

Government-University-Industry Research Roundtable December 2022 Webinar

Imageomics – A New Field of Science at the Crossroads of Biology and Machine Learning

Abstract:

The Government-University-Industry Research Roundtable will convene a webinar to discuss a new science discipline at the intersection of machine learning and biology – [Imageomics](#). The goal of Imageomics is to extract information about biology directly from the images. This field aims to leverage the power of artificial intelligence to analyze patterns and interesting information like the appearance, behavior, and location of species.

Tanya Berger-Wolf, Director of the Translational Data Analytics Institute at the Ohio State University, will provide an overview of Imageomics, including current challenges in this new discipline. Leading a national collaborative of renowned biologists and computer scientists, she will also discuss the work of her new grant from the National Science Foundation to establish a Harnessing Data Revolution Institute, in which biologists will use machine learning to provide novel insights in all areas of biological research.

Speaker Biography:



Dr. Tanya Berger-Wolf is the Director of the Translational Data Analytics Institute and a Professor of Computer Science Engineering, Electrical and Computer Engineering, as well as Evolution, Ecology, and Organismal Biology at the Ohio State University. As a computational ecologist, her research is at the unique intersection of computer science, wildlife biology, and social sciences. Berger-Wolf is also a director and co-founder of the Artificial Intelligence for wildlife conservation software non-profit [Wild Me](#), home of the Wildbook project, which brings together computer vision, crowdsourcing, and conservation.

Prior to coming to OSU in January 2020, Berger-Wolf was at the University of Illinois at Chicago. She holds a Ph.D. in Computer Science from the University of Illinois at Urbana-Champaign. She is widely published and is a sought-after invited speaker. Berger-Wolf has received numerous awards for her research and mentoring, including the highest honor of University of Illinois Scholar, UIC Distinguished Researcher of the Year, US National Science Foundation CAREER, Association for Women in Science Chicago Innovator, and the UIC Mentor of the Year.