Abstract:

In the 1950’s, the new Canadian province of Newfoundland embarked on an ambitious project to modernize its fishery, with the goal of using technology to make the fishery more productive, efficient, and reliable. These modernization efforts led eventually to the destruction of its fish stocks and decimation of its rural communities. Determined to not meet the same fate, Iceland introduced pervasive data collection throughout its fisheries starting in the 1980’s. Now one of the most high-tech fisheries in the world, Iceland has been able to maintain its fish stock; but these technologies have also raised the barriers for entry into the industry and led to profits and control of the fishery accruing to urban firms. Both projects were well-intentioned efforts to use technology to improve rural food production, but both systemically undermined the rural communities that rely on it. Why did this happen, and how can we avoid a similar face for future digital agriculture (DA)? In this talk, I will describe how these social impacts are tied to specific problem framings in technology design, and suggest alternative framings that may be useful for DA.

Bio:

Phoebe Sengers is an associate professor in Information Science and Science & Technology Studies at Cornell University. Her work integrates ethnographic and historical analysis of the social implications of
technology with design methods to suggest alternative future possibilities. She is a member of the Graduate Field of Computer Science, associate faculty with the Department of Art, and a member of the Cornell Initiative for Digital Agriculture. She led the Cornell campus of the Intel Science & Technology Center for Social Computing, has been a Fulbright Fellow, a Fellow in the Cornell Society for the Humanities, and a Public Voices Fellow, and received an NSF CAREER award. She holds an interdisciplinary PhD in Artificial Intelligence and Cultural Theory from Carnegie Mellon University.

**Background on the Cornell Initiative for Digital Agriculture:**

An interdisciplinary group of Cornell University faculty began meeting in early 2017 to formulate an Initiative for Digital Agriculture, 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 100 faculty from 5 Cornell colleges participating, we are collaborating with external stakeholders to shape and implement a research agenda for DA that will build a pipeline of discovery and innovations for the next 10+ years. Please contact Tim Vanini at tv37@cornell.edu with any questions.