JESSICA YI-YUN CHENG
August 2024

yiyun.cheng@rutgers.edu
4 Huntington St., New Brunswick, NJ 08901

EDUCATION

2022   **PhD,** Information Sciences
University of Illinois at Urbana-Champaign, USA
- **Dissertation**: *Agreeing to Disagree: Applying a Logic-based Approach to Reconciling and Merging Multiple Taxonomies*
- **Advisor:** Dr. Bertram Ludäscher

2015   **Master of Arts,** Library and Information Science
National Taiwan University, Taiwan
- **Thesis:** 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
- Graduated with College Honors

ACADEMIC APPOINTMENTS

Sept 2022-   **Assistant Professor**
Department of Library and Information Science, School of Communication and Information, Rutgers, the State University of New Jersey, New Brunswick, NJ, USA

PUBLICATIONS
Peer-reviewed Journal Articles

Accepted   [j4] Choi, I., & **Cheng.Y-Y.** (2024). A Conceptual Model for Tracking the Provenance of Activities in Knowledge Organization Systems. *Journal of Documentation.*

2023   [j3] **Cheng, Y.-Y.** (2023). Under Whose Wings? A Conceptual Model for Incorporating Historical1Sovereignty Information in Biodiversity Data. *Journal of the Association for Information Science and Technology*. http://doi.org/10.1002/asi.24848

2023   [j2] **Cheng, Y.-Y**, Xia, Y. (2023). A Systematic Review of Methods for Aligning, Mapping, Merging Taxonomies in Information Sciences. Journal of Documentation, *76 (6),* 1413-1439. https://doi.org/10.1108/JD-01-2023-0003

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

Books

In progress for 2025   [b2] Bettivia, R**., Cheng, Y.-Y.,** Gryk, M. (in progress). Trust, Time, and Authority in Provenance: Stories and Echoes. Cambridge University Press.

2022   [b1] Bettivia, R**., Cheng, Y.-Y.,** Gryk, M. (2022). *Documenting the Future: Navigating Provenance Metadata Standards.* Synthesis Lectures on Information Concepts, Retrieval, and Services. SpringerNature. doi: https://doi.org/10.1007/978-3-031-18700-1

Peer-reviewed Conference Papers in Proceedings

2024   [c15] **Cheng, Y.-Y.,** Choi, I., Bettivia, R., Lee, W.-C., Watson, B. (2024). Knowledge Organization Systems and Provenance: Experiences and Challenges. To appear in *Proceedings of the ASIS&T 2024 Annual Meeting.*

2023   [c14] Bettivia, R., **Cheng, Y.-Y.,** Gryk, M. (2023). I Got a Letter From My Past Self: (Un)managed Change and Provenance. In iPRES 2023 Conference Proceedings, Champaign, IL, USA.

2023   [c13] Bettivia, R., **Cheng, Y.-Y.,** Gryk, M. (2023). Retrospective, Subjunctive, Prospective: Provenance Challenges Across Time. In iPRES 2023 Conference Proceedings, Champaign, IL, USA.

2023   [c12] Bettivia, R., **Cheng, Y.-Y.,** Gryk, M. (2023). What does provenance LACK: how retrospective and prospective met the subjunctive. In *Proceedings of iConference 2023 Annual Meeting*, Barcelona, Spain. March 27-29.

2022   [c11] Bettivia, R., **Cheng, Y.-Y.,** Gryk, M., Bishop, W., Chassanoff, A., Greenberg, J., Lischer-Katz, Z. (2022). Storied Past, Bright Future: A Provenance Jam Session. In *Proceedings of the ASIS&T 2022 Annual Meeting.* doi: https://doi.org/10.1002/pra2.622

2020   [c10] **Cheng, Y.-Y.**, & Ludäscher, B. (2020). Reconciling Taxonomies of Electoral Constituencies and Recognized Tribes of Indigenous Taiwan. Virtual, Oct 23-27. In *Proceedings of the ASIS&T 2020 Annual Meeting*. doi: https://doi.org/10.1002/pra2.248

2020   [c9] **Cheng, Y.-Y.**, Hoang, K.-L., & Ludäscher, B. (2020). Cacao, Cocao, or Cocoa? Reconciliation of Taxonomic Names in Biodiversity Heritage Library. In *Proceedings of the Sixteenth International ISKO Conference*, Aalborg, Denmark. doi: https://doi.org/10.5771/9783956507762-88

2019   [c8] **Cheng, Y.-Y.**, Parulian, 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   [c7] Dinh, L., Sarol, J.,**Cheng, Y.-Y**., Hsiao, T.-K., Parulian, 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   [c6] **Cheng, Y.-Y.** & Ludäscher, B. (2019). Exploring Geopolitical Realities through Taxonomies: The Case of Taiwan. In *Proceedings of North American Symposium on Knowledge Organization (NASKO 2019)*, Vol. 7. Drexel University, Philadelphia, June 13-14. doi: http://dx.doi.org/10.7152/nasko.v7i1.15625

2019   [c5] Gupta, S., & **Cheng, Y.-Y.**, & Ludäscher, B. (2019). Possible Worlds Explorer: Datalog & Answer Set Programming for the Rest of Us. *Datalog 2.0.* Philadelphia, June 3-5.

2018   [c4] **Cheng, Y.-Y.** & Ludäscher, B. (2018). Full of beans: a study on the alignment of two flowering plants classification systems. In *Proceedings of the 18th European Networked Knowledge Organization Systems Workshop (NKOS 2018)*. CEUR-WS.org, Porto, Portugal, September 13, 2018.

2017   [c3] **Cheng, Y.-Y.**, Franz, N., Schneider, 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. doi: https://doi.org/10.1002/pra2.2017.14505401006

2016   [c2] **Cheng, Y.-Y.**, Chen, H,-H. (2016). A Study on Constructing a Cross-lingual Ontology. In *International Conference on Dublin Core and Metadata Applications (DCMI 2016)*, Copenhagen, Denmark, Oct 13-16.

2014   [c1] Sun, C.-H., **Cheng, Y.-Y**., Tsai, B, Y., Chen, H, -H. (2014). Ontology Development in Geographic Information Systems: A Case Study of Multi-Agent Knowledge-Oriented Cyberinfrastucture Project (MAKOCI). (in Traditional Chinese). *12th Conference of Taiwan-China Cross Strait Chinese Association of Library and Information Science Education*. Tianjin, China. July 6-8.

Peer-reviewed Extended Abstracts in Proceedings

2024   [a10] Choi, I., **Cheng, Y.-Y.,** Washington, A., Falconer, J. (2024). Metadata Provenance and Explainability. To appear in *Proceedings of DCMI 2024 Annual Meeting*.

2024   [a9] **Cheng, Y.-Y.** (2024). Pork Roll or Taylor Ham? When Central New Jersey and Multiple Controlled Vocabularies Exist in Biodiversity Data. SPNHC & TDWG Joint Conference - A hybrid conference in Okinawa, Japan, 2-6 September 2024

2023   [a8] **Cheng, Y.-Y.**, Parulian, N., & Dinh, L. (2023). A Text Mining Approach to Uncover the Structures of Subject Metadata in Biodiversity Heritage Library. In Proceedings of *the ASIS&T 2023 Annual Meeting*. London, United Kingdom.

2021   [a7] **Cheng, Y.-Y.** (2021). Systematic Comparison of Data Models Used in Mapping Knowledge Organization Systems. In Proceedings of *the ASIS&T 2021 Annual Meeting*. Salt Lake City, Utah, Oct 30- Nov2. doi: https://doi.org/10.1002/pra2.529

2020   [a6] **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*. Virtual, October 23-27. doi: https://doi.org/10.1002/pra2.355

2020   [a5] **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, February 17-20 doi: 10.5281/zenodo.3666830

2019   [a4] 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, June 2-5. doi: 10.1109/JCDL.2019.00092

2018   [a3] 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, November 11-14. doi: https://doi.org/10.1002/pra2.2018.14505501118

2018   [a2] **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.

2016   [a1] **Cheng, Y.-Y.**, Chen, H,-H. (2016).Towards a Seamless Multilingual Semantic Web: a Study on Constructing a Cross-Lingual Ontology. In *Proceedings of the 79th Annual ASIS&T Meeting*. Copenhagen, Denmark, October 14-16. doi: https://doi.org/10.1002/pra2.2016.14505301142

GRANTS AND AWARDS

2024-2026   **PI, Storytelling Across Time: Building a Community Around Provenance (B-CAP).** $150,000 funded by the Institute of Museum and Library Services (IMLS), National Leadership Planning Grants for Libraries. Co-PIs: Rhiannon Bettivia, Michael Gryk.

2024-2029   **Co-PI, Advance Bridge Technology Clearinghouse (ATBC) project.** $5,000,000 funded by the U.S. Department of Transportation. PI: Nenad Gucunski.

2023   **Berner-Nash Doctoral Dissertation Award** $2000 awarded by School of Information Sciences, University of Illinois at Urbana-Champaign

2023   **Grants for Individual Faculty Research** $5000 funded by School of Communication and Information, Rutgers University

2021   **Beta Phi Mu Eugene Garfield Doctoral Dissertation Fellowship** $3000 Dissertation fellowship awarded by the Beta Phi Mu Honor Society

2021 Fall   **Anita and Marie Hostetter Scholarship** iSchool fellowship support for doctoral candidates in LIS in an accredited ischools

2020	**LEADS Fellow**
	$5000 LIS Education and Data Science for the National Digital Platform (LEADS-4-NDP) *extended* fellowship

2020 Spring	**Teacher Ranked as Excellent**
	Co-instructor of Theory & Practice Data Cleaning

2019	**LEADS Fellow**
	$5000 LIS Education and Data Science for the National Digital Platform (LEADS-4-NDP) fellowship

2018	**ASIS&T Student Design Competition winner**
	Winning project: ReTrackers: an automated and standardized solution to tracking retracted

2018	**NSF Student Travel Grant**
	Travel grant awarded to attend the U.S. Semantic Technologies Symposium Series (US2TS)

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, awarded by the Library Association of the Republic of China (Taiwan)

2014	**Outstanding Graduate Student Award**
	Awarded by the Chinese Association of Library & Information Science Education

2010, 2011, 2012, 2013	**Presidential Award**
	Top 1% of the class, National Taiwan University

Doctoral Colloquium

2021	Cheng, Y.-Y. (Oct, 2021). Agreeing to Disagree: Applying a Logic-based Approach to Reconciling and Merging Multiple Taxonomies. Doctoral colloquium, 2021 Annual Meeting of the Association for Information Science and Technology (ASIS&T). Salt Lake City, UT, October 30 - November 2.
2021	Cheng, Y.-Y. (Sept, 2021). Agreeing to Disagree: Applying a Logic-based Approach to Reconciling and Merging Multiple Taxonomies. Doctoral colloquium, 2021 Annual Conference of the Association for Library and Information Science Education (ALISE). Virtual, September 20-24.
2021	Cheng, Y.-Y. (July, 2021). Agreeing to Disagree: Applying a Logic-based Approach to Reconciling and Merging Multiple Taxonomies. Doctoral colloquium, 2021 North American Symposium on Knowledge Organization (NASKO). Virtual, July 9-11.

GRADUATE RESEARCH EXPERIENCE

2016-2022	**Center for Informatics Research in Science and Scholarship (CIRSS), School of Information Sciences, University of Illinois at Urbana-Champaign**
	Graduate Research Assistant
	- Project: Exploring Taxon Concepts and Taxonomy Alignments (NSF DBI-1643002)
	- 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 Dilliplane, 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 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 Cyberinfrastucture Project (MAKOCI)
- Supervisor: Dr. Chih-Hong Sun

TEACHING

Instructor

Fall 2024   **Retrieving and Evaluating Electronic Information**
Information Technology and Informatics (ITI) undergraduate program, School of Communication and Information, Rutgers University

2023-   **Metadata for the Information Professional**
Department of Library and Information Science, Master of Information program, School of Communication and Information, Rutgers University

2022-   **Organizing Information**
Department of Library and Information Science, Master of Information program, School of Communication and Information, Rutgers University

Summer 2021   **Metadata in Theory and Practice**
School of Information Sciences, Master of LIS program, University of Illinois at Urbana-Champaign
- Sole instructor teaching 12-weeks of lectures
- Lecture topics include different types of metadata (descriptive, administrative, provenance, etc), metadata interoperability, metadata harvesting, XML, oXygen, etc

Co-instructor

SP20-FA20   **Theory and Practice Data Cleaning**
School of Information Sciences, Master of Information Management program, University of Illinois at Urbana-Champaign
- Co-taught with Dr. Bertram Ludäscher
- Hybrid course (Online & face-to-face instruction)
- Lecture topics include developing use cases for cleaning, different types of datasets, Regular Expressions, OpenRefine, provenance and reproducibility

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
- Lecture topics include introduction to KO and KOS, Semantic Web Technologies, Developing ontologies, Protégé

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 in 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) (co-taught with Rhiannon Bettivia, Michael Gryk).
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. (co-taught with Rhiannon Bettivia, Michael Gryk).

Invited Talks

2022	**SC&I601, Doctoral Student Proseminar, Rutgers University.** Title: Agreeing to Disagree: Reconciling Taxonomies using a Logic-based Approach.
2022	**LIS597, Issues in Social Justice & Information Institutions, Rutgers University**. Title: Reconciling Taxonomies of Electoral Constituencies and Recognized Tribes of Indigenous Taiwan.
2021	**IS505, Information Organization and Access. School of Information Sciences, UIUC.** Title: Metadata, Authority Control and Data Quality Issues.
2020	**Center for Informatics Research in Science and Scholarship (CIRSS) Seminar, UIUC.** Title: Agreeing to Disagree: Applying a Logic Based Approach to Reconciling and Merging Multiple Taxonomies
2020	**LEADS-4-NDP Forum. Metadata Research Center, Drexel University, College of Computing and Informatics.** Title: LEADS fellow Examples of Impact Project – Academy of Natural Sciences and the Biodiversity Knowledge Graphs project.
2019	**Center for Informatics Research in Science and Scholarship (CIRSS) Seminar, UIUC.** Title: ReTracker: Actively and Automatically Matching Retraction Metadata in Zotero
2017	**The Future of Systematics in Data-Centric Biology Workshop, Marine Biological Laboratory (MBL).** Title: Possible World Explorer and Taxonomy Alignment Research
2016	**Knowledge Organization and Cultural Heritage: Perspectives of the Semantic Web Conference. Academic Sinica, Taiwan.** Title: An Exploration of Cross-Lingual Ontology Development in Geographic Information Systems. (presented in Mandarin).

Teaching 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.

SERVICE
Committee

2024-	Rutgers SC&I Web committee

2023-	Advisory board, CatMapper: User-friendly tools for integrating data across complex, dynamic categories (NSF HNDS-I)
2023-	Rutgers SC&I LIS Planning and Governance Committee
2023-	Rutgers SC&I MI student awards and fellowship committee
2023	Rutgers SC&I PhD student award committee
2020-2023	Diversity and Inclusivity Task Force, LIS Education And Data Science Integrated Network Group (LEADING), Metadata Research Center, Drexel University (RE-70-17-0094-17, RE-246450-OLS-20)
2020	Student Poster session Women in Data Science Urbana Champaign (WiDS)
2017-2020	Organizer, Conceptual Foundations Group Interest-based research group in School of Information Sciences, UIUC

Reviewer

IMLS grant proposal reviewer (2022-2023); Journal of Education for Library and Information Science (JELIS); Neural Processing Letters, Data Science Journal, Annual Conference of the Association for Information Science and Technology (ASIS&T, *best panel reviewer 2023), iConference, Dublin Core Metadata Initiative (DCMI)

Conference Session Chair

2021	Annual Conference of the Association for Information Science and Technology (ASIS&T), Research Data Management session
2020	International Digital Curation Conference (IDCC), Metadata and Reusability session

Founder and Co-chair

2019-2020	UIUC ACM Women Student Chapter

Member

2023-	Beta Phi Mu Alpha Chapter
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)