



Connecting Research
and Researchers



De facto standards interoperating in the real world: VIVO/ORCID/CASRAI

8 August 2018
VIVO 2014
Austin, Texas, USA

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Director of Community, ORCID

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[@ORCID_Org](https://twitter.com/ORCID_Org)

<http://orcid.org/0000-0002-2753-3881>

“We want to use ORCID’s to simplify the life of Oxford’s researchers for working with institutional systems and publishers’ systems by re-using already available information for publication data management and reporting. The motto is: ‘Input once – re-use often.’”

Wolfram Horstmann, Associate Director, Bodleian Libraries, University of Oxford
<http://orcid.org/0000-0001-8673-6104>

What are standard identifiers?

- Numeric or alpha-numeric **persistent** designations associated with a single entity
- Entities can be an **institution, person**, or piece of **content**

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OPEN ACCESS
PERSPECTIVE

Home Blood Pressure Monitoring: New Evidence for an Expanded Role

Mark Caulfield 

Published: January 21, 2014 • DOI: 10.1371/journal.pmed.1001592

Toshihiro Tanaka

 <http://orcid.org/0000-0001-6201-9784>

Other IDs:
Scopus Author ID: 55531687900



ISNI: 0000 0000 9203 8970
Name: Saint Martin's Press (For Profit Corporation)
St. Martin's Press
Creation class: Language material
Creation role: originator



Product Details

Hardcover: 304 pages
Publisher: St. Martin's Press;
Language: English
ISBN-10: 1250038820
ISBN-13: 978-1250038821

...and what do they do, exactly?


1

Disambiguate and enforce uniqueness


2

Enable linking and data integration

In other words, persistent identifiers provide a
simple basis for data governance

Name Ambiguity Is a Problem

Of the more than 6 million authors in a major journal citations and abstracts database, more than two-thirds of them share a last name and single initial with another author, and an ambiguous name in the same database refers on average to eight people.

http://ands.org.au/newsletters/share_issue18.pdf



Declan Fleming @declan 7h
YOU try googling for an old friend from 30 yrs ago named "Dave Jackson"... We need ORCID IDs for EVERYONE! ;)
Details



Julie Banfield @42jkb 2h
I've started my @ORCID_Org ID. My publications are in different names so this is a perfect solution. Well done and thanks!
Details

- J. Å. S. Sørensen
- J.Aa. S. Sørensen
- J. Åge S. Sørensen
- J.Aage S. Sørensen
- J. Åge Smærup Sørensen
- J.Aage Smaerup Sørensen



Sumit Gupta @drsumitgupta 41d
If you have a name that is not that uncommon like me and pubmed search returns with 10092 results - ORCID is for you! #ORCID #publications

@ **Julie van der Hoop** mentioned you
Julie van der Hoop @jvanderhoop 3h
Ok @carlystrasser, you convinced me: "get an @ORCID_Org if your last name is spelled weird." #dutchproblems

The ORCID Organization

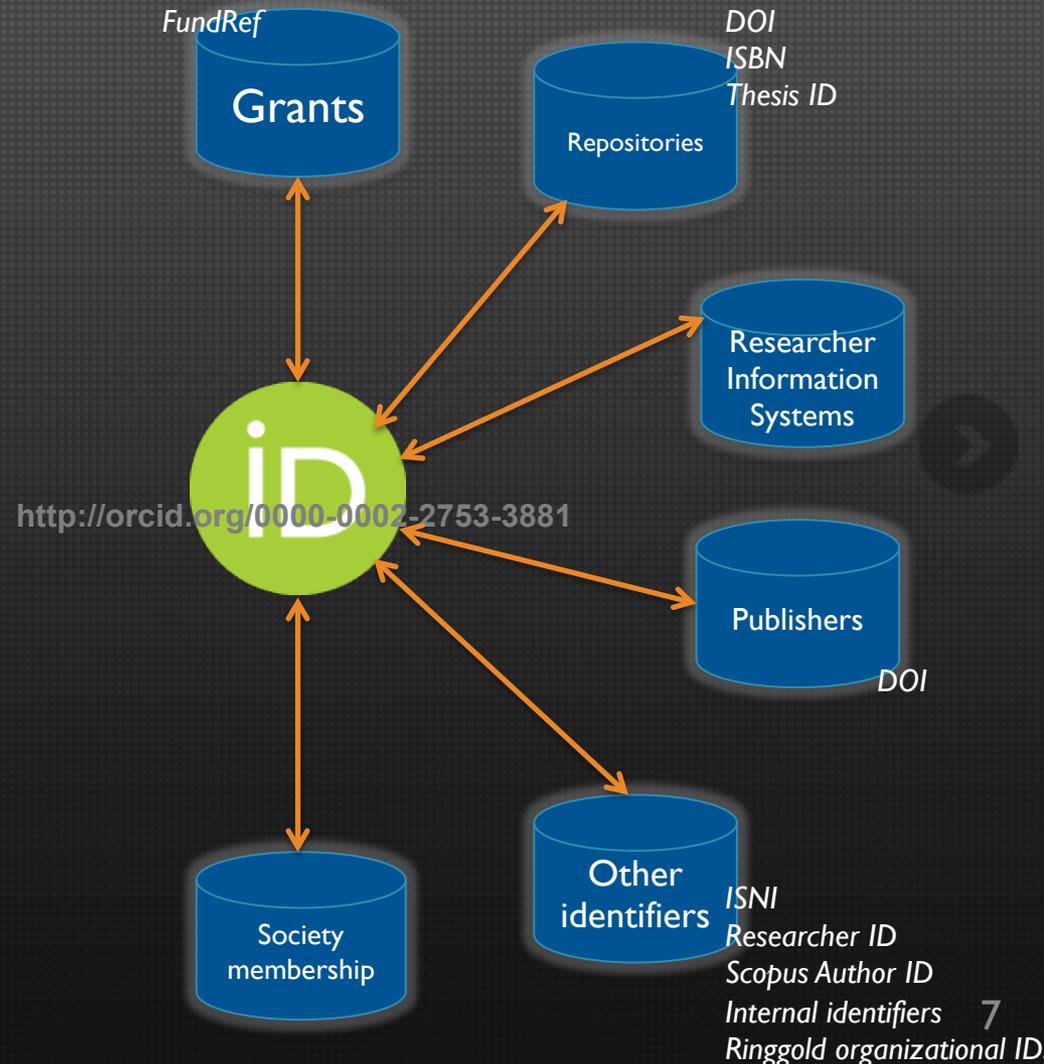
- Non-profit, non-proprietary, open, and community-driven
- Global, interdisciplinary
- Supported by the membership of organizations using the ORCID API
 - Funding organizations
 - Professional societies
 - Universities & research institutes
 - Publishers

The ORCID iD

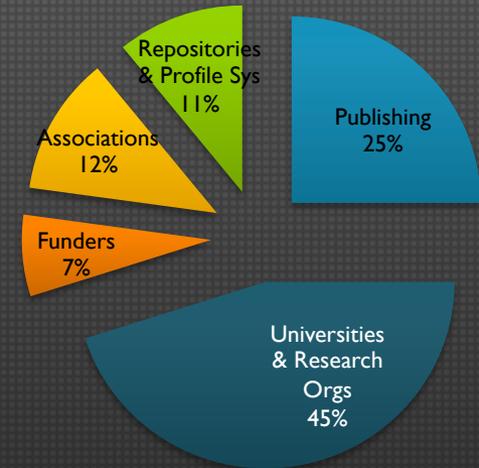
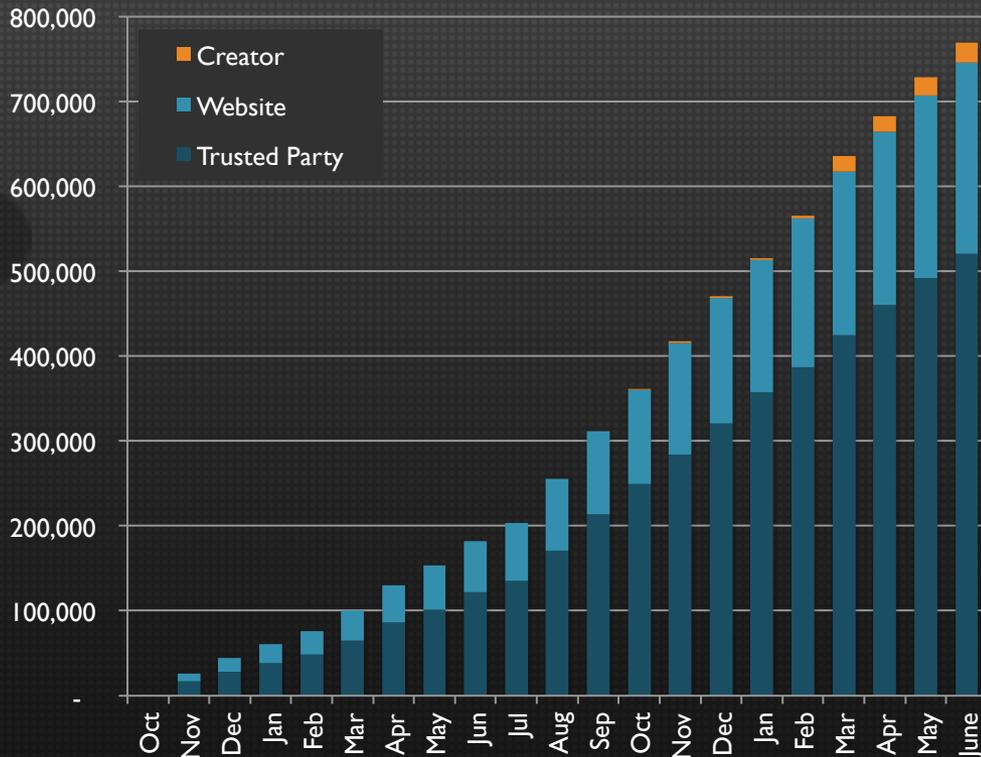
- Unique, persistent identifier for researchers & scholars
- Free to researchers
- Can be used throughout one's career, across professional activities, disciplines, nations & languages
- Embedded into workflows & metadata
- API enables interoperability between siloed systems

The ORCID API
enables the
exchange of
information
between systems:

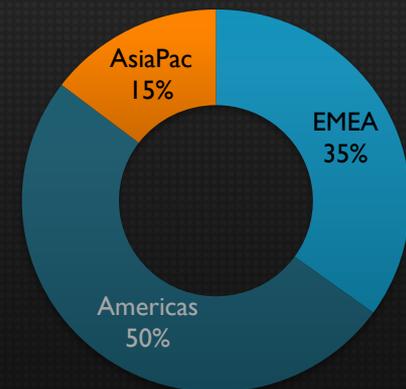
- Less time re-keying
- Improved data
- Easier maintenance
- Better sharing across systems



ORCID has issued over 820,000 iDs since our launch in October 2012. Integration and use is international.



Over 140 members, from every sector of the international research community



IMPORT WORKS

X

ORCID has been working with many member organizations to make it easy to connect your ORCID iD, and import information from their records. Choose one of the imports wizards to get started.

Australian National Data Service (ANDS) Registry

Import your research datasets into ORCID from Australian National Data Service (ANDS) and Research Data Australia (RDA). ANDS is partnering with Australian research institutions and data producing agencies to improve discovery and reusability of research data across many research domains from earth science to technology and engineering.

CrossRef Metadata Search

Search CrossRef's comprehensive metadata on journal articles, conference proceedings and monographs. Easily add search results to your ORCID profile.

DataCite search and link

Search the DataCite Metadata Store to find your research datasets, images and other works. Then claim them by adding them to your ORCID profile at the click of a button.

Europe PubMed Central

Europe PubMed Central (Europe PMC) offers this tool to enable you to link anything in Europe PMC to your ORCID. Europe PMC contains all of PubMed, 500K records from Agricola that cannot be found in PubMed, 4 million Patents and 2.6 million full text articles that we share with PMC in the USA.

ISNI2ORCID search and link

Enables user to search the ISNI registry by name and link ISNI records to his ORCID profile as an external identifier.

ResearcherID

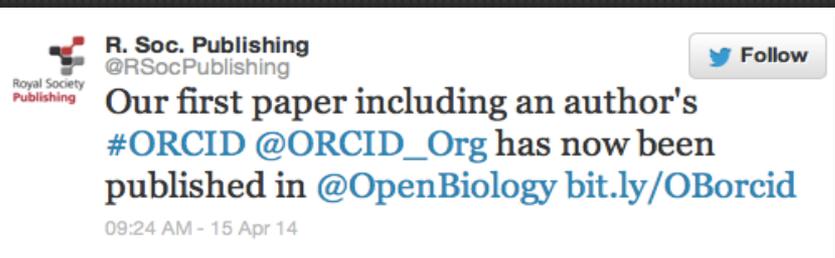
ResearcherID is a global, multi-disciplinary scholarly research community where members can register for unique identifier, build a profile of their scholarly works, view citation metrics, and search for like-minded researchers.

Scopus to ORCID

Import your Identifier, profile and publications. The wizard helps you find the correct Scopus profile and to confirm your publications. You can then import the identifier and list of publications into ORCID. Any changes you make will be submitted to the Feedback team to update your Scopus profile.

Don't see what you are looking for? You can connect your ORCID iD to many other organizations and sites. See our [Member Integration Page](#) to find more connections.

Link to existing works
through self-claim search
wizards and embedded in
new works through
integration by publishers in
manuscript submission
systems



R. Soc. Publishing
@RSocPublishing

Our first paper including an author's
#ORCID @ORCID_Org has now been
published in @OpenBiology bit.ly/OBorcid

09:24 AM - 15 Apr 14

ADD FUNDING SNAPSHOT

Who can see this? ?

Funding type: *

Title of funded project:

Description: [+ add translated title](#)

Total funding amount:

Start date:

End date:

Role:

FUNDING AGENCY

Funding agency name: *

Add funding agency region:

Funding agency country: *

Grant URL:

Funding organization list coordinated with FundRef

Classifications & metadata fields consistent w/CASRAI

über WIZARD for ORCID

Easily import your grants from ÜberResearch into ORCID. [See which grant sources are covered by us.](#)

1 Select grants to submit **2** Verify & submit to ORCID

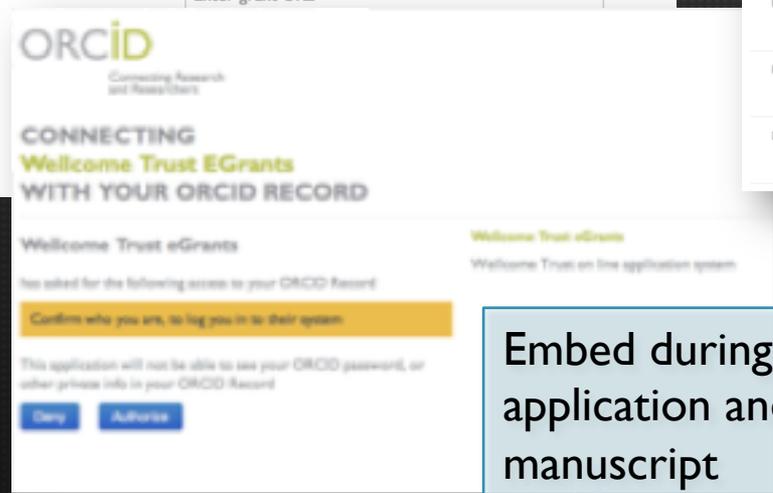
Name searches are not case sensitive. However, an entry like 'M Smith' will not bring back 'Mike Smith' so please enter your name as it would have appeared on the grants. Alternatively use the * function. M* will bring back Mike, Michael etc.

First name: Last name:

4 grant(s) found, 0 grant(s) selected

- Select all
- National Institute of Mental Health
CELLULAR BASIS OF CIRCADIAN CLOCK IN SCN
10/01/1994 - LAUREL L.HAAK -
- National Science Foundation
Policy Implications of International Graduate Students and Postdocs in the United States
03/01/2004 - 02/28/2006 Laurel Haak, Deborah Stone -
- National Science Foundation
Postdoc Network Annual Policy Meeting; Berkeley, CA, March 15-17, 2003
03/01/2003 - 02/29/2004 Crispin Taylor, Laurel Haak -
- National Science Foundation
ADVANCE Leadership Award: Women In Science and Engineering: A Guide to Maximizing their Potential
04/01/2006 - 03/31/2007 Laurel Haak -

Link to existing funding



ORCID Connecting Research and Researchers

CONNECTING Wellcome Trust eGrants WITH YOUR ORCID RECORD

Wellcome Trust eGrants

You asked for the following access to your ORCID Record

Wellcome Trust on line application system

Confirm who you are, to log you in to their system

This application will not be able to see your ORCID password, or other private info in your ORCID Record

Embed during grant application and manuscript submission workflows

Organization
list from →
Ringgold
(an ISNI Registrar)

ADD EDUCATION

Who can see this? X

(or employers)

Institution *

- Massachusetts Institute of Technology
Cambridge, MA, academic *
- Massachusetts Group Insurance
Commission
Boston, MA, public
- Massachusetts Interlocal Insurance
Association
Boston, MA, other/assoc
- Associated Industries of Massachusetts
Boston, MA, other/advocates
- Massachusetts Eye and Ear Infirmary
Boston, MA, academic/hospital

Department

Degree/title

Start date

End date (leave blank if current)

- Developing tools for interoperation
- ISNI reciprocal lookup with ORCID
- Potential data sharing
- Links ORCID into the ISNI Linked Data Value chain
- Links ISNI with ORCID Researcher Engagement

The screenshot shows an ORCID profile for Laurel L Haak. The profile includes the following information:

- ORCID iD:** <http://orcid.org/0000-0001-5109-3700>
- Also known as:** L Haak, Laure Haak, L. L. Haak, Laur
- Country:** US
- Keywords:** persistent identifiers, research polic, oligodendrocytes, circadian rhythms
- Websites:** LinkedIn
- Other IDs:**
 - ISNI 0000000138352317** (highlighted with a red circle)
 - ResearcherID C-4986-2008
 - Scopus Author ID 6602258586

- Delegates/trusted individuals
- Grouping of 'duplicate' works
- Facilitating the 'round trip' of n ORCID—updating a user's ORCID with new publication data by publisher

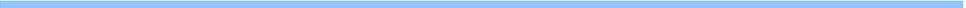
- Acknowledge Peer Reviewers
- Link Authors, Reviewers, Members, and Meeting Participants



Blog | ORCID and CASRAI: Acknowledging Peer Review Activities Tue Apr 08, 2014

A number of publishers and funders have been integrating ORCID identifiers into their review workflows. They are now asking us how to post review activity information to ORCID records. We are pleased to announce a community collaboration, managed by CASRAI, to answer that question.

[Read more >](#)



CASRAI

SNAPSHOT

VIVO, AUSTIN, AUGUST 2014



CROSS-BORDER PROBLEM

ADMIN BURDEN TOO HIGH & BUSINESS INTELLIGENCE TOO LOW

- **RESEARCH TEAMS** - increasingly time-consuming to adhere to largely common administrative requirements; must retype the same data repeatedly when applying for funding or reporting; 42% overhead (FDP surveys - the needle is NOT yet moving)
- **ORGANIZATIONAL MANAGERS** - lack robust data on the efficiency and effectiveness of their operations and evidence of the difference their interventions make.
- **POLICYMAKERS/EVALUATORS** - consistently frustrated by an inability to draw meaningful conclusions from a growing mountain of disconnected data
- **TOOL SUPPLIERS** - are building customized tools for each stakeholder based on silos; harder to scale and launch in new markets; more expensive for each funder or institutional client.

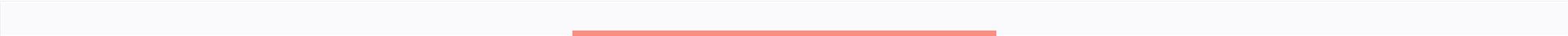
CASRAI AT A GLANCE

COLLECTIVE EFFORT TOWARDS COMMON BUSINESS INFORMATION AGREEMENTS

- **CASRAI MISSION:** to standard global business agreements that enhance the management & flow of information within & between organizations collaborating in research & innovation.
- **COLLABORATIVE RESEARCH ADMIN:** increasingly complex multiplicity of organizations, disciplines and countries that all must share work processes and information in order to advance and measure the research enterprise.
- **BUSINESS FOCUS:** the standards are business-needs driven, not technology-driven; subject experts from member orgs focus on the content each organization needs in shared work processes - not on what software tools your ICT team is using.
- **LEAST COST, MOST SCALABILITY:** CASRAI approach has the smallest footprint of any multi-org agreement framework; lessons learned from other domains; the only sustainable solution at research scale

RESEARCH ADMINISTRATION INTEROPERABILITY NXN PROBLEM

INSTITUTION	?	?	?	?	?
INSTITUTION	?	?	?	?	?
INSTITUTION	?	?	?	?	?
FUNDER	?	?	?	?	?
FUNDER	?	?	?	?	?
FUNDER	?	?	?	?	?
INDUSTRY	?	?	?	?	?
INDUSTRY	?	?	?	?	?
	FUNDER	FUNDER	INSTITUTION	INSTITUTION	INDUSTRY



CASRAI is envisioned as a
shipping container system
for research administration

CASRAI VIEW OF RESEARCH ADMINISTRATION

INSTITUTION					
INSTITUTION					
INSTITUTION					
FUNDER					
FUNDER					
FUNDER					
INDUSTRY					
INDUSTRY					
	FUNDER	FUNDER	INSTITUTION	INSTITUTION	INDUSTRY

CASRAI CONTAINERS

THE 'THIN ORANGE LINE' OF BUSINESS INTEROPERABILITY AGREEMENT

- **TERMS** - every shared concept gets a unique ID, label, definition & basic relationship
- **RECORDS/REPORTS** - every shared business process gets a portable data object that groups information into common reports like CVs, Progress/Outputs Reports, Financial Reports, Impact Reports, etc.
- **FIELDS** - discrete data elements that comprise records; FirstName, StartDate, TemporalPeriod, AnnualAward, etc.
- **LISTS** - codes tables/authority files that constrain values in some fields; Research Classification, Degree Types, Funding Organizations, etc.
- **IDs** - unique identifiers (not org-specific) that are key to cross-border integrity of data; PersonIDs, ProjectIDs, OutputIDs, OrgIDs, etc.

CASRAI NETWORKS

INTERNATIONALLY INTEGRATED COMMUNITIES

- **SHARED GOVERNANCE** - CASRAI standard projects bring together the right leadership and subject expertise to deliver harmonized information requirements - one prioritized step at a time.
- **SHARED COSTS** - modest sums from multiple sources ensures egalitarian & community-supported sustainability in times of increased budget pressure
- **SHARED PROCESSES** - research is a highly collaborative and cooperative effort; processes cross many boundaries - organization, discipline, nation. Enables cross-boundary sharing without forcing tech platforms
- **SHARED SUCCESS** - reducing administrative costs and risks while also increasing the analytical capacity of all stakeholders is a shared 'win-win' - for researchers and their supporting organizations

KEY TAKE AWAYS

WHY CARE?

- **LOCAL CUSTOMIZATIONS REDUCE INTEROPERABILITY** - if every instance can be customized how do we maintain a layer of agreement?
- **NO MECHANISM FOR SPECIFYING CONTEXT** - How can we focus on only certain data elements for a given business process and not need everything to do anything?
- **MANY TECHNOLOGIES** - How can agreements be implemented in semantic web solutions and also be interoperable with relational or other modes of storage - without repeating the agreement process?
- **SHOT-GUN APPROACH** - There are dozens if not hundreds of projects around the world tackling ways to represent concepts and things - how can we collaborate outside of specific technologies and reuse our agreements?

Thank-you

EMAIL dbaker@casrai.org

SKYPE [dbakerskype](skype:dbakerskype)

WEB casrai.org

TWITTER [@casrai](https://twitter.com/casrai)



DE-FACTO STANDARDS INTEROPERATING IN THE REAL WORLD

INTELLECTUAL PROPERTY & SCIENCE BUSINESS

DR. THORSTEN HOELLRIGL,
HEAD OF PRODUCT DEVELOPMENT, CRIS

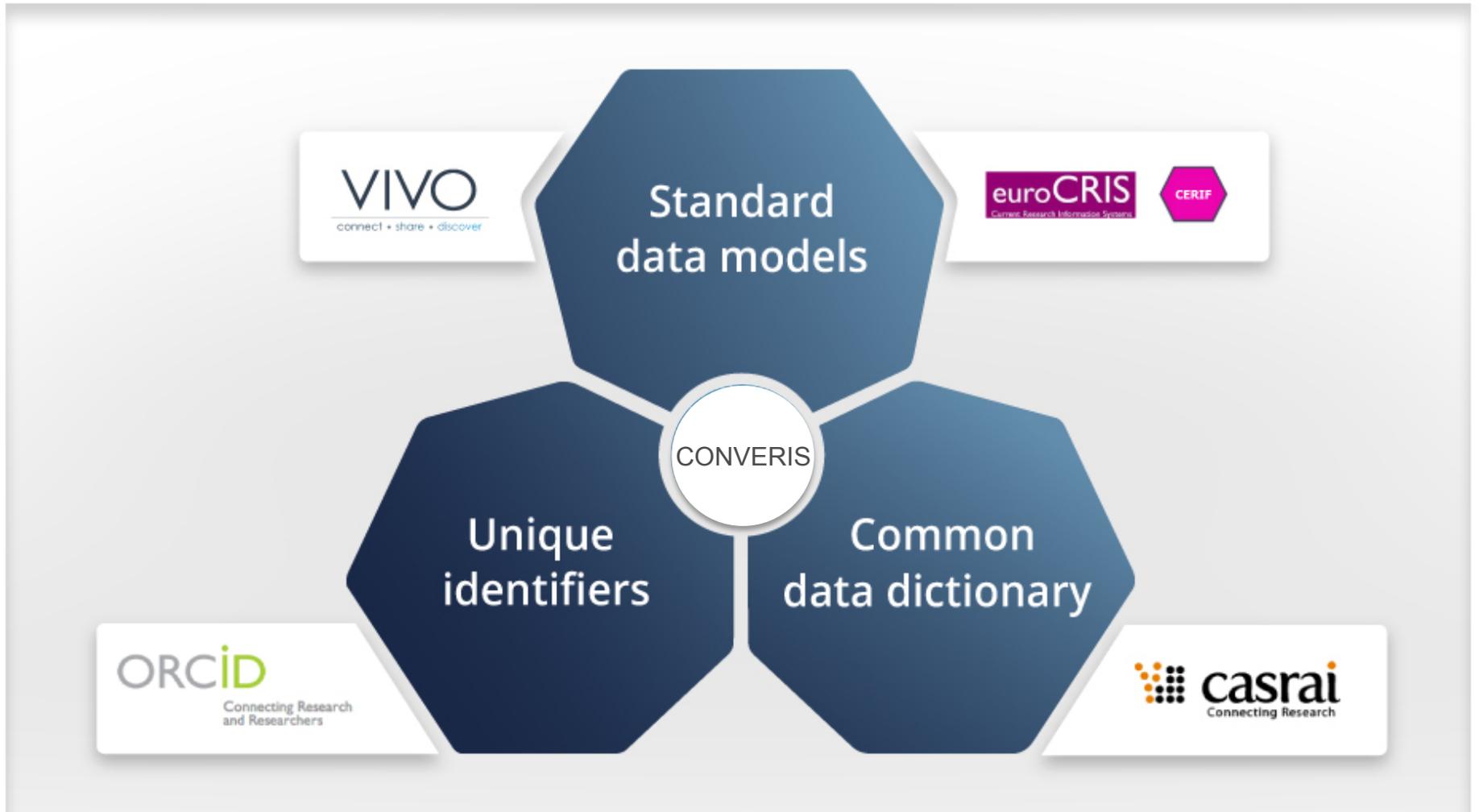


THOMSON REUTERS

CONVERIS: supporting the research lifecycle



Standardization efforts



VIVO

connect • share • discover

ORCID

 casrai

- TR is supplier member of CASRAI
 - Guarantee that TR customers are compliant with relevant standardization
 - Active member in CASRAI UK/ US/ SE /... chapter
 - DMP, research classifications, org identifiers, open access, authoritative lists, standard funding announcements, KPI for research offices,...
- TR is Launch Partner of ORCID
- TR is VIVO investor and an active member in the WG
 - Joint collaboration with Indiana University
 - Bi-directional exchange of research information



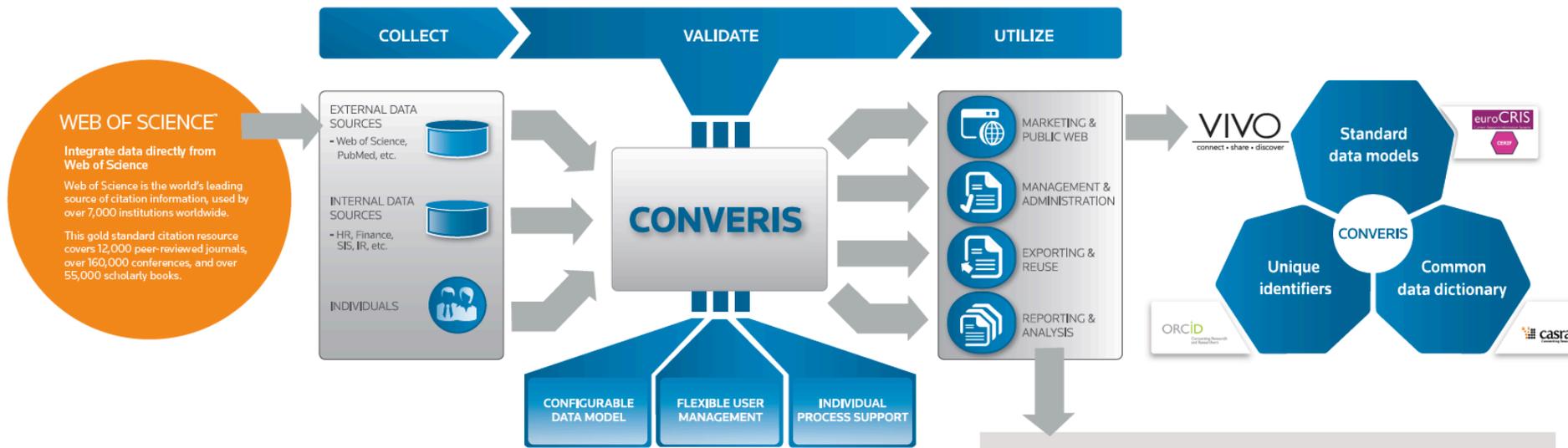
Real world examples: VIVO

VIVO MEETS CONVERIS

Collect, share, analyze and upload your faculty profiles to VIVO using Converis

Thomson Reuters Converis pulls data from Web of Science™ to update faculty profiles with the most trusted publication and citation data in the industry. And gives you the power of InCites™ to conduct reliable and repeatable bibliometric analysis. Data already in VIVO? Converis can pull that information as part of a simple system implementation.

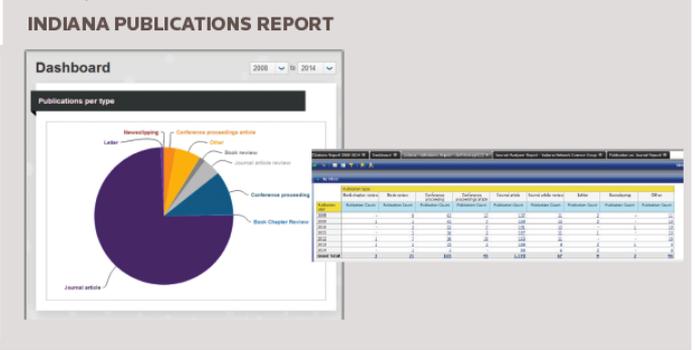
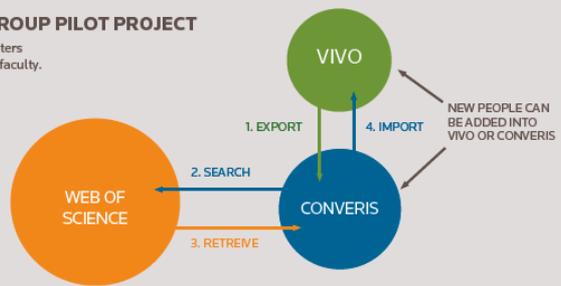
- Create, populate and maintain faculty profiles
- Include normalized citation metrics to enable advanced bibliometric reporting
- Make yourself discoverable for collaborating and networking opportunities
- Regularly update your profile for internal reporting requirements



INDIANA UNIVERSITY NETWORK SCIENCE RESEARCH GROUP PILOT PROJECT

Indiana University was challenged to keep their VIVO profiles up to date. Thomson Reuters Converis seeded the publication lists with full Web of Science data for all participating faculty.

- DATA INGESTION INTO VIVO**
1. **Export** people from VIVO into Converis
 2. **Search** for publications for people
 3. **Retrieve & Create** publication sets for people from Web of Science into Converis
 4. **Import** papers for people from Converis into VIVO
- New people can be added into VIVO or Converis



LEARN MORE AT <http://researchanalytics.thomsonreuters.com/impact/profiling/>



Real world examples: CASRAI



How do you want to create your publication?

Manually Import from

external sources

Select the desired Output type

Output type	Information about the selected Output type
▶ Book related publication types	Radio/TV Programs (Programming produced for and broadcast on radio or TV.) Visual Artworks (Works such as film, video, or new media developed as a result of an artistic practice. May serve for commercial purposes.) Sound Design (Art and process of manipulating audio elements to achieve a desired effect. It is employed in a variety of disciplines including film, theatre, music recording, and live music performance. It involves the manipulation of previously composed audio or the creative composition of new audio.) Light Design (Works done within theatre or in relation to an art installation to design a production.)
▶ Conference related publication types	
▶ Journal related publication types	
▶ Thesis	
▼ Artistic/Performance	
Artwork	
Performance	
Composition	



Dr. Thorsten Hoellrigl



Email: Thorste

Mobile: +49 (0

Phone: +49 (0

URL: <http://thc>

ORCID ID: 000

Researcher ID

ISNI: 0000 00

Output
template:

- CANADIAN COMMON CV
- CASRAI CV
- CONVERIS CV
- EU CV
- NIH Biographical Sketch (SciENcv) - Beta

Cards:

- Hoellrigl, Thorsten - Avedas (Ended)
- Hoellrigl, Thorsten - Thomson Reuters (Active)
- Hoellrigl, Thorsten - Department for Information Systems (Ended)

Content:

- CV Activities
- Outputs
- Projects (Principal investigator)
- Projects (Co-Investigators)

Start date:

End date:

Format:

- Acrobat / PDF
- Microsoft Word / Doc

Work Experience

From 01/12/2010 to 31/08/2011: Head of Unit, [Department of Informatics](#)

From 01/09/2011 to 20/12/2013: Senior Manager, [Avedas](#)

From 23/12/2013 : Head of Product Development, [Thorsten Hoellrigl](#)

Research Interest

Dr. Thorsten Hoellrigl, PhD., studied Computer Science at the University of Karlsruhe. After finalizing his doctoral thesis in 2010, he worked as research assistant for the Institute of Informatics at the University of Karlsruhe.

Generate CV





Economic Growth in Developing Contries.; Garner, Jil - Department for Finance and Banking

Status:

Live

Visibility:

Visible in research portal

Edit	Status Log	History		
Key Information *	Project Members *	Funder *	Budget Details	Applications & Themes *
Activity Plan	Documents *	Research Outputs		

Related Project Applications *

Strengthening the Reliability on Finance and Banking.; Ohlin, Bertil - Department for Finance and Banking



Research Areas

Management (Human and social sciences)



Tree view

- ▼ CASRAI Classifications
 - ▼ Disciplinary fields (CASRAI Classifications)
 - ▶ Arts and literature (Disciplinary fields)
 - ▶ Health sciences (Disciplinary fields)
 - ▶ Human and social sciences (Disciplinary fields)



Real world examples: ORCID

ORCID ID integrated in Researcher Profile

CONVERIS
Research Management System

SEARCH












Dr. Thorsten Hoellrigl

 PDF
 Edit
 CV

Email: T.Hoellrigl@avedas.com
Mobile: +49 (0)1525 310 47 01
Phone: +49 (0)721 354 90 24
URL: <http://www.avedas.com>
ORCID ID: 0000-0001-6080-464X
Researcher ID: A-4659-2014
ISNI: 0000 0001 1914 1338



Key Information

Salutation:

Mr

Academic title:

Dr.

* First name:

Thorsten

* Last name:

Hoellrigl

Birth name:

Initials:

TH

Marital status:

Married

Date of birth:

05/06/1985



Place of birth:

Bruchsal

ORCID ID:

 [Lookup ORCID](#)  [Create ORCID profile](#)  [Show](#)

0000-0001-6080-464X

Researcher ID:

A-4659-2014



Directly create an ORCID ID via CONVERIS

Initials:
TH

Marital status:
Married

Date of birth:
05/06/1985

Place of birth:
Bruchsal

ORCID ID:

Researcher ID:
A-4659-2014

ISNI:
0000 0001 1914 1338

Create ORCID profile

Do you really want to create a profile with following details:

Last name: Hoellrigl
First name: Kilian
Email: Kilian@Hoellrigl.net

Include ORCID ID in Publicationimport

The screenshot displays the Thomson Reuters Publication Import interface. The main content area is titled "Select a Person" and shows "Hoellrigl, Thorsten - Thomson Reuters (Active)". Below this is the "Search for Publications" section, which includes a search prompt: "Please search for your alias(es), e.g. Smith J, Smith ID, and/or affiliation." The search filters are: THOMSON_PREMIUM, EUROPUBMED, and ORCID. A checkbox "Search with ORCID ID of selected person" is also checked. The search input field contains "0000-0001-6080-464X". The "in field" dropdown is set to "orcidid". The "From year" is set to "1900" and "to" is "2099". The "Sort by" dropdown is set to "date". There are "Search" and "Clear" buttons. On the left sidebar, there are icons for various functions, and a summary bar shows "WoS (8)" and "ORCID (6)". The results table has columns for "Publication data" and "Action to be performed". The first result is "CONNECTING CLOSED WORLD RESEARCH INFORMATION SYSTEMS THROUGH THE LINKED OPEN DATA WEB" by Joerg B, Ruiz-Rube I, Sicilia MA, Dvorak J, Jeffery K, Hoellrigl T, Rasmussen HS, Engfer A, Vestdam T, Garcia Barriocanal EG, with the action "Import and relate to you".

Select a Person
Hoellrigl, Thorsten - Thomson Reuters (Active)

Search for Publications
Please search for your alias(es), e.g. Smith J, Smith ID, and/or affiliation.

THOMSON_PREMIUM EUROPUBMED ORCID

Search with ORCID ID of selected person ?

0000-0001-6080-464X in field orcidid

in field all

From year 1900 to 2099 Sort by date

Search Clear

WoS (8) ORCID (6)

Publication data	Action to be performed
<input type="checkbox"/> CONNECTING CLOSED WORLD RESEARCH INFORMATION SYSTEMS THROUGH THE LINKED OPEN DATA WEB Joerg B, Ruiz-Rube I, Sicilia MA, Dvorak J, Jeffery K, Hoellrigl T, Rasmussen HS, Engfer A, Vestdam T, Garcia Barriocanal EG	Import and relate to you

How to combine the approaches?

Example CASRAI CV

CASRAI CURRICULUM VITAE



Identification

Salutation	Mr
Family Name	Hoellrigl
First Name	Thorsten
ORCID ID	0000-0001-6080-464X
Mother Tongue	German-Germany
Language Competencies	German-Germany, English-Great Britain
Gender	Male



Combining VIVO and CASRAI

- VIVO provides the ingredients for a CV
- There is a good match from VIVO entities to CASRAI
 - All the major building blocks are present
 - First needs a detailed mapping
- Exchange data between VIVO and CONVERIS
- Generate a CASRAI CV profile via CONVERIS

Conclusion

- Challenges
 - Implementing standards in a complementary way
 - Flexibility – boon and bane of standardization
 - Universality
- **Coordination/collaboration/education** is the most important part
 - ... as there are many initiatives out there
 - CERIF: Common European Research Information Format
 - SciENCv
 - Kerndatensatz
 - OpenAIREplus
 - ...

