

University of Luxembourg

Multilingual. Personalised. Connected.

Persistent Identifiers

What? Why? How?

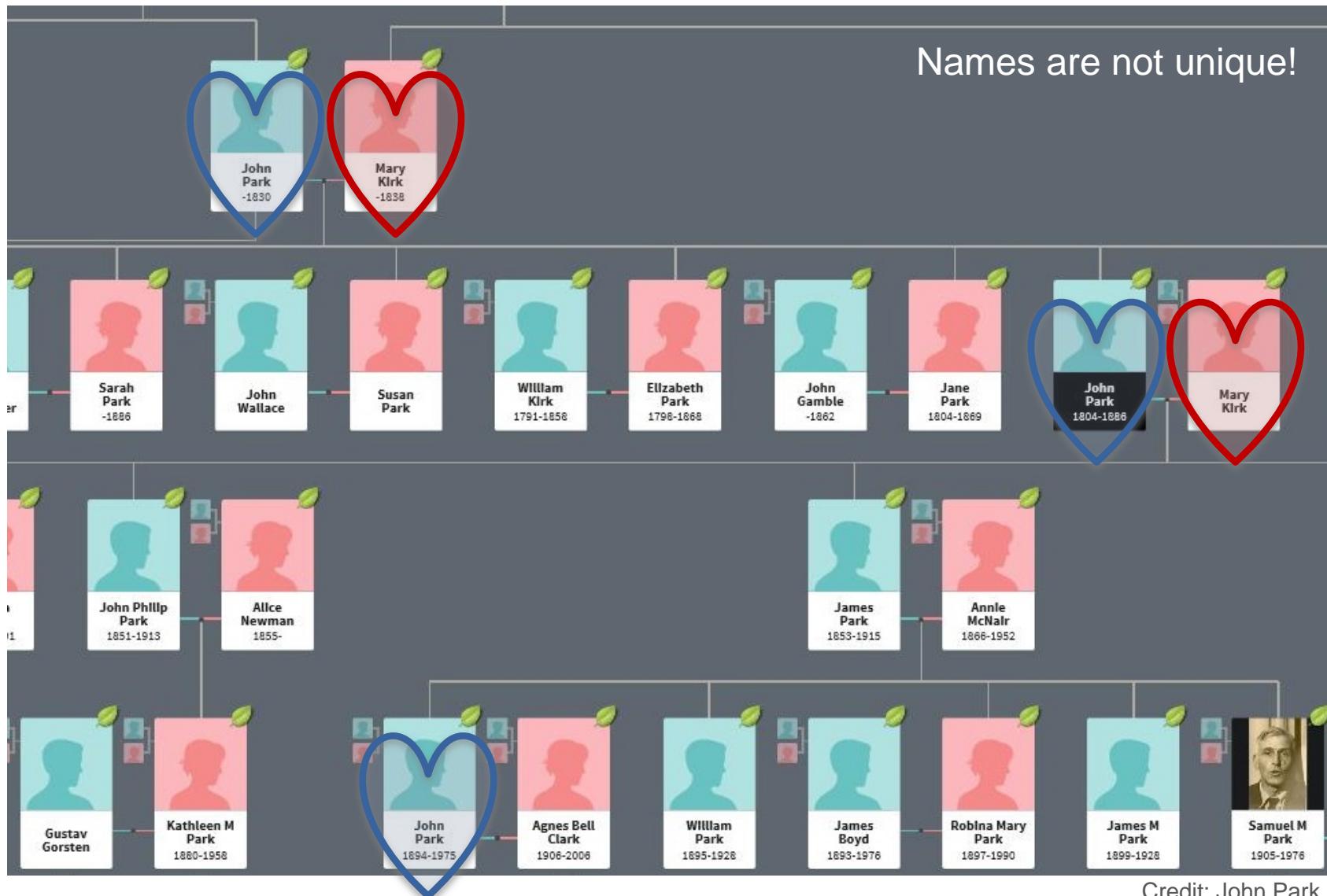
Beth PARK

Open Science Forum – November 2018



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What problem are we trying to solve?



What problem are we trying to solve?



Information
changes over time

PLOS ONE

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

Scholarly Context Adrift: Three out of Four URI References Lead to Changed Content

Shawn M. Jones Heribert Van de Sompel Harihar Shankar Martin Klein Richard Tobin Claire Grover

Published: December 2, 2016 • <https://doi.org/10.1371/journal.pone.0167475>

Article	Authors	Metrics	Comments	Media Coverage

Correction

Abstract
Introduction
Related Work
Methods
Results
Discussion
Supporting Information
Acknowledgments
Author Contributions
References

Abstract

Increasingly, scholarly articles contain URI references to "web at large" resources including project web sites, scholarly wikis, ontologies, online debates, presentations, blogs, and videos. Authors reference such resources to provide essential context for the research they report on. A reader who visits a web at large resource by following a URI reference in an article, some time after its publication, is led to believe that the resource's content is representative of what the author originally referenced. However, due to the dynamic nature of the web, that may very well not be the case. We reuse a dataset from a previous study in which several authors of this paper were involved, and investigate to what extent the textual content of web at large resources referenced in a vast collection of Science, Technology, and Medicine (STM) articles published between 1997 and 2012 has remained stable since the publication of the referencing

Correction

25 Jan 2017: The PLOS ONE Staff (2017) Correction: Scholarly Context Adrift: Three out of Four URI References Lead to Changed Content. PLOS ONE 12(1): e0171057. <https://doi.org/10.1371/journal.pone.0171057> | [View correction](#)

<https://doi.org/10.1371/journal.pone.0167475>

What problem are we trying to solve?



or disappears all together

A screenshot of a 404 error page from a website. The page has a dark blue header with navigation links for STORE, WHERE TO BUY, TOOLS, and COMPANY. Below the header are buttons for PRODUCTS, MARKETS, and SUPPORT, along with a search bar and chat/list links. The main content area shows the number 404 in large blue digits, followed by the text "Page Not Found". A message below states: "Sorry, the page you are looking for cannot be found and might have been removed, had its name changed, or is temporarily unavailable. Please click the Search button in the toolbar to find what you're looking for, or choose an option below." At the bottom are two blue buttons: "Visit Home Page" and "Support". A note at the bottom of the page says: "Feel free to [contact us](#) if the problem persists or if you are unable find what you need." The URL in the browser's address bar is "http://www.404errorpage.com".

STORE | WHERE TO BUY | TOOLS | COMPANY

PRODUCTS MARKETS SUPPORT

SEARCH CHAT LIST

HOME > 404 ERROR PAGE

404

Page Not Found

Sorry, the page you are looking for cannot be found and might have been removed, had its name changed, or is temporarily unavailable. Please click the Search button in the toolbar to find what you're looking for, or choose an option below.

Visit Home Page

Support

Feel free to [contact us](#) if the problem persists or if you are unable find what you need.

What problem are we trying to solve?

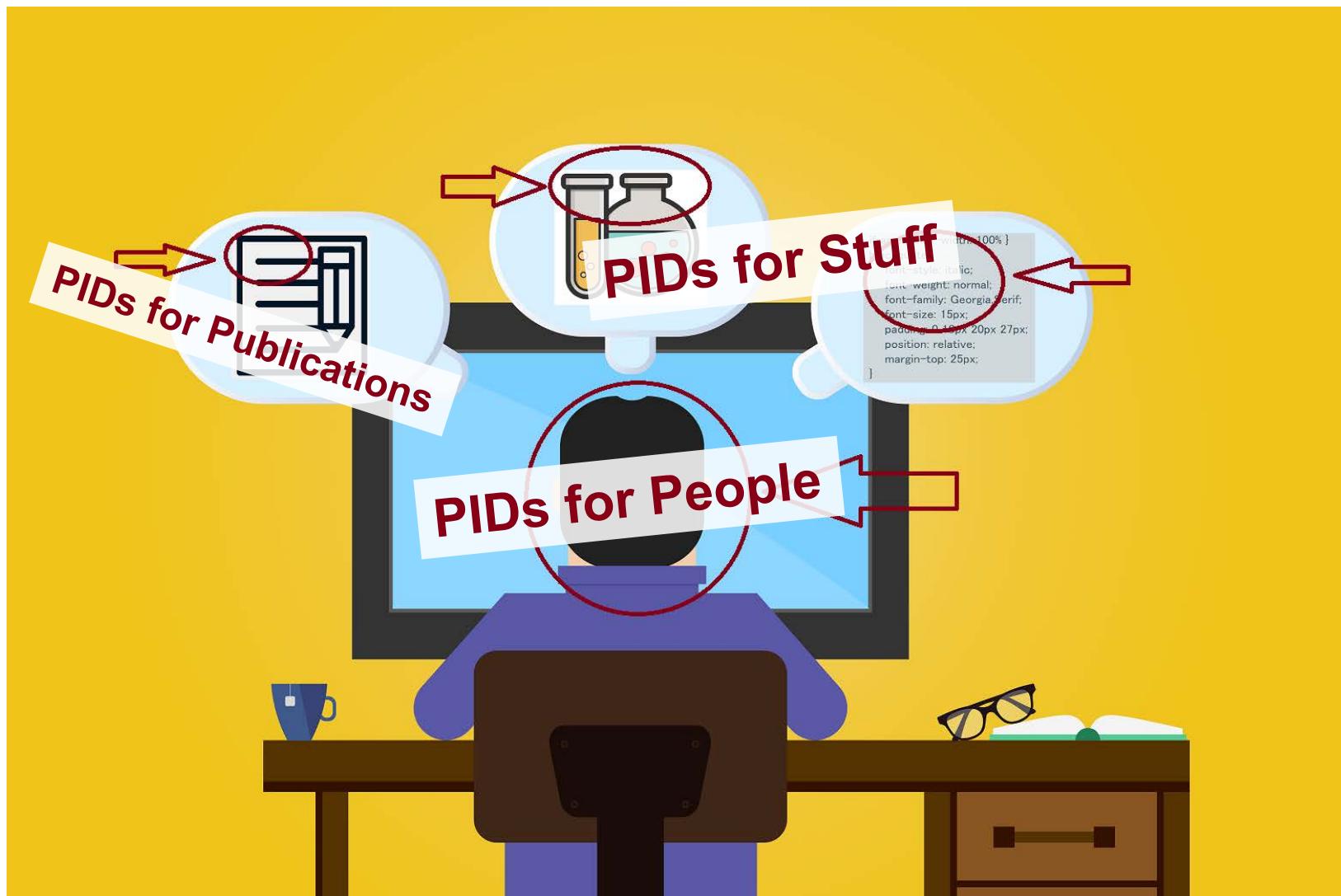


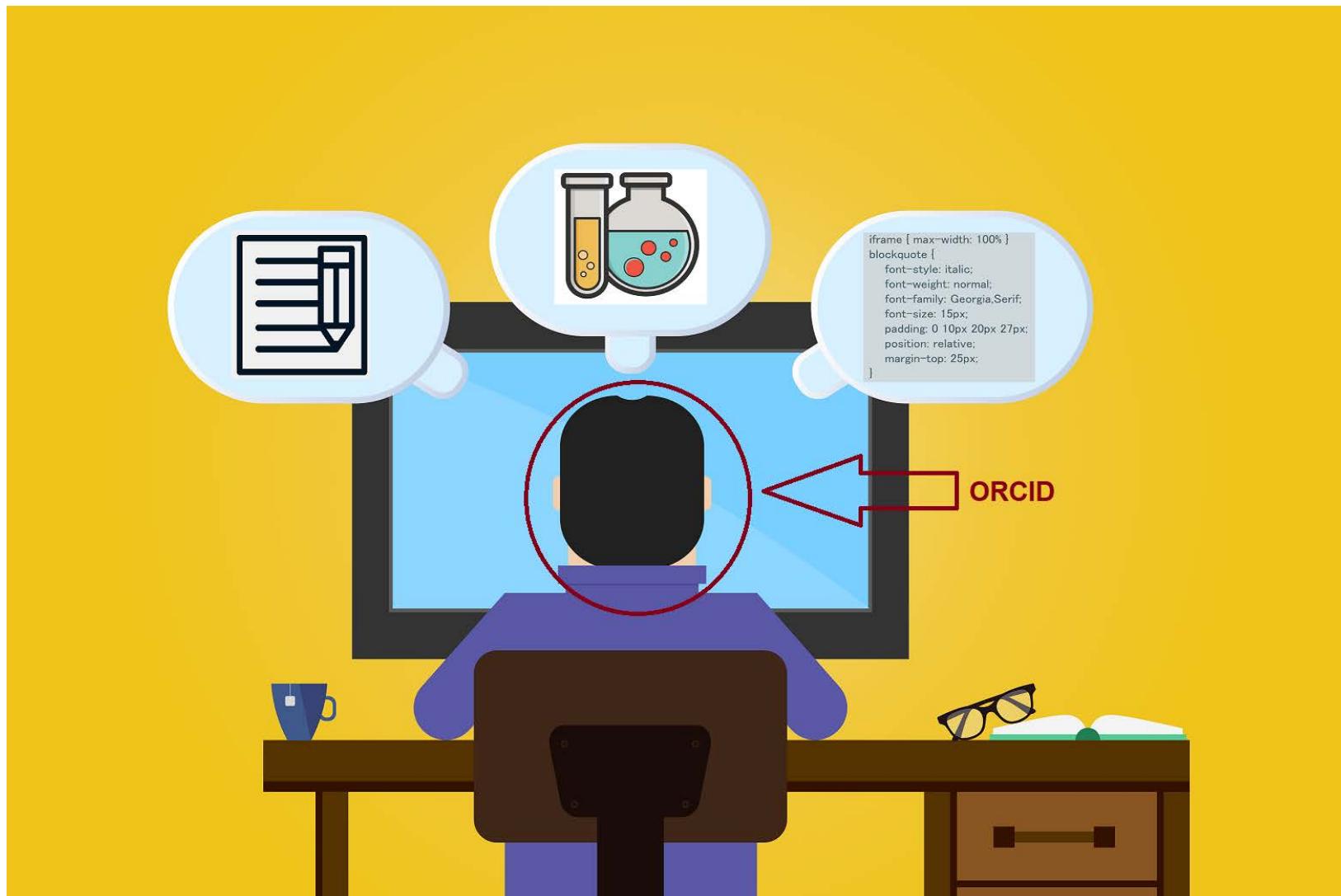
- You and your work must be properly identified:
 - **Persistent**: now and in the future;
 - **Unique**: no mismatches;
 - **Actionable**: links work best;
 - **Machine-readable**: “DJL789354DKS”.

And the answer is

PERSISTENT IDENTIFIERS or PIDs

You and the PIDs





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Works (35 of 35) 

Dark matter in host-microbiome metabolomics: Tackling the unknowns—A review

orcid.org/0000-0001-6868-8145

DOI: 10.1016/j.aca.2017.12.034

Source: Crossref Preferred source

Critical Assessment of Small Molecule Identification 2016: automated methods

Journal of Cheminformatics

2017-12 | journal-article

DOI: 10.1186/s13321-017-0207-1

 Source: Crossref Preferred source

Nontarget Screening with High Resolution Mass Spectrometry in the Environment: Ready to Go?

Environmental Science & Technology

2017-10-17 | journal-article

DOI: 10.1021/acs.est.7b02184

Source: Crossref Preferred source

Open Science for Identifying “Known Unknown” Chemicals

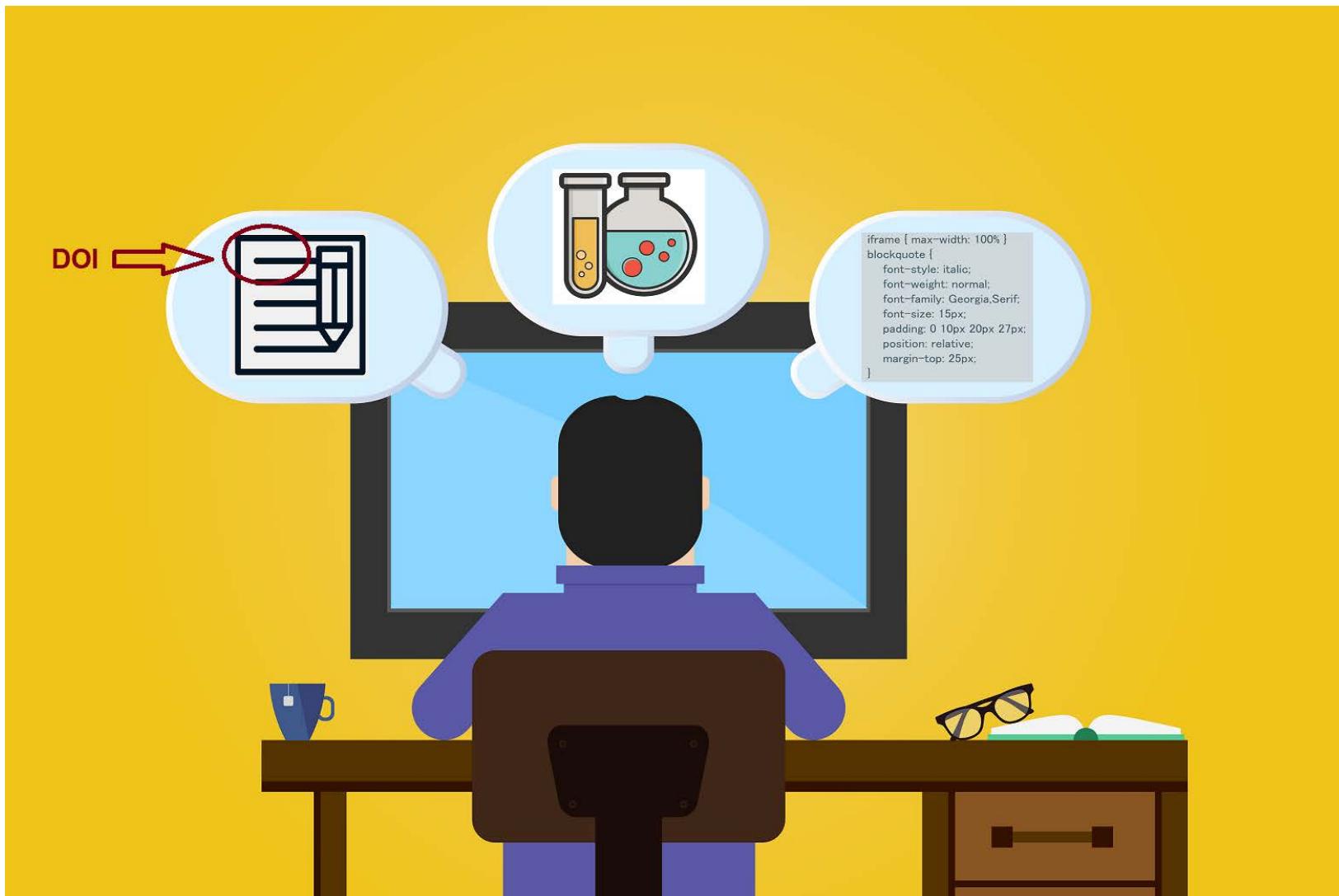
Environmental Science & Technology

2017-05-16 | journal-article

DOI: 10.1021/acs.est.7b01908

Source: Crossref Preferred source

PIDs for Publications



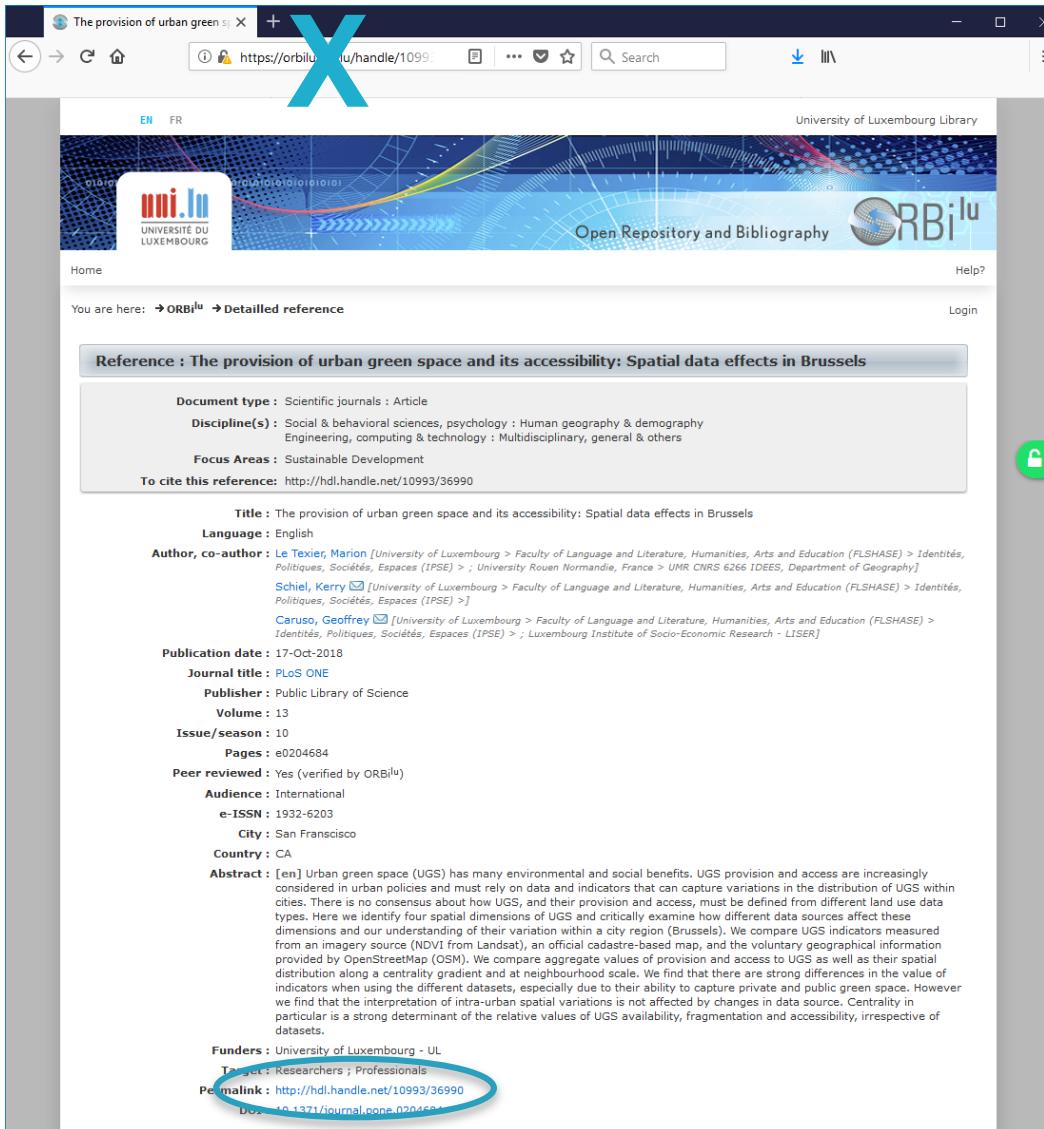
PIDs for Publications

A screenshot of a PLOS ONE article page. The page title is "The provision of urban green space and its accessibility: Spatial data effects in Brussels". The authors listed are Marion Le Texier, Kerry Schmid, and Bradley Caruso. The article was published on October 17, 2019, with the DOI <https://doi.org/10.1371/journal.pone.0204684>. The page shows metrics: 0 saves, 0 citations, 258 views, and 0 shares. A blue oval highlights the DOI link. The page includes sections for Abstract, Introduction, Study area and methods, GIS data and UGS identification, Results, Conclusion, Supporting information, References, Reader Comments (0), Media Coverage (0), and Figures. The Abstract section describes the study of urban green space (UGS) provision and accessibility using data from three sources: iODVI (Landsat), an official cadastral map, and OpenStreetMap (OSM). The study finds that while there are differences in indicator values between datasets, the interpretation of intra-urban spatial variations is consistent across them, with centrality being a key determinant.

PIDs for Publications



Where's the PID?



The provision of urban green space and its accessibility: Spatial data effects in Brussels

Document type : Scientific journals : Article

Discipline(s) : Social & behavioral sciences, psychology ; Human geography & demography
Engineering, computing & technology : Multidisciplinary, general & others

Focus Areas : Sustainable Development

To cite this reference: <http://hdl.handle.net/10993/36990>

Title : The provision of urban green space and its accessibility: Spatial data effects in Brussels

Language : English

Author, co-author : Le Texier, Marion [University of Luxembourg > Faculty of Language and Literature, Humanities, Arts and Education (FLSHASE) > Identités, Politiques, Sociétés, Espaces (IPSE) > ; University Rouen Normandie, France > UMR CNRS 6266 IDEES, Department of Geography]; Schiel, Kerry [University of Luxembourg > Faculty of Language and Literature, Humanities, Arts and Education (FLSHASE) > Identités, Politiques, Sociétés, Espaces (IPSE) >]; Caruso, Geoffrey [University of Luxembourg > Faculty of Language and Literature, Humanities, Arts and Education (FLSHASE) > Identités, Politiques, Sociétés, Espaces (IPSE) > ; Luxembourg Institute of Socio-Economic Research - LISER]

Publication date : 17-Oct-2018

Journal title : PLoS ONE

Publisher : Public Library of Science

Volume : 13

Issue/season : 10

Pages : e0204684

Peer reviewed : Yes (verified by ORBi.lu)

Audience : International

e-ISSN : 1932-6203

City : San Francisco

Country : CA

Abstract : [en] Urban green space (UGS) has many environmental and social benefits. UGS provision and access are increasingly considered in urban policies and must rely on data and indicators that can capture variations in the distribution of UGS within cities. There is no consensus about how UGS, and their provision and access, must be defined from different land use data types. Here we identify four spatial dimensions of UGS and critically examine how different data sources affect these dimensions and our understanding of their variation within a city region (Brussels). We compare UGS indicators measured from an imagery source (NDVI from Landsat), an official cadastre-based map, and the voluntary geographical information provided by OpenStreetMap (OSM). We compare aggregate values of provision and access to UGS as well as their spatial distribution along a centrality gradient and at neighbourhood scale. We find that there are strong differences in the value of indicators when using the different datasets, especially due to their ability to capture private and public green space. However we find that the interpretation of intra-urban spatial variations is not affected by changes in data source. Centrality in particular is a strong determinant of the relative values of UGS availability, fragmentation and accessibility, irrespective of datasets.

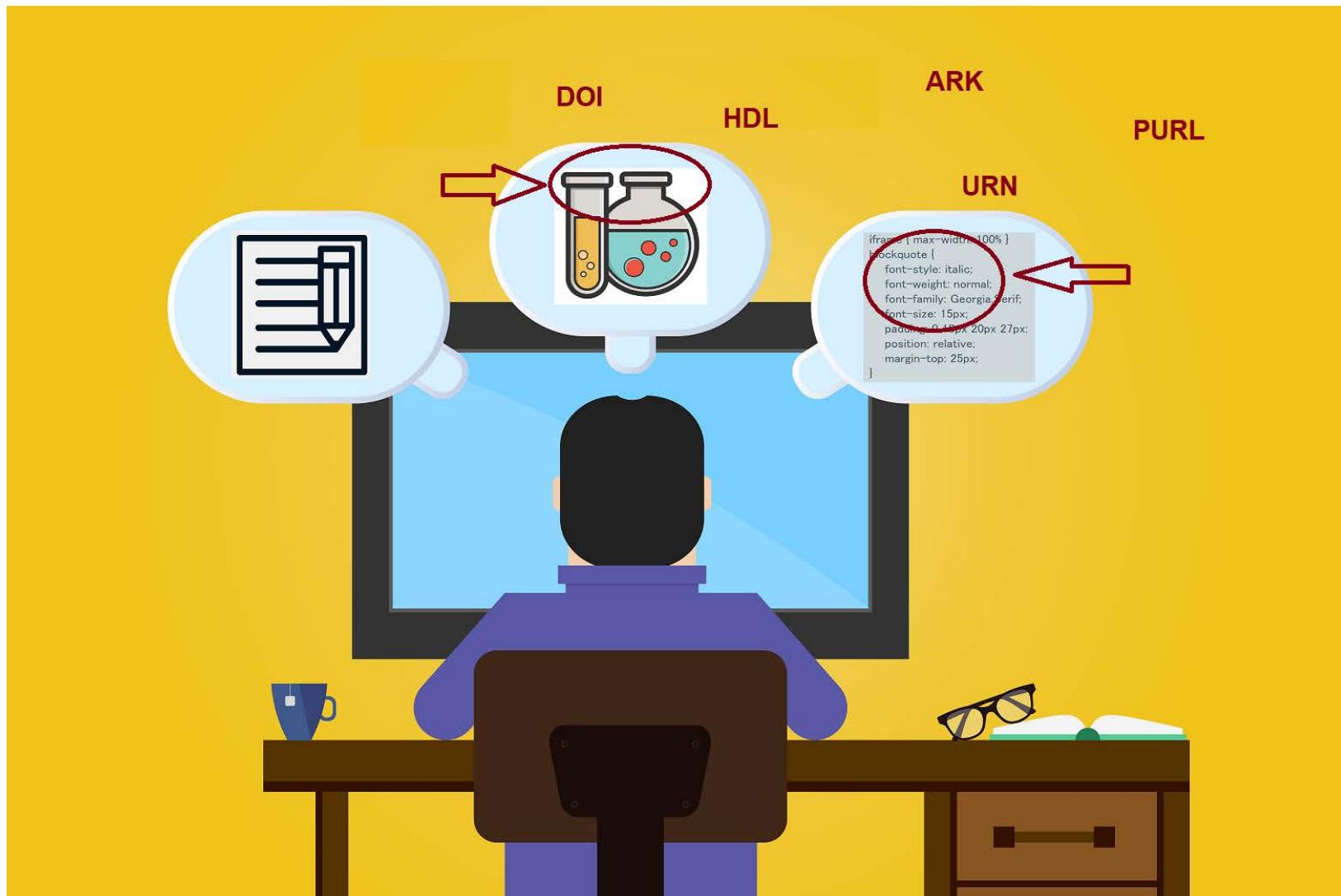
Funders : University of Luxembourg - UL

Target : Researchers ; Professionals

Permalink : <http://hdl.handle.net/10993/36990>

DOI : 10.1371/journal.pone.0204684

PIDs for Stuff – Data, Source Code, ...



- **PIDS for Scientific Articles, Papers, etc.**
 - DOI = Digital Object Identifier;
 - Can be used for datasets too;
- TIP: Use a DOI shortener: <http://shortdoi.org/>



Enhance the value of your content
for your community when you are



Learn more at https://www.doi.org/driven_by_DOI.html

- If you build a management system:
 - Handle (HDL);
 - DOIs are a subset of Handles;
 - ORBi^{lu} uses Handles: <http://hdl.handle.net/10993/36990>

- **Other Options:**

- **Archival Resource Key (ARK)**

- ARK is an identifier scheme conceived by the California Digital Library (CDL), aiming to identify objects in a persistent way.

- **Persistent Uniform Resource Locator (PURL)**

- PURLs are URLs is a permanent web address which contains the command to redirect to another page, one which can change over time.

- **Universal Resource Name (URN)**

- URNs are persistent, location-independent identifiers, allowing the simple mapping of namespaces into a single URN namespace.

Learn more at

<https://www.dpconline.org/handbook/technical-solutions-and-tools/persistent-identifiers>

and

<https://www.ands.org.au/guides/persistent-identifiers-awareness>

In Summary



- Give yourself a PID;
- Give your stuff PIDs;
- Use PIDs whenever possible;
- Web addresses don't last;
- Machines understand PIDs.