Abstract: Agriculture and the entire agrifood domain have always been characterized by technical change. These processes of technical change are mediated by the interplay of public and private sector actors, by discourses that privilege specific problem definitions, and by variously scaled power relations. Beyond enhancing economic productivity, technical changes in farm inputs, farm management, and in commodity chains have restructured social and ecological relations in profound ways. In this sense, agrifood research and research policy are politically contested. Reflection on the sociology of agrifood literature and the emerging concept of responsible innovation allows us to map out a set of tensions that can inform our understanding of the risks and opportunities we confront in advancing interdisciplinary discussions around a Cornell Digital Agriculture initiative.

Bio: Steven Wolf is Associate Professor, Department of Natural Resources, and a member of the graduate field of Development Sociology. He studies political economy of environment, and he teaches environmental governance and sustainability. Drawing on sociology and economics, Steven’s work focuses on how to derive public goods from landscapes characterized by strong private property rights claims. He published the first sociological analyses of precision farming (1996), and this work is part of his long term engagement with agrienvironmental policy and management. His dissertation at UW-Madison (Land Resources in association with Rural Sociology) resulted in publication of an edited volume, *Privatization of Information and Agricultural Industrialization* (1998). As a post-doctoral fellow in Agricultural and Resource Economics he co-edited (with David Zilberman), *Knowledge Generation and Technical Change: Institutional Innovation in Agriculture* (2001). More recently he co-edited volumes (with Alessandro Bonanno) *Resistance to the Neoliberal Agri-Food Regime: A Critical Analysis* (2014) & *The Neoliberal Regime in Agri-Food: Crisis, Resilience and Restructuring* (2017). In collaboration with students, faculty from various disciplines, and non-academic partners, Steven is currently conducting research on land governance in the Nilgiri Biosphere Reserve of India, and he is analyzing technical and sociopolitical dimensions of envisioned transitions to data-rich, evidence-based, outcome-focused environmental governance.

Background on the Cornell Digital Agriculture Initiative: An interdisciplinary group of Cornell University faculty began meeting in early 2017 to formulate a Digital Agriculture (DA) initiative, believing that Cornell is uniquely equipped to lead in this emerging arena that will benefit the public for generations. We define DA to mean the application of computational and information technologies coupled with nanotechnology, biology, systems engineering and economics to both the research and operational sides of agriculture and food production. With approximately 70 faculty from 5 Cornell colleges participating, we are in the formative stages of this initiative, collaborating internally on defining a research agenda for DA that will build a pipeline of discovery and innovations for the next 10+ years. For further information, please contact Dr. Jim Ballingall, Executive Director at jmb436@cornell.edu.