



Open Knowledge Maps

Discovery for an Open Science

Dr. Peter Kraker

Co-created with Maxi Schramm

Focus on Open Science

Kaunas, 29 October 2019



The 2014-2016 **Ebola epidemic** in West Africa claimed more than 11,000 lives

It could have been prevented using public knowledge

Opinion

OP-ED CONTRIBUTORS

Yes, We Were Warned About Ebola

By Bernice Dahn, Vera Mussah and Cameron Nutt

April 7, 2015

“The results seem to indicate that Liberia has to be included in the Ebola virus endemic zone.”

Knobloch et al. **1982**

There is an adage in public health: **“The road to inaction is paved with research papers.”**

Uncitedness (publications):

12% - 82% (Larivière & Gingras 2009)

Uncitedness (data):

85% (Peters et al. 2016)

Transfer to practice (medicine):

14%, taking 17 years (Balas 1998)

Dark Knowledge

(Jeschke et al.)



There is a discoverability crisis
that negatively impacts effectiveness & efficiency
of science, and its transfer to practice.

Scholar

About 2,450,000 results (0.05 sec)

Articles

Legal documents

Any time

Since 2012

Since 2011

Since 2008

Custom range...

Sort by relevance

Sort by date

- include patents
 include citations

 Create alert

[CITATION] Time for Results: Task Force on Leadership and Management
 , Task Force on **Educational Technology**... - 1986 - National Governors' Association ...
 Cited by 385 Related articles Cite

[Thinking **Technology**: Toward a Constructivist Design Model.](#)

DH Jonassen - **Educational technology**, 1994 - ERIC

Abstract: Discussion of constructivism and instructional design focuses on the development of a design model for constructivist environments that supports the construction of knowledge, a meaningful context for learning, and collaboration among learners and with ...
 Cited by 918 Related articles BL Direct Cite More ▾

[Conditions That Facilitate the Implementation of **Educational Technology** Innovations.](#)

DP Ely - **Educational Technology**, 1999 - ERIC

Abstract: Describes eight conditions that facilitate implementation of the **technology**-based change process: dissatisfaction with the status quo, existence of knowledge and skills, availability of resources, availability of time, existence of rewards or incentives, ...
 Cited by 211 Related articles BL Direct Cite More ▾

[BOOK] [Integrating **educational technology** into teaching](#)

MD Roblyer, J Edwards, MA Havriluk - 2006 - lavoisier.fr

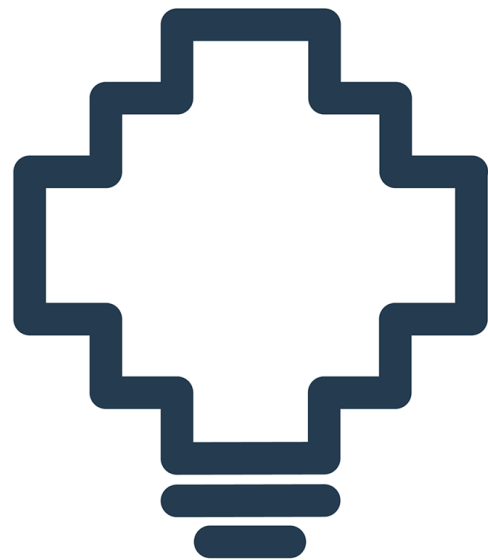
... Imprimer la notice. Integrating **educational technology** into teaching (4th ed). Auteur : ROBLYER Margaret. Prix indicatif 89,72 €. Disponible chez l'éditeur (délai d'approvisionnement : 10 jours). ...
 Paperback. Sommaire d'Integrating **educational technology** into teaching (4th ed) : ...
 Cited by 1314 Related articles All 14 versions Cite More ▾

1 2 3 4 5 6 7 8 9 10

[Weiter](#)

Identify relevant concepts

irrelevant



OPEN KNOWLEDGE MAPS

LWL, KNN,
K-nearest neighbour

Document Term Matrix,
Support Vector Machine,
Feature Extraction

Text Mining,
Classification,
Social Networking Sites

Text Documents,
Text Mining,
Affinity Propagation

CSI, Distributed
Data mining, Privacy
preserving data mining

Frequent patterns,
Meta data conceptual
mining

K-means,
J48, Hotspot

Cooperation,
Figure,
Networks

Loan Default,
Time series,
Tax administration

Web Structural Mining
(WSM), Data mining,
Hyperlink

@OK_Maps



Who we are



Open Knowledge Maps is
a **charitable non-profit organization**

dedicated to dramatically **improving**
the visibility of scientific knowledge

for **science and society alike**

Overview of heart diseases



Map a research topic ^{beta}

Get an overview - Find papers - Identify relevant concepts

PubMed (life sciences)

BASE (all disciplines)

[Refine your search](#) ▾

Enter your search term

GO

Try out: [sugar](#) [digital education](#)

[What is Open Knowledge Maps?](#)

Based on
100+ million
documents



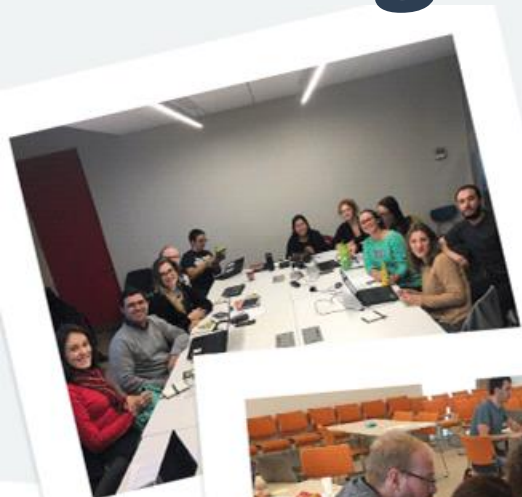
<https://openknowledgemaps.org>

Advantages



Largest visual search engine for research

First 2.5 years:
½ million visits on the site
100,000+ maps created
1500+ participants in workshops



Open Science Conference

OPEN MINDS [The Austrian Open Source Award]

reddit

ct magazin für computer technik

OPENCON

re:publica THE CONFERENCE. THE EVENT.

mozilla Festival

Hacker News

wikicite

ScienceGeist Everything about research

ZBW MEDIATALK

Storybench TOOLS, TIPS AND TAKEAWAYS ON DIGITAL STORYTELLING FROM NORTH BRABANT UNIVERSITY'S SCHOOL OF JOURNALISM

All of our services are free & open



Our offering includes:

- ✓ Innovative search and discovery services
- ✓ Integrations for BASE, PubMed, and OpenAIRE
- ✓ A wide range of training activities and materials
- ✓ Our award-winning visualization software
- ✓ Community support & engagement programs



Core Team



Peter Kraker
Founder & Chairman



Maxi Schramm
UX Designer & Treasurer



Christopher Kittel
Data Scientist & Secretary



Asura Enkhbayar
Software Architect



Scott Chamberlain
Data Sources



Rainer Bachleitner
Frontend Developer



Fabian Kraut
Marketing



Najmeh Shaghaei
Community Coordinator



Björn Brembs
Requirements & Evaluation



Thomas Arrow
Frontend Developer



Know Center
Organizational member



Ludwig Boltzmann Gesellschaft

Ludwig Boltzmann Gesellschaft
Supporting member

Advisors



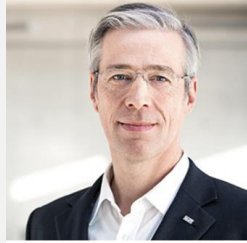
**Peter
Murray-Rust**



**Stefanie
Lindstaedt**



**Natalia
Manola**



**Klaus
Tochtermann**



**Bertil F.
Dorch**



Katja Mayer



**Falk
Reckling**



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**Birgit
Schmidt**



Elena Giglia



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Schlögl**



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Kasberger**



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Ferus**



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Hellauer**



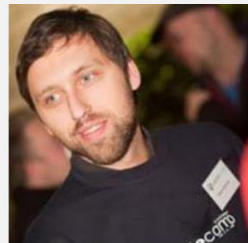
**Christine
Zhang**



**Sebastian
Dennerlein**



**Antica
Culina**



**Robert
Gutounig**

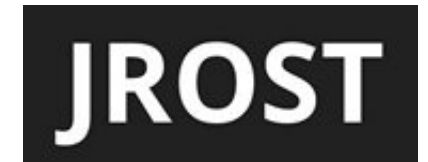
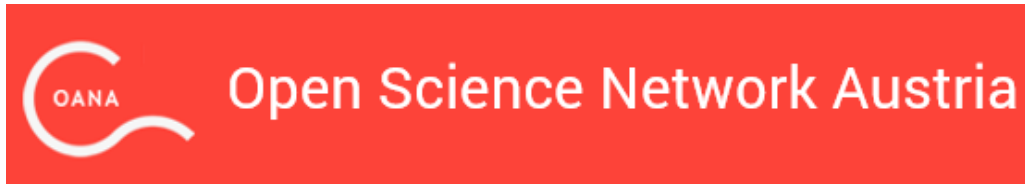


**Daniel
Dörler**



**Christian
Kaier**

Networks



Strong Partnership with Libraries

Librarians are among **our most important advisors and partners**

We increase the visibility of library content by including sources that many commercial products do not index

We collaborate with libraries to develop innovative open source projects

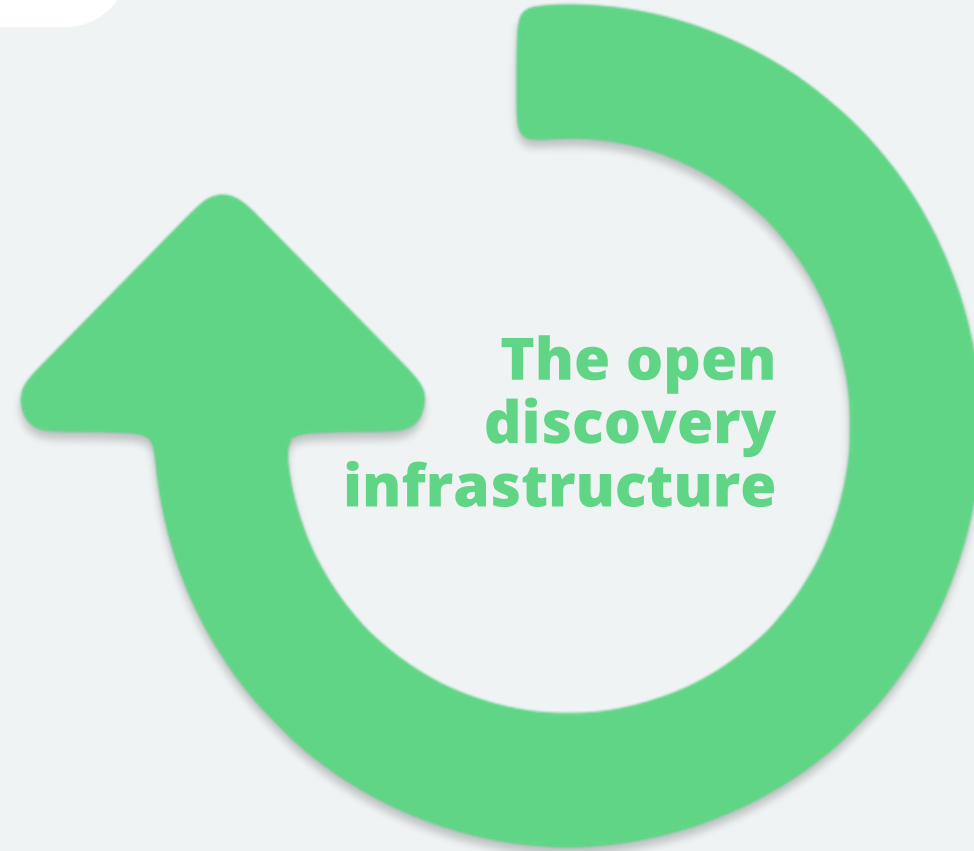
The cycle of continuous innovation



Institutions, Researchers,
Publishers



Libraries,
Archives,
Repositories,
Aggregators



The open
discovery
infrastructure

Value added
services



Meta aggregators



GO FAIR

DISCOVERY



OPEN
KNOWLEDGE MAPS



Four principles of...



...the information system supporting research



ELSEVIER

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Control User Data Governance Innovation

WIKIPEDIA

Crossref

GitHub

PubMed

SYMPLECTIC

arXiv.org

Altmetric

ORCID

OpenAIRE

Summon 2.0

SCHOLIX

Bookmetrix



ELSEVIER

A: 0.5% of RELX's CEO's yearly salary

B: Google's revenue from advertising, every 30 seconds

C: Est. revenue of Nature Communications every two days

= €95,000?

A: 0.5% of RELX's CEO's yearly salary

B: Google's revenue from advertising, every 30 seconds

C: Est. revenue of Nature Communications every two days

= €95,000!

D: The total budget of Open Knowledge Maps, including collaboration projects ... in the past 2.5 years

Let's make the open infrastructure sustainable!

DontLeaveItTo**Google**

DontLeaveItTo**SpringerNature**

DontLeaveItTo**Elsevier**



Membership-based Funding Model

We propose to fund Open Knowledge Maps in a collective effort: organizations become supporting members and provide a yearly contribution.

In return, we invite our members to co-create the platform with us. Members become part of the Board of Supporters, which is directly involved in the decision-making process of what features and sources are implemented on Open Knowledge Maps.

Membership Categories



Supporting member

1 seat on the Board of Supporters, listing on website

starting at **EUR 2,800** per year



Sustaining member

2 seats on the Board of Supporters, listing on website and in select materials with logo

starting at **EUR 4,800** per year

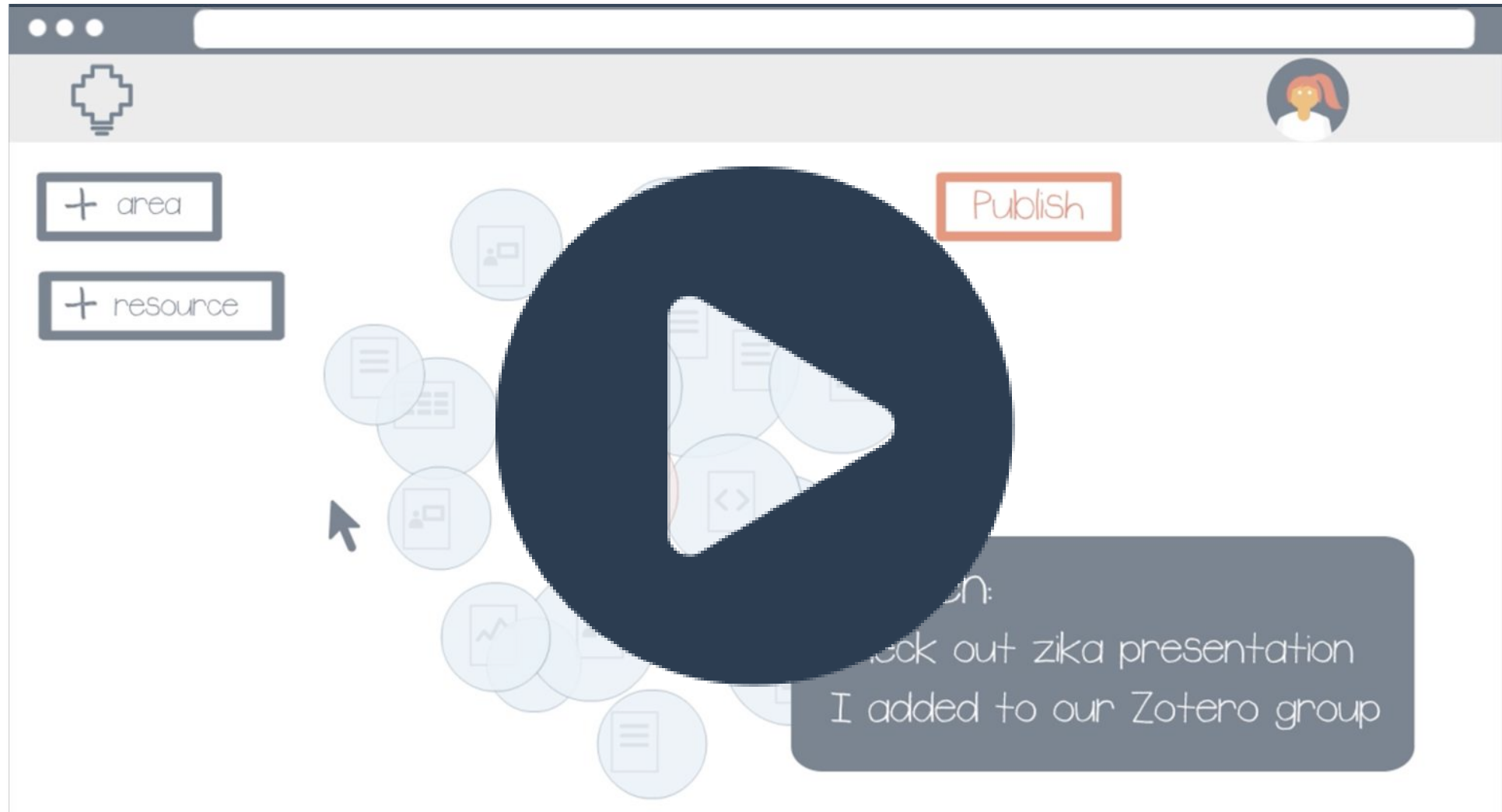


Sustaining member PLUS

3 seats on the Board of Supporters, listing on website and in select materials with logo

starting at **EUR 9,800** per year

Our vision



<https://vimeo.com/188647919>

Your support matters ❤️



Tell us what you think

Introduce OKMaps to your researchers, students and colleagues

Consider becoming a supporting member

... and don't forget to **sign-up** for our Newsletter ;-)



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Thank you for your attention!

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