Strengthening Wikimedia Collaborations with and for Open Science

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Melissa Hagemann & Stephen Wyber

WIKIMANIA
KATOWICE

- **Welcome**: Stephen Wyber
- **Synergies with Wikimedia**: Daniel Mietchen
- **Intro to Open Access**: Melissa Hagemann
- **Intro to Open Science**: Daniel
- **Challenges**: Alice Kibombo & Melissa
- **Collaborations**: Eric Luth & Stephen

Overview of Session

What Success Looks Like

- **You:**
  - **Refresh your knowledge about the Open Science movement and its goals**
  - **Reaffirm your understanding of why Open Science supports the goals of the Wiki movement**
  - **Have the desire to work with Open Science advocates and practical plans for**
- **We:**
  - **Know how we can support stronger partnerships between the Wiki movement and Open Science advocates around the world**

Who we are...

- Stephen: Knowledge Rights 21
- Melissa:
  - BOAI Org
  - Open Future Foundation
- Daniel:
  - Wikidata / WikiCite / Scholia
  - FIZ Karlsruhe / KGI4NFDI
  - zbMATH Open / MaRDI
  - RIO Journal / iNaturalist
- Alice: Wikimedia Foundation
- Eric: Wikimedia Sweden

- Right to read (and mine)
  - For Wikimedia editors
    - and their tools
  - For Wikimedia readers
    - and their tools
- Right to reuse
  - open licenses
    - incl. right to adapt
  - (fair use)
- Right to participate
- Papers, datasets, software …

Synergies with Wikimedia (theory)

Synergies with Wikimedia (practice)

- Right to read (and mine)
  - For Wikimedia editors ⇒ (Wikipedia Library)
    - and their tools ⇒ Open Access Media Importer
  - For Wikimedia readers ⇒ OA Signalling Project
    - and their tools ⇒ WikiCite
- Right to reuse ⇒ OA Signalling Project / WikiCite
  - open licenses ⇒ OA Signalling Project / WikiCite
    - incl. right to adapt ⇒ OA Signalling Project / WikiCite
  - (fair use) ⇒ ?
- Right to participate ⇒ WikiCite / WikiProjects (e.g. 🏜️)
- Papers, datasets, software … ⇒ WikiCite / WikiProjects
- Scholarly profiles ⇒ Scholia (based on WikiCite)

- OA Signalling Project
- WikiProject Source Metadata

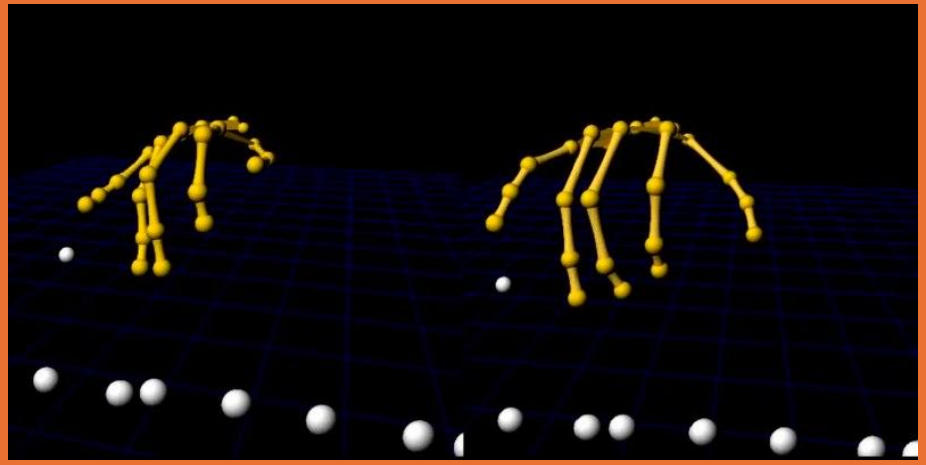
- Template: Citation

25. ^ a b White NJ (2011). "Determinants of relapse periodicity in *Plasmodium vivax* malaria". *Malaria Journal* **10**: 297. doi:10.1186/1475-2875-10-297. PMC 3228849. PMID 21989376. CC-BY full text media metadata

Four access levels can be used:

- access indicator for named identifiers:
  - `free`: the source is free to read for anyone
- access indicators for url-holding parameters:
  - `registration`: a free registration with the provider is required to access the source, even if a limited preview, abstract or review may still be available without registration
  - `limited`: free access is subject to limited trial and a subscription is normally required
  - `subscription`: the source is only accessible via a paid subscription with the provider of the source ("paywall")

- Open Access Media Importer
- 3 main steps
  - check article for license
  - check article for media
  - upload files to Commons
- 36k file uploads to Wikimedia Commons between 2010 and 2018
- 2k of these are used on 8k wiki pages
- over 500 million page views



- Original paper in PLOS ONE
- XML version on PMC
- File copy on Commons
- used on over 20 Wikipedias, including in Polish *Przechwytywanie ruchu* and *Pianista*

- WikiCite
- Scholia

Scholia has a profile for **Cherie Chu-Fuluifaga (Q115650385)**.

Supports the following statement(s)

Reload

Statements in Wikidata supported by references to this work. Only a maximum of around 2000 statements are shown.

Search:

Item	Property	Value
interval	part of	preordered set
closed interval	defining formula	$[a, b] = \{x \in X : a \leq x \leq b\}$

Wikidata Query Service

Wikipedia mentions

Reload

Search:

Title	Wikipedia	Item	Item description
Finger ↗	English Wikipedia	finger	one of usually five articulated digits at the end of the tetrapod hand
Finger tracking ↗	English Wikipedia	finger tracking	high-resolution technique in gesture recognition and image processing
Motion capture ↗	English Wikipedia	motion capture	tracking procedure which makes it possible to detect any type of movement and convert it to a digital format
Pianist ↗	English Wikipedia	pianist	musician who plays the piano

Two new species of fossil Leggadina (Rodentia: Muridae) from Northwestern Queensland (Q28646672)

Search:

Description	Value
Title	Two new species of fossil Leggadina (Rodentia: Muridae) from Northwestern Queensland
Type	scholarly article
Language	English
Published in	PeerJ
Publication date	2015
Topics	Rodentia, species nova, Muridae, fossil, Leggadina
DOI	10.7717/PEERJ.1088 ↗

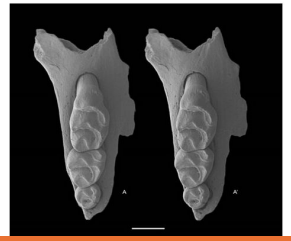
Wikidata Query Service

work: data.sparql

Showing 1 to 7 of 7 entries

Table of Contents

- List of authors
- Topic scores
- Timeline
- Related works
  - Related works from co-citation analysis
  - Related works from knowledge graph embedding
- Citations
  - Citations to the work
  - Cited works
  - Authors of cited works
  - Citation graph
  - Citations per year
- Wikipedia mentions
- Supports the following statement(s)



Authors

Reload

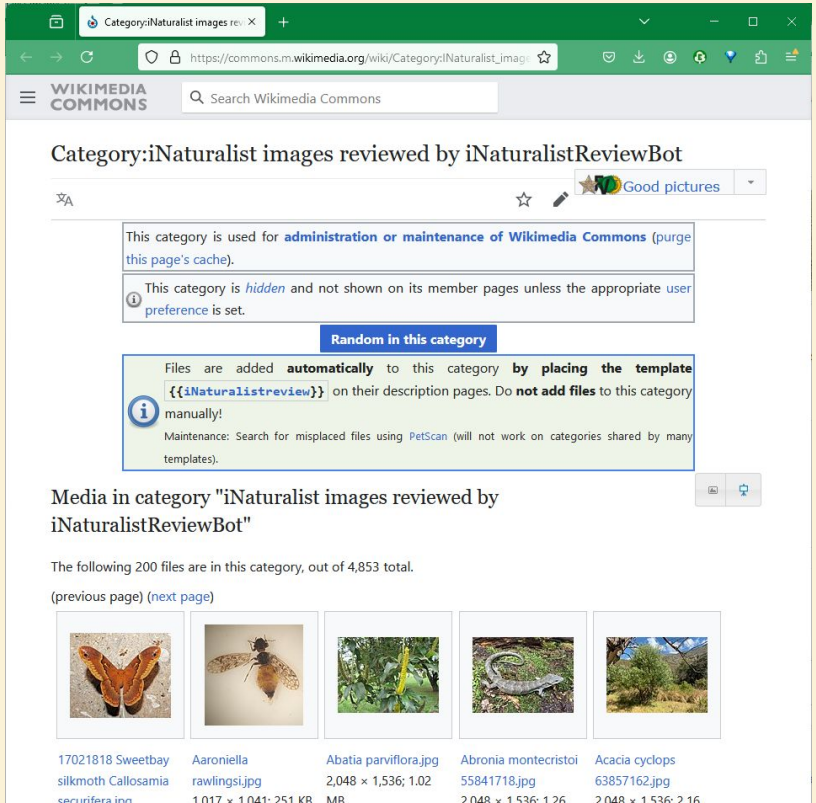
Show 10 entries

Katowice researchers using ImageJ

Search:

Works	Author	Author description	Example work
7	Dorota Kwiatkowska	researcher (ORCID 0000-0002-0102-6988)	FibrilTool, an ImageJ plug-in to quantify fibrillar structures in raw microscopy images
4	Anna Mrozek-Wilczkiewicz	Polish chemist and pharmaceutical scientist	Iron Chelators and Exogenic Photosensitizers. Synergy through Oxidative Stress Gene Expression.
4	Agata Daszkowska-Golec	Polish biologist	Mutation in HvCBP20 (Cap Binding Protein 20) Adapts Barley to Drought Stress at Phenotypic and Transcriptomic Levels.
4	Iwona Szarejko	Polish biologist	Mutation in HvCBP20 (Cap Binding Protein 20) Adapts Barley to Drought Stress at Phenotypic and Transcriptomic Levels.
4	Katarzyna Malarz	Polish chemist and pharmaceutical	Iron Chelators and Exogenic Photosensitizers. Synergy through Oxidative Stress

- Community science
- WikiProject Biodiversity



Open Access

By **“open access”** to this literature, we mean its **free availability on the public internet**, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles.

Budapest Open Access Initiative, 2002

Open Access

To achieve **open access** to scholarly journal literature, we recommend two complementary strategies:

I. Self-archiving/Repositories
II. Open Access Journals
    A. Free to read & publish in (Diamond)
    B. Article Processing Charge/Read & Publish Agreements

Budapest Open Access Initiative, 2002

20 years

- Almost 50% of research articles are OA
- Open Access Journals: 20,700
- Open Repositories: 5,600
- University OA Policies: 890
- Foundations, national governments
- COVID-19: 79% of journal articles were OA

BOAI20

“**Open Access** is not an end in itself, but a means to other ends, above all, to the **equity**, quality, usability, and sustainability of research.”

Open Science

(meant to include all fields of research, just like Polish *nauka* does)
⇒ Open research

"Open research is the concept of scientists sharing their research with the world as soon as they record it for themselves."

Open Science

- ethics first
  - who benefits / is harmed
  - if research is (not) done/ shared
- sharing
  - whether to share
  - what (not) to share
  - why (not) share
  - when to share
  - how to share
- open when possible
  - free to read/ mine/ reuse/ adapt/ participate
- all around the research cycle
- essentially a wiki way of doing and sharing research

Challenges

- APC-based journals exclude authors for economic reasons and without regard to the quality and importance of their work.
- Read-and-publish agreements exacerbate existing inequalities in scholarly publishing.

Challenges

- The research assessment process is broken; does not serve the scholarly community.
- OA research is at risk of enclosure when hosted on closed, proprietary or commercial infrastructure.

Specific Challenges in the Global South

- Awareness raising
- Loss of sustainable publishing models.
- Barriers to publish in APC-based journals.
- Spread of Read-and-Publish agreements.

Collaborations against challenges

Poor law

- Unwaivable remuneration rights
- Leaving researchers with obligations, but no rights
- Loopholes!
- Lack of clarity around copyright ownership
- Restrictions on data access and sharing

Collaborations against challenges

Underlying challenges

- Open science crucial for successful research
- Who’s talking on behalf of researchers?
- All parts of university and research sectors needed for advocacy

- Cross pollination of the two communities
- OA Signalling Project
- WikiJournals
- Policy
- Equitable development of Open Access

Collaborations

What are the priority areas for further collaborations?

WIKIMANIA
KATOWICE

How can we make these happen?

WIKIMANIA
KATOWICE

Let’s collaborate!

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