

# Disambiguating Transportation Authors with Unique ORCID® Identifiers

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## Abstract

A digital object identifier (DOI) uses a unique string of characters to distinguish one electronic document from another, making it easier to disambiguate two objects with the same or similar title(s).

However, distinguishing two authors, who might have the same or similar names, has been more difficult, especially among Asian, and some Western European, authors. ORCID identifiers may help authors disambiguate themselves from others with the same name, even in the same research field.

In 2012 the Open Research and Contributor ID (ORCID) Registry was launched as an open access tool specifically to disambiguate authors and contributors.

When an author creates an ORCID record he or she is issued a unique ORCID identifier in the form of a uniform resource identifier (URI). Authors may then include their ORCID identifier when authoring or contributing to a work.

The ORCID ID acts as digital signature and link, directing readers to the unique ORCID record for that author, which, if the author chooses, may include contact information as well as other publications by that author.

Since ORCID identifier use is voluntary, increased usage among transportation authors will require reaching out to them where they work, publish, and conference.

- This poster:
  - describes ORCID IDs to transportation researchers;
  - enumerates the benefits of ORCID registration;
  - discusses how forms, such as Technical Report Documentation pages may be modified to accommodate ORCID IDs and other identifiers; and,
  - provides examples of transportation-related journals and databases that currently include ORCID identifiers and those that are planning to use them in the future.

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Keywords: library science, information science, data curation, data management, open data, digital preservation, transportation, civil engineering, research

Websites: Transportation Data Management wiki, Twitter, LinkedIn

**What can an ORCID ID look like?**  
Like this, but each will be unique, just like your ORCID ID.

**Paul Burley**  
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Country: United States  
Other IDs: Scopus Author ID: 55752340500

## What is What? Or, ORCID Identifiers are NOT Horticulturists

The Open Research and Contributor ID (ORCID) Registry "provides a persistent digital identifier (an ORCID ID) that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized." -- <http://orcid.org/>

### ORCID serves two core functions:

1. "a registry to:
  - a) obtain a unique identifier;

**Laurel L. Haak**  
Your unique identifier is a URI that directs readers to your ORCID record  
ID: <http://orcid.org/0000-0001-5109-3700>

Also known as:  
L. L. Haak  
L. Haak  
Laure Haak  
Laurela L. Häka

Your record contains the preferred spelling of your name and variants

**One ID to rule them all: record and link your other identifiers, profiles, and sites**

Other IDs:  
ORCID: 000000012833217  
ResearchGate: 6249862000  
Scopus Author ID: 6402358586

Websites:  
Transportation Data Management wiki  
Twitter  
LinkedIn

Other IDs:  
Scopus Author ID: 55752340500

1. "a registry to:
    - b) manage a record of activities"
- Images from the ORCID record of Laurel L. Haak, ORCID Executive Director  
ID: <http://orcid.org/0000-0001-5109-3700>

**Need to connect your ID to your Work? There's an API for That!**

2. "APIs that support system-to-system communication and authentication."

ORCID offers an API (Application Programming Interface) that allows your systems and applications to connect to the ORCID registry, including reading from and writing to ORCID records. Some API functions are freely available to anyone; others are provided as a thank you to organizations that financially support ORCID with an annual membership subscription.  
<http://orcid.org/organizations/integrators/API>

**Displaying an ORCID ID**

ORCID recommends the following format to display an ORCID ID in publications and on websites:

- Show the full URI and use hyphens between every fourth digit;
- Display a full URI on the same line;
- Precede the URI with the ORCID ID logo, as follows:

<http://orcid.org/0000-0001-7356-7482>

Use of the ORCID ID logo and display is outlined at <http://orcid.org/trademark-and-id-display-guidelines>

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### ORCID Organizational Members

Organizations become members of ORCID in order to support the accurate dissemination of research by their authors.

Organizational members may:
 

- Register researchers, students, and other employees for ORCID IDs.
- Link ORCID IDs to their publications and other institutional records.
- Track research activities of faculty and staff.
- Update organizational ORCID records.

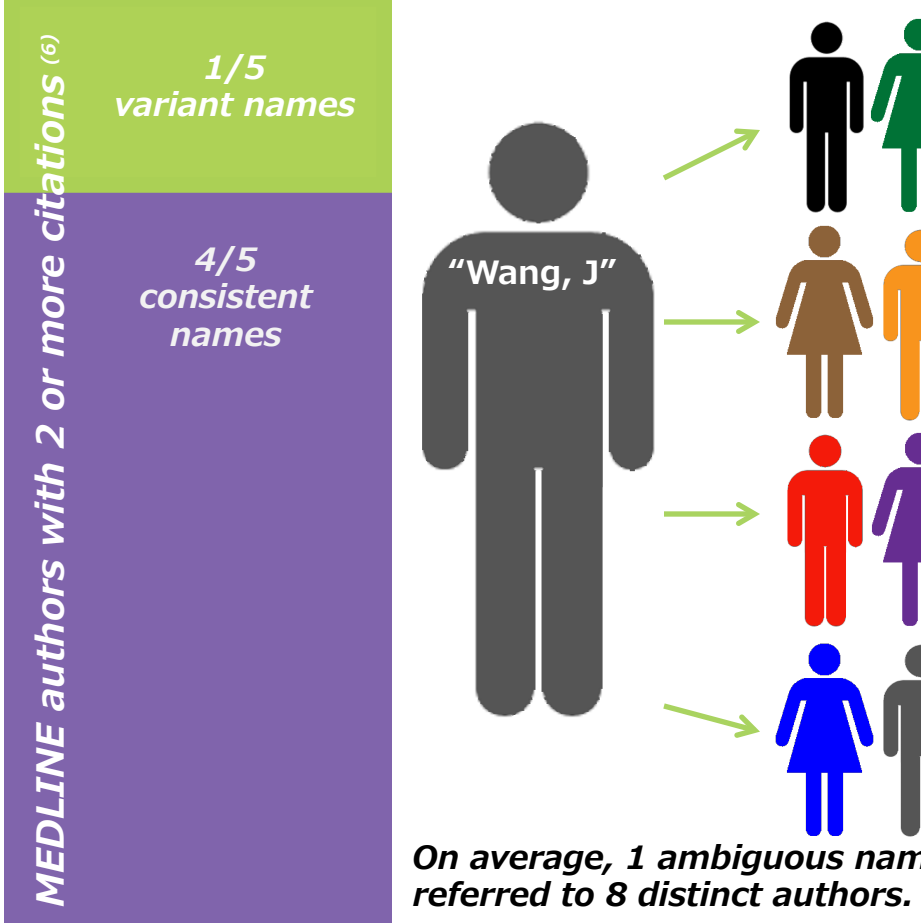
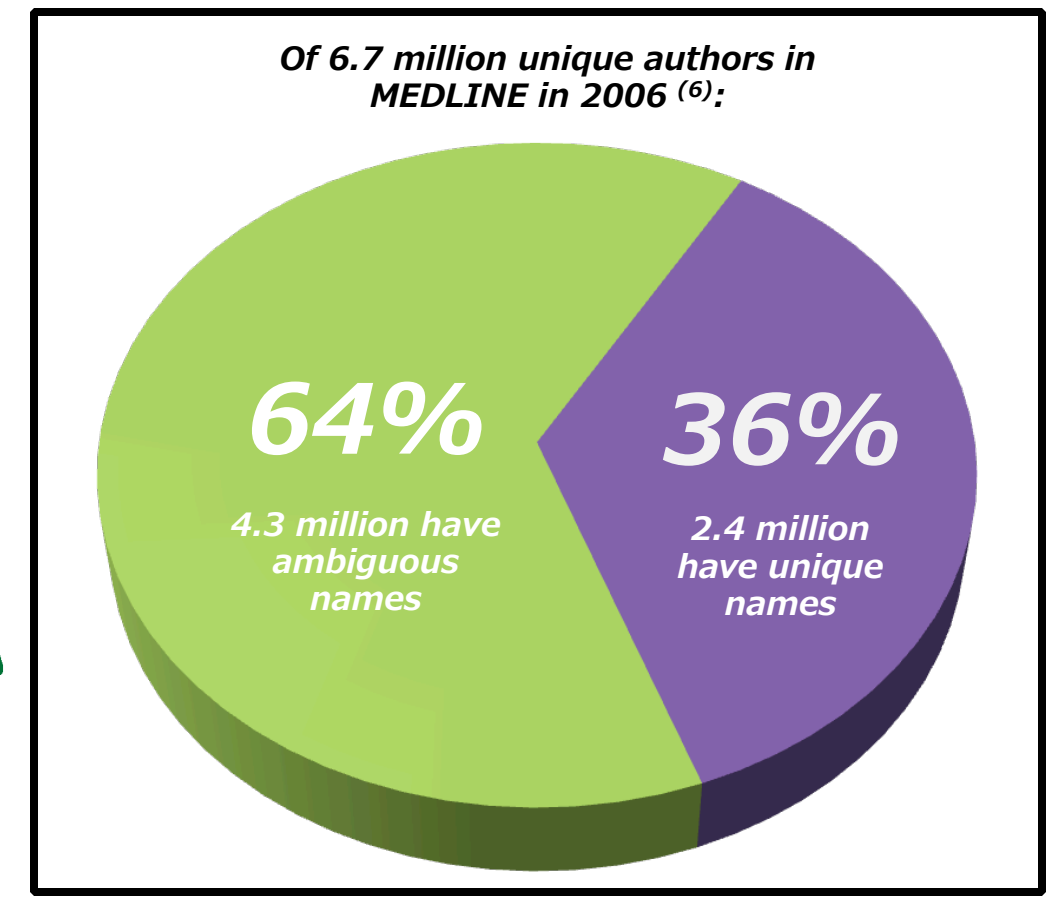
## Who is Whom? Or, How an ORCID ID Can Benefit You

### 1. Establish Your Unique Identity in an Ambiguous Publishing World

With their publication in 1665, *Le Journal des Scavans* and the *Philosophical Transactions of the Royal Society* became the first academic journals in print history (Jinba, 2010). World population at that time was 500 million (US Census, 2013).

By one 2006 estimate, there are around 23,750 journal, responsible for more than 50 million journal articles in the past 340 years (Jinba, 2010).

World population has risen to around 7 billion, meaning more of us share family names, and even given names, with one or more other people--and one or more other author.



In China, for example, there are an estimated 200,000 people per unique surname (Bryant, 2014). This can mean for example that "Wang, J." is cited as the author of 1,265 articles in nanoscience journals from 2000 to 2007 (Tang and Walsh, 2010), or 1 academic paper every 2.3 days!

How do you get the credit you deserve for the unique work you have done in an ambiguous publishing world?

An ORCID identifier attached to your work, and an updated ORCID record on the Web, can ensure your peers recognize your unique contributions in your field.

### 3. ORCID Speaks Many Tongues

In order to better connect international research and researchers, the ORCID Registry can be read in 9 languages.

- English,
- Spanish,
- French,
- Japanese,
- Korean,
- Portuguese
- Russian,
- Simplified Chinese,
- Traditional Chinese

**ADD WORK**

Work category: Publication  
Work type: Journal article  
Journal title:

Whether you write a book, a paper, a dissertation, a dictionary entry, or a website, your ORCID record documents your authorship.

Whether you part of a team that conducts research, collects data, presents a poster, gives a lecture, performs a dance, or produces an invention, your ORCID record tracks your contribution.

### 4. ORCID is Maturing: Automatic Updating

**Trusted organizations**

You can allow permission for your ORCID Record to be updated automatically by trusted publishers, organizations, and individuals to add new works to a researcher's record as they are published!

**Trusted individuals**

You can grant permission to another ORCID user to update your record on your behalf.

### 5. Getting an ORCID ID is easy! It Takes 30 Seconds!



## Where are the ORCID IDs? Or, Transportation Journals and Databases Supporting ORCID IDs

More than 100 journal publishers, including PLOS (the Public Library of Science), Elsevier, Thomas Reuters, Wiley, and the American Society of Civil Engineers (ASCE) utilize ORCID IDs to disambiguate authors and allow authors greater control over their publication information.

**Why did ASCE integrate ORCID IDs?**  
According to Angela Cochran, ASCE Journals Director: "Author disambiguation is a big problem, and we want searchers to be able to search in the ASCE Library or Civil Engineering Database and get the correct author. "ORCID IDs are a good way to connect a researcher to their output" (2).

## How Now? Or, Updating Transportation Publications and Databases to Accommodate ORCID IDs

Transportation and other civil engineering authors and researchers are experiencing the same name ambiguity problems as those in other scientific and research fields. Unique researcher and author identifiers, such as ORCID IDs can help to mitigate the issues of contributor ambiguity.

What might some of those adaptations look like? We offer a few suggestions.

However, it is not enough for authors, researchers, and contributors to register for identifiers with services such as ORCID. Transportation research and data funders, publishers, and databases must also take steps to help overcome ambiguity. Many journals and databases have adapted to ORCID IDs, and others are discussing the possibility.

### Redesign the Technical Report Documentation Page to Enable Linked Data

**Transportation Research Board (TRB) Journals "Information for Authors" Could Require an ORCID ID**

**Information for Authors**  
A Guide for Preparing and Submitting Manuscripts for Presentation at the TRB Annual Meeting and for Publication in TRB's Journal

## Transportation Research International Documentation database (TRID) Could be Redesigned to Record ORCID IDs

Current TRID records give disambiguating info about corporate authors; not individuals  
Future TRID records could disambiguate individual authors by adding ORCID IDs, without taking up a great deal more screen real estate

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The Iowa Department of Transportation Library and the Northwestern University Transportation Library are proud institutional members of the Midwest Transportation Knowledge Network (MTKN), which works to increase collaboration among the region's transportation libraries and information centers so managers, engineers and planners are better able to find and apply the most recent, credible, and validated technical information to their current projects. [www.mtkn.org](http://www.mtkn.org)