knowledge pixels

Open Science: Precision, Speed, and Trust for Scholarly Communication

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At http://opendata.ch/2023

Open Science is good

... but not enough.



Precision, Speed, and Trust

Why can't scholarly communication have it all?







Identifiers

With identifiers we can refer to things.

Example:

ORCID

Statements

Using identifiers, we can make statements about things.

Example:

taxon:9612	ro:2303	envo:111	•
"wolf"	"has habitat"	"forests"	



Statements can only be trusted with context.

Example:

{taxon:9612 ro:2303 envo:111} source orcid:...-0234

Publications

Statements with context can be shared and published.



{taxon:9612 ro:2303 envo:111}

source orcid:...-0234



That's Nanopublications!

Tiny knowledge graph containers with provenance and metadata for scientific publishing:

RAZbVnR5w1

association is a association of an organism taxon to an environment . association refers to the organism taxon Canis lupus (species) . association refers to the relation (between taxon and environment) has habitat . association refers to the environment forested area .
this assertion is attributed to me (Tobias Kuhn) .
this created "2023-05-02T13:50:34.525+02:00" . this is created by me (Tobias Kuhn) . sig hasSignature "mnv3ni+Mdi91rhuIGvB1gLdoBz+ef4K4HMLmNviwtuRy98W6sMN+qFnKdPaveS8LS6oz" .

nanopub.net



nanodash, beta

Cutting Edge Warning



Overrated/Underrated

nanodash, beta by knowledge my channel users connectors search publish

Publish a new Nanopublication

Assertion: Stating an opinion that something is over-/underrated ^

Such a nanopublication expresses that its creator thinks the given thing is either overrated or underrated. This thing can be anything, such as an approach, a website, or a city.

I (Tobias Kuhn) think this is overrated:	x v the thing you think is over- or underrated	- .
Provenance: Attributed to myself	• • •	
The assertion above is attributed to me (Tobias Kuhn)		
Publication info add element	v	
This nanopublication is created by me (Tobias Kuhn)		
With license: ^		
This nanopublication is published under the license	Attribution 4.0 International (CC BY 4.0) 🗙 🗸 .	

Tobias Kuhn

□ I understand that publishing cannot be fully undone and that the provided information will be publicly visible and openly connected to my ORCID identifier (but nanopublications can be retracted, which makes them invisible in most situations).

Decentralized ecosystem!



Querying the network

select * where {
 ?person ?rel ?thing .
 values ?rel {
 opo:thinksIsOverrated
 opo:thinksIsUnderrated
 }
}



Now it's your turn :)

Visit this page: knowledgepixels.com/opendata-demo

1. Establish your identity with ORCID

You will need an ORCID account for this hands-on demo.

Register, if you don't have one already.

2. Publish a piece of open data with Nanodash

Go to Nanodash (or this alternative Nanodash instance).

3. Check out all published opinions

We can now query the network to find all such opinions:

- All over-/underrated opinions (alternative)
- Top overrated things (alternative)
- Top underrated things (alternative)

4. Introduce yourself and be approved by community

To properly introduce yourself, you can publish an introduction via your Nanodash profile page.

Somebody on the list of approved users can now approve your introduction.

ORCID Registration



V

By default, what visibility should be given to new items added to your ORCID Record?

Leveryone (87% of users choose this)
 Or Trusted Organizations (5% of users choose this)

Only me (8% of users choose this)



knowledgepixels.com/opendata-demo

ORCID	Authorize access
You are currently signed in as:	
Philipp Demo Account	
https://orcid.org/0009-0007-5	5403-0597
Sign out	
orger out	
Nanobench/Nanodash	
Nanobench/Nanodash	cess to your ORCID record:
Nanobench/Nanodash (has asked for the following acc Get your ORCID iD	cess to your ORCID record:

Introduce yourself

knowledgepixels.com/opendata-demo

nanodash, beta by knowledge | my channel | users | connectors | search | publish |

Your Profile

logout

https://orcid.org/ 0000-0002-9295-8114 Jane Doe

Key for Signatures

M..XGk5r.. is the local key that is used to sign your nanopublications on this site. It is so far not approved by the community.

Introductions

Introductions link your ORCID identifier to the keys you use to sign nanopublications.

There are no introductions yet.

Recommended Actions

It is recommended that you execute one of these actions:

Publish an introduction from scratch declaring your local key: new introduction...

Open data: from static to living



overunderrated-queries: get-entries

Get all entries of opinions that something is over-/underrated.

K	Table R	aw Response	Pivot	Table	Google Chart Geo 👤		
S	nowing 1 to 3 of	3 entries					
	person		₽	rel		♦	thing
	Tobias Kuhn			thinks	is overrated		winter
	Tobias Kuhn Tobias Kuhn			thinks thinks	is overrated is underrated		winter Turin

Showing 1 to 3 of 3 entries

Impact





Thank you for your attention! Questions?

Knowledge Pixels

We founded Knowledge Pixels in 2022 with the aim to kick-start the next revolution in scientific publishing and knowledge sharing. We'd love to hear from you, if you found this talk interesting.

https://knowledgepixels.com

Backup Slides

Incentives

(not) strong enough

- Voluntary
- Important
- Social control

- Goal
- Reward

ORCID Registration Detail 1/2



ORCID Registration Detail 2/2



ORCID	Authorize access
You are currently signed in as:	
Philipp Demo Account https://orcid.org/0009-0007-5 Sign out	403-0597
Nanobench/Nanodash	
has asked for the following acc	ess to your ORCID record:
has asked for the following acc	ess to your ORCID record:
has asked for the following acc	ize access
has asked for the following acc Get your ORCID iD Authori Deny	ize access
has asked for the following acc Get your ORCID iD Authori Deny If authorized, this organization wi record, as outlined above and des privacy policy.	ize access access access access access access access access to your ORCID accibed in further detail in ORCID's