# Designing successful digital humanities crowdsourcing projects

Digital Humanities 2013, Lincoln, Nebraska

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http://openobjects.org.uk
@mia\_out

# While you're getting settled...

Download the exercise sheet and slides:

http://bit.ly/UijNZA

Links for projects discussed, bibliography available at <a href="http://bit.ly/1aMaIII">http://bit.ly/1aMaIII</a>

(Direct addresses via http://www.miaridge.com/category/crowdsourcing)

 Wifi: Connect to UNL-Conference with name: dh2013 and pass: Dig1997

#### Overview

- 1pm Introductions, definitions, crowdsourcing examples. Exercise: review sample projects.
- 2:15 Break
- 2:30 Crowdsourcing participants, motivations. Exercise: devise your own crowdsourcing project
- 3:45 Break
- 4pm Emerging best practice (characteristics of well-designed projects). Exercise: re-visit your project
- 5pm Finish

#### Introductions

My name is \_\_\_\_\_, I'm a \_\_\_\_\_ from \_\_\_\_\_. I'm interested in crowdsourcing because \_\_\_\_\_.

# What is crowdsourcing?

Crowdsourcing (Jeff Howe and Mark Robinson, Wired, 2006):

'the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call'

Or, 'the spare processing power of millions of human brains'

### Humanities crowdsourcing

...And in GLAMs (galleries, libraries, museums, archives)

- 'leveraging public participation in or contributions to projects and activities' including collection, digitisation, description, transcription, etc
- Tasks undertaken by distributed, possibly anonymous participants
- Participation possibly as 'volunteers', via games or own work.
- Pleasure, not profit: appeals to intrinsic motivations; interest in subject; altruism; inherently engaging tasks

### Crowdsourcing and related terms

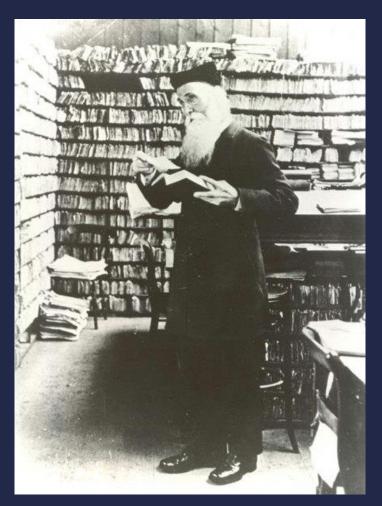
- User-generated content, including oral history
- Human computation
- Citizen science, citizen history
- Community-sourcing, nichesourcing
- Cognitive surplus
- 'the wisdom of crowds'
- Crowdfunding

### Crowdsourcing as solution

- Fix the 'semantic gap', enhance discoverability
- Digitisation backlog: collections are big, resources are small
- Create engaging experiences for the public form of public engagement through participation
- Support on-going needs of scholarly researchers e.g. collaborative transcription

## Crowdsourcing before the web

- 19<sup>th</sup> Century natural history collecting
- 1849 Smithsonian meteorological observation project
- 1857, 1879 Oxford English Dictionary
- WWII Soldiers given a Field Collector's Manual in Natural History by the US Museum of Natural History

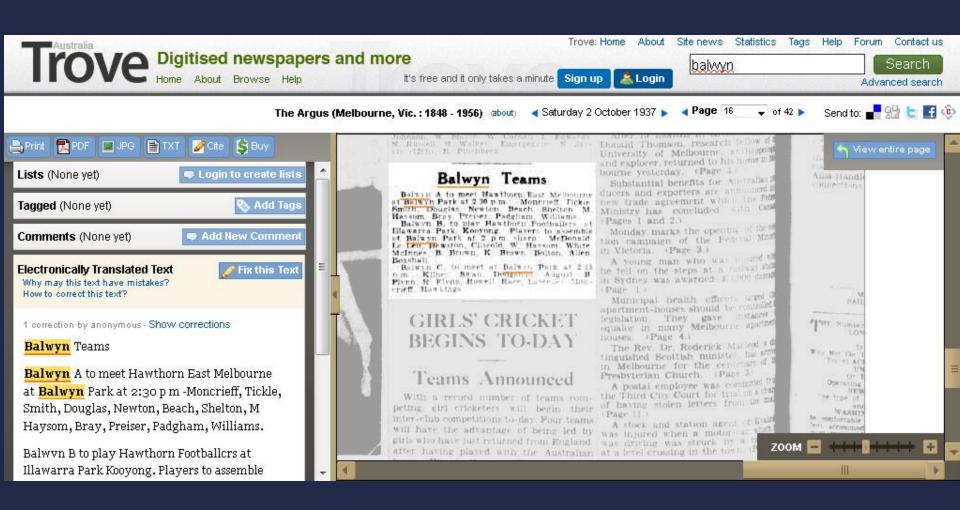


James Murray, editor, OED, with contributor slips https://en.wikipedia.org/wiki/File:James-Murray.jpg

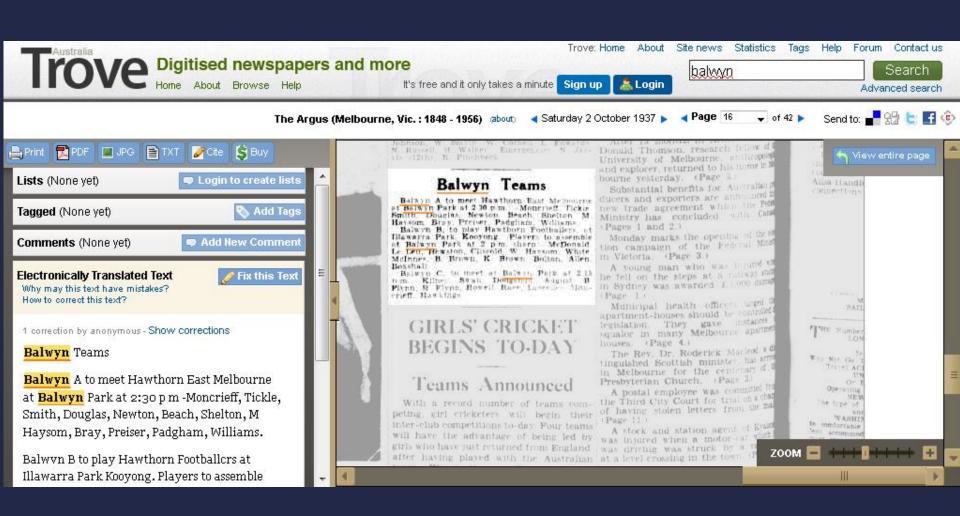
#### ReCAPTCHA



# National Library of Australia: Trove



# Over 20,000 helpers, 100 million lines of text corrected...



#### Trove



It's free and it only takes a minute Sign up



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Advanced search

#### Text corrections

#### Balwyn Teams

The Argus (Melbourne, Mo.: 1848 - 1956) Saturday 2 October 1937, page 16 Article

Changed	Ву	Old Lines	New Lines
2011-09-26 21:49:33.0	апопутоиз	Balwyn Ato meet Hawthom Cost Melbourne at Balwyn Park at 2 30 p m -Moncrieff Tickle Smith Douglas Newton Beach Shelton M Haysom Bray Prelser Padgham Williams Bilwyn B to play Hawthom roolballors at Illawarra Park Koovong Players to assemble at Balwyn Park at 2 p m sharp -McDonald Le Leu Hewslon Clissold W Haysom White Mcinnes B Brown K Brown Bolton Allen Boxshall n in -Kilner Swan Dodgshun August B Hynn n riynn Rowell Race Lascelles Moncrieff Hiw kings	Balwyn Ato meet Hawthom East Melboume at Balwyn Park at 2:30 p m -Monorieff, Tickle, Smith, Douglas, Newton, Beach, Shelton, M Haysom, Bray, Preiser, Padgham, Williams. Balwyn B to play Hawthom Footballors at Illawarra Park Kooyong, Players to assemble at Balwyn Park at 2 p m sharp - McDonald, Le Leu, Hewslon, Clissold, W Haysom, White, Moinnes, B Brown, K Brown, Bolton, Allen, Boxshall. pm -Kilner, Swan, Dodgshun, August, B Flynn, R Flynn, Rowell, Race, Lascelles, Monorief, Hawkings



# FamilySearch

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# ...indexing goes mobile



https://tech.lds.org/blog/455-new-familysearch-indexing-app-now-available

# Digital Koot

In almost two years, nearly 110,000 participants completed over 8 million word fixing tasks

#### Volunteer top 10

Name	Tasks	Hours	Name	Tasks	Hours	
1. Petri M	348 422	395	6. Timo H	96 838	48	
2. Kari K	188 128	169	7. Tea R	90 346	76	
3. Vesa S	176 519	209	8. Jukka N	73 476	61	
4. Anja S	133 600	106	9. Mikko V	61 129	94	
5. Kirsti K	98 533	50	10. Anne-Maarit J	40 763	51	





In the "Mole Hunt" game players identified which words the computers got wrong.

Watch the video!

#### Transcribe Bentham



**UCL** 

UCL Home » Transcribe Bentham » Transcription Desk

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transcribing after registering your user account? see here &; New material available to transcribe: see here &

★ Transcribe Bentham wins Award of Distinction in Prix Ars Electronica 2011 @; View manuscripts in full screen @; Are you having trouble

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#### Search





JB/097/172/002

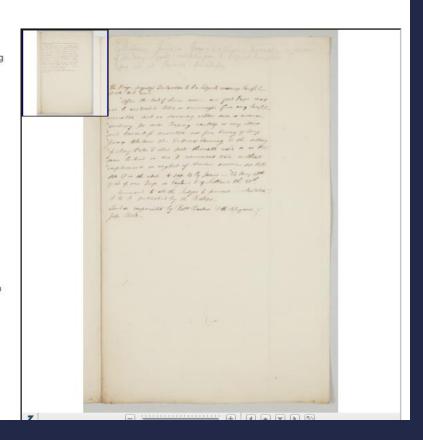
#### Click Here To Edit @

The King's Majesty's Declaration to his subjects concerning lawful

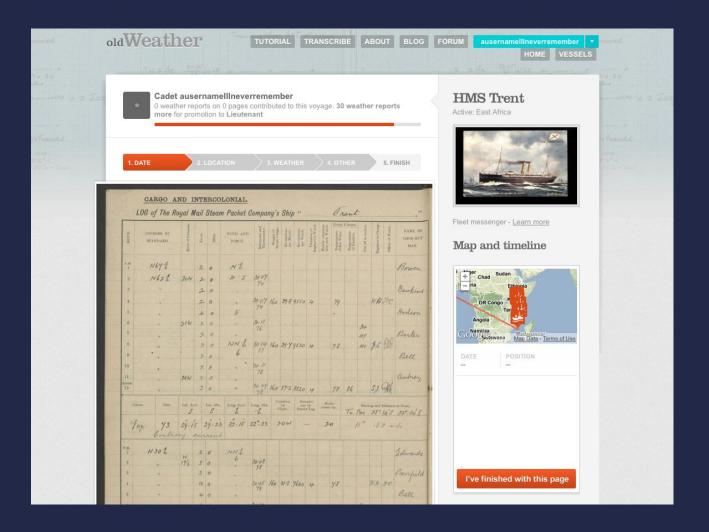
sports to be used.

"After the end of divine service our good People may
"not be disturbed letted or discouraged from any lawful
"recreation such as dauncing either men or women,
"archery for men, leaping vaulting or any other
"such harmless recreation nor from having of May
"Games Whitsun Ales & Morris dauncing & the setting
"of May Poles & other Sports therewith used so as the
"same be had in due & convenient time without
"impediment or neglect of divine service pp 10,11.
pp 17 in the whole to page 14 by James - "24 May 10<sup>th</sup>
year of our Reign in England & of Scotland the 50<sup>th</sup>
command to all the Judges to prevent molestation & to be
published by the Bishops.

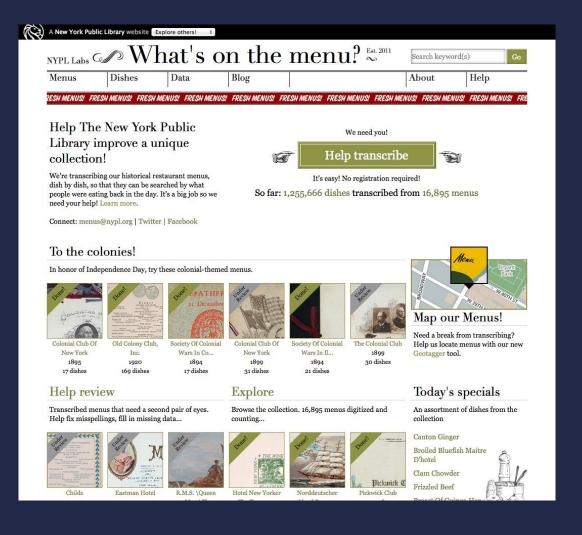
London imprinted by  $\mathsf{Rob}^t\mathsf{Barker}\,\underline{\mathsf{Xth}[?]}$  Assignees of John Bell.



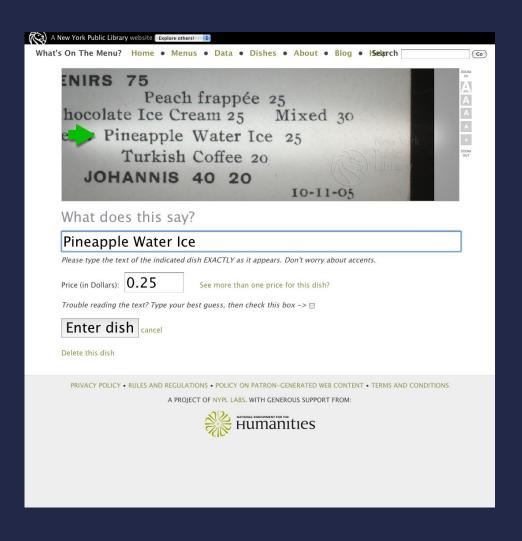
### Old Weather



#### NYPL 'What's on the Menu?'



#### NYPL 'What's on the Menu?'



## Reading Experience Database



Record Number: 16878

#### **Reading Experience:**

#### Evidence:

Time

'Sunday 3 October. I am reading "A Room of One's Own". Most delightful and profound - if I had the time I would write an essay about life in the WRNS'

Century: 1900-1945

Date: 3 Oct 1943

Country: England

n/a Place: n/a

Type of Experience silent aloud unknown (Reader):

solitary in company unknown

single serial unknown

Type of Experience solitary in company unknown (Listener): single serial unknown

#### Reader / Listener / Reading Group:

Reader: **Barbara Pym** 

Age: Adult (18-100+)

Gender: Female Date of Birth: 2 Jun 1913

Socio-Economic Group: Professional / academic / merchant / farmer

n/a

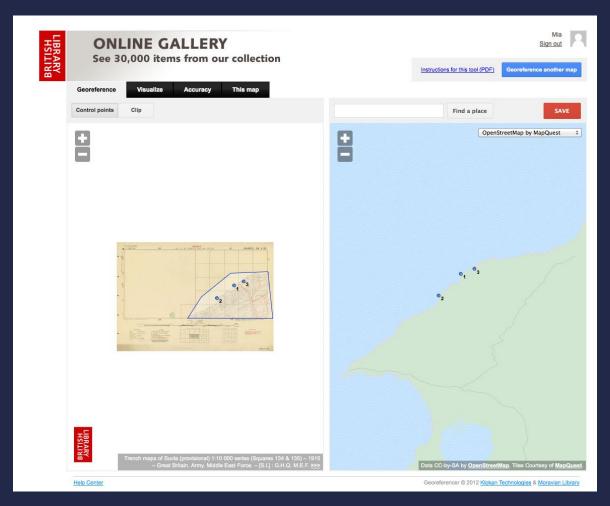
Occupation: Writer

Religion: Church of England

Country of Origin: England Country of Experience: England

Listeners present if any: e.g family, servants, friends

# British Library Georeferencer



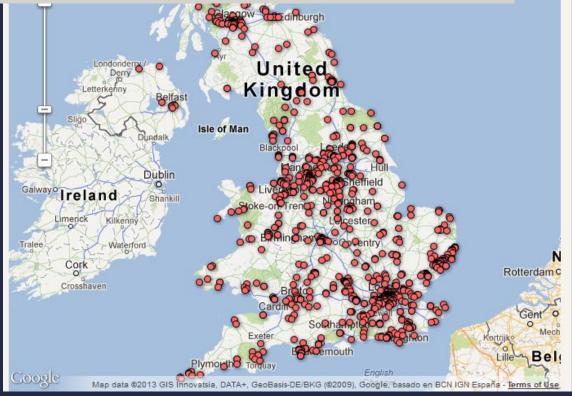
http://www.bl.uk/maps/

# British Library Sound Maps

rth Sea

#### Sound map - UK Soundmap

The UK Soundmap, the first nationwide sound map, invited people to record the sounds of their environment, be it at home, work or play. Over 2,000 recordings were uploaded by some 350 contributors during the period July 2010 to July 2011. <u>Further information</u>.



Your accents http://sounds.bl.uk/Sound-Maps/Your-Accents http://sounds.bl.uk/Sound-Maps/UK-Soundmap

#### Summing up: crowdsourced content

- Links between content (relationships)
- Ratings/Votes
- Tags
- Corrections
- Transcriptions
- Descriptions
- Geolocation

- Images, multimedia
- Game levels
- Research
- Object identification
- Family records
- Objects, documents
- Personal experiences, memories

### Summing up: crowdsourced tasks

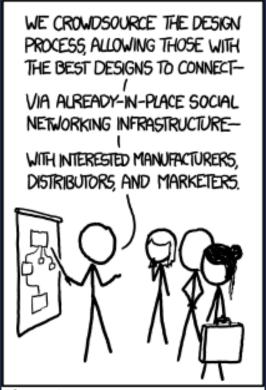
- Tagging (subjective, personal, factual)
- Transcription (including OCR correction)
- Moderating (debunking, flagging for review)
- Writing personal stories or memories
- Linking, relationships
- Stating preferences
- Categorising
- Creative responses
- Georeferencing
- Ideally 'microtasks' one-off tasks, minimum effort the atoms of crowdsourcing

# Exercise 1: review a crowdsourcing project

See handout for URLs and instructions

# Break

#### Ethics



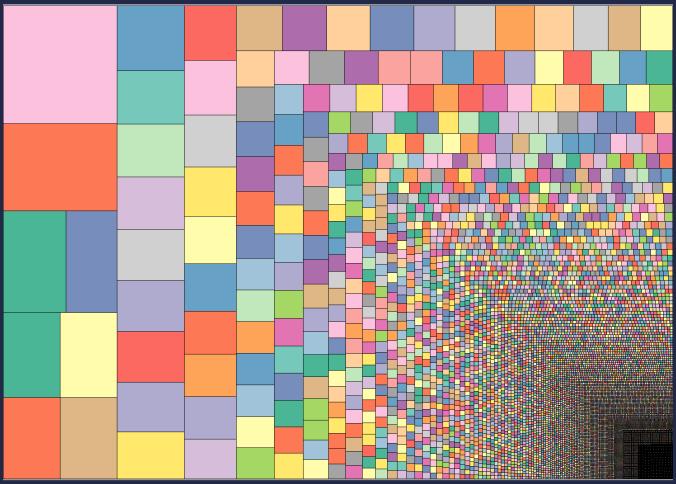
NOBODY CAUGHT ON THAT OUR BUSINESS PLAN DIDN'T INVOLVE US IN ANY WAY— IT WAS JUST A DESCRIPTION OF OTHER PEOPLE MAKING AND SELLING PRODUCTS.

http://xkcd.com/1060

#### Who participates in crowdsourcing?

- People who are passionate about your subject
- People who like doing the task you're offering
- Super-contributors and lots of casual participants
- Amateurs, professionals and everything between
- People who can't volunteer in regular hours or at GLAM venues

# Super-contributors and drive-bys



'16,400 little boxes – one for each person who's contributed to oldWeather. The area of each box is proportional to the number of pages transcribed, between us all we've done 1,090,745 pages.'

## Motivations for participation

#### Altruistic

helping to provide an accurate record of local history

#### Intrinsic

 reading 18thC handwriting is an enjoyable puzzle or they're interested in the subject

#### Extrinsic

an academic collecting a quote from a primary source

#### Extrinsic motivations



http://gwap.com

### Games with a purpose

- e.g. labelling images visual tasks too complex for computers
- 'players perform a useful computation as a side effect of enjoyable game play'
- Data validation built into design
- Motivation is fun, not creating data

#### Intrinsic motivations for participation

- fun
- the pleasure in doing hobbies
- the enjoyment in learning
- mastering new skills, practicing existing skills
- recognition
- community
- passion for the subject



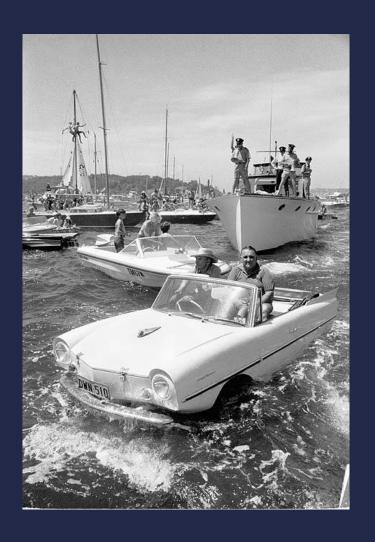
State Library of Queensland, Australia https://secure.flickr.com/photos/statelibraryqueensland/3198305152

#### Intrinsic motivations

#### People crave:

- satisfying work to do
- the experience of being good at something
- time spent with people we like
- the chance to be a part of something bigger

(Jane McGonigal, 2009)



### Exercise 2: design a crowdsourcing project

See handout for instructions

# Break

### Some reasons projects fail

- Not enough participants
- Failure to retain participants
- Participants are not productive
- Results are not fit for purpose

#### Design tips for crowdsourcing

- Demonstrate a close match between the crowdsourcing project and the mission of the organisation running it - in interface, dialogue, across whole project
- Show, don't tell let people see the impact of their contributions
- 'Validate procrastination' give people an altruistic excuse to spend time on your tasks
- Design for 'super taggers' and for people who do just one or two tasks

#### Design for participation

- Make it easy for people to do the right thing
- Scaffold the experience tightly defined tasks, remove uncertainty about quality of their contribution, provide feedback on progress
- Build any tests for skill or experience requirements into the interface
- Build tutorials for new skills into application at the point where its needed; provide good feedback on actions

#### Design inspiration from casual games

- Easy-to-learn game-play
- Simple controls
- 'Forgiving' game-play with low risk of failure
- Carefully managed complexity levels with a shallow learning curve, guidance through early levels, and inclusive, accessible themes
- Sense of rapid progress and achievement

### Design for 'flow'

- Clear sense of goals
- Feedback on progress towards goals
- Skills matched to challenge
- Enable focused attention on the task, remove worries about external factors

### Designing for motivation

- Match messages to motivation
- Match tasks and rewards to motivation
- Anticipate which motivations might change over course of a project, design progressions
- Don't replace intrinsic with extrinsic motivations, just make it easier for people to participate.

# Bonus points: design for on-going participation

- Participants develop new skills, new roles within project
- Support emergence of a community
- Revise functionality to support emergent needs
- Share data with community to support their analysis

# Crowdsourcing as 'stepping stones'



http://herbariaunited.org/atHome/

### Holistic design for a virtuous circle

- Ecosystem of crowdsourcing projects
  - Crowdsource tags or transcription to support discoverability and other crowdsourcing tasks
  - Validate data created in other projects
  - Help surface most interesting items
  - Help find most difficult items for advance challenges
- Supports different abilities, skills, types of challenge

# Exercise 3: reviewing your ideas

See handout for instructions

#### Final thoughts?

References and finding out more:

http://bit.ly/1aMaIlI

http://bit.ly/UijNZA

Thank you!
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