



8 January 2015

*Disambiguating Transportation Authors with Unique ORCID(r) Identifiers*

Paul R. Burley, Northwestern University Transportation Library and  
Leighton Christiansen, Iowa DOT

# DISAMBIGUATING TRANSPORTATION AUTHORS WITH UNIQUE ORCID<sup>®</sup> IDENTIFIERS



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UNIVERSITY

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**Iowa Department of Transportation**

**January 23, 2014**

The image is a screenshot of a web browser displaying a PDF document. The browser's address bar shows the URL: [download.springer.com/static/pdf/730/art%253A10.1007%252Fs10584-013-1038-3.pdf?auth66=1420495054\\_0121a4ca5728f4a6fbd91244dfca8322&ext=.pdf](https://download.springer.com/static/pdf/730/art%253A10.1007%252Fs10584-013-1038-3.pdf?auth66=1420495054_0121a4ca5728f4a6fbd91244dfca8322&ext=.pdf). The document content includes a citation circled in blue: "Climatic Change (2014) 123:161–173 DOI 10.1007/s10584-013-1038-3". Below this is a horizontal line, followed by the article title "Changing sea ice conditions and marine transportation activity in Canadian Arctic waters between 1990 and 2012" in bold. The authors are listed as "Larissa Pizzolato • Stephen E. L. Howell • Chris Derksen • Jackie Dawson • Luke Copland". Further down, it states "Received: 8 August 2013 / Accepted: 19 December 2013 / Published online: 24 January 2014" and "© Crown Copyright as represented by: Environment Canada 2014". The abstract begins with "Abstract Declining sea ice area in the Canadian Arctic has gained significant attention with respect to the prospect of increased shipping activities. To investigate relationships between recent declines in sea ice area with Arctic maritime activity, trend and correlation analysis was performed on sea ice area data for total, first-year ice (FYI), and multi-year ice (MYI), and on a comprehensive shipping dataset of observed vessel transits through the Vessel Traffic Reporting Arctic Canada Traffic Zone (NORDREG zone) from 1990 to 2012. Links to surface air temperature (SAT) and the satellite derived melt season length were also investigated."

**DOI (DIGITAL OBJECT IDENTIFIER)**

More options ▾

### Author/Creator

Shi, L (4,126)

Shi, Lei (1,979)

Shi, Yigong (169)

Shi, Zhen (158)

Shi, Hang (83)

More options ▾

### Source Database

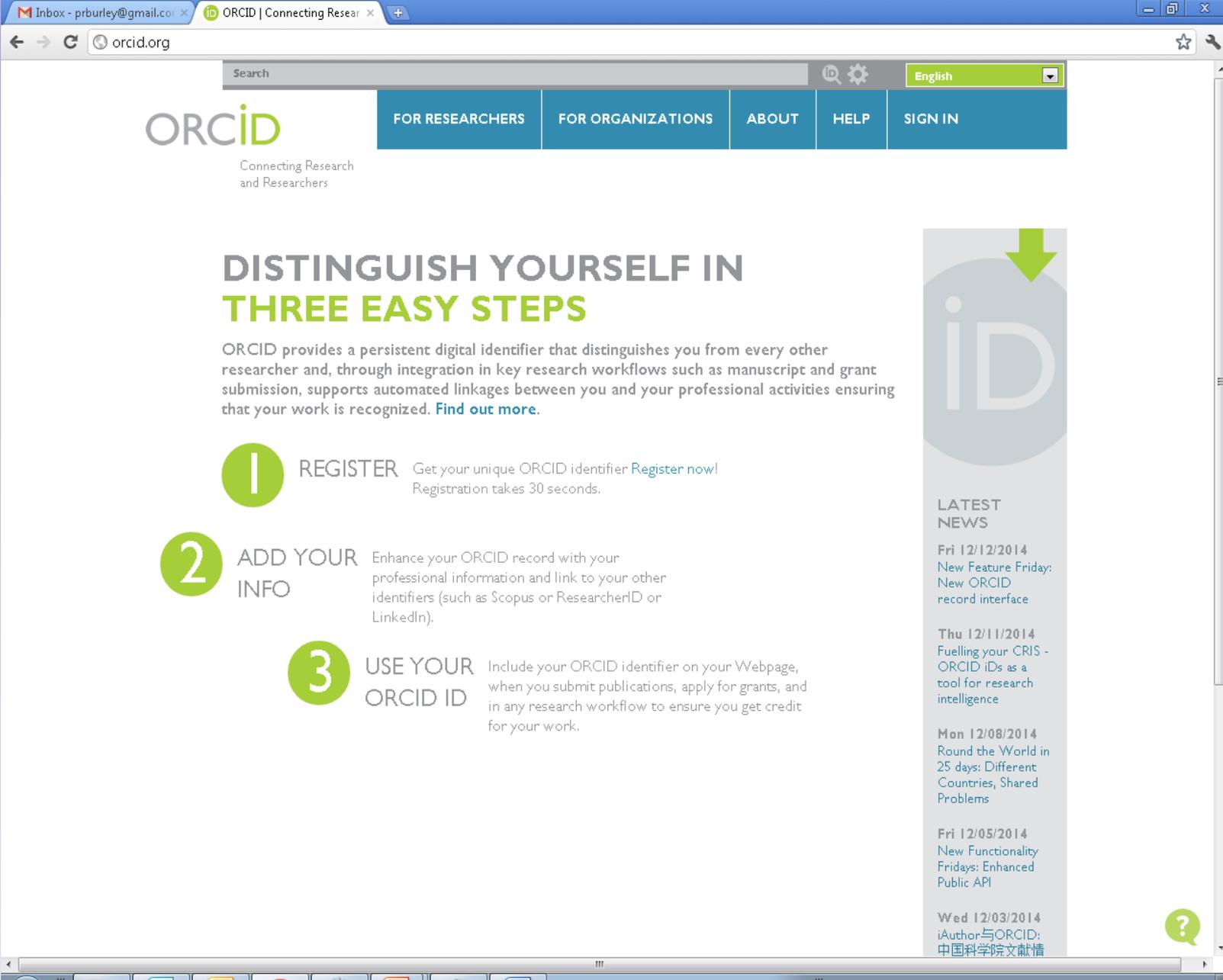
Science Citation Index

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(268,620)

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- Fri 12/12/2014**  
New Feature Friday: New ORCID record interface
  - Thu 12/11/2014**  
Fuelling your CRIS - ORCID iDs as a tool for research intelligence
  - Mon 12/08/2014**  
Round the World in 25 days: Different Countries, Shared Problems
  - Fri 12/05/2014**  
New Functionality Fridays: Enhanced Public API
  - Wed 12/03/2014**  
iAuthor-与ORCID: 中国科学院文献情



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### Sandra L. Tucker

<http://orcid.org/0000-0002-3107-5000>

**Also known as:**

Sandy Tucker

**Country:** United States

**Websites:**

[Texas A&M University Libraries](#)

**Other IDs:**

ResearcherID: F-1133-2013

Scopus Author ID: 26028108700

#### Employment (2)

↑ Sort

##### Texas A&M University: College Station, TX, US

2006-01 to 2014-06 | Professor Emerita (University Libraries)

SOURCE: Sandra L. Tucker

CREATED: 2014-03-28

##### Texas Transportation Institute: College Station, TX, US

1988-02 to 2006-01

SOURCE: Sandra L. Tucker

CREATED: 2014-03-28

#### Works (10)

↑ Sort

##### Improvement of Research Report Distribution and Access and Promotion of More Effective Use of Technical Report Documentation Page, USDOT Form 1700.7

2014-09 | Report

OCLC: 897920320

URL: <http://library.modot.mo.gov/rdt/reports/TRyy1127/cmr15-003.pdf>

SOURCE: Sandra L. Tucker

CREATED: 2014-12-29

Preferred source

##### Structure, features, and faculty content in ARL member repositories : Journal of Academic Librarianship

2011 | Journal-Article

DOI: 10.1016/j.acalib.2011.04.008

URL: <http://www.scopus.com/inward/record.url?eid=2-s2.0-79959829494&partnerID=MN8TOARS>

SOURCE: Scopus to ORCID

CREATED: 2013-05-23

Preferred source

##### Transportation plan repository and archive

2011 | Report

OCLC: 733076323

URL: [http://utcm.tamu.edu/publications/final\\_reports/Overman\\_10-20-58.pdf](http://utcm.tamu.edu/publications/final_reports/Overman_10-20-58.pdf)

SOURCE: Sandra L. Tucker

CREATED: 2013-05-23

Preferred source

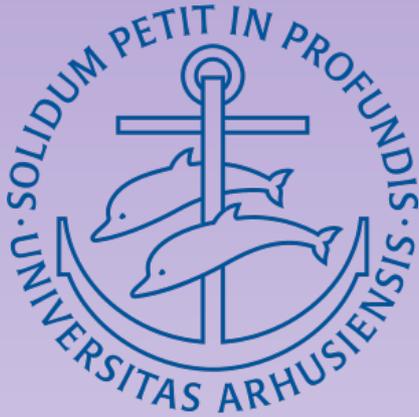
##### User-driven acquisitions: Allowing patron requests to



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

guidelines at: <http://orcid.org/trademark-and-id-display-guidelines>

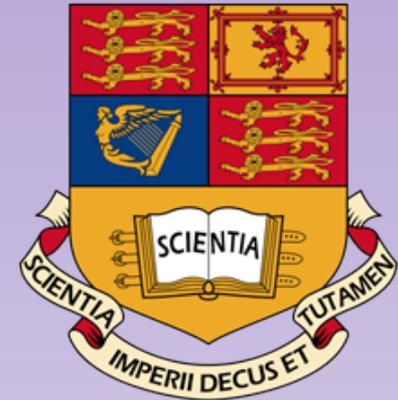
**ORCID DISPLAY: RECOMMENDED STANDARD**



Aarhus Universitet



American Geophysical Union



Imperial College London



Wiley-Blackwell



中国科学院  
Chinese Academy of Sciences



OCLC



- Will be part of TRB publication submission
- Status at some universities: in process
- Focus on promotion at DOT, etc. level

Technical Report Documentation Page

<b>1. Report No.</b> InTrans Project 13-388		<b>2. Government Accession No.</b>		<b>3. Recipient's Catalog No.</b>	
<b>4. Title and Subtitle</b> Quantifying Uncertainty in Real Time Performance Measurement for Highway Winter Maintenance Operations – Phase 2				<b>5. Report Date</b> October 2014	
				<b>6. Performing Organization Code</b>	
<b>7. Author(s)</b> Jillian Lyon, Zhengyuan Zhu, and Mark Kaiser				<b>8. Performing Organization Report No.</b> InTrans Project 13-388	
<b>9. Performing Organization Name and Address</b> Institute for Transportation Iowa State University 2711 South Loop Drive, Suite 4700 Ames, IA 50010-8664				<b>10. Work Unit No. (TRAILS)</b>	
				<b>11. Contract or Grant No.</b>	
<b>12. Sponsoring Organization Name and Address</b> Iowa Department of Transportation 800 Lincoln Way Ames, IA 50010				<b>13. Type of Report and Period Covered</b> Final Report	
				<b>14. Sponsoring Agency Code</b> SPR RB03-013	
<b>15. Supplementary Notes</b> Visit <a href="http://www.intrans.iastate.edu">www.intrans.iastate.edu</a> for color pdfs of this and other research reports.					
<b>16. Abstract</b> Winter weather in Iowa is often unpredictable and can have an adverse impact on traffic flow. The Iowa Department of Transportation (Iowa DOT) attempts to lessen the impact of winter weather events on traffic speeds with various proactive maintenance operations. In order to assess the performance of these maintenance operations, it would be beneficial to develop a model for expected speed reduction based on weather variables and normal maintenance schedules. Such a model would allow the Iowa DOT to identify situations in which speed reductions were much greater than or less than would be expected for a given set of storm conditions, and make modifications to improve efficiency and effectiveness. The objective of this work was to predict speed changes relative to baseline speed under normal conditions, based on nominal maintenance schedules and winter weather covariates (snow type, temperature, and wind speed), as measured by roadside weather stations. This allows for an assessment of the impact of winter weather covariates on traffic speed changes, and estimation of the effect of regular maintenance passes. The researchers chose events from Adair County, Iowa and fit a linear model incorporating the covariates mentioned previously. A Bayesian analysis was conducted to estimate the values of the parameters of this model. Specifically, the analysis produces a distribution for the parameter value that represents the impact of maintenance on traffic speeds. The effect of maintenance is not a constant, but rather a value that the researchers have some uncertainty about and this distribution represents what they know about the effects of maintenance. Similarly, examinations of the distributions for the effects of winter weather covariates are possible. Plots of observed and expected traffic speed changes allow a visual assessment of the model fit. Future work involves expanding this model to incorporate many events at multiple locations. This would allow for assessment of the impact of winter weather maintenance across various situations, and eventually identify locations and times in which maintenance could be improved.					
<b>17. Key Words</b> performance measures traffic flow winter maintenance				<b>18. Distribution Statement</b> No restrictions.	
<b>19. Security Classification (of this report)</b> Unclassified.		<b>20. Security Classification (of this page)</b> Unclassified.		<b>21. No. of Pages</b> 28	<b>22. Price</b> NA

Form DOT F 1700.7 (8-72)

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# Disambiguating Transportation Authors with Unique ORCID® Identifiers

Poster: P15-6911

Transportation Research Board 94th Annual Meeting

Washington, D.C., January 13, 2015

## Abstract

A digital object identifier (DOI) was a unique string of characters to distinguish one electronic document from another, using a 6-digit alphanumeric key (prefix with the name or ISSN).

However, disambiguating two authors who might have the same or similar names, has been more difficult, especially among Asian, and some Western European, authors. ORCID identifies many 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 a open access tool specifically to disambiguate authors and contributors.

When an author creates an ORCID, researchers who are issued a unique ORCID identifier in the form of a unique research identifier (ORCID). 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 uses a voluntary, increased usage among transportation authors will increase reaching both team where they work, publish, and conference.

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

**Shameless "Hobbit" tie-in joke.**

**Orc ID? Oh, that's how you can tell one "Lord of the Rings" off bad guy from another.**

**Naif ORCID (like Orchid). It is how you can tell one researcher or contributor from another.**

**Lighthouse L. Christiansen**  
 ORCID iD: <http://orcid.org/0000-0001-1118-3794>  
 Your unique identifier (ORCID) directs readers to your ORCID record.

**Laurel L. Haak**  
 ORCID iD: <http://orcid.org/0000-0001-1118-3794>  
 Your record contains the preferred spelling of your name and various record data that your other identifiers, profiles, and sites record.

**Paul Borley**  
 ORCID iD: <http://orcid.org/0000-0001-1118-3794>  
 Your unique identifier (ORCID) directs readers to your ORCID record.

### 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 disambiguates you from every other researcher and through integration in key research workflows such as manuscript and grant submission, authors' submitted inquiries between you and your professional activities ensuring that your work is recognized. <http://orcid.org>

### ORCID serves two core functions:

1. "visibility for all" - obtain a unique identifier
2. "visibility for you" - manage your ORCID record

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

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

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

2. APIs that support system-to-system communication and automation.

### 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 four 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>

### Citation

With the ORCID ID logo, the following citation is recommended: Christiansen, Lighthouse L. ORCID iD: <http://orcid.org/0000-0001-1118-3794>

### Acknowledgements

The authors wish to thank the following individuals who supported the creation of the ORCID Registry: ...

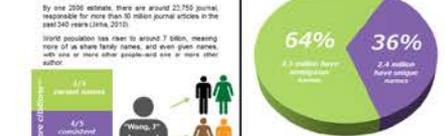
### Who is Whom? Or, How an ORCID ID Can Benefit You

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

With this publication in 1985, *The Journal of the Society and the Philosophical Transactions of the Royal Society* became the first academic journal to print history (Lynch, 2015). World population at that time was 500 million (US Census, 2013).

By the 2006 estimate, there are around 23,355 journal, responsible for more than 10 million journal articles in the past 140 years (Lynch, 2015).

World population has risen to around 7 billion, meaning more of a share family name, and even given names, with one or more other persons and one or more other authors.



In China, for example, there are an estimated 200,000 people per unique surname (Lynch, 2014). This can mean for example that "Wang, J." is cited as the author of 1205 articles in transportation journals from 2000 to 2007 (Clay and Haak, 2011), or "academic paper every 2.5 days".

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

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

On average, 1 ambiguous name referred to 8 distinct authors.

### 2. ORCID Supports All "Works"

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

Whether you part in a book, a manuscript, research, software data, presents a poster, give a lecture, perform a concert, or produce an invention, your ORCID record tracks your contribution.

### 3. ORCID Speaks Many Tongues

In order to better connect international research and research data, the ORCID Registry can be used in 7 languages:

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

### 4. ORCID is Maturing: Automatic Updating

**Trusted organization**  
 Maybe you have had an ORCID ID for a while and found it difficult to update. The ORCID Registry has been making it easier to update your record and connect it to your work.

**Trusted individuals**  
 Researchers can now authorize trusted publishers, organizations, and individuals to add and update a researcher's record as they are published.

**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, Thomson Reuters, Wiley, and the American Society of Civil Engineers (ASCE) utilize ORCID IDs to disambiguate authors and allow authors greater control over the publication information.

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

### 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 problem 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 these adaptations look like? We offer a few suggestions.

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

Information for Authors

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

A Guide for Preparing and Submitting Manuscripts for Presentation at the TRB Annual Meeting and for Publication in TRB 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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# Questions / Discussion

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**Iowa Department of Transportation**

**January 23, 2014**