Abstract: One of the most important sources of knowledge for farmers is the experience and advice of their fellow farmers. Unfortunately, many digital initiatives that support agricultural knowledge dissemination do not leverage this valuable resource. To address this gap, my research group developed Avaaj Otalo, a mobile phone-based voice message board allowing small farmers in Gujarat, India to ask, answer and browse agricultural questions and answers. The original version of Avaaj Otalo was deployed for over five years, receiving hundreds of calls every week. I report on some empirical results from this and subsequent deployments, including experiments that demonstrate farmers' revealed demand for peer information and their effectiveness in targeting agricultural knowledge to interested recipients, as well as the overall impact on output and decision-making through a randomized controlled trial.
RCT). I also present qualitative data that illustrate how the system was used and adopted in the target communities, what norms emerged through farmer participation and individual users' motivations and interest in using the system. At the end of the talk I will also describe a few other projects my group has undertaken in the agricultural domain - including a mobile phone based system for supporting internal control at organic and fair trade coffee cooperatives in Latin America, as well as a web-based system to support farmers' knowledge and advocacy for land access in Central California.

**Bio:** I am an Associate Professor of Information Science at Cornell Tech in New York City. Previously, I was an Associate Professor at the UC Berkeley School of Information. My research interests include human-computer interaction and the design and use of information technologies for supporting youth and community development. I have graduated six Ph.D. students, including several who have gone on to academic positions. I have also been involved with designing, developing and commercializing several new technology platforms supporting applications in agriculture, health, education and other areas. I have received the NSF CAREER award, a Sloan Fellowship, a UW Diamond Early Career Award and was named TR35 Humanitarian of the Year.

**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.