

JOHN BEVERLEY

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RESEARCH INTERESTS

Specializations Ontology Engineering, Knowledge Representation, Formal Logic, Semantic Web
Competencies Artificial Intelligence, Linguistics, Cognitive Science

SKILLS

Knowledge Representation RDF/RDFS/OWL, Common Logic, SPARQL, SHACL, SWRL
Programming Languages Python, Java, Prolog
Formal Languages Description, TLA+, First-Order, Temporal, Counterfactual
Version Control Git, Subversion
Platforms VS Code, Eclipse, Protege, TopBraid Composer
Standards Basic Formal Ontology, CCO, OBO Foundry, FAIR Principles

EDUCATION

Northwestern University
Doctorate, Philosophy *2021*
SUNY University at Buffalo
Master of Arts, Philosophy *2017*
North Carolina State University
Bachelor of Science, Philosophy *2011*

EMPLOYMENT

SUNY University at Buffalo
[Assistant Professor](#) Department of Philosophy *2022-Current*
[Director of Applied Ontology Graduate Program](#) Department of Philosophy *2025-Current*
[Director of AI, Logic, and Ontology](#) Department of AI and Society *2025-Current*
Acacia Knowledge Systems, Inc.
Chief Executive Officer *2025-Current*
KadSci
[Senior Ontology Consultant](#) *2023-Current*
Science Applications International Corporation
Senior Ontology Consultant *2023-Current*
Johns Hopkins University Applied Physics Lab
Senior Ontology Consultant, Asymmetric Operations *2022-2023*
Johns Hopkins University Applied Physics Lab
Senior Ontologist, Asymmetric Operations *2021-2022*
Northwestern University
Department of Philosophy Director of Graduate Studies Research Assistant *2019*
Blender Logic
[Logic Consultant](#) *2018-2020*
SUNY University at Buffalo
Department of Philosophy Chair Research Assistant *2014-2016*
CUBRC
Ontology Intern *Summer 2014*
UB Graduate Student Association
Systems Administrator *2013-2015*

AFFILIATIONS

International Society for Knowledge Organization Scientific and Technical Advisory Council (STAC)	2025-Current
International Association for Ontology and its Applications Executive Board	2024-Current
Institute for Artificial Intelligence and Data Science Associate Director for Knowledge Representation	2023-Current
Center for Information Integrity Affiliate Faculty	2025-Current
Basic Formal Ontology Co-Lead Developer w/ Alan Ruttenberg	2023-Current
Knowledge Graph Alliance Board of Directors	2023-Current
Common Core Ontologies Governance Board Founding Member	2023-Current
Relations Subgroup, DOD-IC Ontology Working Group Chair	2023-2025
IES-BFO Mapping Group, FVEYS Ontology Working Group Co-Chair	2024-Current
Basic Formal Ontology Subgroup, DOD-IC Ontology Working Group Chair	2023-2024
Operationalizing Ontologies Community of Interest, DOD-IC Ontology Working Group Member	2023-Current
Design Pattern Subgroup, DOD-IC Ontology Working Group Member	2023-Current
IEEE P3195.1 Mid-Level Ontology Standard Chair	2024-Current
National Center for Ontological Research Co-Director w/ Barry Smith	2022-Current
Policy and Guidance Working Subgroup, DOD-IC Ontology Working Group Member	2022-Current
National Center for Ontological Research Member	2013-2022

UNDER CONTRACT

“The Basic Formal Ontology Book” w/ Barry Smith 2025	MIT Press
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JOURNAL PUBLICATIONS

1. Tripp, J., **Beverley, J.**, Cheng, J., Lui, X. Advancing STEM Education Research with Ontology. 2025 *Disciplinary and Interdisciplinary Science Education Research*.
2. **Beverley, J.** (2025). [Between Heaven and Earth: The Common Core of Basic Formal Ontology](#). *Advances in Knowledge Representation*. 5(3), 32-52.
3. **Beverley, J.**, Babcock, S., Benson, C., De Colle, G., Cohen, S., D. Diehl, A., ANR Challa, R., Mavrovich, R., Billig, J., Huffman, A., He, Y. (2025). [A Fourfold Pathogen Reference Ontology Suite](#). *Journal of Biomedical Semantics*.
4. Prudhomme, T., De Colle, G., Liebers, A., Sculley, A., Xie, P. K., Cohen, S., & **Beverley, J.** (2025). [Mapping the Provenance Ontology to Basic Formal Ontology](#). *Scientific Data*. 12(282), 1-18.

5. Duncan, W. D., Diller, M., Dooley, D., Hogan, W.R., & **Beverley, J.** (2024). [Concretizing plan specifications as realizables within the OBO Foundry](#). *Journal of Biomedical Semantics*, 15(15), 1–24.
6. **Beverley, J.**, Babcock, S., Carvalho, G., Cowell, L. G., Duesing, S., He, Y., Hurley, R., Merrell, E., Scheuermann, R. H., & Smith, B. (2024). [Coordinating virus research: The Virus Infectious Disease Ontology](#). *PLOS ONE*, 19(1), e0285093.
7. Yu, H., Li, L., Huffman, A., **Beverley, J.**, Hur, J., Merrell, E., Huang, H.-H., Wang, Y., Liu, Y., Ong, E., Cheng, L., Zeng, T., Zhang, J., Li, P., Liu, Z., Wang, Z., Zhang, X., Ye, X., Handelman, S. K., Sexton, J., Eaton, K., Higgins, G., Omenn, G. S., Athey, B., Smith, B., Chen, L., & He, Y. (2022). [A new framework for host-pathogen interaction research](#). *Frontiers in Immunology*, 13, 1061610.
8. He, Y., Yu, H., Huffman, A., Lin, A. Y., **Beverley, J.**, & Smith, B. (2022). [A comprehensive update on CIDO: the community-based coronavirus infectious disease ontology](#). *Journal of Biomedical Semantics*, 13(1), 1–25.
9. Babcock, S., **Beverley, J.**, Carvalho, G., Cowell, L. G., Duesing, S., He, Y., Hurley, R., Merrell, E., Scheuermann, R. H., & Smith, B. (2021). [The Infectious Disease Ontology in the age of COVID-19](#). *Journal of Biomedical Semantics*, 12(1), 13.
10. Otte, J. N., **Beverley, J.**, & Ruttenberg, A. (2021). [Formalizing change in Basic Formal Ontology](#). *Applied Ontology*, 17(1), 17–43.
11. **Beverley, J.** (2021). [Grain of Salt](#). In K. Vaidya (Ed.), *Teach Philosophy with a Sense of Humor: Why (and How to) Be a Funnier and More Effective Philosophy Teacher and Laugh All the Way to Your Classroom* (pp. 202–210).
12. **Beverley, J.** (2020). [Speak No Evil: Understanding Hermeneutical \(In\)justice](#). *Episteme*, 19(3), 431–454.
13. He, Y., Lin, A. Y., **Beverley, J.**, Smith, B., & Yu, H. (2020). [CIDO: Coronavirus Infectious Disease Ontology](#). *Scientific Data*, 7(1), 181.
14. **Beverley, J.** (2017). [Careful What You Wish](#). *Philosophia*, 46(1), 21–38.
15. **Beverley, J.**, & Beebe, J. R. (2017). [Judgments of Moral Responsibility in Tissue Donation Cases](#). *Bioethics*, 32(2), 83–93.
16. **Beverley, J.** (2016). [The Ties that Undermine](#). *Bioethics*, 30(5), 304–311.

PROCEEDINGS PUBLICATIONS

17. Benson, C., Sculley, A., Liebers, A., & **Beverley, J.** [My Ontologist: Evaluating BFO-Based AI for Definition Support](#). (2025). *Semantic Technology for Intelligence, Defense, and Security (STIDS)*.
18. **Beverley, J.** [Ontology Tradecraft](#). (2025). *Semantic Technology for Intelligence, Defense, and Security (STIDS)*
19. Bittner, J., **Beverley, J.**, Coleman, T. [Shadows to Referents](#). (2025) *Cognition and Ontologies (CAOS) 2025*
20. Bailey, I., **Beverley, J.**, Blackmore, H., Cola, A., Cripps, P., De Colle, G., Donato, F., Hicks, A., Limbaugh, D., Milivinti, E., Partridge, C., Rafferty, R., & Smith, B. [Comparing Information Exchange Standard and Basic Formal Ontology Design Patterns](#). (2025) *Workshop on Foundational Ontology (FOUST IX) 2025*

21. Wilson, F., Diller, M., McGill, R., Smith, S., Zheng, J., Vieira, C., Duncan, W.D., **Beverley, J** & He, Y. Modeling of Skills, Abilities, Competences, and Related Dispositions in the Occupation Ontology. *International Workshop on Ontologies for Services and Social-good (OSS) 2025*
22. **Beverley, J.**, Logan, J. & Smith, B. (2025) [About the Unreal](#). *Planning and Ontology Workshop (PLATO), Joint Ontologies Workshops 2025*
23. Beera, D., Bowker, J., Reischer, H.N., Smith, S., Zheng, J., He, Y., Mavrovich, R., Kindya, S., Ravenel, J., Wilson, F., **Beverley, J.**, Duncan, W.D. (2025). Abstract: Applying Topic Modeling Methods to the Promoting Health Aging through Semantic Enrichment of Solitude Research Ontology (PHASES). *Bioinformatics Open Source Conference*
24. Smith, S., Zheng, J., Yeh, F., Beera, D., **Beverley, J.**, Duncan, W.D., He, Y. (2025). Abstract: OntoChimp: A ChatGPT-based Document Analysis Program for Identifying Key Concepts. *International Conference on Intelligent Biology and Medicine 2025*
25. **Beverley, J.**, Bowker, J., Reischer, H.N., Mavrovich, R., Hurley, R., Smith, S., Zheng, J., He, Y., Beera, D., Duncan, W.D. (2025). Healthy Aging through Semantic Enrichment. *Promoting Healthy Aging through Semantic Enrichment of Solitude Research (PHASES) Workshop*
26. Granite, S., Nikolov, A., Drobnjakovic, M., **Beverley, J.**, Kulvatunyou, B. (2025). An Ontological Perspective on the Biomanufacturing Process Design. *APM 2025 Conference*
27. **Beverley, J.** & Andreas Tolk. (2025). Ontology Enabled Hybrid Modeling and Simulation. *2025 Winter Simulation Conference*
28. Philippe J. Giabbanelli, **Beverley, J.**, Istvan David, and Andreas Tolk. (2025). From Over-Reliance to Smart Integration: Using Large-Language Models as Translators between Specialized Modeling and Simulation Tools. *2025 Winter Simulation Conference*
29. Abney, D., Studzinski, K., Donato, F., Wilson, F., De Colle, G., **Beverley, J.** (2025) Mapping gist to BFO. *Foundational Ontologies in Information Systems (FOIS)*. **Acceptance: 30%**.
30. Limbaugh, Danielle., & **Beverley, J.** (2025). Ontological Foundations of State Sovereignty. *Semantic Technology for Intelligence, Defense, and Security (STIDS)*. **Acceptance: 28%**.
31. Partridge, C., Mitchell, A., De Cesare, S., & **Beverley, J.** (2025). [Extending the Design Space of Ontologization Practices: Using bCLEARer as an Example](#). *Semantic Technology for Intelligence, Defense, and Security (STIDS)*. **Acceptance: 28%**.
32. **Beverley, J.**, Franda, F., Karray, H., Maxwell, D., Benson, C., & Smith, B. (2024). [Ontologies, Arguments, and Large-Language Models](#). *Joint Ontology Workshops (JOWO), Cognition and Ontologies 8*, CEUR-WS.org, Vol. 3882, pp. 1–9.
33. Jensen, M., De Colle, G., Kindya, S., More, C., Cox, A. P., & **Beverley, J.** (2024). [The Common Core Ontologies](#). *Formal Ontology in Information Systems (FOIS 2024)*, Frontiers in Artificial Intelligence and Applications, Vol. 394, pp. 47–58. **Acceptance: 34%**
34. Rabenberg, M., Benson, C., Donato, F., He, Y., Huffman, A., Babcock, S., & **Beverley, J.** (2024). [Grounding Realizable Entities](#). *International Conference on Biomedical Ontologies (ICBO 2024)*, CEUR-WS.org, Vol. 3939, pp. 1–12.
35. **Beverley, J.**, McGill, R., Smith, S., Zheng, J., De Colle, G., Wilson, F., Diller, M., Duncan, W. D., Hogan, W. R., & He, Y. (2024). [Credentials in the Occupation Ontology](#). *International Conference on Biomedical Ontologies (ICBO)*, 3939:1-11.
36. **Beverley, J.**, De Colle, G., Jensen, M., Benson, C., & Smith, B. (2024). [Middle Architecture Criteria](#). *International Workshop on Ontologies and Conceptual Modeling X*, 3882:1-12.

37. **Beverley, J.**, Limbaugh, D., Merrell, E., Koch, P. M., & Smith, B. (2024). [Capabilities: An Ontology](#). *International Workshop on Ontologies and Conceptual Modeling X*, 3882:1-14.
38. Wilson, F., Hurley, R., Maxwell, D., McLellan, J., & **Beverley, J.** (2024). [Foundations for Digital Twins](#). *Formal Ontologies Meet Industry Workshop*, 3882:1-13.
39. Limbaugh, D., Jensen, M., & **Beverley, J.** (2024). [Towards a Cyber Information Ontology](#). *Semantic Shields I*, 3882:1-11.
40. De Colle, G., Hasanzadeh, A., & **Beverley, J.** (2023). [Ontology Development Strategies and the Infectious Disease Ontology Ecosystem](#). *International Conference on Biomedical Ontologies (ICBO)*, 3603:1-9.
41. **Beverley, J.**, Smith, S., Diller, M., Duncan, W.D., Zheng, J., Judkins, J., McGill, R., Dooley, D., & Yongqun, H. (2023). [The Occupation Ontology \(OccO\)](#). *International Workshop on Ontologies for Services and Society*, 3637:1-12.
42. **Beverley, J.**, He, Y., Babcock, S., Carvalho, G., Cowell, L. G., Duesing, S., Hurley, R., Merrell, E., & Smith, B. (2022). [Coordinating Coronavirus Research](#). *International Conference on Biomedical Ontologies (ICBO)*, 00:1-14.
43. Smith, S., Dooley, D., Merrell, E., **Beverley, J.**, & He, Y. (2022). [Towards an Occupation Ontology](#). *International Conference on Biomedical Ontologies (ICBO)*, 00:1-9.
44. Lin, A. Y., Yamagata, Y., Duncan, W.D., Carmody, L.C., Kushida, T., Masayu, H., **Beverley, J.**, DeBellis, M., Pendlington, Z.M., Roncaglia, P., & He, Y. (2021). [A Community Effort for COVID-19 Ontology Harmonization](#). *International Conference on Biomedical Ontologies (ICBO)*.
45. He, Y., **Beverley, J.**, Babcock, S., Hurley, R., & Smith, B. (2020). [Coronavirus Infectious Disease Ontology](#). *International Conference on Biomedical Ontologies (ICBO)*, 00:1-14.

BOOK REVIEWS, COMMENTARIES, EDITORIALS, POSTERS

46. **Beverley, J.** & Lambrix, P. (2025). Main Preface to Joint Ontology Workshops (JOWO) Proceedings. *Joint Ontology Workshops (JOWO) Proceedings*, CEUR-WS.org.
47. **Beverley, J.**, Elkin, P., Archer, K., Ravenel, J., & Lopez A. (2025). Preface: 2nd Annual Convergence of Large-Language Models and Ontologies. *Joint Ontology Workshops (JOWO) Proceedings*, CEUR-WS.org.
48. **Beverley, J.**, Bowker, J., Reischer, H., Duncan, B., & Yongqun, H. (2025). Preface: Promoting Health Aging through Semantic Enrichment of Solitude Research Ontology (PHASES) Workshop. *Joint Ontology Workshops (JOWO) Proceedings*, CEUR-WS.org.
49. Limbaugh, Danielle & **Beverley, J.** (2025). [Commentary: AI's Role in Law – Assistance, Not Replacement](#). *The Baldy Center Blog*.
50. **Beverley, J.** & Maxwell, D. (2025). Editorial: Prodigal Return - Semantic Technology for Intelligence, Defense, and Security. *Proceedings*.
51. **Beverley, J.**, Jensen, M., Maxwell, D., Karray, H., & Kogut P. (2024). [Convergence of Large-Language Models and Ontologies](#). *Preface to Joint Ontology Workshops (JOWO) Proceedings*, CEUR-WS.org, Vol. 3882, pp. 5-6.
52. **Beverley, J.** (2025). [Special Issue Editorial: Large-Language Models and Ontologies Volume 2](#). *Applied Ontology*.
53. Hicks, A., Wong, T., Kotroco, D. **Beverley, J.**, Memory, A., Richards, C. (2024). QED! But Can You Trust Your Axioms?. *Decoded Magazine* 12:1-12

54. **Beverley, J.** (2024). [Special Issue Editorial: Large-Language Models and Ontologies Volume 1.](#) *Applied Ontology*.
55. Donato, F., Novotný, D., **Beverley, J.** (2024). Poster: Addressing Big Data as a Global Catastrophic Risks (GCR) Through Ontology and International Standards. *Cambridge Conference on Catastrophic Risk*.
56. de Colle, G., Muldoon, R., **Beverley, J.** (2024). Poster: Power and Charities in Buffalo. *UB Academic Excellency*.
57. Donato, F., **Beverley, J.** (2024). [Poster: Grounding Realizable Entities in BFO: New Axioms.](#) International Semantic Web Research Summer School (ISWR).
58. **Beverley, J.** & Hicks, A. (2023). [Editorial: Evaluation and Design of Generalist Systems \(EDGeS\).](#) *AI Magazine*, 44(2), 206–207.
59. **Beverley, J.** & Hurley, R. (2021). [Commentary: Counter-Narrative Themes.](#) *American Journal of Bioethics*, 21(2), 72–74.
60. **Beverley, J.** (2021). [Book Review: Moral Philosophy: A Contemporary Introduction.](#) *Teaching Ethics*, 20(1/2), 172–174.
61. Reischer, H. N., & **Beverley, J.** (2019). [Commentary: Diverse Narrative Approaches to Meaning-Making at the End of Life.](#) *American Journal of Bioethics*, 19(12), 68–70.
62. **Beverley, J.**, & Reischer, H. N. (2019). [Commentary: Credibility Excess and Social Support Criterion.](#) *American Journal of Bioethics*, 19(11), 32–34.
63. **Beverley, J.** (2018). [Book Review: A Critical Introduction to the Metaphysics of Time.](#) *Philosophy in Review*, 38(3), 97–99.
64. **Beverley, J.** (2017). [Book Review: The Facts in Logical Space: A Tractarian Ontology.](#) *Dialogue: Canadian Philosophical Review*, 57(3), 637–639.
65. **Beverley, J.** (2016). [Poster: Exploring Burden and Knobe Effects on Judgments of Moral Responsibility in Tissue Donation Cases.](#) *2016 Buffalo Annual Experimental Philosophy Conference*

UNDER REVIEW

1. Beera, D., Bowker, J., Reischer, H.N., Smith, S., Zheng, J., He, Y., Mavrovich, R., Kindya, S., Ravenel, J., Wilson, F., **Beverley, J.**, Duncan, W.D. (2025). Utilizing BERTopic Modeling for Concept Discovery in the Domain of Gerotranscendence and Solitude. *Journal of Biomedical Semantics*.
2. **Beverley, J.** (2025). Ontology Engineering Tradecraft
3. **Beverley, J.** and Tolk, A. (2025). Explainability and Trust through Three Axes of Interoperability. *Advances in Integrated Intelligent Systems Engineering*
4. Smith, S., Zheng, J., Yeh, F., Beera, D., **Beverley, J.**, Duncan, W.D., He, Y. (2025). OntoChimp: A ChatGPT-based Document Analysis Program for Identifying Key Concepts.
5. **Beverley, J.**, Otte, J.N., Gullion, J., Ruttenberg, A., Schreiber, Y., Franda, F., [ARGO: A Reference Ontology for Arguments](#)
6. **Beverley, J.**, Donato, F., Rabenberg, M., He, Y., Huffman, A., & Babcock, S. [Grounding Realizable Entities.](#)
7. **Beverley, J.** (Revise & Resubmit). [Trust Logic, Not Tortoises.](#)
8. **Beverley, J.** (Revise & Resubmit). *De Se This and De Se That.*

9. **Beverley, J.**, & Lauffer, N.. [Semantic Influences on Ordering Tasks](#).

10. **Beverley, J.** *Ontology of Secrets*.

IN PREPARATION

- **Beverley, J.** *OWL Cheat Sheet*.
- **Beverley, J.** *What Makes the Life of a Group Go Best?*
- **Beverley, J.** & Hurley, R. *Towards an Ontology of Loving*.
- **Beverley, J.** *A Schema Strategy for Domain Definitions*
- Hogan, B., Duncan, B., Hastings, J., Reed, C. **Beverley, J.** *Interoperability*.

REQUESTS FOR INFORMATION

Ontologies for Fentanyl Seizure 2023	<i>Department of Homeland Security, Science and Technology</i>
Temporal Logic of Actions 2023	<i>Department of Homeland Security, Science and Technology</i>
Knowledge Graphs for Open Access 2023	<i>NASA Request for Comments on Open-Access Model</i>

HONORS, COMPETITIVE AWARDS, GRANTS

(PI) Digital Integration for Governed Interoperable Twin Systems in Advanced Manufacturing 2025	<i>National Institute of Science and Technology</i> \$50,000
(PI) Proto Open Knowledge Network (Proto-OKN) Fabric Team Sub-award 2025	<i>National Science Foundation</i> \$200,000
(Support) UB Clinical and Translational Science Institute (CTSI) 2025	<i>National Institute of Health</i> \$28,000,000
(Co-I) NIST Sustainability Project w/ Crown Point Technologies 2024	<i>National Institute of Standards and Technology</i> \$15,000
(Co-PI) Development and Validation of a STEM Identity Inventory for Grades 4-12 Students 2024	<i>SUNY NSF/NIH Resubmission Grant</i> \$40,000
(PI) Promoting Knowledge Graphs for Solitude and Gerotranscendence (PHASES) 2024	<i>National Institute on Aging</i> \$3,860,000
(Co-PI) Quantum Understanding through Accessible Resource Knowledge Graphs (QUARK) 2024	<i>SUNY NSF/NIH Resubmission Grant</i> \$40,000
Professor of the Year 2024	<i>UB Department of Philosophy</i>
(PI) Police Sentiment Analysis with Semantic Architecture 2023	<i>National Institute of Justice</i> \$5,000
(PI) Reverse Logic Engineering 2023	<i>Johns Hopkins University Applied Physics Laboratory</i> \$50,000
Northwestern Center for Leadership Fellow 2021	<i>Northwestern University</i> \$1,000
Ruth L. Kirschstein Research Grant 2020 (Summer)	<i>National Institute of Health</i> \$6,000
Inclusive Pedagogy in Philosophy Travel Award 2019	<i>American Philosophy Association</i> \$200
Northwestern Fellowship/Assistantship 2017-2022	<i>Northwestern University</i> 5 Year Tuition/Stipend
Hourani Endowment Fellowship	

2016-2017 Citizenship Award	<i>University at Buffalo</i> \$2,000
2016-2017 Citizenship Award	<i>University at Buffalo</i> \$1,000
2015-2016 SUNY Presidential Fellowship	<i>University at Buffalo</i> \$1,000
2013-2017 SUNY TA/RA Scholarship	<i>University at Buffalo</i> \$24,000
2013-2017 Teaching Assistant Retention Award	<i>University at Buffalo</i> 4 Year Tuition/Stipend
2013-2017	<i>University at Buffalo</i> \$1,200

PENDING GRANTS

(PI) Collaborative Research: Development and Validation of a Science Teacher Identity Inventory 2025	<i>National Science Foundation</i> \$804,507
(Co-PI) MURI: Ontology-driven Machine Learning for Epistemic Gap Awareness (OMEGA) 2025	<i>US Air Force</i> \$2,282,244

PRESENTATIONS

Establishing a Cyber Ontology Foundry 2025	Institute for Artificial Intelligence and Data Science (IAD), Buffalo, NY
Steps towards an Ontology of uses of AI in Medicine 2025	Clinical and Translational Science Ontology Consortium (CTSOC) , Buffalo, NY
The Modern Landscape of AI 2025	Clinical and Translational Science Ontology Consortium (CTSOC) , Buffalo, NY
Keynote: Ontology Engineering as Tradecraft 2025	11th International Workshop on Ontologies and Conceptual Modeling, Poitiers, France
Landscape of Contemporary Artificial Intelligence 2025	ONTOLLM: Joint Ontologies Workshop, Catania, Sicily
Healthy Aging with Semantic Technologies 2025	PHASES: Joint Ontologies Workshop, Catania, Sicily
About the Unreal 2025	PLATO: Joint Ontologies Workshop, Catania, Sicily
PHASES 2025 Annual Report 2025	National Institute of Health, Bethesda MD
Decomposing Competency Questions as Tradecraft 2025	National Air and Space Intel Center (NASIC), Dayton Ohio
Tutorial on Basics of Formal Ontology (Exercises and Solutions) 2025	C-FORS Summer School in Logic, Oslo Norway
Applying Applied Ontologies 2025	Center for Information Integrity, Buffalo, NY
Process Profiles and Unreal Patterns 2025	Industrial Ontologies Foundry Annual Summit, Bethesda, MD
IOF-Core and CCO 2025	Industrial Ontologies Foundry Annual Summit, Bethesda, MD
Ontology Tradecraft 2025	Langley Air Force Base, Norfolk VA
Being (Ontologically) Honest about Secrets 2025	Institute of Artificial Intelligence and Data Science, Buffalo, NY

Towards an Ontology Tradecraft	
2025	DIOWG Annual Summit, Springfield, VA
Ontology Technical Summit	
2025	KadSci Annual Meeting, Buffalo, NY
Light Wisdom	
2024	Marine Domain Awareness Summit, Buffalo, NY
How to Do More things with Ontologies	
2024	University at Buffalo, Computer Science Department, Buffalo, NY
Epistemic Foundations of Logic	
2024	University at Buffalo, Programming Language & Database WG, Buffalo, NY
Knowledge Engineering w/ Andreas Tolk, Ryan Riccucci, Amanda Mitchell	
2024	MITRE Brownbag
How to Do More things with Ontologies	
2024	University at Buffalo, Cognitive Science Department, Buffalo, NY
The Joy and Pain of Ontology Development, w Ryan Riccucci	
2024	Semantic Technologies for Intelligence, Defense, and Security
Keynote: Tracing Space through Time	
2024	ONTOBRAS, Vitorio, Brazil
D3FEND and the Common Core Ontologies	
2024	DOD-IC Ontology Working Group, Washington, D.C.
6 Myths about Ontologies	
2024	Aerospace Corporation Plenary, Chantilly, VA
Application v Reference Ontologies	
2024	Aerospace Corporation Plenary, Chantilly, VA
The Middle Architecture Criteria	
2024	IEEE Working Group, Buffalo, NY
The Basics of Formal Ontology	
2024	Celastar, Tampa, FL
How to Think about Spatial Regions	
2024	Celastar, Tampa, FL
Convergence of LLMs and Ontologies	
2024	Knowledge Graph Alliance Kickoff, Luxemburg
How to Build an Ontologist	
2024	Colgate University, Department of Philosophy, Colgate, NY
How to Build an Ontologist	
2024	Syracuse University, Department of Philosophy, Syracuse, NY
Basic Formal Ontology and Industry	
2024	Industrial Ontology Foundry Summit, University of Arizona, Tempe, AZ
History of Ontology Training	
2024	Industrial Ontology Foundry Summit, University of Arizona, Tempe, AZ
Common Core Semantic Mapping	
2024	Industrial Ontology Foundry Summit, University of Arizona, Tempe, AZ
Training Consortium	
2024	DOD-IC Ontology Working Group, Washington, D.C.
Basic Formal Ontology Updates and Challenges	
2023	DOD-IC Ontology Working Group, Washington, D.C.
Basic Formal Ontology: A Way Forward	
2023	DOD-IC Ontology Working Group, Washington, D.C.
Ontology Horizons	
2023	DOD-IC Ontology Working Group, Washington, D.C.
Credential Engine and the Occupation Ontology	
2023	Alabama Governor's Office, Montgomery, AL

How to Build a Better Ontologist
2023 Grand Rounds, University at Buffalo, Department of Biomedical Informatics, Buffalo, NY

How to Build a Better Ontologist
2023 University at Buffalo, Department of Computer Science and Engineering, Buffalo, NY

How to Build a Better Ontologist
2023 George Mason University, Department of Computer Science, Fairfax, VA

How to Build an Ontologist
2023 University of Maryland, Department of Physics, College Park, MD

How to Build an Ontologist
2023 Ohio State University, Department of Philosophy, Columbus, OH

How to Build an Ontologist
2023 Northwestern University, Department of Philosophy, Evanston, IL

Ontologies for Data Governance
2023 Department of Homeland Security, Chief Digital and Artificial Intelligence Office

The Occupation Ontology, w/ Oliver He, Barry Smith, et. al.
2023 Basic Formal Ontology Summit Meeting, Buffalo, NY

Evaluation and Design of Generalist Systems Symposium Plenary
2023 Association for the Advancement of Artificial Intelligence, Los Angeles, CA

Virus Infectious Disease Ontology, w/ Barry Smith, et. al.
2022 13th International Conference on Biomedical Ontologies, Ann Arbor, MI

A Community Effort for COVID-19 Ontology Harmonization, w/ Oliver He, Asiyah Lin, et. al.
2021 12th International Conference on Biomedical Ontologies, Brazil

Coronavirus and Fake News
2020 Adult High School, Centro Autnomo, Evanston, IL)

Linear Priming, Partial Priming, Both, or Neither?
2020 American Psychological Association

Mereological Square of Opposition
2020 7th World Congress on the Square of Opposition

Speak No Evil: Responsibility and Epistemic Injustice
2020 FEMMSS 8

The Coronavirus Infectious Disease Ontology, with Oliver He, Barry Smith, et. al.
2020 11th International Conference on Biomedical Ontologies, Ann Arbor, MI

Comments on “Beyond the Square Beyond Compare”
2019 Illinois Philosophical Association, Evanston, IL

Comments on “The Importance of Logically Complex Actions”
2019 NUSTEP, Evanston, IL

Comments on “Internal Problems for Responsibilist Evidentialism”
2019 Northwestern/Notre Dame Graduate Epistemology Conference, Notre Dame, IN

Comments on “No Modality without Representation”
2017 Society for the Metaphysics of Science, New York, NY

BFO: Now with More Logic!
2016 UB Philosophy Department Brown Bag Lecture, Buffalo, NY

Consequential Consequences
2016 Buffalo Logic Colloquium, Buffalo, NY

Blood is Thick but Uniqueness is Thicker
2016 Buffalo X-PHI Workshop, Buffalo, NY

X-PHI and the Ties that Undermine
2016 Buffalo X-PHI Workshop, Buffalo, NY

The Ties that Undermine
2016 LSU Graduate Student Conference, New Orleans, LA

INTERVIEWS, PANELS, WORKSHOPS & SYMPOSIA

- [UB to Offer a Fully Online Graduate Degree in Ontology](#) w/ Barry Smith
2025 UBNOW
- [Immunology Ontology: Filling the Gap](#), presenter: Anna Masci
2025 International Conference on Biomedical Ontologies (ICBO)
- [OntoChimp: A ChatGPT-Based Document Analysis Program](#), presenter: Sam Smith
2025 International Conference on Biomedical Ontologies (ICBO)
- [Beyond AI prompts: Why Scaffolding Matters More than Scale](#), author: Tim Coleman
2025 Chief Information Office Magazine
- [Panel on Methodologies and Tools for Ontology-Driven Conceptual Modeling](#)
2025 11th International Workshop on Ontologies and Conceptual Modeling, Poitiers, France
- [Basic Formal Ontology: An Interview with John Beverley](#)
2025 The Opinionated Ontologist
- [Solitude, transcendence, and healthy aging through the lens of artificial intelligence](#)
2025 Academic Minute
- Tutorial on Ontology Tradecraft
2025 Ground System Architectures Workshop, Los Angeles, CA
- Interview with John Beverley
2024 Data Rules All around Me (DREAM)
- [Commercializing Ontology; Lucrative Jobs for Philosophers](#) w/ Smith, B.
2024 American Philosophy Association Substack Newsletter
- Semantic Technologies in Federal Agencies
2024 Semantic Arts Series
- [UB Philosopher Awarded \\$3.8 Million NIH Grant on Aging and Loneliness](#)
2024 UBNOW
- [Basic Formal Ontology Tutorial](#)
2024 ONTOBRAS, Vitorio, Brazil
- Ontology, Ethics, and Education
2024 IBM Center of Excellence for Trust in AI
- Future of Neurosymbolic AI Panel
2024 Formal Ontology in Information Systems
- [A Taste of Basic Formal Ontology](#)
2024 Food Systems and Food Behavior Ontology Symposium, Milan, Italy
- [Applied Ontology as a Buffalo Brand](#)
2024 Buffalo-Toronto Ontology Workshop, Buffalo, NY
- Severity of Training Gap
2024 Buffalo-Toronto Ontology Workshop, Buffalo, NY
- DOD-IC Memorandum
2024 Ground System Architectures Workshop, Los Angeles, CA
- [Federal Agencies Adopt Resource Developed by UB Ontologists](#) w/ Barry Smith
2024 UBNOW
- Aligning BFO and ISO 5087
2023 Buffalo Toronto Ontologies Workshop, University of Toronto, Toronto, CA
- Shapes Constraint Language
2023 Buffalo Toronto Ontologies Workshop, University of Toronto, Toronto, CA
- Machine Learning Failures in Occupation Classification, w/ Oliver He, Barry Smith, et. al.
2023 2nd International Workshop on Ontologies for Services and Society, Sherbrooke, CA
- Knowledge Engineering for Government Applications
2023 Crown Point and Summit Knowledge Solutions Joint Webinar, Remote
- Basic Formal Ontology Summit Meeting Organizer
2023 Basic Formal Ontology Summit Meeting, Buffalo, NY

Evaluation and Design of Generalist Systems Organizer, w/ Amanda Hicks, Tetiana Grinberg, et. al.
 2023 Association for the Advancement of Artificial Intelligence, Los Angeles, CA

AI/ML Data Readiness, w/ Barry Smith, et. al.
 2022 4th U.S. Semantic Technologies Symposium, Ann Arbor, MI

The Virus Infectious Disease Ontology
 2020 Ontology of General Medicine Workshop, Remote

[Interview about The Virus Infectious Disease Ontology](#)
 2020 In Limbo Conversations, Remote

[Interview about The Virus Infectious Disease Ontology](#)
 2020 NU Graduate School Spotlight Series, Remote

Inclusive Pedagogy in Philosophy Workshop, Chicago, IL
 2019 American Association of Philosophy Teachers

Formal Methods in Artificial Intelligence
 2019 Northwestern Programming and Verification Panel, Chicago, IL

Speak No Evil: Hermeneutical (In)justice
 2019 Northwestern Graduate Workshop in Philosophy, Evanston, IL

Consequential Consequences (Remix)
 2018 Northwestern Graduate Workshop in Philosophy, Buffalo, NY

ArGO: Ontology of Arguments, with Neil Otte, et. al.
 2017 Rich Semantics Workshop, Remote

Model-Theoretic Properties of BFO 2.0
 2016 Basic Formal Ontology Workshop, Buffalo, NY

Imagine All the People: Counterfactual Attitudes
 2016 UB Philosophy Department Lunchtime Lecture, Buffalo, NY

Does Responsibility Track Biology: Preliminary Data
 2015 Buffalo X-Philosophy Workshop, Buffalo, NY

[A Taste of Curry's Paradox](#)
 2014 UB Philosophy Department Lunchtime Lecture, Buffalo, NY

TEACHING EXPERIENCE

University at Buffalo, SUNY

- Ontology Tradecraft (Graduate Seminar)
- Applied Ontology (Graduate Seminar)
- Intelligence Analysis and Ontology Engineering (Graduate Seminar, 2 semesters)
- Logic of Ontologies (Graduate Seminar, 2 semesters)
- Intelligence Analysis and Ontology Engineering (Undergraduate)
- Introduction to Philosophy (Undergraduate, 6 semesters)
- Critical Thinking (Undergraduate, 2 semesters)
- Symbolic Logic (Undergraduate, 4 semesters)
- Writing Arguments (Undergraduate)
- Philosophy and Artificial Intelligence (Undergraduate)
- Metaphysics (Undergraduate)
- Introduction to Ethics (Teaching Assistant, Undergraduate)
- World Civilizations I (Teaching Assistant)

- World Civilizations II (Teaching Assistant)

School of the Art Institute of Chicago

- Philosophy of Race and Racism (Undergraduate, 4 semesters)
- Critical Thinking (Undergraduate, 5 semesters)
- Bioethics (Undergraduate, 2 semesters)
- Introduction to Ethics (Undergraduate, 2 semesters)

Northwestern University

- Existentialism (Teaching Assistant, Undergraduate)
- Symbolic Logic (Teaching Assistant, Undergraduate)
- Introduction to Political Philosophy (Teaching Assistant, Undergraduate)
- Philosophy of Race and Racism (Teaching Assistant, Undergraduate)
- Philosophy of Religion (Teaching Assistant, Undergraduate)

Northwestern Prison Education Program

- Critical Thinking (Undergraduate)

Loyola University Chicago

- Symbolic Logic (Undergraduate)
- Healthcare Ethics (Undergraduate)

SUNY Brockport

- Introduction to Logic (Undergraduate)

Erie Community College

- Bioethics (Undergraduate)
- Critical Thinking (Undergraduate, 2 semesters)
- Symbolic Logic (Undergraduate, 5 semesters)

SELECTED SERVICE

- **Conference or Workshop Host**

- [Promoting Healthy Aging through Semantic Enrichment of Social Science \(PHASES\) 2025](#)
- [2nd Annual Convergence of Large Language Models and Ontologies 2025](#)
- [14th Semantic Technology for Intelligence, Defense, and Security \(STIDS\) 2025](#)
- [1st Annual Convergence of Large Language Models and Ontologies 2024](#)
- [13th Semantic Technology for Intelligence, Defense, and Security \(STIDS\) 2024](#)
- [Basic Formal Ontology Summit Meeting 2023](#)

- **Conference or Workshop Organizer**

- [International Conference on Biological and Biomedical Ontology \(ICBO\) 2025](#)
- [7th Knowledge Graph and Semantic Web Conference \(KGSWC\) 2025](#)

- [17th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management \(KEOD\) Digital Twins Workshop 2025](#)
- [19th Seminar on Ontology Research in Brazil \(ONTOBRAS\) 2025](#)
- [Perspectival Ontology Workshop on Entities that can be Realized \(POWERS\) 2025](#)
- [International Conference on Biomedical Ontologies \(ICBO\) 2025](#)
- [International Conference on Biomedical Ontologies \(ICBO\) 2024](#)
- **Editorial Board**
 - [Applied Ontology 2024](#) -
- **Special Issue Editor**
 - *Applied Ontology*, Special Issue: Ontologies and Large Language Models Volume I (2024)
 - *Applied Ontology*, Special Issue: Ontologies and Large Language Models Volume II (2025)
- **Peer Reviewer**
 - Journals: *PLOS One*, *Synthese*, *Wellcome Open Research*, *Genes*, *Scientific Data*, *Journal of Biomedical Semantics*, *Episteme*, *Philosophia*, *Dialogue: Canadian Philosophical Review*, *Erkenntnis*, *Applied Ontology*
 - Conferences: *OntoCom 2025*, *Formal Ontologies in Information Systems (FOIS) 2023–2025*, *Joint Ontologies Workshop 2023-2025*, *International Conference on Biomedical Ontologies 2022-2025*, *Northwestern/Notre Dame Graduate Epistemology Conference 2019-2020*, *NUSTEP 2019-2020*, *Society for the Metaphysics of Science 2017*
- **Dissertation Chair**
 - Carter-Beau Benson - The Ontology of Football
 - Finn Wilson - The Ontology of Organ Transplants
 - Giacomo de Colle - Ontology-Driven Cyber Threat Intelligence
 - Sean Kermath - Ontology of Finance
 - Matthew Jones - Metaphysics of Nothingness
- **Dissertation Committee Member, University at Buffalo**
 - Gloria Sanso - [Understanding Economic Transactions: An Ontological Approach](#) (Graduated 2025)
- **External Dissertation Committee Member**
 - Alcides Lopes (Universidade Federal do Rio Grande do Sul) - [How to classify domain entities into top-level ontology concepts using language models: A study across multiple labels, resources, domains, and languages](#) (Graduated 2024)
 - Giorgio Ubbiali (Università degli Studi di Milano) [Designing Foundational Strategies for Developing a Family of Food Systems Sustainability Ontologies](#) (Graduated 2025)
- **Faculty Service, University at Buffalo**
 - 2024: Undergraduate Affairs & Awards Chair
 - 2023: Admissions Committee Chair; Faculty Search Committee Member
 - 2022: Graduate Affairs Committee; Conference Planning Committee

- **Graduate Service, Northwestern University**

- 2020: Tutor, Northwestern Prison Education Program;
- 2020: Fellow, Graduate Leadership and Advocacy Council
- 2019: Vice-President, Graduate Student Association (GSA)
- 2018: Ethics Bowl Coach, Sullivan High School–Northwestern Partnership
- 2017–2019: Member, Philosophy Department Climate Committee

- **Graduate Service, University at Buffalo**

- 2014–2016: President, Graduate Philosophy Association (GPA)
- 2013: Senator, GPA; Chair, Electoral Committee; Member, Treasury Committee

REFERENCES

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