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Assistant Professor
 Knowledge and Semantic Technologies Lab
 Department of Computer Science & Engineering
 Wright State University, Dayton, OH 45325, USA

January 2023

Curriculum Vitae

Scientific Career

08.2022–Present	Assistant Professor Department of Computer Science & Engineering Wright State University, USA
08.2020–07.2021	Postdoctoral Fellow Center for Artificial Intelligence and Data Science Department of Computer Science Kansas State University, USA
05.2019–06.2019	Visiting Researcher Department of Computer Science and Informatics Jönköping University, Sweden

Scientific Education

08.2019–07.2020	Graduate Research Assistant Center for Artificial Intelligence and Data Science Department of Computer Science Kansas State University, USA
08.2016–07.2019	Graduate Research Assistant and DAGSI Fellow Department of Computer Science and Engineering Wright State University, Ohio, USA
08.2014–07.2016	Study of Computer Science Wright State University, Ohio, USA

Degrees

07.2020	PhD in <i>Computer Science</i> Kansas State University, USA
07.2017	M.S. in <i>Computer Science</i> Outstanding Student in Computer Science (M.S.) <i>nominated</i> Wright State University, Ohio, USA
07.2016	B.S. in <i>Computer Science, magna cum laude</i> Dean's List–Highest Honors Outstanding Student in Computer Science (B.S.) Wright State University, Ohio, USA

Web References

Homepage	http://coganshimizu.com
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Google Scholar

<https://scholar.google.com/citations?user=PIBF5eQAAAAJ>

DBLP

<https://dblp.uni-trier.de/pers/hd/s/Shimizu:Cogan>

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1 Projects & Funding

1.1 Acquired Funding – Contributions to the Project Proposal

- EAGER: Open Science Data in Semantic Web Research.
National Science Foundation. September 2020 to July 2023.
Role: Co-PI, main proposal author.
Funding: \$299,729
- Supplement: Crosswalks for KWG and SPOKE.
National Science Foundation. September 2022 to August 2023.
Role: PI.
Funding: \$85,578
- Ontology Modeling for the Historic Slave Trade (Phase III).
Andrew W. Mellon Foundation.
Role: Senior Personnel (PI at WSU).
Funding: \$10,566

1.2 Proposals Pending

- Automated Modular Knowledge Engineering.
National Science Foundation.
CISE/III: Core – Medium.
Role: PI.
Requested Funding: \$1,199,360
- AI Institute: Know-CAP
National Science Foundation.
Role: Senior Personnel (PI at WSU).
Approx. Funding: \$797,744

1.3 Past Funding

- A Modeling Workshop for Data in Agriculture.
Midwest Big Data Hub. November 2020.
Role: PI.
Funding: \$1,000
- Modular Ontology Modeling for Food Supply Chains.
National Institute for Standards and Technology (NIST). September 2019 to May 2021.
Role: Researcher, main proposal author.
Funding: \$199,510
- Knowledge Analytics with Semantic Technologies (KAST).
Dayton Area Graduate Studies Institute, May 2017 to July 2019.
Role: PI.
Funding: \$121,940

1.4 Further Project Involvement

- A1: KnowWhereGraph: Enriching and Linking Cross-Domain Knowledge Graphs using Spatially-Explicit AI Technologies.
National Science Foundation, September 2020 to August 2022.
Role: Postdoctoral Researcher.
- Convergence Accelerator Phase I (RAISE): Spatially-Explicit Models, Methods, and Services for Open Knowledge Networks.
National Science Foundation, September 2019 to May 2020.
Role: Researcher.
- Towards Undifferentiated Cognitive Agents.
Air Force Office of Scientific Research. July 2018 to July 2021.
Role: Researcher.
- Ontology Modeling for the Historic Slave Trade.
The Andrew W. Mellon Foundation. April 2018 to September 2020.
Role: Researcher.

1.5 Fellowships and Scholarships

- Graduate Student Council Fellowship.
Wright State University, May 2016 to July 2017.
Amount: \$12,000
- NAECON Grant
NAECON, 2015-2016.
Amount: \$500
- Kitty Hawk Scholarship.
ASSP Kitty Hawk Chapter, 2015-2016.
Amount: \$500
- Ohio College Opportunity Scholarship.
The State of Ohio, 2015-2016.
Amount: \$500

2 Publications

2.1 Journal Articles

1. Cogan Shimizu, Andrew Eells, and Pascal Hitzler. Modl 2.0. *Journal of Web Semantics*, 2023. In preparation
2. Luigi Asprino, Valentina Anita Carriero, Aldo Gangemi, Karl Hammar, Pascal Hitzler, Valentina Presutti, and Cogan Shimizu. The ontology design pattern representation language. *Journal of Web Semantics*, 2023. Alphabetized authors; in preparation
3. Rui Zhu, Krzysztof Janowicz, Cogan Shimizu, Pascal Hitzler, Gengchen Mai, Shirly Stephen, Ling Cai, Lu Zhou, Mark Schildhauer, Zilong Liu, Zhangyu Wang, and Meilin Shi. Knowwhere-graph: A geospatial knowledge graph to support cross-disciplinary knowledge discovery. *International Journal of Geographic Information Science*, 2023. In preparation

4. Cogan Shimizu, Pascal Hitzler, Krzysztof Janowicz, Aaron Eberhardt, and Sanaz Saki Norouzi. Openness and transparency in academic publishing: A decade of data from the semantic web journal. *Communications of the ACM*, 2023. In preparation
5. Cogan Shimizu, Pascal Hitzler, Quinn Hirt, Dean Rehberger, Seila Gonzalez Estrecha, Catherine Foley, Alicia M. Sheill, Walter Hawthorne, Jeff Mixer, Ethan Watrall, Ryan Carty, and Duncan Tarr. The Enslaved Hub dataset & usage. *Journal of Web Semantics*, 2023. In preparation
6. Shirly Stephen, Mark Schildhauer, Kitty Currier, Cogan Shimizu, Pascal Hitzler, Krzysztof Janowicz, Rui Zhu, and Colby Fisher. Conceptual guidelines for a reference ontology for the disaster management domain. *Scientific Reports*, 2023. Submitted
7. Cogan Shimizu, Andrew Eells, and Pascal Hitzler. Ontology design facilitating wikibase integration – and a worked example for historical data. *Journal of Web Semantics*, 2023. Submitted
8. Krzysztof Janowicz, Pascal Hitzler, Wenwen Li, Dean Rehberger, Mark Schildhauer, Rui Zhu, Cogan Shimizu, Colby K. Fisher, Ling Cai, Gengchen Mai, Joseph Zalewski, Lu Zhou, Shirly Stephen, Seila Gonzalez Estrecha, Bryce D. Mecum, Anna Lopez-Carr, Andrew Schroeder, Dave Smith, Dawn J. Wright, Sizhe Wang, Yuanyuan Tian, Zilong Liu, Meilin Shi, Anthony D’Onofrio, Zhining Gu, and Kitty Currier. Know, know where, knowwheregraph: A densely connected, cross-domain knowledge graph and geo-enrichment service stack for applications in environmental intelligence. *AI Mag.*, 43(1):30–39, 2022
9. Cogan Shimizu, Karl Hammar, and Pascal Hitzler. Modular ontology modeling. *Semantic Web*, 2022. In press
10. Krzysztof Janowicz, Cogan Shimizu, Pascal Hitzler, Gengchen Mai, Shirly Stephen, Rui Zhu, Ling Cai, Lu Zhou, Mark Schildhauer, Zilong Liu, Zhangyu Wang, and Meilin Shi. Diverse data! diverse schemata? *Semantic Web*, 13(1):1–3, 2022
11. Pascal Hitzler, Krzysztof Janowicz, Ajay Sharda, and Cogan Shimizu. Advancing agriculture through semantic data management. *Semantic Web*, 12(4):543–545, 2021
12. Pascal Hitzler, Krzysztof Janowicz, Cogan Shimizu, Lu Zhou, and Andrew Eells. Open science data and the semantic web journal. *Semantic Web*, 12(3):401–402, 2021
13. Stefano Borgo, Pascal Hitzler, and Cogan Shimizu. Time is ripe to embrace the scientific approach in applied ontology. *Appl. Ontology*, 15(3):245–249, 2020
14. Cogan Shimizu, Pascal Hitzler, Quinn Hirt, Dean Rehberger, Seila Gonzalez Estrecha, Catherine Foley, Alicia M. Sheill, Walter Hawthorne, Jeff Mixer, Ethan Watrall, Ryan Carty, and Duncan Tarr. The Enslaved Ontology: Peoples of the historic slave trade. *Journal of Web Semantics*, 63:100567, 2020
15. Cogan Shimizu, Pascal Hitzler, and Krzysztof Janowicz. A closer look at the Semantic Web journal’s review process. *Semantic Web*, 10(1):1–7, 2019

2.2 Conference Papers

16. CShirly Stephen, Ling Cai, Kitty Currier, Zilong Liu, Cogan Shimizu, Mark Schildhauer, Anna Lopez-Carr, Andrew Schroeder, Yuanyuan Tian, Krzysztof Janowicz, Pascal Hitzler, Dean Rehberger, and Colby K. Fisher. Designing, implementing, and deploying a community driven knowledge graph with wikibase. In *19th ESWC*, 2023. Submitted
17. Cogan Shimizu, Pascal Hitzler, Seila Gonzalez-Estrecha, Jeff Goeke-Smith, Dean Rehberger, Catherine Foley, and Alicia Sheill. Designing, implementing, and deploying a community driven knowledge graph with wikibase. In *19th ESWC*, 2023. Submitted
18. Zilong Liu, Zhining Gu, Thomas Thelen, Seila Gonzalez Estrecha, Rui Zhu, Colby K. Fisher, Anthony D’Onofrio, Cogan Shimizu, Krzysztof Janowicz, Mark Schildhauer, Shirly Stephen,

- Dean Rehberger, Wenwen Li, and Pascal Hitzler. Knowledge explorer: exploring the 12-billion-statement knowwheregraph using faceted search (demo paper). In Matthias Renz and Mohamed Sarwat, editors, *Proceedings of the 30th International Conference on Advances in Geographic Information Systems, SIGSPATIAL 2022, Seattle, Washington, November 1-4, 2022*, pages 73:1–73:4. ACM, 2022
19. Aaron Eberhart, Cogan Shimizu, Sulogna Chowdhury, Md. Kamruzzaman Sarker, and Pascal Hitzler. Expressibility of OWL axioms with patterns. In Ruben Verborgh, Katja Hose, Heiko Paulheim, Pierre-Antoine Champin, Maria Maleshkova, Óscar Corcho, Petar Ristoski, and Mehwish Alam, editors, *The Semantic Web - 18th International Conference, ESWC 2021, Virtual Event, June 6-10, 2021, Proceedings*, volume 12731 of *Lecture Notes in Computer Science*, pages 230–245. Springer, 2021
 20. Rui Zhu, Cogan Shimizu, Shirly Stephen, Lu Zhou, Ling Cai, Gengchen Mai, Krzysztof Janowicz, Mark Schildhauer, and Pascal Hitzler. SOSA-SHACL: shapes constraint for the sensor, observation, sample, and actuator ontology. In *IJCKG'21: The 10th International Joint Conference on Knowledge Graphs, Virtual Event, Thailand, December 6 - 8, 2021*, pages 99–107. ACM, 2021
 21. Cogan Shimizu, Rui Zhu, Gengchen Mai, Colby K. Fisher, Ling Cai, Mark Schildhauer, Krzysztof Janowicz, Pascal Hitzler, Lu Zhou, and Shirly Stephen. A pattern for features on a hierarchical spatial grid. In *IJCKG'21: The 10th International Joint Conference on Knowledge Graphs, Virtual Event, Thailand, December 6 - 8, 2021*, pages 108–114. ACM, 2021
 22. Rui Zhu, Ling Cai, Gengchen Mai, Cogan Shimizu, Colby K. Fisher, Krzysztof Janowicz, Anna Lopez-Carr, Andrew Schroeder, Mark Schildhauer, Yuanyuan Tian, Shirly Stephen, and Zilong Liu. Providing humanitarian relief support through knowledge graphs. In Anna Lisa Gentile and Rafael Gonçalves, editors, *K-CAP '21: Knowledge Capture Conference, Virtual Event, USA, December 2-3, 2021*, pages 285–288. ACM, 2021
 23. Abhilekha Dalal, Cogan Shimizu, and Pascal Hitzler. Bridging upper ontology and modular ontology modeling: a tool and evaluation. In Boris Villazón-Terrazas, Fernando Ortiz-Rodríguez, Sanju Tiwari, Ayush Goyal, and M. Akhil Jabbar, editors, *Knowledge Graphs and Semantic Web - Third Iberoamerican Conference and Second Indo-American Conference, KGSWC 2021, Kingsville, Texas, USA, November 22-24, 2021, Proceedings*, volume 1459 of *Communications in Computer and Information Science*, pages 16–30. Springer, 2021
 24. Aaron Eberhart, Monireh Ebrahimi, Lu Zhou, Cogan Shimizu, and Pascal Hitzler. Completion reasoning emulation for the description logic EL+. In Andreas Martin, Knut Hinkelmann, Hans-Georg Fill, AURORA Gerber, Doug Lenat, Reinhard Stolle, and Frank van Harmelen, editors, *Proceedings of the AAAI 2020 Spring Symposium on Combining Machine Learning and Knowledge Engineering in Practice, AAAI-MAKE 2020, Palo Alto, CA, USA, March 23-25, 2020, Volume I*, volume 2600 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2020
 25. Lu Zhou, Cogan Shimizu, Pascal Hitzler, Alicia M. Sheill, Seila Gonzalez Estrecha, Catherine Foley, Duncan Tarr, and Dean Rehberger. The enslaved dataset: A real-world complex ontology alignment benchmark using wikibase. In Mathieu d'Aquin, Stefan Dietze, Claudia Hauff, Edward Curry, and Philippe Cudré-Mauroux, editors, *CIKM '20: The 29th ACM International Conference on Information and Knowledge Management, Virtual Event, Ireland, October 19-23, 2020*, pages 3197–3204. ACM, 2020
 26. Cogan Shimizu, Karl Hammar, and Pascal Hitzler. Modular graphical ontology engineering evaluated. In Andreas Harth, Sabrina Kirrane, Axel-Cyrille Ngonga Ngomo, Heiko Paulheim, Anisa Rula, Anna Lisa Gentile, Peter Haase, and Michael Cochez, editors, *The Semantic Web – 17th International Conference, ESWC 2020, Heraklion, Crete, Greece, May 31-June 4, 2020, Proceedings*, volume 12123 of *Lecture Notes in Computer Science*, pages 20–35. Springer, 2020

27. Garrett Goodman, Quinn Hirt, Cogan Shimizu, Iosif Papadakis Ktistakis, Miltiadis Alamaniotis, and Nikolaos G. Bourbakis. Methods for prediction optimization of the constrained state-preserved extreme learning machine. In *32nd IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2020, Baltimore, MD, USA, November 9-11, 2020*, pages 639–646. IEEE, 2020
28. Aaron Eberhart, Cogan Shimizu, Christopher Stevens, Pascal Hitzler, Christopher W. Myers, and Benji Maruyama. A domain ontology for task instructions. In Boris Villazón-Terrazas, Fernando Ortiz-Rodríguez, Sanju Mishra Tiwari, and Shishir K. Shandilya, editors, *Knowledge Graphs and Semantic Web - Second Iberoamerican Conference and First Indo-American Conference, KGSWC 2020, Mérida, Mexico, November 26-27, 2020, Proceedings*, volume 1232 of *Communications in Computer and Information Science*, pages 1–13. Springer, 2020
29. Garrett Goodman, Cogan Shimizu, and Iosif Papadakis Ktistakis. Constrained state-preserved extreme learning machine. In *31st IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2019, Portland, OR, USA, November 4-6, 2019*, pages 752–759. IEEE, 2019
30. Cogan Shimizu, Aaron Eberhart, Nazifa Karima, Quinn Hirt, Adila Krisnadhi, and Pascal Hitzler. A method for automatically generating schema diagrams for OWL ontologies. In Boris Villazón-Terrazas and Yusniel Hidalgo-Delgado, editors, *Knowledge Graphs and Semantic Web - First Iberoamerican Conference, KGSWC 2019, Villa Clara, Cuba, June 23-30, 2019, Proceedings*, volume 1029 of *Communications in Computer and Information Science*, pages 149–161. Springer, 2019
31. Garrett Goodman, Tanvi Banerjee, William L. Romine, Cogan Shimizu, and Jennifer Hughes. Caregiver assessment using smart gaming technology: A feasibility study. In *2019 IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2019, New Orleans, LA, USA, June 23-26, 2019*, pages 1–6. IEEE, 2019
32. Pascal Hitzler and Cogan Shimizu. Modular ontologies as a bridge between human conceptualization and data. In Peter Chapman, Dominik Endres, and Nathalie Pernelle, editors, *Graph-Based Representation and Reasoning - 23rd International Conference on Conceptual Structures, ICCS 2018, Edinburgh, UK, June 20-22, 2018, Proceedings*, volume 10872 of *Lecture Notes in Computer Science*, pages 3–6. Springer, 2018

2.3 Book Contributions

33. Cogan Shimizu, Ryan M. McGranaghan, Aaron Eberhart, and Adam C. Kellerman. Towards a modular ontology for space weather research. In Eva Blomqvist, Torsten Hahmann, Karl Hammar, Pascal Hitzler, Rinke Hoekstra, Raghava Mutharaju, María Poveda-Villalón, Cogan Shimizu, Martin G. Skjæveland, Monika Solanki, Vojtech Svátek, and Lu Zhou, editors, *Advances in Pattern-Based Ontology Engineering, extended versions of the papers published at the Workshop on Ontology Design and Patterns (WOP)*, volume 51 of *Studies on the Semantic Web*, pages 299–311. IOS Press, 2021
34. Cogan Shimizu, Adila Krisnadhi, and Pascal Hitzler. Modular ontology modeling: a tutorial. In Giuseppe Cota, Marilena Daquino, and Gian Luca Pozzato, editors, *Applications and Practices in Ontology Design, Extraction, and Reasoning*, Studies on the Semantic Web. IOS Press, 2020. To Appear
35. Iosif Papadakis Ktistakis, Garrett Goodman, and Cogan Shimizu. *Methods for Optimizing Fuzzy Inference Systems*, pages 97–116. Springer International Publishing, Cham, 2021
36. Cogan Shimizu, Pascal Hitzler. *Ontology-based Data Organization for the Enslaved Project*. Book chapter, 2021. To Appear.

37. Michelle Cheatham, Holly Ferguson, Charles F. Vardeman II, and Cogan Shimizu. A modification to the hazardous situation ODP to support risk assessment and mitigation. In Karl Hammar, Pascal Hitzler, Adila Krisnadhi, Agnieszka Lawrynowicz, Andrea Giovanni Nuzzolese, and Monika Solanki, editors, *Advances in Ontology Design and Patterns [revised and extended versions of the papers presented at the 7th edition of the Workshop on Ontology and Semantic Web Patterns, WOP@ISWC 2016, Kobe, Japan, 18th October 2016]*, volume 32 of *Studies on the Semantic Web*, pages 97–104. IOS Press, 2016

2.4 Theses

38. Cogan Shimizu. *Advances in Modular Ontology Engineering: Methodology and Tools*. PhD thesis, Kansas State University, 2020
39. Cogan Shimizu. Rendering OWL in LaTeX for improved readability: Extensions to the OWLAPI. Master's thesis, Wright State University, 2017

2.5 Edited Books

40. Eva Blomqvist, Torsten Hahmann, Karl Hammar, Pascal Hitzler, Rinke Hoekstra, Raghava Mutharaju, María Poveda, Cogan Shimizu, Martin G. Skjæveland, Monika Solanki, Vojtěch Svátek, and Lu Zhou, editors. *Advances in Pattern-based Ontology Engineering*. Studies on the Semantic Web. IOS Press, 2021. In preparation

2.6 Journal Edited Issues

41. Extended FOIS 2018 papers. S. Borgo, P. Hitzler, C. Shimizu (Eds.). *Applied Ontology* 15 (3), 2020.

2.7 Edited Workshop Proceedings

42. Cogan Shimizu, Rafael Goncalves, Juan Sequeda, Ruben Verborgh editors. *Proceedings of the 1st Workshop on the Semantic Web in Practice: Tools and Pedagogy (PRAXIS 2020) co-located with 19th International Semantic Web Conference (ISWC 2019), Athens, Greece, November 1, 2020*. In preparation.
43. Pascal Hitzler, Cogan Shimizu, Torsten Hahmann, Raghava Mutharaju, Monika Solanki, Lu Zhou, editors. *Proceedings of the 11th Workshop on Ontology Design and Patterns (WOP 2020) co-located with 19th International Semantic Web Conference (ISWC 2019), Athens, Greece, November 2, 2020*. In preparation.
44. Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda-Villalón, Karl Hammar, and Cogan Shimizu, editors. *Proceedings of the 10th Workshop on Ontology Design and Patterns (WOP 2019) co-located with 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 27, 2019*, volume 2459 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2019

2.8 Workshop Contributions

45. Rui Zhu, Shirly Stephen, Lu Zhou, Cogan Shimizu, Ling Cai, Gengchen Mai, Krzysztof Janowicz, Pascal Hitzler, and Mark Schildhauer. Environmental observations in knowledge graphs. In Leyla Jael Castro, Markus Stocker, and Dietrich Rebholz-Schuhmann, editors, *DaMaLOS - Second Workshop on Data and Research Objects Management for Linked Open Science, Co-located at the International Semantic Web Conference ISWC 2021, Virtual Conference, October 24, 2021*, pages 1–11, 2021
46. Cogan Shimizu, Quinn Hirt, and Pascal Hitzler. MODL: A modular ontology design library. In Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda Villalón, Karl Hammar, and Cogan Shimizu, editors, *Proceedings of the 10th Workshop on Ontology Design and Patterns (WOP 2019) co-located with 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 27, 2019*, volume 2459 of *CEUR Workshop Proceedings*, pages 47–58. CEUR-WS.org, 2019
47. Quinn Hirt, Cogan Shimizu, and Pascal Hitzler. Extensions to the ontology design pattern representation language. In Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda Villalón, Karl Hammar, and Cogan Shimizu, editors, *Proceedings of the 10th Workshop on Ontology Design and Patterns (WOP 2019) co-located with 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 27, 2019*, volume 2459 of *CEUR Workshop Proceedings*, pages 76–75. CEUR-WS.org, 2019
48. Cogan Shimizu, Pascal Hitzler, and Clare Paul. Ontology design patterns for Winston's taxonomy of part-whole relations. In Elena Demidova, Amrapali Zaveri, and Elena Simperl, editors, *Emerging Topics in Semantic Technologies – ISWC 2018 Satellite Events [best papers from 13 of the workshops co-located with the ISWC 2018 conference]*, volume 36 of *Studies on the Semantic Web*, pages 119–129. IOS Press, 2018¹
49. Cogan Shimizu, Leah McEwen, and Quinn Hirt. Towards a pattern-based ontology for chemical laboratory procedures. In Martin G. Skjæveland, Yingjie Hu, Karl Hammar, Vojtech Svátek, and Agnieszka Lawrynowicz, editors, *Proceedings of the 9th Workshop on Ontology Design and Patterns (WOP 2018) co-located with 17th International Semantic Web Conference (ISWC 2018), Monterey, USA, October 9th, 2018*, volume 2195 of *CEUR Workshop Proceedings*, pages 40–51. CEUR-WS.org, 2018
50. Cogan Shimizu and Michelle Cheatham. An ontology design pattern for microblog entries. In Eva Blomqvist, Óscar Corcho, Matthew Horridge, David Carral, and Rinke Hoekstra, editors, *Proceedings of the 8th Workshop on Ontology Design and Patterns (WOP 2017) co-located with the 16th International Semantic Web Conference (ISWC 2017), Vienna, Austria, October 21, 2017*, volume 2043 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2017
51. Michelle Cheatham, Holly Ferguson, Charles F. Vardeman II, and Cogan Shimizu. A modification to the hazardous situation ODP to support risk assessment and mitigation. In Karl Hammar, Pascal Hitzler, Adila Krisnadhi, Agnieszka Lawrynowicz, Andrea Giovanni Nuzzolese, and Monika Solanki, editors, *Advances in Ontology Design and Patterns [revised and extended versions of the papers presented at the 7th edition of the Workshop on Ontology and Semantic Web Patterns, WOP@ISWC 2016, Kobe, Japan, 18th October 2016]*, volume 32 of *Studies on the Semantic Web*, pages 97–104. IOS Press, 2016

2.9 Posters & Demonstrations

52. Cogan Shimizu and Pascal Hitzler. Automatically generating human readable documenta-

¹This paper won the workshop's Best Pattern Paper Award.

- tion for ontology design patterns. In Oshani Seneviratne, Catia Pesquita, Juan Sequeda, and Lorena Etcheverry, editors, *Proceedings of the ISWC 2021 Posters, Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 20th International Semantic Web Conference (ISWC 2021), Virtual Conference, October 24-28, 2021*, volume 2980 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2021
53. Joseph Zalewski, Lu Zhou, Cogan Shimizu, and Pascal Hitzler. Ink browser - the interactive knowledge browser. In Oshani Seneviratne, Catia Pesquita, Juan Sequeda, and Lorena Etcheverry, editors, *Proceedings of the ISWC 2021 Posters, Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 20th International Semantic Web Conference (ISWC 2021), Virtual Conference, October 24-28, 2021*, volume 2980 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2021
 54. Abhilekha Dalal, Cogan Shimizu, and Pascal Hitzler. Modular ontology modeling meets upper ontologies: The upper ontology alignment tool. In Kerry L. Taylor, Rafael S. Gonçalves, Freddy Lécué, and Jun Yan, editors, *Proceedings of the ISWC 2020 Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 19th International Semantic Web Conference (ISWC 2020), Globally online, November 1-6, 2020 (UTC)*, volume 2721 of *CEUR Workshop Proceedings*, pages 119–124. CEUR-WS.org, 2020
 55. Cogan Shimizu and Karl Hammar. CoModIDE – the Comprehensive Modular Ontology Engineering IDE. In Mari Carmen Suárez-Figueroa, Gong Cheng, Anna Lisa Gentile, Christophe Guéret, C. Maria Keet, and Abraham Bernstein, editors, *Proceedings of the ISWC 2019 Satellite Tracks (Posters & Demonstrations, Industry, and Outrageous Ideas) co-located with 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 26-30, 2019*, volume 2456 of *CEUR Workshop Proceedings*, pages 249–252. CEUR-WS.org, 2019
 56. Cogan Shimizu, Quinn Hirt, and Pascal Hitzler. A Protégé plug-in for annotating OWL ontologies with OPLa. In Aldo Gangemi, Anna Lisa Gentile, Andrea Giovanni Nuzzolese, Sebastian Rudolph, Maria Maleshkova, Heiko Paulheim, Jeff Z. Pan, and Mehwish Alam, editors, *The Semantic Web: ESWC 2018 Satellite Events - ESWC 2018 Satellite Events, Heraklion, Crete, Greece, June 3-7, 2018, Revised Selected Papers*, volume 11155 of *Lecture Notes in Computer Science*, pages 23–27. Springer, 2018
 57. Cogan Shimizu, Pascal Hitzler, and Matthew Horridge. Rendering OWL in description logic syntax. In Eva Blomqvist, Katja Hose, Heiko Paulheim, Agnieszka Lawrynowicz, Fabio Ciravegna, and Olaf Hartig, editors, *The Semantic Web: ESWC 2017 Satellite Events - ESWC 2017 Satellite Events, Portorož, Slovenia, May 28 - June 1, 2017, Revised Selected Papers*, volume 10577 of *Lecture Notes in Computer Science*, pages 109–113. Springer, 2017

2.10 Technical Reports

58. Cogan Shimizu, Andrew Eells, Seila Gonzalez Estrecha, Lu Zhou, Pascal Hitzler, Alicia M. Sheill, Catherine Foley, and Dean Rehberger. Ontology design facilitating wikibase integration - and a worked example for historical data. *CoRR*, abs/2205.14032, 2022
59. Cogan Shimizu, Ryan McGranaghan, Aaron Eberhart, and Adam C. Kellerman. Towards a modular ontology for space weather research. *CoRR*, abs/2009.12285, 2020
60. Cogan Shimizu, Pascal Hitzler, Quinn Hirt, Alicia Sheill, Seila Gonzalez, Catherine Foley, Dean Rehberger, Ethan Watrall, Walter Hawthorne, Duncan Tarr, Ryan Carty, and Jeff Mixter. The Enslaved Ontology 1.0: People of the historic slave trade. Available from <https://daselab.cs.ksu.edu/projects/ontology-modeling-slave-trade>, 2019. Short version under review for the *Journal of Web Semantics*

61. Garrett Goodman, Abby Edwards, Cogan Shimizu, Tanvi Banerjee, Jennifer Hughes, William L. Romine, and Larry Lawhorne. Caregiver assessment using smart gaming technology: A preliminary approach. *CoRR*, abs/1802.03051, 2018

3 Teaching & Mentoring

3.1 Teaching

3.1.1 Graduate Courses

- *Introduction to Knowledge Engineering*. Spring 2023.
Instructor.
- *Computability & Complexity*. Fall 2022.
Instructor.
- *Knowledge Representation for the Semantic Web*. Fall 2020.
Kansas State University.
Co-Instructor.
- *Knowledge Representation for the Semantic Web*. Fall 2019.
Kansas State University.
Co-Instructor.

3.1.2 Undergraduate Courses

- *Data Structures*. CEG 3100. Summer 2018.
Instructor.
- *Discrete Structures and their Algorithms*. Fall 2017.
Instructor.

3.2 Teaching Assistantships

- *Logic for Computer Scientists*. Fall 2015.
Teaching Assistant.
- *Discrete Structures and their Algorithms*. Spring 2015, Spring 2016.
Teaching Assistant.
- *Introduction to Computer Science II*. Spring 2016, Summer 2016.
Lab Instructor, Teaching Assistant.
- *Introduction to Computer Science I*. Spring 2016, Summer 2016.
Lab Instructor, Teaching Assistant.
- *General Physics II*. Spring 2014.
Teaching Assistant.

3.3 Graduate Student Supervision

3.3.1 Current Students

- Brandon Dave, since January 2023.
- Antrea Christou, since September 2022.

3.3.2 Dissertation Committee

- Alexis Ellis, since January 2023.

3.3.3 Mentoring & Guidance

- Abhilekha Dala, from August 2019 to July 2022 (Kansas State University).
- Sulogna Chowdhury, from January 2020 to July 2022 (Kansas State University).
- Sri Jitendra Satpathy, from January 2020 to July 2020.
Master's Thesis, *Rules with Right Hand Existential or Disjunction with ROWLTab*
- Rama Someswar Chittella, from May 2018 to July 2019.
Master's Thesis, *Leveraging Schema Information for Improved Knowledge Graph Navigation*

3.4 Undergraduate Supervision

- Anmol Saini, since January 2023.
Independent Study: *A Prototype for a Knowledge Graph Powered Chatbot.*
- Evan Music, since December 2022.
- Josh Quaintance, since December 2022.
- Andrew Eells, since January 2020.
- Riley Mueller, from January 2020 to July 2020.
- Quinn Hirt, from January 2018 to July 2020.
- Corbin McGuire, from May 2017 to June 2018.

4 Research Community Activities

4.1 Editorial Boards

- *Semantic Web Journal*, IOS Press, since 2022.

4.2 Guest Editorial Boards

- Special Issue on Semantic Web for the Global Food System, *Semantic Web Journal*, IOS Press, 2021.

4.3 Conference Organizing Committee

- K-CAP'21, Knowledge Capture Conference, Treasurer.
- ESWC 2021, 18th ESWC, Web & Publicity Chair.

4.4 Conference Area/Track Chair

- ESWC 2021, 18th ESWC (Ontologies & Reasoning Track).

4.5 Conference Program Committees

- TheWebConf2023-Companion, The ACM Web Conference: Industry, Workshops, Tutorials, Posters & Demos.
- ESWC 2023, Extended Semantic Web Conference 2023 (In-Use Track).
- FOIS 2023, 13th International Conference on Formal Ontologies in Information Systems (Research Track).
- KGSWC-2022, Knowledge Graph and Semantic Web Conference.
- IJCKG 2022, The 11th International Joint Conference on Knowledge Graphs.
- EKAW2022, 23rd International Conference on Knowledge Engineering and Knowledge Management.
- ISWC2022, 21st International Semantic Web Conference (Research Track).
- ISWC2022, 21st International Semantic Web Conference (Resource Track).
- CIKM2022, ACM International Conference on Information and Knowledge Management (Short Paper Track).
- TheWebConf 2022, The Web Conference 2022 (Poster-Demo Track).
- K-CAP 2021, 11th International Conference on Knowledge Capture.
- ISWC2021, 20th International Semantic Web Conference (Research Track).
- ISWC2021, 20th International Semantic Web Conference (Resource Track).
- KGSWC-2021, Iberoamerican Knowledge Graph and Semantic Web Conference.
- CIKM 2021, 30th ACM International Conference on Information and Knowledge Management (Resource Track).
- FOIS 2021, 12th International Conference on Formal Ontology in Information Systems (Foundations Track).
- FOIS 2021, 12th International Conference on Formal Ontology in Information Systems (Applications and Methods Track).
- FOIS 2021, 12th International Conference on Formal Ontology in Information Systems (Domain Ontology Track).
- KGSWCIndo-2021, Indo-American Knowledge Graph and Semantic Web.
- ISIC 2021, 1st International Semantic Intelligence Conference.
- FOIS 2020, 11th International Conference on Formal Ontology in Information Systems (Technical Track).
- ISWC 2020, 19th International Semantic Web Conference (Research Track).
- ISWC 2020, 19th International Semantic Web Conference (Posters & Demos Track).
- ISWC 2020, 19th International Semantic Web Conference (Resource Track).
- K-CAP 2019, 10th International Conference on Knowledge Capture.
- K-CAP 2017, 9th International Conference on Knowledge Capture.

4.6 Doctoral Consortium Program Committees or Mentoring

- Doctoral Consortium at ISWC 2021, 20th International Semantic Web Conference.

4.7 Workshop Organizing Committee

- 1st Workshop on the Semantic Web in Practice: Tools and Pedagogy, PRAXIS 2020, at ISWC 2020, Athens, Greece, November 2020 (general chair).
- 11th Workshop on Ontology Design and Patterns, WOP 2020, at ISWC 2020, Athens, Greece, November 2020 (Paper co-Chair).
- 10th Workshop on Ontology Design and Patterns, WOP 2019, at ISWC 2019, Auckland, New Zealand, October 2019 (Patterns co-Chair).

4.8 Workshops Program Committees

- SemREC 2022, Semantic Reasoning Evaluation Challenge, co-located with ISWC 2022, virtual.
- FOHTI-2022, FAIR ontology harmonization and TRUST data interoperability Workshop, virtual.
- WOP2022, 13th Workshop on Ontology Design and Patterns, co-located with ISWC 2022, virtual.
- GeoKG 2022, 1st ACM SIGSPATIAL International Workshop on Geospatial Knowledge Graphs, virtual.
- JOWO2022, The Eight Joint Ontology Workshops, virtual.
- MK 2022, Workshop on Modular Knowledge, co-located with ISWC 2022, virtual.
- DECOR 2022, Data Engineering meets Intelligent Food and Cooking Recipes 2022, virtual.
- SemREC 2021, Semantic Reasoning Evaluation Challenge (SemREC) co-located with ISWC 2021, virtual.
- DaMaLOS 2021, 2nd Workshop on Data and research objects management for Linked Open Science, co-located with ISWC 2021, virtual.
- DECOR 2021, Data Engineering meets Intelligent Food and Cooking Recipes 2021, virtual.
- GEOKG 2021, The 1st International Workshop on Methods, Models, and Resources for Geospatial Knowledge Graphs and GeoAI, co-located with GIScience 2021, virtual.
- DECOR 2020, Data Engineering meets Intelligent Food and Cooking Recipes 2020, virtual.
- TEREKOM 2018, 2nd Workshop on Technologies for Regulatory Compliance, co-located with JURIX 2018, Groningen, Netherlands, Decemember 2018.
- WOP 2018, 9th Workshop on Ontology Design and Patterns, co-located with ISWC 2018, Monterey, California, USA, October 2018.
- WOP 2017, 8th Workshop on Ontology Design and Patterns, co-located with ISWC 2017, Vienna, Austria, October 2017.
- WOP 2016, 7th Workshop on Ontology and Semantic Web Patterns, co-located with ISWC 2016, Kobe, Japan, October 2016.

4.9 Emergency or Sub Reviewing for Conferences and Workshops

- ISWC 2019, 18th International Conference on the Semantic Web, Auckland, New Zealand, 2019.
- KGSWC 2019, 1st Iberoamerican Knowledge Graph and Semantic Web Conference, Villa Clara, Cuba, 2019.
- ESWC 2018, 15th ESWC, Heraklion, Greece, 2018.
- EKAW 2018, 21st International Conference on Knowledge Engineering and Knowledge Management, Nancy, France, 2018.
- ISWC 2017, 16th International Conference on the Semantic Web, Vienna, Austria, 2017.
- EKAW 2016, 20th International Conference on Knowledge Engineering and Knowledge Management, Bolonga, Italy, 2016.

4.10 Community & Professional Service

- Assistant Editor, Semantic Web journal, since July 2022.
- Managing Committee Vice-Chair, Association for Ontology Design and Patterns, since September 2020.
- Editorial Assistant, Semantic Web journal. August 2017-2022.

4.11 Reviewing of Project Proposals

- Project proposals for the National Science Foundation, NSF.
- Project proposals for the European Research Council, ERC.
- Project proposals for the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG) – Germany
- Project proposals for the Agence nationale de la recherche (National Research Agency, ANR) – France.

4.12 Reviewing of Book Proposals and Manuscripts

- Book proposals for IOS Press.
- Book proposals for CRC Press/Chapman & Hall.
- Book manuscripts for CRC Press/Chapman & Hall.

4.13 Faculty Committees at Wright State University

- 2022-2023: Department Graduate Studies Committee
- 2022-2023: Department Faculty Search Committee
- 2016-2017: College Undergraduate Curriculum Committee (Student Representative).
- 2016-2019: College Graduate Curriculum Committee (Student Representative).

4.14 Selected Memberships

- Since 2020, member of the Association for Computing Machinery.
- Since 2020, member of the American Geophysical Union.

5 Presentations

5.1 Invited Talks

1. KnowWhereGraph and Beyond: Can Knowledge Graphs provide Situational Awareness for Epidemic Intelligence? EIOS Global Technical Meeting, Luxor, Egypt, November 2022.
2. Modular Ontology Engineering. Post-Pandemic Computational Sciences: Challenges and Opportunities, VIT Bhopal University, online, June 2020.
3. Modular Ontology Engineering. CS 520: Knowledge Graphs, Stanford University, online, April 2020.
4. Modular Ontology Engineering. Laboratory for Knowledge Discovery in Databases, Manhattan, Kansas, USA, April 2020.
5. CoModIDE. US2TS 2020, 3rd United States Semantic Technologies Symposium, Raleigh, North Carolina, USA, March, 2020.

5.2 Tutorials & Seminars (through regular proposal process)

1. Cogan Shimizu and Karl Hammar, Modular Ontology Engineering with CoModIDE. Tutorial at ESWC 2020, Heraklion, Greece, June 2020.
2. Cogan Shimizu and Evan Wallace, Identifying Best Practices in Multi-paradigm Ontology Family Development. 3rd United States Semantic Technologies Symposium (US2TS).
3. Cogan Shimizu, Gary Berg-Cross, Charles F. Vardemann II, Leah McEwen, Hande Küçük-McGinty, Identifying Cross Domain Ontology Design Patterns. 2nd United States Semantic Technologies Symposium (US2TS).
4. K. Hammar, P. Hitzler, Md K. Sarker, C. Shimizu, Methods and Tools for Modular Ontology Modeling. Tutorial at the 17th International Semantic Web Conference, ISWC 2018, Monterey, CA, USA, October 2018.