

Why get involved in Citizen Science? A research library perspective

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Turin University and Library with LIBER

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Overview

- Defining citizen science and crowdsourcing
- A library perspective on the benefits and challenges of engaging with citizen science
- What does this mean for you?

- Four examples:

iNaturalist www.inaturalist.org

Penguin Watch www.zooniverse.org/projects/penguintom79/penguin-watch/

British Library / In the Spotlight playbills.libcrowds.com

British Library / Living with Machines www.zooniverse.org/projects/bldigital/living-with-machines

What is citizen science / crowdsourcing?

Citizen science is an 'umbrella' term for different ways in which the public participate in science

Citizen science involves the active participation of the public in scientific research or knowledge production with a 'genuine outcome'

Forms of participation vary from data collection - observations out in the field or from digitised images - to analysis and communication - to co-creating projects and more.

Sometimes also called crowdsourcing, digital volunteering, citizen history, public participation in scientific research, nichesourcing...

What is citizen science / crowdsourcing in cultural heritage?

A more focused view of public participation: working with the public on tasks that contribute to a shared, significant goal related to cultural heritage collections or knowledge, via online platforms

Results may contribute to wider research questions, or they might help improve the discoverability of cultural heritage collections

Often focused on engagement and access



Citizen science examples: iNaturalist

The screenshot shows the iNaturalist website interface. At the top, there is a navigation bar with the iNaturalist logo, a search icon, and links for 'Explore', 'Community', and 'More'. A 'Log In or Sign Up' link is on the right. Below the navigation bar is a search section with the word 'Observations' on the left, a search input field containing 'Species', a 'Location' input field, a 'Go' button, and a 'Filters' button. A statistics bar below the search section displays: 'The World' (66,004,286 OBSERVATIONS), '332,507 SPECIES', '193,403 IDENTIFIERS', and '1,621,584 OBSERVERS'. Below the statistics bar are three view options: 'Map', 'Grid', and 'List'. The main content area displays a grid of observation cards. The first row includes: a Barn Swallow (*Hirundo rustica*) observed 10h ago; a White-shouldered beetle (*Endrosis sarcitrella*) observed 5d ago; a Pine Bark Adelgid (*Pineus strobi*) observed 7h ago; and Dandelions (Genus *Taraxacum*) observed 2d ago. The second row shows a raccoon, a fly on a leaf, a white swan, and a red flower.

'iNaturalist helps you identify the plants and animals around you. Get connected with a community of over a million scientists and naturalists who can help you learn more about nature! What's more, by recording and sharing your observations, you'll create research quality data for scientists working to better understand and protect nature'

Penguin Watch Talk

Search or enter a #tag

Subject 60486519



Comments:



banthesun
@banthesun

May 14th 2021, 9:35 am

remarkable face on the [#adelie](#) up front

[View the discussion](#)

There are no collections yet

Discussions:

[Subject 60486519](#)

9 hours ago remarkable face on the #adelie up front

1 Participant

1 Comment

Popular Tags:

[adelie](#)

18 Active Participants:

[kyleel](#) [akcire6](#) [miaridge](#) [KaseRichards](#)

[Sonoko](#) [ctrnz0](#) [alandelacruz](#)

[SkylerSandaas](#) [Pytel24](#) [Ashbeigh](#)

← Previous Next →

Projects:

[Zooniverse Talk](#)

[Drones for Ducks](#)

[Nest Quest Go: Killdeer](#)

[Microbe Watch](#)

[Tag Along with Adler](#)

[Battling Birds: Panama Edition](#)

[Old Weather - WW2](#)

[Zwicky Chemical Factory](#)

[Drawing Knowledge](#)

[Bursts from Space](#)

[Beyond Borders: Transcribing Historic](#)

[Maine Land Documents](#)

[Load more](#) ↓

Count penguins, chicks and eggs in far away lands to help us understand their lives and environment.

'Research shows that in some regions, penguin populations are in decline; but why? Click "*get started*" to begin monitoring penguins, and help us answer this question. With over **100 sites** to explore, we need your help now more than ever!'

PROBLEM PENGUINS FACE GROWING THREATS FROM CLIMATE CHANGE, FISHERIES & HUMAN ACTIVITIES

DATA COLLECTION

Timelapse camera



- Breeding timing
- Nest survival
- Feeding rates

Demonstrate changes over time

Unmanned Aerial Vehicle



- Count nests each breeding season

Long-term population changes

DATA PROCESSING



SOLUTION BRINGING LARGE SCALE MONITORING TO THE SOUTHERN OCEAN

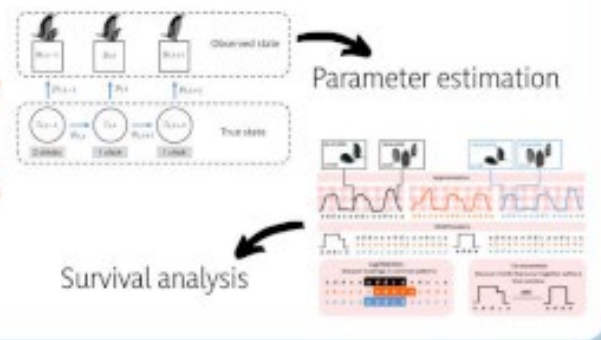
POLICY



INTERPRETATION



DATA ANALYSIS



VISION A HEALTHY & RESILIENT SOUTHERN OCEAN THROUGH EVIDENCE-BASED CONSERVATION



British Library's In the Spotlight



Mate, Mr. DENMAN, Trudge, Mr. RUSSELL,

Narcissa, Mrs. STANLEY,

Yarico (first Time) Mrs. POWELL,

Patty, Mrs. BEW, Wowski, Mrs. BRAMWELL.

End of the Play, (by particular Desire,) the OVERTURE of

OSCAR and MELVINA, on the PEDAL HARP,

By Mr. WEIPPERT.

A COMIC SONG, by Mr. DENMAN.

To which will be added, the MUSICAL FARCE of

The FARMER.

Col. Dormant, Mr. WILMOT-WELLS,

Capt. Valentine, Mr. EDWARDS, Fairly, Mr. CHAMBERS,

Counfeller Flummery, Mr. BEW, Farmer, Mr. DENMAN,

Jemmy Jumps, Mr. RUSSELL. Rundy, Mr. DE CAMP.

Louifa. Mrs. STANLEY, Betty Blackberry, Mrs. BEW,

Molly Maybush, Mrs. BRAMWELL.

Tickets to be had of Mrs. BRAMWELL, at Mr. Edmonds', Dane Hill,
at the Libraries; and of Mr. Dale, at the Theatre Office, from Ten till Three.

BOXES 4s.—PIT 2s. 6d.—GALLERY 1s.—Nothing under Full Price taken.

The Doors to be opened at SIX, and to begin precisely at SEVEN.



TASK

Transcribe the genre

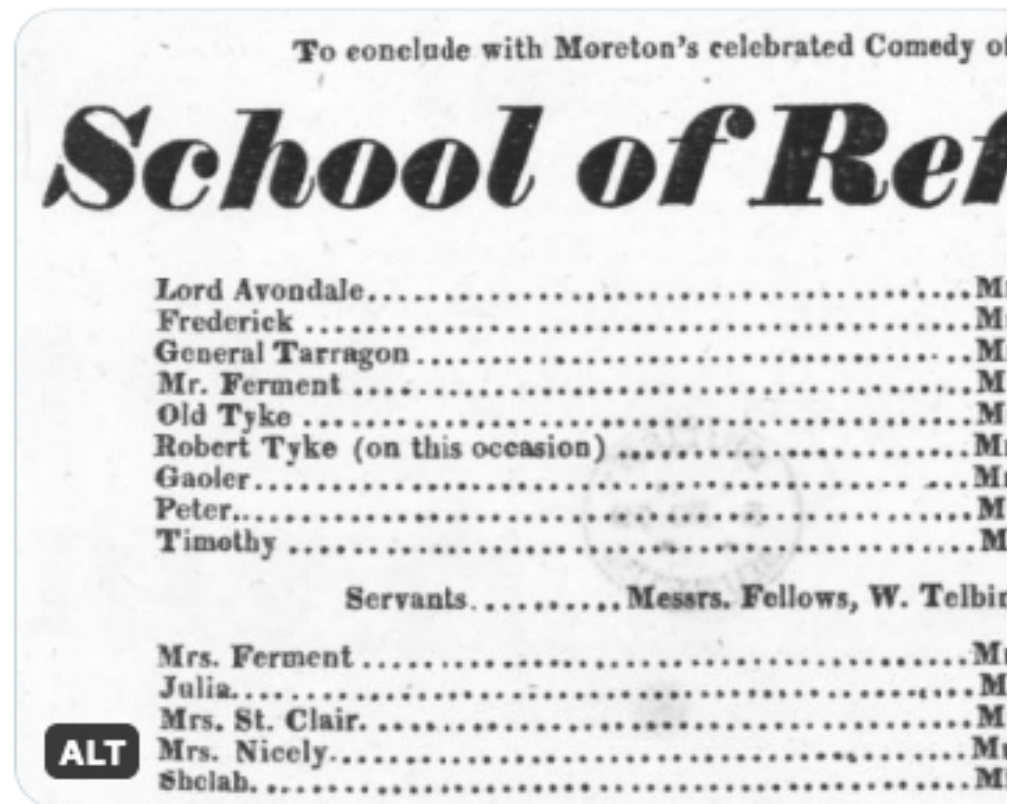
Type in the genre of the highlighted title, exactly as displayed on the page. If there is no genre displayed you can leave the field blank.

GENRE

Seen something interesting?
Add a note

LibCrowds @LibCrowds · Jul 6

Louise C asks, 'The W. Telbin who acts as a Servant Reform is mentioned alongside a second Telbin on a these related to the famous scenic painters, I wonder Hull, 1829 access.bl.uk/item/viewer/ar... #TheatreHis



2 3 3

LibCrowds
@LibCrowds

@LibCrowds

Great response to [@LouLikesToKnit](#) 's question from [@i_bananas](#) on our forum community.libcrowds.com/d/31-famous-pe... using a range of sources to conclude that 'it's highly likely that these are members of the same family'

12:15 PM · Jul 7, 2020 · [Twitter Web App](#)

||| [View Tweet activity](#)

1 Retweet 3 Likes



Nicki @i_bananas · Jul 7

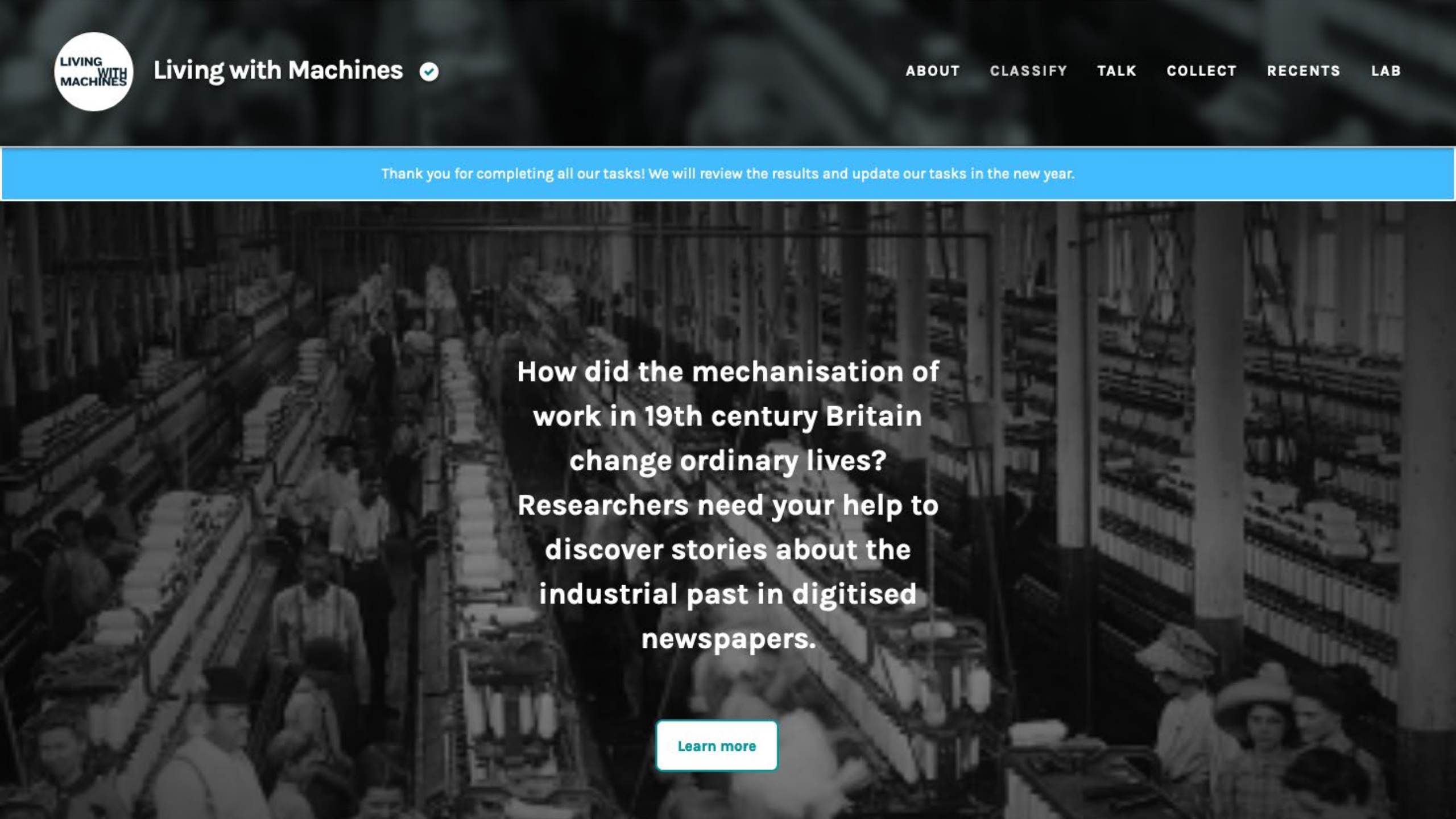
Replying to [@LibCrowds](#) and [@LouLikesToKnit](#)

Being able to use such a variety of sources highlights why the digitisation of archives and a project like LibCrowds is so valuable. Especially when trying to research the lives of performers and their unpredictable movements.

2 1



Thank you for completing all our tasks! We will review the results and update our tasks in the new year.

A dark, historical photograph of a textile factory interior, showing rows of workers operating machinery. The scene is dimly lit, with light coming from windows on the right side. The workers are wearing simple, period-appropriate clothing.

**How did the mechanisation of
work in 19th century Britain
change ordinary lives?
Researchers need your help to
discover stories about the
industrial past in digitised
newspapers.**

[Learn more](#)

Get started ↓

We've identified newspaper articles that use the phrase 'this machine'. We want to understand what the authors thought a 'machine' was by analysing the language they used. We need your help to identify what kind of machine was meant in each example. The tasks ask you to read sections of articles and type in phrases from their text about the 'machines' discussed. One task helps build a list of words used in primary sources that will underpin linguistic and historical research. The other helps us understand which meanings for the word 'machine' were most used in the original articles.

What's that machine? Describe it!

What's that machine? Classify it! (alpha)

CLOTH CROPPING MACHINE.—ONE 50-Inch DOUBLE CROPPING MACHINE (nearly new), made by Messrs. ABERCROMBIE & CRAIG.

Apply to YORK STREET FLAX SPINNING COMPANY (Limited), Belfast. 4863

84-INCH LINEN CROPPING MACHINE, FOR SALE.

ONE PATENT DOUBLE CROPPING MACHINE, 84 inches Wide, by Abercrombie & Craig, Paisley. **This Machine** is suitable for cropping Damasks, Sheetings, &c., or ordinary width of Goods, two webs at a time. The Machine has never been used, has spare Knives, and is in every respect complete, and in first-class order.

TASK

TUTORIAL

Read the text and type in words that name or describe the highlighted 'machine'

[unclear]double[/unclear] linen cropping machine

unclear

NEED SOME HELP WITH THIS TASK?

Back

Done



Benefits of citizen science

- Data – observations, annotations, transcriptions, classifications, etc
- Knowledge for the public – increased awareness of research methods, subject expertise, greater scientific or historical literacy
- Research publications and datasets
- Greater and more engaged use of cultural heritage collections and knowledge
- More diverse perspectives from the public and other disciplines
- Skills for library staff and scientists including community engagement, project management, communicating specialist topics, workflow
- New relationships between participants, project teams, institutions

Challenges of citizen science

Common

- Time and aptitude required within organisations
- Workflow and data management; processing and using the results
- Ensuring and explaining the credibility of public observations
- Recruiting and retaining participants despite competition for their time

More advanced

- Integrating crowdsourcing into research processes, timelines
- As machine learning / AI gets better at core tasks, how can we retain opportunities to access collections, knowledge and learn through participation?
- Ensuring 'human computation' systems embed appropriate values

What does this mean for you?

You can try out different projects to get hands-on knowledge of the field

You can host editathons and other activities

You can create or collaborate on research through citizen science

You can improve access to cultural heritage collections

You can help document, host and ensure the re-usability of crowdsourced data

Get involved

The Collective Wisdom Handbook: perspectives on crowdsourcing in cultural heritage - now open for access and review

<https://britishlibrary.pubpub.org/>

A Citizen Science Guide for Research Libraries - looking for contributors

<https://citsci-wg.github.io/guide/>

The Collective Wisdom Handbook

Perspectives on Crowdsourcing
in Cultural Heritage



Mia Ridge - Samantha Blickhan - Meghan Ferriter
Yiva Berglund Prytz - Ben Brumfield - Sara Brumfield - Denise Burgher - Jim Casey - Sonya Coleman
Daria Cybulska - Michael Haley Goldman - Kurt Luther - Austin Mast - Nick White - Brendon Wilkins - Pip Willcox

LIBRARY
BRITISH

Thank
you

