

JESSICA YI-YUN CHENG

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RESEARCH INTERESTS

Taxonomy; Taxonomy Alignment; Knowledge Organization; Biodiversity Informatics; Data Curation

EDUCATION

- Expected: **PhD candidate**, Information Sciences
May 2022 University of Illinois at Urbana-Champaign, USA
- **Dissertation Title:** Agreeing to Disagree: Applying a Logic-based Approach to Reconciling and Merging Multiple Taxonomies
 - **Advisor:** Dr. Bertram Ludäscher
 - **Committee:** Dr. Allen Renear, Dr. Karen Wickett, Dr. Nico Franz
- 2015 **Master of Arts**, Library and Information Science
National Taiwan University, Taiwan
- **Master's thesis title:** *A study on the best practice for constructing a cross-lingual geospatial information ontology*
 - **Advisor:** Dr. Sherry (Hsueh-Hua) Chen
 - Graduated with College Honors
- 2013 **Bachelor of Arts**, Library and Information Science
National Taiwan University, Taiwan
- Minor in Foreign Languages and Literatures
 - Graduated with College Honors

RESEARCH EXPERIENCE

- 2016- **School of Information Sciences, University of Illinois at Urbana-Champaign**
Graduate Research Assistant
- Project: Exploring Taxon Concepts and Taxonomy Alignments
 - Supervisor: Dr. Bertram Ludäscher
- 2019, 2020 **LEADS-4-NDP Program, Academy of Natural Sciences, Drexel University**
Fellow
- **Project:** From Natural History Literature to Linked Data Biodiversity Knowledge Graph
 - **Supervisors:** Steven Diliplane, Dr. Jane Greenberg
- 2018 Summer **WholeTale, University of Illinois at Urbana-Champaign**
Research Intern
- **Project:** Reproducibility Study in Biodiversity Informatics
 - **Supervisor:** Dr. Bertram Ludäscher, Dr. Nico M. Franz
- 2017 Summer **Oxford e-Research Centre, University of Oxford, United Kingdom**
Research Intern
- **Project:** Oxford-Illinois Digital Library Placement Program, Linked Data Digital Musicology Project
 - **Supervisors:** Dr. Kevin Page, Dr. David Weigl, Dr. J. Stephen Downie
- 2015-2016 **Department of Library and Information Science, National Taiwan University**
Graduate Research Assistant
- **Project:** Framework of a Spatially-enabled Intelligent City towards Semantic Web
 - **Supervisors:** Dr. Sherry Hsueh-Hua Chen & Dr. Chih-Hong Sun

2013-2014

Taiwan Geographic Information System Center, Taipei, Taiwan

Graduate Research Assistant

- **Project:** Multi-Agent Knowledge-Oriented Cyberinfrastructure Project (MAKOCl)
- **Supervisor:** Dr. Chih-Hong Sun

PUBLICATIONS

Refereed Journal Articles

- 2017 [j1] Thomer, A., **Cheng, Y.-Y.**, Schneider J., Twidale, M., Ludäscher, B. (2017). Towards alignment of natural history museum database schemas using a logic-based reasoning tool. *Knowledge Organization*, (44) 7, 545-558. DOI:<https://doi.org/10.5771/0943-7444-2017-7-545> [pdf]

Refereed Conference Papers in Proceedings

- 2020 [c9] **Cheng, Y.-Y.**, & Ludäscher, B. (2020). Reconciling Taxonomies of Electoral Constituencies and Recognized Tribes of Indigenous Taiwan. In *Proceedings of the ASIS&T 2020 Annual Meeting*. DOI: <https://doi.org/10.1002/pra2.248>
- 2020 [c8] **Cheng, Y.-Y.**, Hoang, K.-L., & Ludäscher, B. (2020). Cacao, Cocoa, or Cocoa? Reconciliation of Taxonomic Names in Biodiversity Heritage Library. In *Proceedings of the Sixteenth International ISKO Conference, 2020 Aalborg, Denmark*. DOI: <https://doi.org/10.5771/9783956507762-88>
- 2019 [c7] **Cheng, Y.-Y.**, Parulien, N., Hsiao, T.-K., Dinh, L., Sarol, J., & Schneider, J. (2019). ReTracker: Actively and Automatically Matching Retraction Metadata in Zotero. In *Proceedings of the ASIS&T 2019 Annual Meeting, Melbourne, Australia, October 19-23*. DOI:<https://doi.org/10.1002/pra2.32>
- 2019 [c6] Dinh, L., Sarol, J., **Cheng, Y.-Y.**, Hsiao, T.-K., Parulien, N., & Schneider, J. (2019). Systematic Examination of Pre- and Post-Retraction Citations. In *Proceedings of the ASIS&T 2019 Annual Meeting, Melbourne, Australia, October 19-23*. DOI:<https://doi.org/10.1002/pra2.35>
- 2019 [c5] **Cheng, Y.-Y.** & Ludäscher, B. (2019). Exploring Geopolitical Realities through Taxonomies: The Case of Taiwan. *Proceedings from North American Symposium on Knowledge Organization (NASKO 2019)*, Vol. 7. Drexel University, Philadelphia, 13 June- 14 June 2019. [pdf] [git repo]
- 2019 [c4] Gupta, S., & **Cheng, Y.-Y.**, & Ludäscher, B. (2019). Possible Worlds Explorer: Datalog & Answer Set Programming for the Rest of Us. *Datalog 2.0*. Philadelphia, 3 June- 5 June 2019. [pdf]
- 2018 [c3] **Cheng, Y.-Y.** & Ludäscher, B. (2018). Full of beans: a study on the alignment of two flowering plants classification systems. *Proceedings of the 18th European Networked Knowledge Organization Systems Workshop (NKOS 2018)*. CEUR-WS.org, Porto, Portugal, September 13, 2018. [pdf]
- 2017 [c2] **Cheng, Y.-Y.**, Franz, N., Scheider, J., Yu, S., Rodenhasen, T., Ludäscher, B. (2017). Agreeing to disagree: reconciling conflicting taxonomic views using a logic-based approach. In *Proceedings of the ASIS&T 2017 Annual Meeting, Washington, D.C., USA, October 27-November 1st*. DOI: <https://doi.org/10.1002/pra2.2017.14505401006> [pdf] [git repo]
- 2016 [c1] **Cheng, Y.-Y.**, Chen, H.-H. (2016). A study on constructing a cross-lingual ontology. In *International Conference on Dublin Core and Metadata Applications, DCMI2016, Copenhagen, Denmark*

Refereed Poster Extended Abstracts in Proceedings

- 2020 [p6] **Cheng, Y.-Y.**, & Ludäscher, B. (2020). Through the Magnifying Glass: Exploring Aggregations of COVID-19 Datasets by County, State, Region, and Taxonomies. In *Proceedings of the ASIS&T 2020 Annual Meeting*. DOI: <https://doi.org/10.1002/pra2.355>
- 2020 [p5] **Cheng, Y.-Y.**, Dilliplane, S., & Ludäscher, B. (2020). Snailed it! Merging Taxonomically Organized Biodiversity Datasets with Shifting Geopolitical Realities. *International Digital Curation*

Conference (IDCC 2020). Dublin, Ireland, 17 February- 20 February. doi and poster pdf:
[10.5281/zenodo.3666830](https://doi.org/10.5281/zenodo.3666830) [[git repo](#)]

- 2019 [p4] Dinh L., & **Cheng, Y.-Y.**, & Parulian, N. (2019). ReTracker: an open-source plugin for automated and standardized tracking of retracted scholarly publications. In Proceedings of ACM/IEEE Joint Conference on Digital Libraries (JCDL 2019). University of Illinois at Urbana-Champaign, 2 June- 5 June 2019. doi: 10.1109/JCDL.2019.00092 [[pdf](#)]
- 2018 [p3] Dinh, L., & **Cheng, Y.-Y.** (2018). Middle of the (by)line: Examining hyperauthorship networks in the Human Genome Project. In Proceedings of the 81th Annual ASIS&T Meeting. Vancouver, Canada, 10 November-14 November 2018. DOI:
<https://doi.org/10.1002/pr2.2018.14505501118> [[pdf](#)]
- 2018 [p2] **Cheng, Y.-Y.**, Weigl, D. M., Downie., J. S., Page, K. R. (2018). Towards incorporating the notion of feature shapes in music and text retrieval. In Proceedings of iConference 2018 Annual Meeting, Sheffield, U.K., Mar 25-28. [[pdf](#)]
- 2016 [p1] **Cheng, Y.-Y.**, Chen, H.-H. (2016). Towards a seamless multilingual semantic web: a study on constructing a cross-lingual ontology. Proceedings of the 79th Annual ASIS&T Meeting. Copenhagen, Denmark, 14 October-16 October 2016. [[pdf](#)]

TEACHING EXPERIENCE

Instructor

Summer 2021 **Metadata in Theory and Practice**
School of Information Sciences, University of Illinois at Urbana-Champaign

Co-instructor

SP20-FA20 **Theory and Practice Data Cleaning**
School of Information Sciences, University of Illinois at Urbana-Champaign

- Co-taught with Dr. Bertram Ludäscher
- Hybrid course (Online & face-to-face instruction)

Fall 2015 **Special Topics on Knowledge Organization**
Department of Library & Information Science, National Taiwan University

- Co-taught with Dr. Hsueh-Hua Chen
- Face-to-face instructions

Teaching Assistant

Spring 2021 **Information Organization and Access**
School of Information Sciences, University of Illinois at Urbana-Champaign

Summer 2020 **Coursera, Theory and Practice Data Cleaning**
Master of Computer Science-Data Science (MCS-DS), University of Illinois at Urbana-Champaign

- Fully Online course, No. of students: 400+

FA17-FA19 **Theory and Practice Data Cleaning**
School of Information Sciences, UIUC

- Hybrid course (Online & face-to-face instruction)

Fall 15 **Introduction to Library Science**
Department of Library & Information Science, National Taiwan University

Spring 15 **Special Topics on Data Curation**
Department of Library & Information Science, National Taiwan University

Full-Day Workshop and Tutorials

- 2021 Navigating through the Panoply of Provenance Metadata Standards useful for Digital Curation. Workshop at iConference 2021. (online)
- 2020 Navigating through the Panoply of Provenance Metadata Standards useful for Digital Curation. Workshop presented at the International Digital Curation Conference (IDCC 2020). Dublin, Ireland, 17 February- 20 February.

TALKS

- Under review 2021 **Agreeing to Disagree: Applying a Logic-based Approach to Reconciling and Merging Multiple Taxonomies**
Doctoral colloquium, North American Symposium on Knowledge Organization (NASKO)
- Under review 2021 **Agreeing to Disagree: Applying a Logic-based Approach to Reconciling and Merging Multiple Taxonomies**
Doctoral Student Research Competition, ALISE

CERTIFICATE

- 2020 **Graduate Teacher Certificate**
Center for Innovation in Teaching & Learning, University of Illinois at Urbana Champaign
Taught more than two semesters of courses, participated in a series of teaching development program and evaluations, and fulfilled additional teaching requirements

FELLOWSHIPS AND AWARDS

- 2020 **LEADS Fellow**
LIS Education and Data Science for the National Digital Platform ([LEADS-4-NDP](#)) *extended* fellowship
- 2020 Spring **Teacher Ranked as Excellence**
Co-instructor of Theory & Practice Data Cleaning
- 2020 **FORCE11 2020 Conference Scholarship**
Full Scholarship for attending [FSCI2020](#)
- 2019 **LEADS Fellow**
LIS Education and Data Science for the National Digital Platform ([LEADS-4-NDP](#)) fellowship
- 2018 **ASIS&T Student Design Competition winner**
Project: ReTrackers: an automated and standardized solution to tracking retracted paper
- 2018 **NSF Student Travel Grant for**
[US2TS Conference](#)
- 2013, 2015 **Phi Tau Phi Scholastic Honor Society Honorary Member**
Graduated with college honors, Phi Tau Phi Scholastic honor Society of Taiwan
- 2015 **Best Paper Award**
Master's thesis, Library Association of the Republic of China (Taiwan)
- 2014 **Outstanding Graduate Student Award**
Chinese Association of Library & Information Science Education
- 2010, 2011, 2012, 2013 **Presidential Award**
Top 1% of the class, National Taiwan University

COMMUNITY INVOLVEMENT AND SERVICES

Founder and Co-chair

2019-2020 UIUC ACM Women Student Chapter

Organizing Committee

2020-2021 [LEADING](#) Diversity and Inclusivity Task Force

2020 Student Poster session
Women in Data Science Urbana Champaign

2017-2020 Organizer, [Conceptual Foundations Group](#)
Interest-based research group in School of Information Sciences, UIUC

Conference Reviewer

2019, 2020 Annual Conference of the Association for Information Science and Technology (ASIS&T)

2018, 2019, 2020 iConference

2018, 2019 Dublin Core Metadata Initiative (DCMI)

Member

2016- Association for Information Science and Technology (ASIS&T)

2019- International Society of Knowledge Organization (ISKO)

2019- Association for Computing Machinery (ACM)

2020- Association for Library and Information Science Education (ALISE)