

Craig Frayne

GRADUATE STUDENT & RESEARCHER · UNIVERSITY OF WATERLOO

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Education

Technische Universität Bergakademie Freiberg

Freiberg, DE

PHD INTERCULTURAL COMMUNICATION

2021

- Dissertation: "Language Games and Nature: A Corpus-Based Analysis of Ecological Discourse"
- Advisor: Prof. Dr. Michael Hinner
- Grade: summa cum laude

Technische Universität Kaiserslautern

Kaiserslautern, DE

GRADUATE CERTIFICATE NANOBIO TECHNOLOGY

2014

- Coursework covering Molecular Biology, Nanostructures, Characterization Techniques, and applications

Bauhaus-Universität Weimar

Weimar, DE

MSC ENVIRONMENTAL ENGINEERING

2013

- Thesis: "Systems Analysis of Power and Water Cogeneration"
- Advisor: Prof. Dr. Mark Jentsch

Queen's University

Kingston, CA

BA MATHEMATICS

2006

- Electives in Humanities and Languages

Professional Experience

- present **Independent Graduate Research**, Geospatial Sensing and Data Intelligence Lab, University of Waterloo
- 2020-2021 **Research Project Manager**, Conestoga College Applied Research, Cambridge Ontario
- 2018-2020 **Project Manager**, DigitalEd, Waterloo Ontario
- 2009-2020 **Non-profit and International Development sectors (contract work)**, various
- 2016-2018 **Data Analyst**, Microsoft Research, Montreal (Maluuba acquisition)
- 2015-2016 **Teaching Assistant**, Wilfrid Laurier University, Department of Geography & Environmental Studies
- 2007-2009 **Scientific Intern / Project Manager**, EPEA Internationale Umweltforschung, Hamburg

Publications

PUBLISHED

- Frayne, C.** 2021. Corpus-based analysis of genetically modified seed discourse. *Discourse & Society*, 32(6).
- Frayne, C.** 2019. Historical analysis of species references in American English. *Corpora*, 14(3):327-349
- Frayne, C.** 2018. An ecosemiotic critique of Heidegger's concept of enframing. *Environmental Philosophy*, 15(2):213-236
- Frayne, C.** 2017. Wittgenstein, organic form, and an orientation to intercultural language games. *Journal of Intercultural Communication Research*, 46(2):147-160

IN REVIEW

- Frayne, C.** submitted Jan. 2021. Demarcating Cultural expressions in the Dakota Access Pipeline debate. *International Journal of Language and Culture*. In Review.

IN PREP

- Frayne, C.** Nonverbals, cognition, and the hidden dimension of environmental communication. (Manuscript in prep.)

Frayne, C. (2021). Ecology, economy, and communication: From the Ancient Greek οἶκος to the intercultural public sphere. "Communication Science and Linguistics for Business Administration and Management". Peter Lang Publishing. (Book chapter in prep.)

Presentations

Frayne, C. 2021. Multilevel Discourse Analysis: A Methodological Response to the Ecological Turn in ICC Research. ICA 2021 - 71st Annual ICA Conference.

Teaching Experience

Fall 2015 **Atmosphere & Hydrosphere**, Teaching Assistant, Wilfrid Laurier University
Winter 2016 **Introduction to Environmental Studies**, Teaching Assistant, Wilfrid Laurier University
Fall 2010 **Academic English, University Prep. Course**, Instructor, CODEMA Bogota, Colombia

Courseware & Curriculum Development

At DigitalEd, managed algorithmic question authoring and conversion of **digital textbooks and online courseware** in STEM disciplines. Included several OpenStax titles, publisher titles (including SAGE, Pearson, Kendall-Hunt), and professors' custom materials.

Freelance development of **interactive online learning labs** for university professors in the natural sciences.

Freelance research consulting for the Center for Curriculum Redesign (CCR) to identify **international best practices for curriculum resources**.

Outreach & Professional Development

PEER REVIEW

Environment, Development and Sustainability (Springer)
International Communication Association

PROFESSIONAL MEMBERSHIPS

Association for Computing Machinery (ACM)
International Communication Association (ICA)
International Ecolinguistics Association (IEA)
Project Management Institute (PMI)

Skills & Languages

Languages: Python, SQL, JavaScript, HTML/CSS, R, Matlab

Human Languages: native English speaker with experience working in French, German, and Spanish language environments

Software Tools: Adobe Creative Suite, Autodesk Fusion, ArcGIS, QGIS

Developer Tools: Jupyter Notebooks, GitHub, Google Cloud Platform

Libraries: pandas, plotly, numpy, scikit-learn, scipy, d3.js

Certifications: Ecology Conservation & Management (Ducks Unlimited), International Public Sector Accounting Standards (CIPFA), Project Management Professional (PMI)