Alicia Fátima Gómez Sánchez, PhD

INTRODUCTION TO PERSISTENT IDENTIFIERS: THE MEANING OF DIGITAL OBJECT IDENTIFIERS (DOIs)

FAIR Data Austria Webinar:
An Exploration of Persistent Identifiers: Use, Value and Future.

April 27, 2022

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WHAT ARE PERSISTENT IDENTIFIERS (PIDs)

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REMINDING THE FAIR PRINCIPLES

Source : Australian National Data Service (ANDS)

WHAT IS A PERSISTENT IDENTIFIER (PID)

- **PIDs** are permanent unique long-lasting references to a digital object (document, file, website ...), person, institution, funder, etc.

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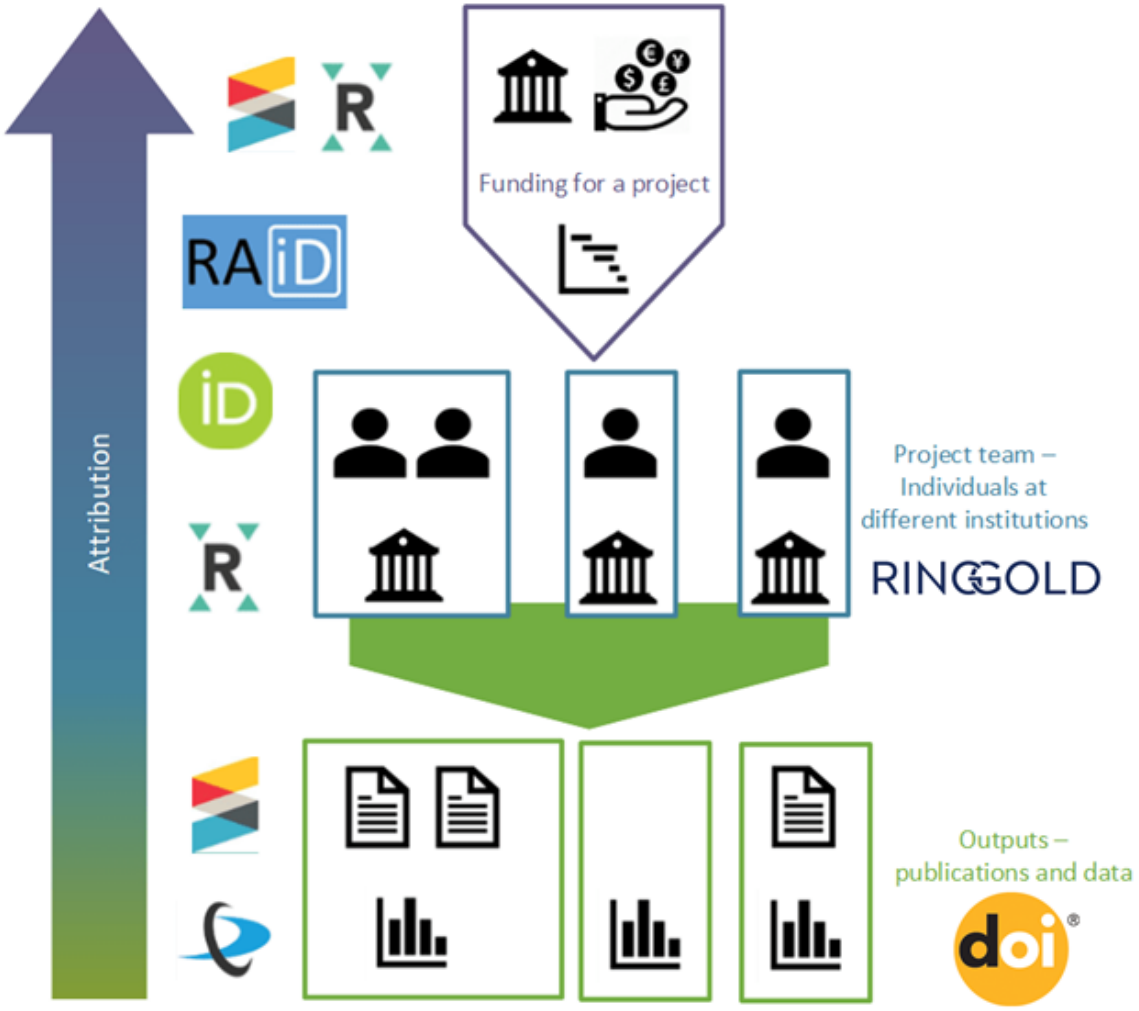
PIDs LANDSCAPE

- PIDs make it easier to link and retrieve publications and research results and to link authors with their works.



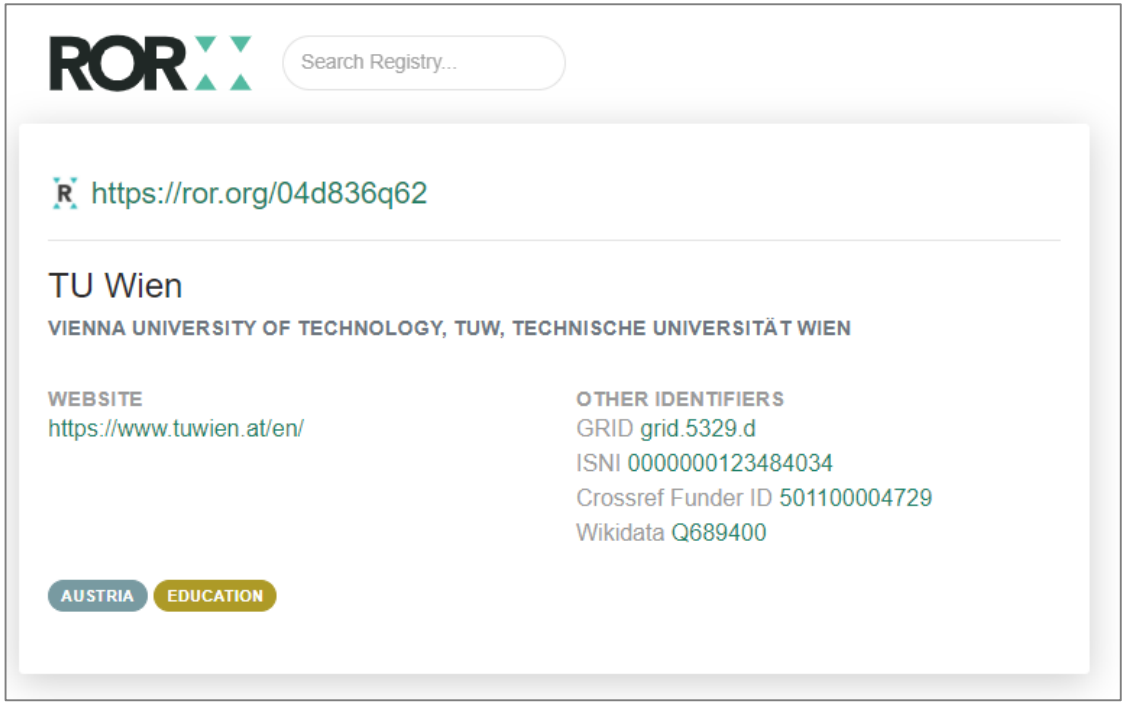
Adapted from:
https://info.orcid.org/orcid-and-the-uk-national-pid-consortium/

BENEFIT OF PIDS

- Help to interconnect a network of specifically identified objects.
- Make it easier to **link and retrieve research results** and to **link authors, institutions and more** with their works.
- Allow direct access to the information associated to digital objects (e.g. DOIs), people (e.g. ORCID iDs), institutions (ROR, Ringgold, etc.)
- **Are essential to make data FAIR**

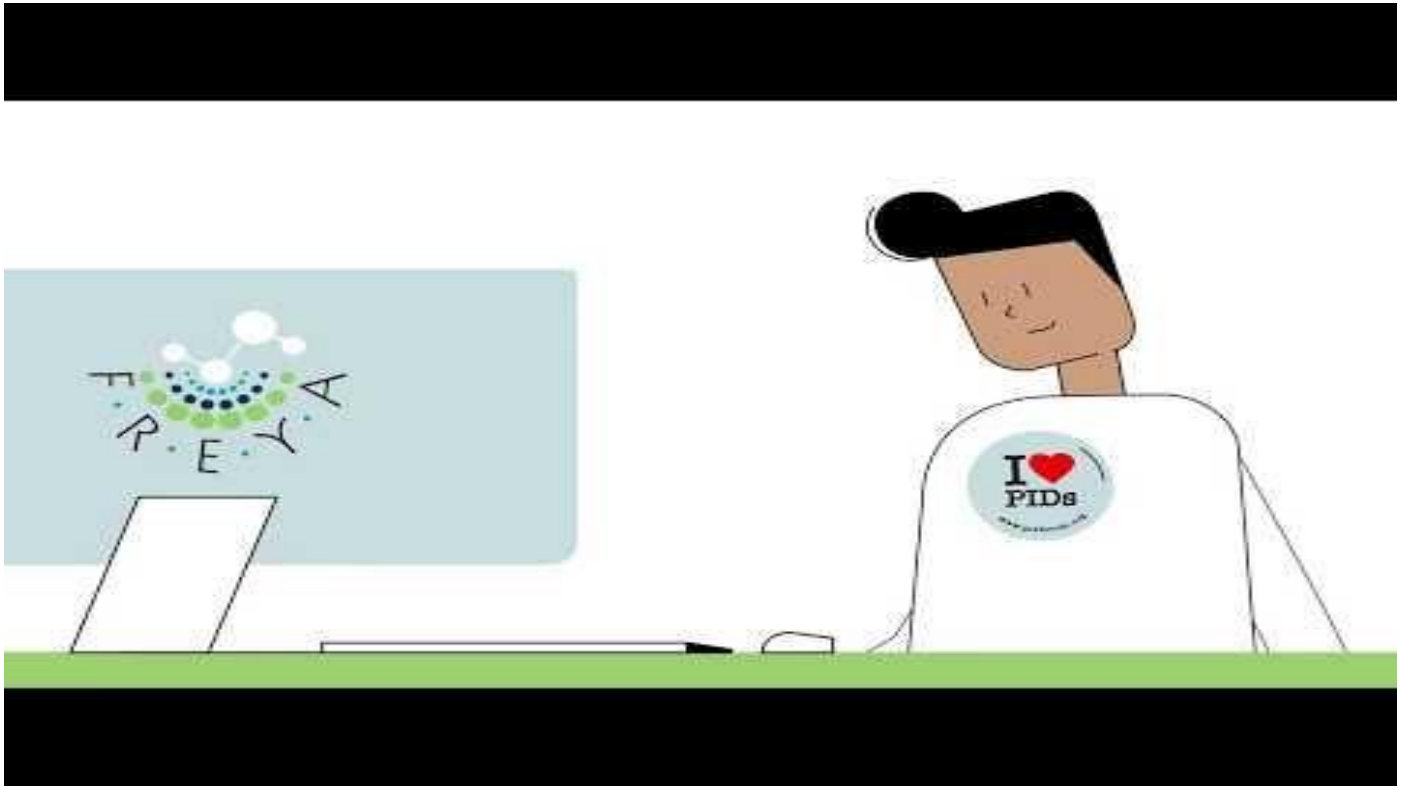
RESEARCH ORGANIZATION REGISTRY (ROR)

ROR is a community-led project to develop an open, sustainable, usable, and unique identifier for every research organization in the world.



https://ror.org/

THE POWER OF PERSISTENT IDENTIFIERS

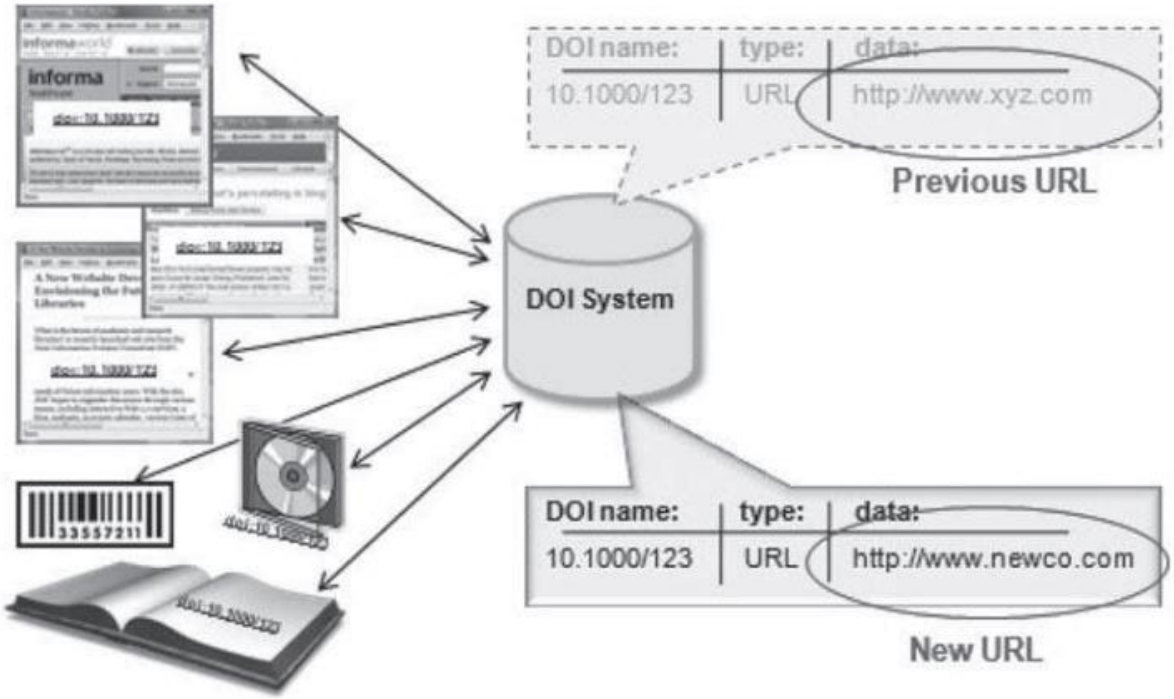


https://www.youtube.com/watch?v=9G4EMJCwCw4&feature=youtu.be

WHAT IS A DOI

WHAT IS A DOI

- A Digital Object Identifier (DOI) is a unique and permanent digital identifier for an electronic object.



Paskin, N. (2015). Digital Object Identifier (DOI®) System. In M. J. Bates & M. Niles Maack (Eds.). *Encyclopedia of Library and Information Sciences* (3rd ed.). CRS Press. https://doi.org/10.1081/E-ELIS3

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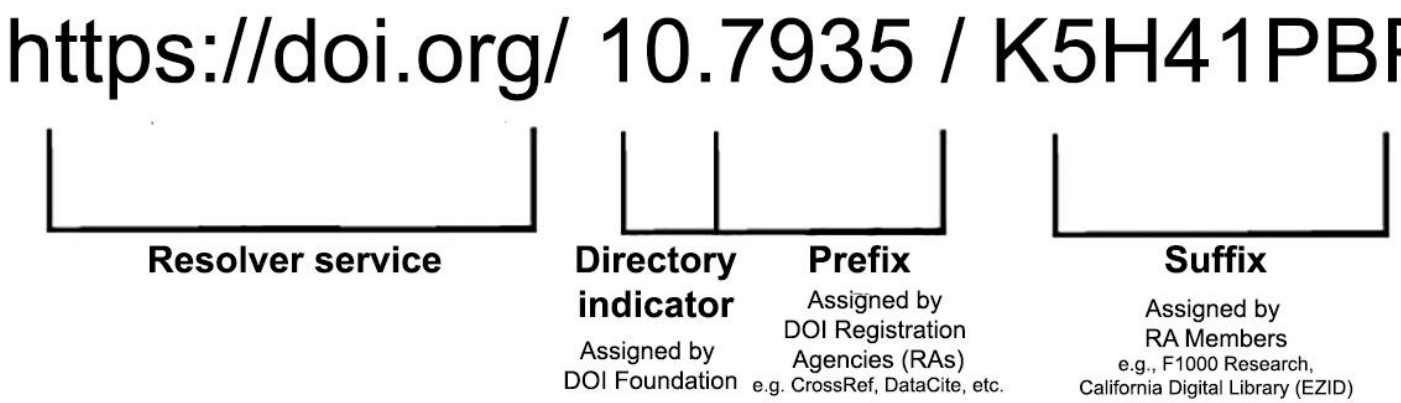
STRUCTURE OF A DOI

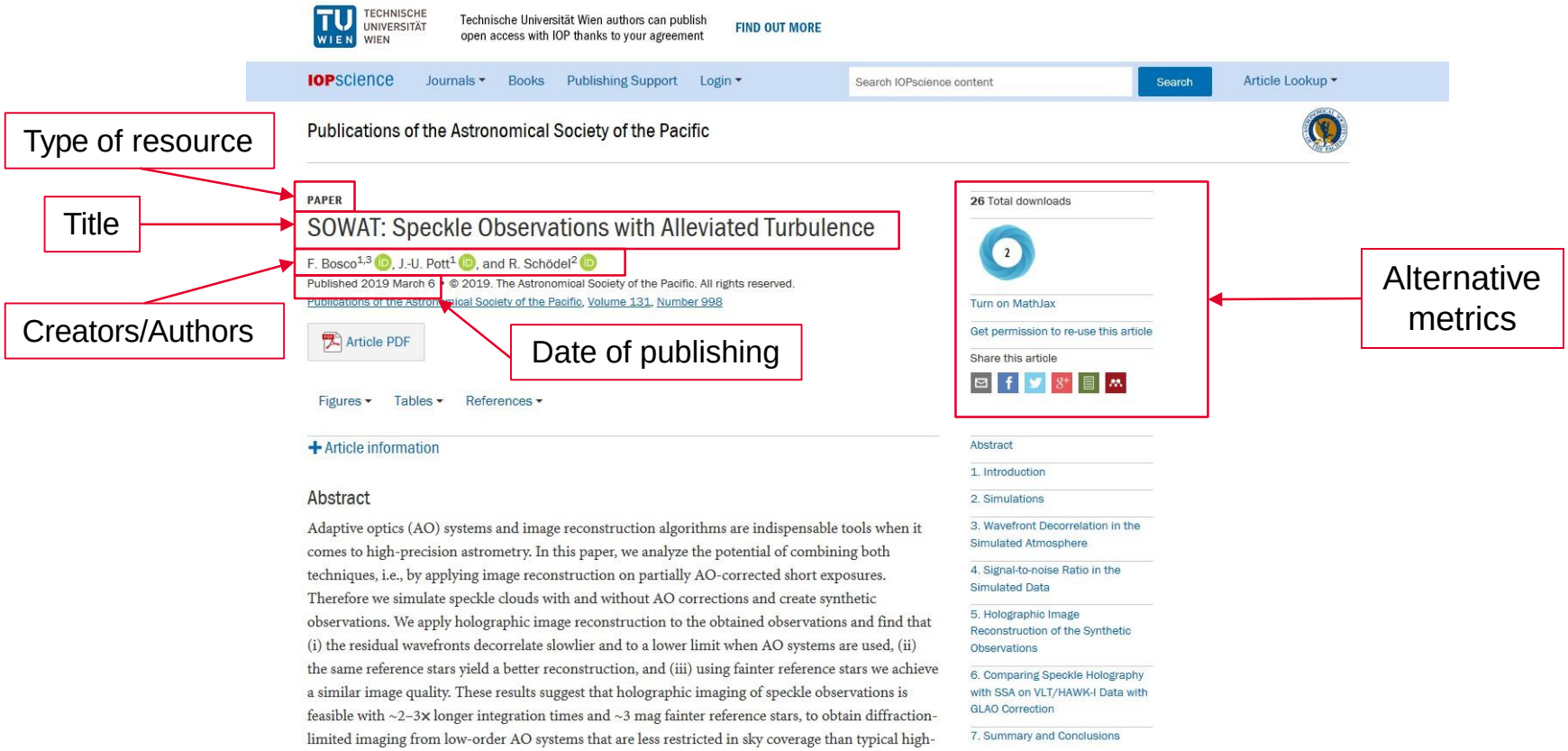
Anatomy of a Digital Object Identifier (DOI)



[Adapted from Austalian National Data Service (ANDS) Digital Object Identifier System and DOI Names (DOIs) Guide, http://www.ands.org.au/guides/doi]

THE EXTRA INFORMATION IN A DOI

https://doi.org/10.1088/1538-3873/ab019f



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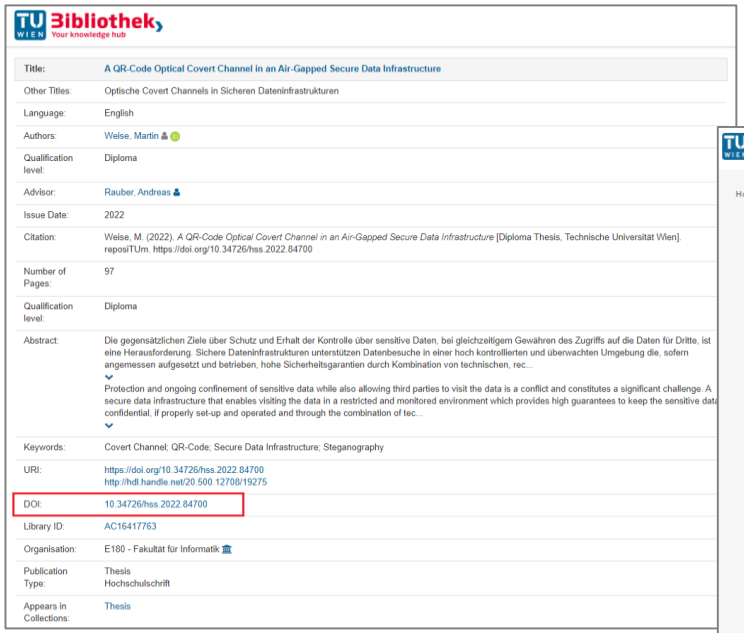
HOW TO GET A DOI

- Through journals publishers
- Through public or subject repositories (Zenodo, Pangea…)
- Through your local DOI-Service (i.e. at the TU Wien)



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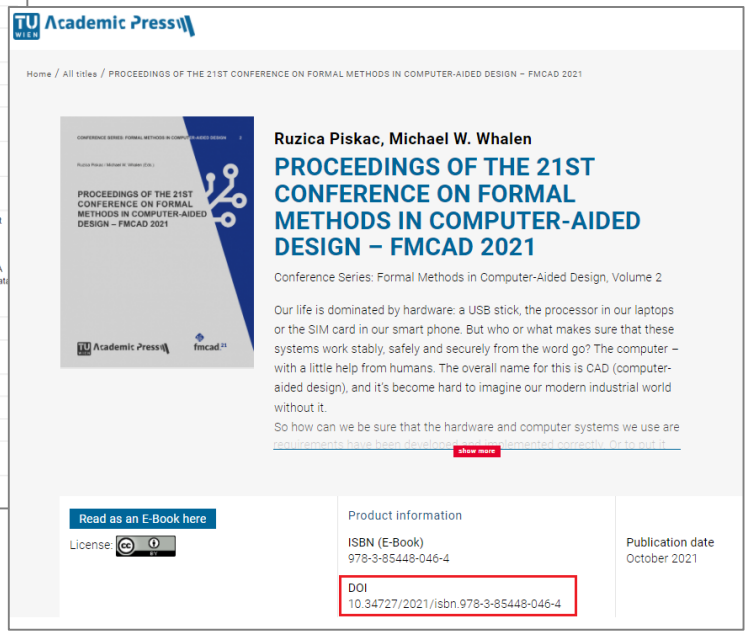
Title:	A QR-Code Optical Covert Channel in an Air-Gapped Secure Data Infrastructure
Other Titles:	Optische Covert Channels in Sicheren Dateninfrastrukturen
Language:	English
Authors:	Weise, Martin
Qualification level:	Diploma
Advisor:	Rauber, Andreas
Issue Date:	2022
Citation:	Weise, M. (2022). *A QR-Code Optical Covert Channel in an Air-Gapped Secure Data Infrastructure* [Diploma Thesis, Technische Universität Wien]. reposiTUm. https://doi.org/10.34726/hss.2022.84700
Number of Pages:	97
Qualification level:	Diploma
Abstract:	Die gegensätzlichen Ziele über Schutz und Erhalt der Kontrolle über sensitive Daten, bei gleichzeitigem Gewähren des Zugriffs auf die Daten für Dritte, ist eine Herausforderung. Sichere Dateninfrastrukturen unterstützen Datenbesuche in einer hoch kontrollierten und überwachten Umgebung die, sofern angemessen aufgesetzt und betrieben, hohe Sicherheitsgarantien durch Kombination von technischen, rec... Protection and ongoing confinement of sensitive data while also allowing third parties to visit the data is a conflict and constitutes a significant challenge. A secure data infrastructure that enables visiting the data in a restricted and monitored environment which provides high guarantees to keep the sensitive data confidential, if properly set-up and operated and through the combination of tec...
Keywords:	Covert Channel; QR-Code; Secure Data Infrastructure; Steganography
URI:	https://doi.org/10.34726/hss.2022.84700 http://hdl.handle.net/20.500.12708/19275
DOI:	10.34726/hss.2022.84700
Library ID:	AC16417763
Organisation:	E180 - Fakultät für Informatik
Publication Type:	Thesis Hochschulschrift
Appears in Collections:	Thesis



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Ruzica Piskac, Michael W. Whalen

PROCEEDINGS OF THE 21ST CONFERENCE ON FORMAL METHODS IN COMPUTER-AIDED DESIGN – FMCAD 2021

Conference Series: Formal Methods in Computer-Aided Design, Volume 2

Our life is dominated by hardware: a USB stick, the processor in our laptops or the SIM card in our smart phone. But who or what makes sure that these systems work stably, safely and securely from the word go? The computer – with a little help from humans. The overall name for this is CAD (computer-aided design), and it's become hard to imagine our modern industrial world without it.
So how can we be sure that the hardware and computer systems we use are

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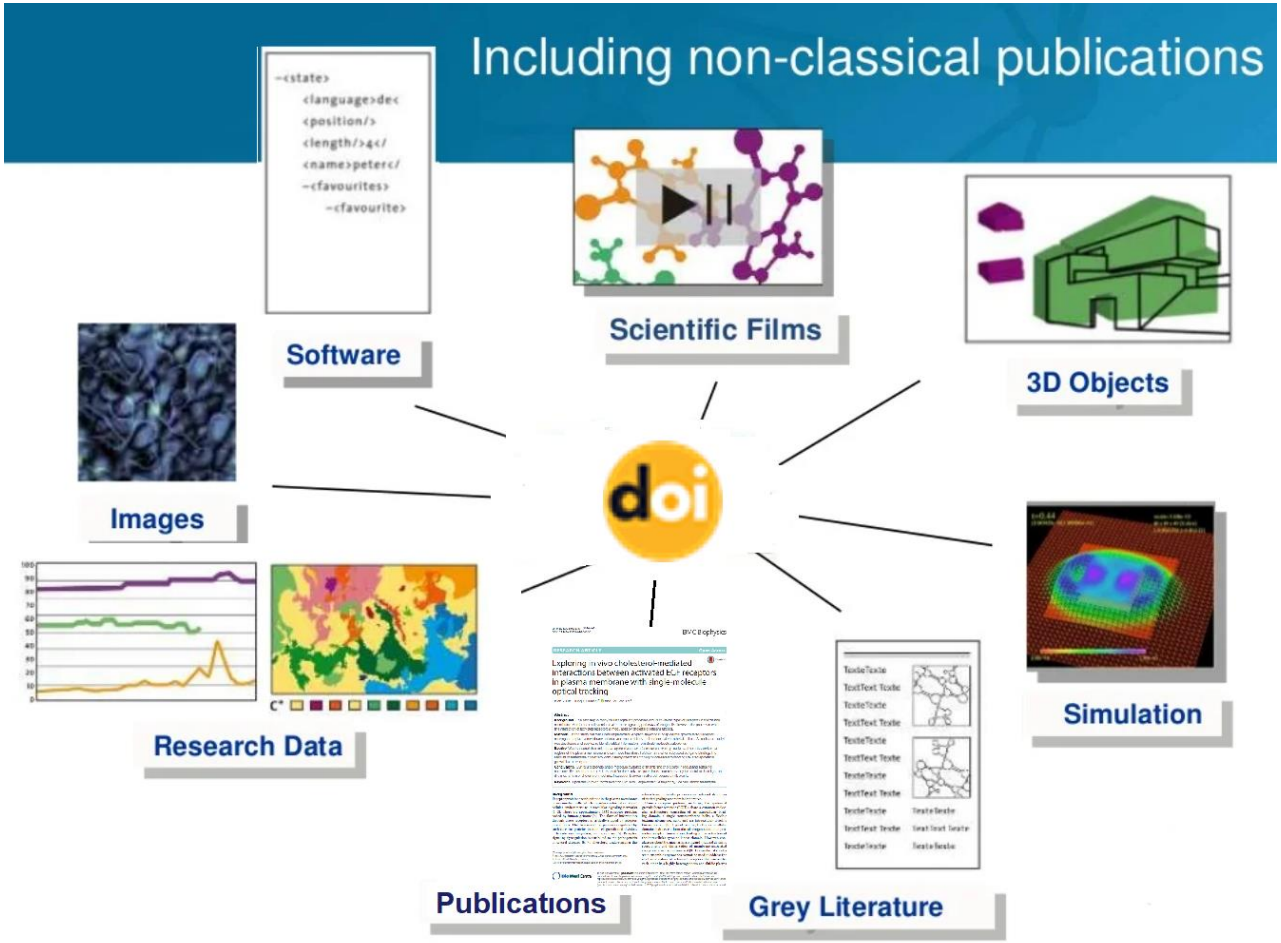
WHAT CAN BE ASSIGNED A DOI



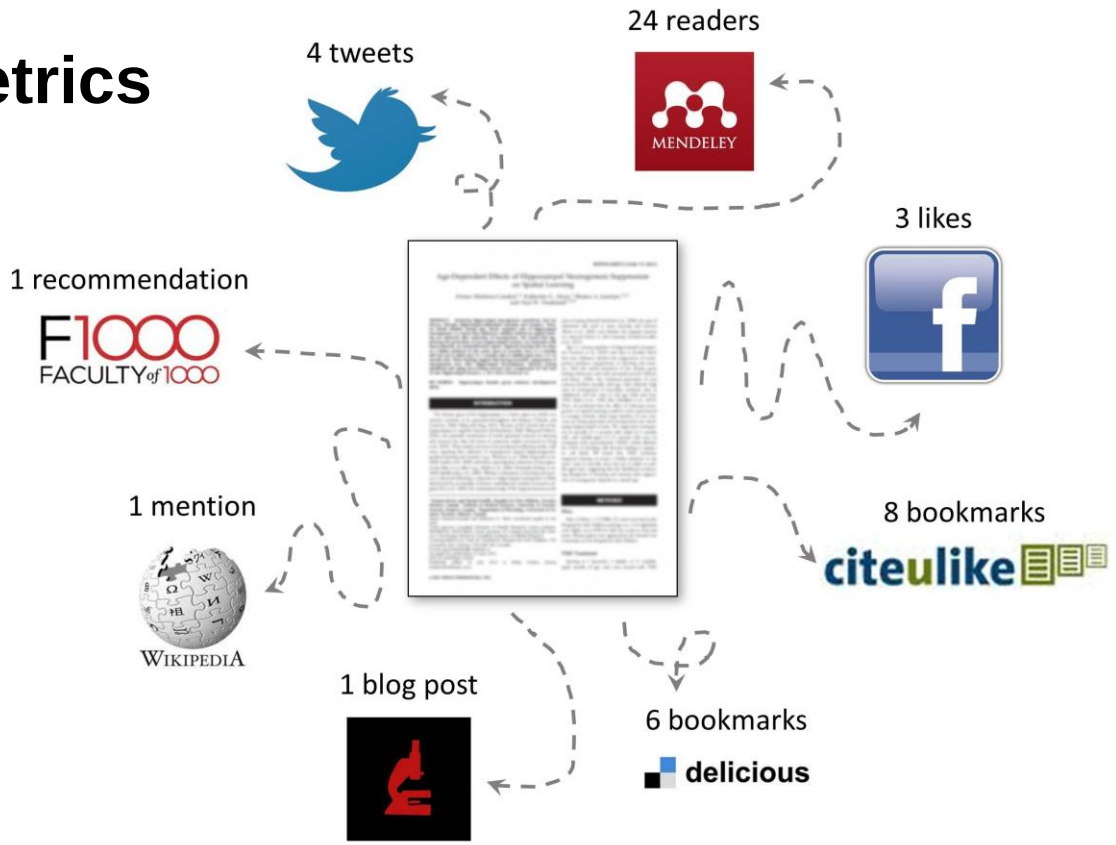
Adapted from: Grüttemeier, Herbert *DataCite – services and support for opening up research data.*, 2014 . In 1st International Workshop on Open Research Data, Valencia, Spain, 21 October, 2014.

BENEFITS OF A DOI

- ✓ A DOI makes your data **citable**.
- ✓ It guarantees **long-term archiving, access and retrievability**.
- ✓ The most important **metadata is also stored**.
- ✓ A DOI makes it easier to **link objects with related scientific resources** (e.g. publications with data, software, etc.).

SOCIAL MEDIA IN SCIENCE?

Yes →
Alternative metrics



Source: https://libraryguides.missouri.edu/jresearchimpact/altmetrics

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DataCite CONSORTIUM LEAD

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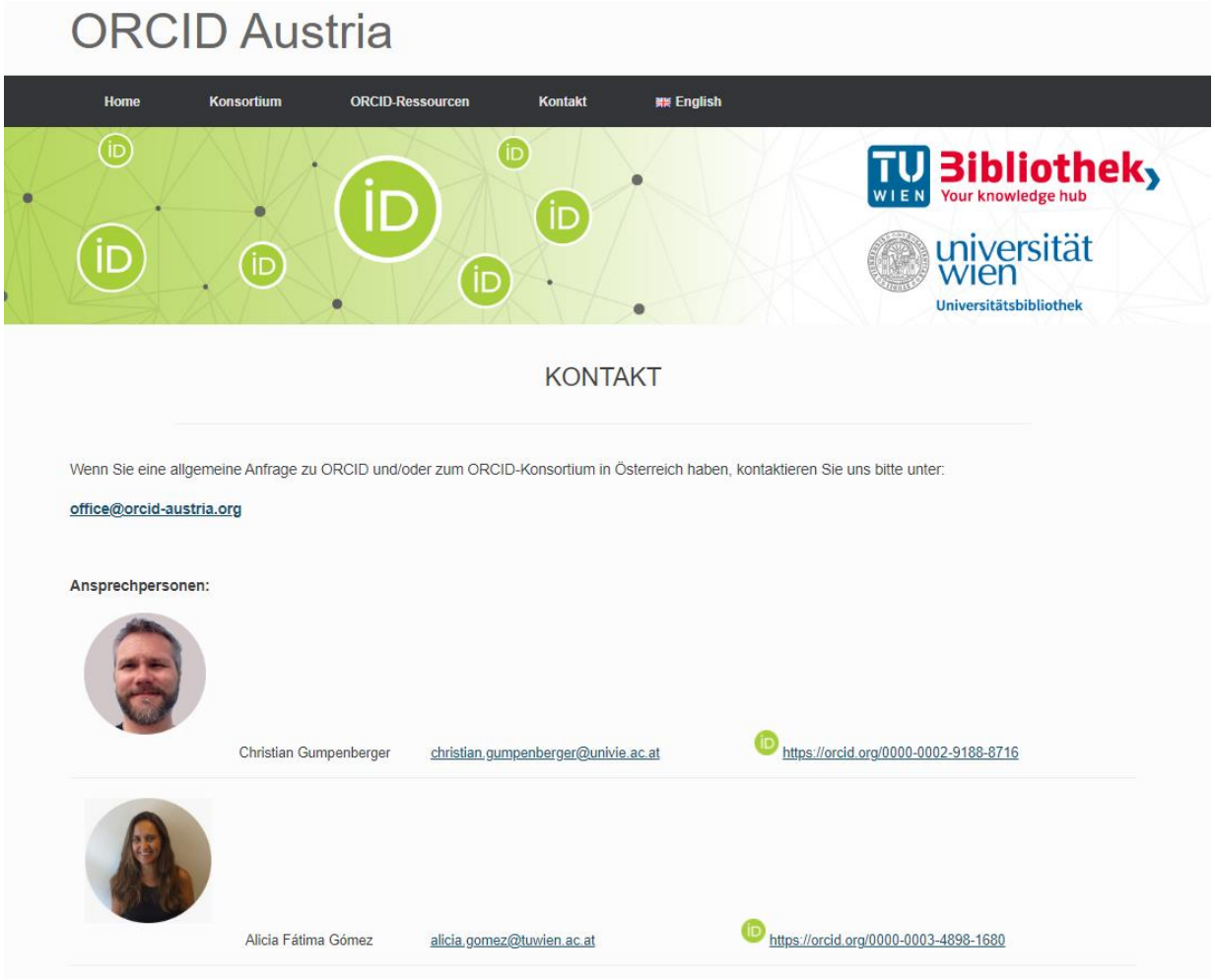
ORCID AUSTRIA



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THANK YOU!

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