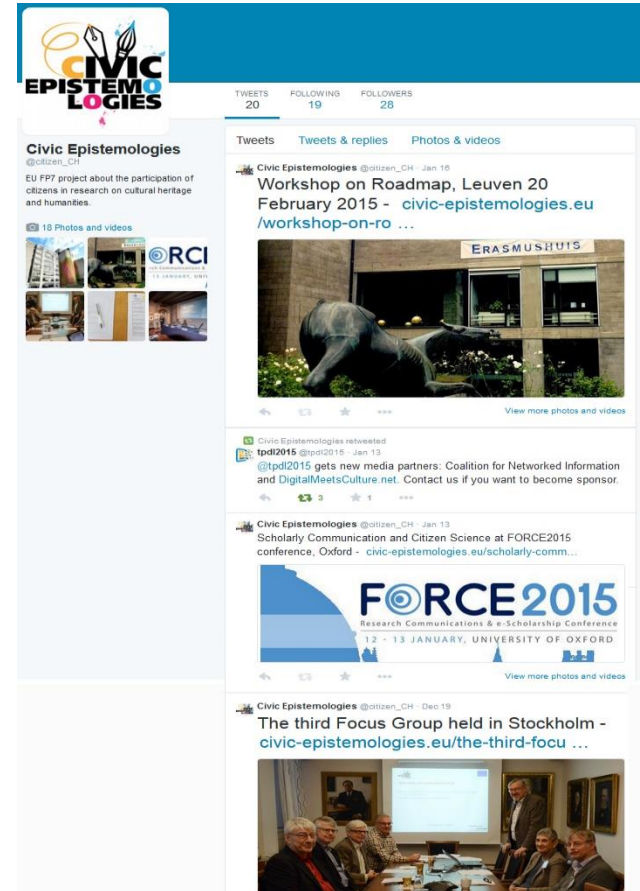
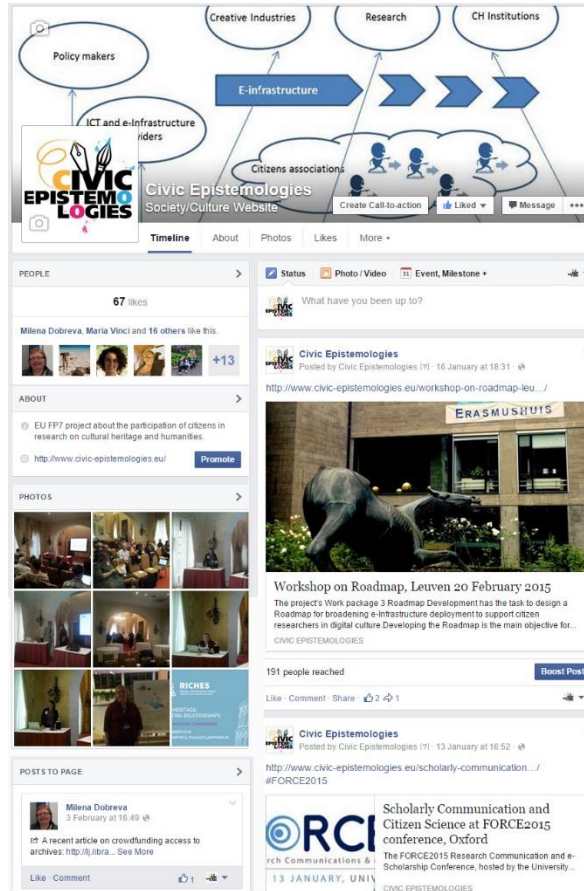


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...on Digital Meets Culture:
www.digitalmeetsculture.net

