

### Citizen Science and libraries: new opportunities of engagement with and for the communities



Funded by the European Union

2822

Maria Cassella, <u>maria cassella@unito.it</u> COS\_SE Train the Trainers Session

# Libraries and Citizen Science

# What research libraries can do for CS

- **Develop skills** for engaging in citizen science projects
- Support, build a toolkit for developing citizen science projects in your institution or offer your respective services to other organizations
- Build collections of protocols and educational materials
- Contribute to making data
   FAIR (findable, accessible,
   interoperable and reusable)
   and develop collections of
   data sets

- Offer infrastructure
- Contribute to evaluation
   processes
- **Participate** in recruitment and retention processes
- Train and Assist volunteers to participate in projects
- Participate in marketing activities
- **Promote** a positive attitude towards citizen science
- **Promote** citizen science projects
- Disseminate concepts

# Public libraries and CS

 "The mission of citizen science aligns with public libraries and many community organizations as we collectively strive to ensure equitable access to information, increase knowledge, create participatory lifelong learning experiences and build and support diverse communities"

(SciStarter Librarian's Guide)

# What public libraries can do for CS

• **Disseminate** OS and CS main concepts

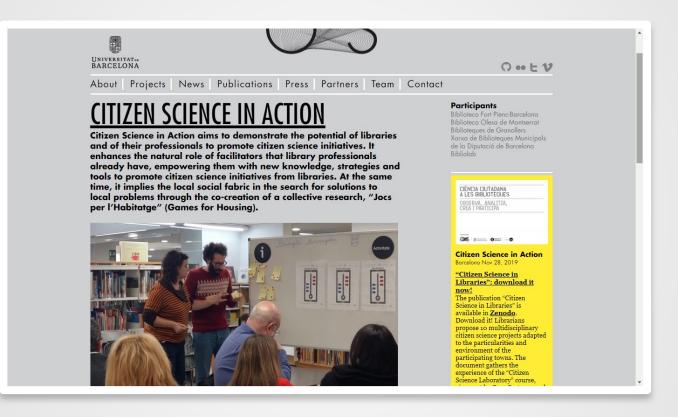
Events:

- o Exhibitions
- Training sessions
- o Events
- o Hackathon
- 0 .....
- Engage volunteers
- **Train and assist** volunteers to participate in projects
- Build kits and toolkits for volunteers
- Build tutorials on OS and CS





## Citizen science in Action



http://www.ub.edu/opensystems/projectes/cienciaciutadana-en-accio/

# Public libraries. Citizen Science in Action

- University of Barcelona and Barcelona Municipality project
- Engagament of Barcelona Network of Public Libraries
- Citizen Science Laboratory. Training for 30 librarians (staff from 24 Catalan public libraries)
- Co-creation of a CS project involving:
   40 users, 7 librarians plus researchers of the University of Barcelona Opensystems Research Centre

# Further readings

 Tiberius Ignat , Paul Ayris, Ignasi Labastida i Juan, Susan Reilly, Bertil Dorch, Thomas Kaarsted, Anne Kathrine Overgaard, Merry work: libraries and citizen science, "Insights" 2018

https://insights.uksg.org/articles/10.1629/uksg.431/

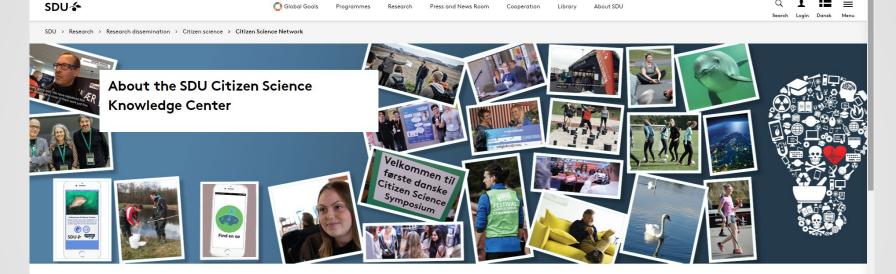
 Anna Cigarini et al, Citizen science in public libraries, "Data in Brief", 40 (2022)

# Université Paris-Saclay Video on CS

Fête de la science

https://www.youtube.com/watch?v=vtRzbiEQB\_4

# SDU Citizen Science Knowledge Center



#### SDU Citizen Science Knowledge Center

The Knowledge Center is hosted by the Library and anchored at all Faculties, DIAS, RIO as well as Odense University Hospital. The overall goals are.

#### For society:

- · To bring citizens closer to science and scientists closer to society
- · To broker knowledge sharing about Citizen Science internally and externally
- To open the research process for all citizens across all levels of education and social groups through communication, education
   and learning

#### For researchers:

- · To enable researchers to conduct excellent research with regards to Citizen Science
- · To provide relevant services for researchers and enable them to act themselves

## CS in Social Sciences and Humanities

SDU 🎓	🜔 Global Goals	Programmes	Research	Press and News Room	Cooperation	Library	About SDU	Q Search	Login Dans	ik Men	
SDU $\rightarrow$ Research $\rightarrow$ Research dissemination $\rightarrow$ Citizen science $\rightarrow$ Previous	Projects > Borgerdreve	t journalistik									
Citizen-driven Journal	sm										

The Citizen Science project 'Citizen Journalism' was comprised of 3 projects.

The 3 projects were 1) a project on whether or not it was possible to strengthen the confidence to the news media, 2) an

investigation of the citizens' media network and 3) a project on the Danish pupils' ability to linguistically decode, understand and take a critical stand towards incredible and unreliable news in the social media.

Read more about the different projects in the boxes above.

# Libraries and the crowdsourced collections

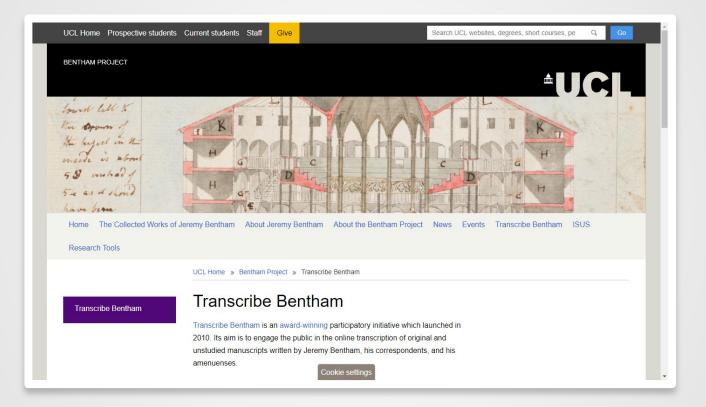
# Crowdsourcing and the special collections

 Crowdsourcing refers to "a method to obtain needed services, ideas, or content by soliciting voluntary contributions from a group of individuals or organizations, especially from an online community."

> Crowdsourcing and Citizen Science Act of 2016, 114<sup>th</sup> US Congress

 A new method to foster special collections by soliciting transcriptions, metadata enrichment, storytelling and so on

## **Transcribe Bentham**



https://www.ucl.ac.uk/bentham-project/transcribebentham

# **Transcribe Bentham**

https://www.ucl.ac.uk/bentham-project/transcribe-bentham

• Launched by UCL in 2010

Aim:

- to engage the public in the online transcription of original and unstudied manuscripts written by Jeremy Bentham, his correspondents, and his amenuenses
- At the latest count, volunteers have transcribed more than 30.000 pages of Bentham's writings. These transcripts are made available in the <u>UCL Library digital repository</u>,

# Transcription desk

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ch	New users	Existing users	The British Library @
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	<ul> <li>Create an account</li> <li>Our Getting Started guide</li> </ul>	■ Login ■ Transcription Guidelines	European Commission Horizon 2020
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	Project Progress		Arts and Humanities Research Council
	Untranscribed: 10991		
	In Progress: 1120		
	Completed: 30068 Total: 47293		
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	Check out our Benthamometer for a full summary of	f the pages that have been transcribed by volunteers.	
	Leaderboard		
	Our Leaderboard shows the activity of our most entities	husiastic transcribers. Can you collect enough points to climb the league table? Find out how many points you need to become a master transcriber.	

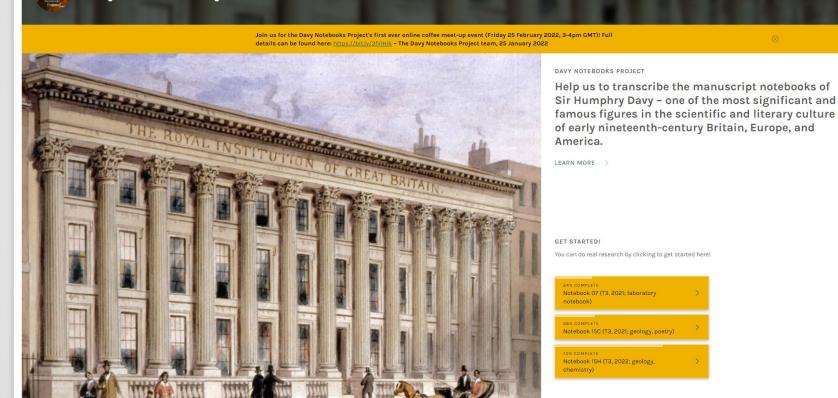
# Transcribe Bentham: the role of the UCL library

- Training of the volunters
- Transcription quality control
- Preservation of materials in UCL repository

# **Davy Notebooks Projects**

Ø PROJECTS ABOUT GET INVOLVED TALK BUILD

Davy Notebooks Project 🥥



https://www.zooniverse.org/projects/humphrydavy/dav y-notebooks-project

#### SIGN IN REGISTER

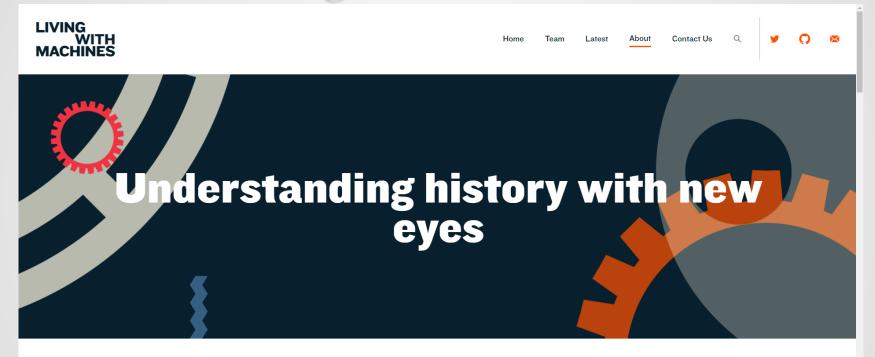
ABOUT CLASSIFY TALK COLLECT

# LibCrowds



https://www.libcrowds.com/

# Living with machines



**About Us** 

Living with Machines is both a research project, and a bold proposal for a new research

# Living with machines

- Research project lauched by:
  - Alan Turing Institute, British Library, Universities of Cambridge, East Anglia, Exeter and London
  - Focus on the long nineteenth century (c.1780-1918)

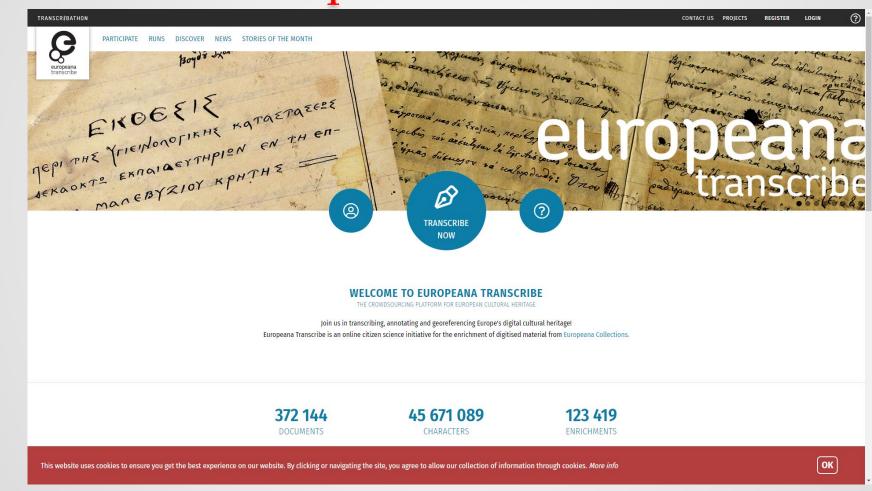
### Aim:

- to harness the combined power of massive digitised historical collections and computational analytical tools to examine the ways in which technology altered the very fabric of human existence on a hitherto unprecedented scale
- 5 'Labs' that explore different historical and methodological questions and approaches
  - The Labs are: Language, Space and Time, Sources, Communities, and Integration, Infrastructure and Interfaces

# Living with machines

- https://livingwithmachines.ac.uk/about/
- <u>https://livingwithmachines.ac.uk/exploring-ideas-</u> <u>for-our-living-with-machines-exhibition/</u>
- <u>https://livingwithmachines.ac.uk/learning-from-</u> zooniverse-volunteers-to-improve-crowdsourcingprojects/

### Europeana transcribe



### Transkribus



Transkribus 🗸 ScanTent … 🧬

### Sign in ) EN 👻

### We revolutionise Access to Historical Documents

Our European Cooperative Society has more than 100 Members globally.

### **Transkribus**

### Al-powered Handwritten Text Recognition with Transkribus

Transkribus is a comprehensive solution for the digitisation, AI-powered text recognition, transcription and searching of historical documents.

More about Transkribus

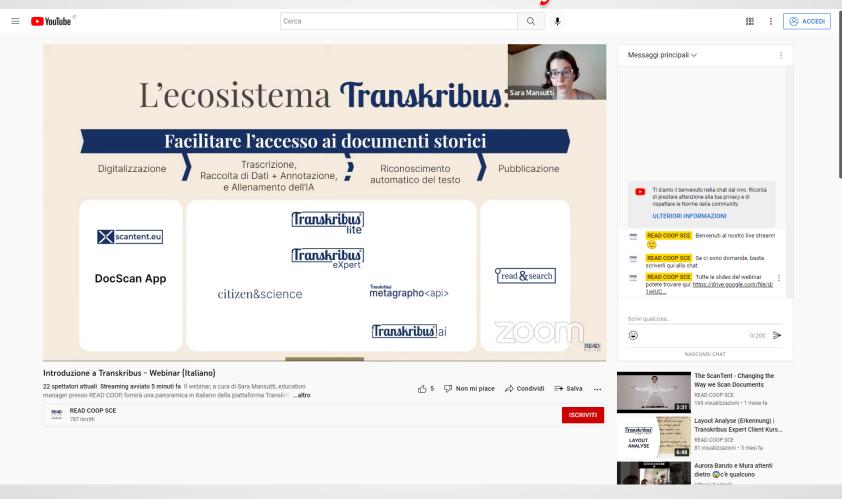
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Sir, - We request that you will call a meeting of the Members of the Faculty, for the purpose of considering a bill lately brought into the House of Lords, entitled, An Act touching the Administration of Justice in Scotland, and touching Appeals to the

#### House of Lords. We do not presume to suggest any particular day for that purpose, as we have no farther wish with regard to it, than that it should take place

upon whatever day will be most convenient for you, and at such distance of time as will give the Mem bers of the Faculty full opportunity to bestow that attention on the subject which its importance calls

# Transkribus Ecosystem





### Transcriu-me

I'Aprenentatge i la Investigació				
Centre de Recursos per a		Libraries hours	Frequently Asked Ques	tions The CRAI online
BARCELONA				
UNIVERSITAT DE	Se	earch this website	Search	Català   English   Español

Inici >> Node >> Finalitzat el primer projecte "Transcriu-me!!" del CRAI UB en un temps rècord

#### Finalitzat el primer projecte "Transcriu-me!!" del CRAI UB en un temps rècord



Monday, 13 July 2015

El CRAI UB finalitza la seva primera incursió en el projecte Transcriu-me!! impulsat per la Biblioteca de Catalunya, amb un èxit total i en un temps rècord. Amb el lema Transcriu-me!! Ferme llegible és fer-me visible vam demanar a primers de maig (vegeu post) la col·laboració de tots vosaltres i estem molt agraïts per la inestimable ajuda que hem rebut.

Aquesta primera proposta constava de 69 documents escollits per transcriure (en castellà i fins a 25 pàgines), que es van començar a treballar el dia 3 de maig de 2015, finalitzant la darrera transcripció el dia 8 de juliol de 2015.

Aquí teniu un exemple de document amb la seva transcripció:

*Censura de la memoria de Dn Ramon Frau sobre una traqueítis crónica* por Dn Francisco Borras en 24 de diciembre de 1824

# Zurich University Library

 <u>https://www.zb.uzh.ch/en/ueber-uns/citizen-</u> <u>science#freut-euch-des-lebens-nageli-transkribieren</u>

# CS ad libraries: useful tools and tips

# Open Science Training Handbook



A group of fourteen authors came together in February 2018 at the TIB (German National Library of Science and Technology) in Hannover to create an open, living handbook on Open Science training. High-quality trainings are fundamental when aiming at a cultural change towards the implementation of Open Science principles. Teaching resources provide great support for Open Science instructors and trainers. The Open Science training handbook will be a key resource and a first step towards developing Open Access and Open Science curricula and andragogies. Supporting and connecting an emerging Open Science community that wishes to pass on their knowledge as multipliers, the handbook will enrich training activities and unlock the community's full potential. The handbook is managed in this GitHub repository.

Access the current English version here: book.fosteropenscience.eu/en

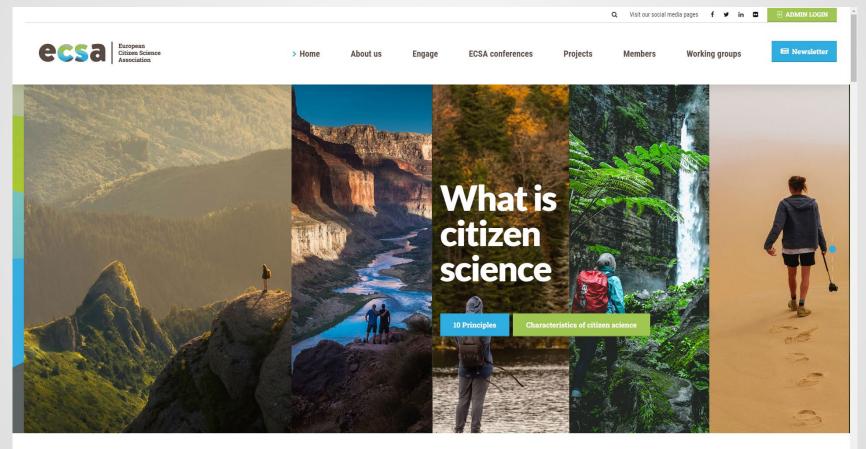
The Portuguese version is available here: book.fosteropenscience.eu/pt

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 Authors: Sonja Bezjak, April Clyburne-Sherin, Philipp Conzett, Pedro

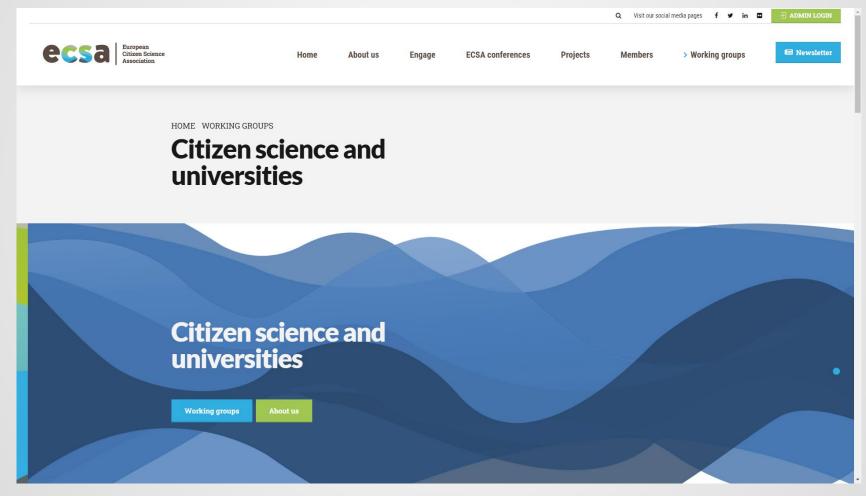
Sherin, Philipp Conzett, Pedro Fernandes, Edit Görögh, Kerstin Helbig, Bianca Kramer, Ignasi Labastida, Kyle Niemeyer, Fotis Psomopoulos, Tony

https://www.fosteropenscience.eu/content/openscience-training-handbook





### Citizen science and universities



Home About us Engage > ECSA conferences Projects Members Working groups

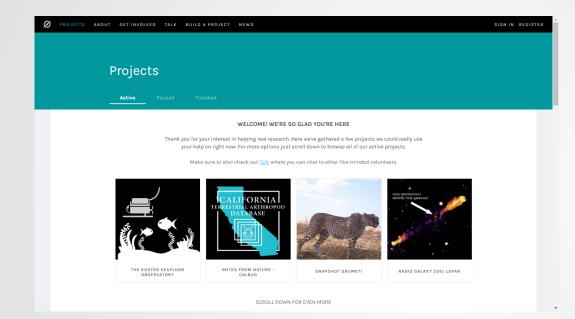






The 4th ECSA Conference runs under the cross-cutting theme of Citizen Science for Planetary Health. The concept of planetary health is based on the understanding that human health and human civilization depend on thriving natural systems and the sustainable stewardship of those natural systems. This demands not only knowledge, commitment and engagement of health and environmental sciences, but inter- and transdisciplinary efforts from all research fields and societal and political actors.

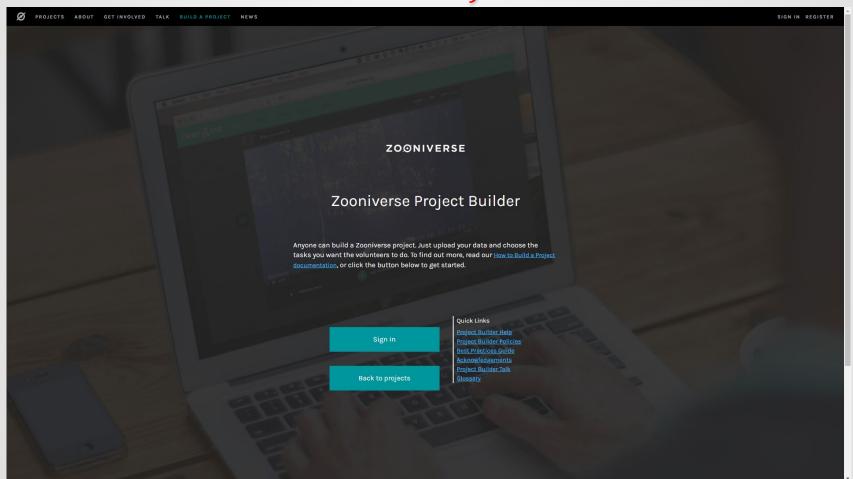
The ECSA 2022 Conference invites researchers from all disciplines, civil society actors, citizen scientists, policy decision-makers and all interested in the topic in Europe and worldwide to reflect, discuss and network around the topic of Citizen Science for Planetary Health.



# Zooniverse

The well-known CS Portal https://www.zooniverse.o rg/

# Zooniverse Project Builder



# ParticipARC



### Actualités



enjeux éthiques des sciences et recherches participatives



### SciStarter



. Libraries @Girl Scouts Training Dashboard  $\vee$  Project Finder Events Blog Podcast Partner Gateways  $\vee$ 

log in

sign up Quick Navigate



Find volunteer opportunities that match topics you're curious or concerned about. There's something for everyone!

#### **Featured Projects**

#### Outbreaks Near Me

- Goal Crowdsourcing outbreaks of COVID and the flu in real time
- Task Log on and let us know how you're feeling one or more times per week.

Outbreaks Near Me Where Online

search all projects

#### Earn a Badge

Learn citizen science basics, participate in projects and make the most of SciStarter in a self-guided, free training module.



What is Citizen Science?

Citizen science enables people from all walks of life to

Benefits for Volunteers

Find projects that match your interests and track your

#### Manage a Project?

SciStarter can help you find and retain

### SciStarter tutorials



Training » Library-Training

### Libraries as Community Hubs for Citizen Science

Discover best practices and identify resources to engage library users in citizen science and life-long learning.



Scistarter Science we can do together.

With support from the National Library of Medicine, SciStarter assembled a team with expertise in instructional design, education, libraries, inclusive practices, digital design, micro accreditation, and, of course, citizen science to produce a series of tutorials, trainings, and accompanying modules to help people from all walks of life discover and engage in authentic science.

This page provides a training resource designed to help facilitators, including librarians, educators, and other community

#### Presented by SciStarter with support from the National Library of Medicine

Please sign up or sign in to SciStarter and complete the Foundations of Citizen Science module and badge to access this module.

For a limited time, the Medical Library Association will provide professional development credits upon completion of this module and the accompanying surveys. Completion of this module takes approximately one hour.

#### By the end of this tutorial, you will be able to:

- 1. Recognize why engaging the public in citizen science is a critical component of library lifelong learning efforts.
- 2. Identify the benefits of turning your library into a community hub for citizen science.

3. Identify strategies and tools for selecting and aligning the right citizen science programs with the interests or concerns of your community.

4. Identify resources (including health and medical resources) that will help you introduce, supplement, support, and facilitate awareness of and engagement in citizen science at your library.

5. Identify resources and strategies that will help you train staff to recruit and sustain patron engagement in citizen science.

**Complete this self-guided tutorial and quiz.** Score an 80% or higher to unlock your badge and surveys required for Professional Development credits. The module opens in a new tab so be sure to come back to this page to claim your badge and access the surveys. Learn more about the Foundations of Citizen Science Badge and the Libraries as Community Hubs for Citizen Science Badge here.

### SciStarter



#### ONLINE RESOURCES

- 1. Join the Citizen and Community Science Library Network
- 2. Complete the Foundations of Citizen Science training
- 3. Complete the Libraries as Community Hubs for Citizen Science training
- A month of status of status of these

Download the full Library &

Community Guide to Citizen

Science in English and Spanish.

# LIBER CS for Research Libraries Guide

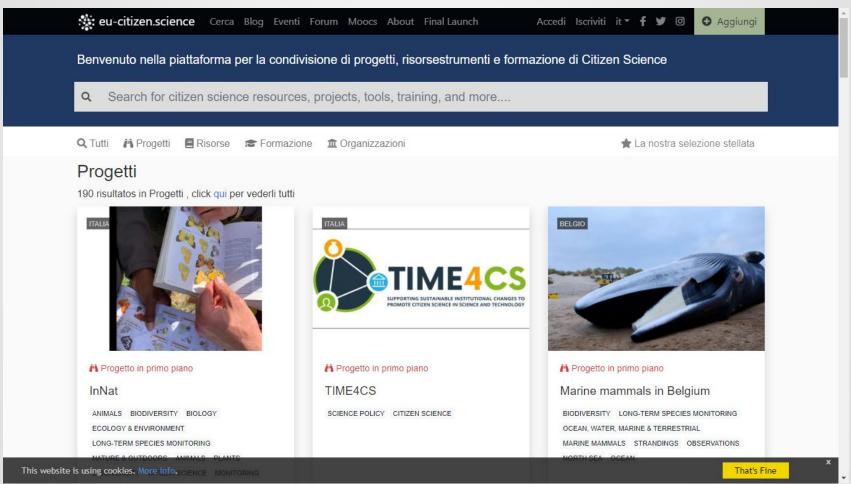


CITIZEN SCIENCE WORKING GROUP

Citizen Science Guide – Section 1: Citizen Science Skilling for Library Staff, Researchers, and the Public

Citizen Science

### EU Citizen.science



### EU Citizen.science

- EU-Citizen.Science <a href="https://eu-citizen.science/">https://eu-citizen.science/</a> is an online platform for sharing knowledge, tools, training and resources for citizen science by the community, for the community.
- After the project the platform will be sustained by ECSA
- Funding: H2020, **SWAFS** https://eu-citizen.science

# Paratiro.gr

eu-citizen.science Cerca Blog Eventi Moocs Forum Evento finale Riguardo

### Paratiro.gr

"PARATIRO" is an initiative aiming to establish a national, reliable recording and monitoring system for wildlife mortality due to anthropogenic causes in Greece, via the application of Citizen Science.

How it works

When a citizen finds a dead or injured animal, they can report the incident (NEW INCIDENT). Accordingly, information for every unique wildlife injury or death incident throughout Greece are posted on the "PARATIRO" electronic platform and are grouped according to the type of animal, cause of injury and/or death and the area in which it was found (MAP). In parallel, the scientific team of "PARATIRO" processes the data and draws important conclusions about the threats that wildlife faces due to human activities. Moreover, in certain cases, our team proposes specific measures and targeted actions that could significantly reduce or even eliminate the factors that increase mortality, locally or nationwide.



Paesi Grecia

it 💌

Accedi

Iscriviti

Go to platform or network

Sei nella versione beta della piattaforma eu-citizen.science. Si prega di fornire il tuo feedback sul funzionamento Archivio GitHub Click qui per iscriverti alla nostra newsletter

#### EU-CITIZEN.SCIENCE

EU-Citizen.Science ha ricevuto finanziamenti dal programma quadro per la ricerca e l'innovazione Horizon 2020 dell'Unione europea nell'ambito della convenzione di sovvenzione n. 824580



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### CitizenScience.cz

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	CitizenScience.cz Czech national platform for sharing experiences and projects related to citizen science in the Czech Repu Organizzazioni		Estensione geografica National		
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# Some useful tools

- Citizen Science for research libraries. A Guide
  - https://libereurope.eu/working-group/liber-citizen-science-workinggroup/citizen-science-guide/
- SciStarter Librarian's Guide
  - o <u>https://scistarter.org/library-resources</u>
- BOINC
  - o <u>https://boinc.berkeley.edu/</u>
- CS Track <u>https://cstrack.eu/</u>
- EU-Citizen.Science <a href="https://eu-citizen.science/">https://eu-citizen.science/</a>
- LIBER WG Citizen Science in a global perspective <u>https://www.youtube.com/watch?v=PDlgdnQls1o&list=PLB6lBD9OG9pDClYmyx\_Cr</u> <u>ChjDERCWEUCV&index=8</u>
- Citizen science and universities ECSA working group
  - <u>https://ecsa.citizen-science.net/working-groups/citizen-science-and-universities/</u>

### 10 Steps to launch a CS Project

- Choose a relevant theme
- Involve some experts on the topic and define the research hypotheses;
- **Develop** the most suitable working methodology;
- **Design** kits for use in the field by citizen scientists;
- **Create** materials for the education and training of interested citizens;
- Establish a network within the scientific community to promote, train and provide support to local communities and schools;
- Create programs on National and Local media
- Create website for news, events, references, resources and competitions;
- Provide immediate feedback on databases, with data analysis and sharing of results;
- Manage projects by paying attention to budget, time and performance

# 8 Steps to involve your library in CS

- **Develop** strategical partnerships
- Create a working group
- **Examine** active projects in the area
- Contact CS project manager
- Define your role in the project
- Involve staff
- Upskill staff (soft skills)
- Communicate and promote your role in the project

How to develop a crowdsourcing project on special collections

- Select a collection of unpublished documents, archival materials manuscripts, letters, etc.
- **Build** your digital humanities project
- **Create** a Library community profile
- **Choose** your audience
- **Expand contacts** and partneships
- **Develop relationships** with schools
- Build (or Choose) a technological infrastructure (Zooniverse, Scist



