THE NEED:

Over the next few decades, a rising global population, increasing wealth, changing consumer demand and climate variation will put growing pressure on food systems. Globally, agriculture demands a radical transformation.

The world’s future food systems must become more sustainable, productive, resilient and efficient. We must re-envision food production, processing and distribution, natural resource use, recycling and replenishment, and social and agricultural system interactions to support healthy individuals, communities and the environment. We also must unify biology, engineering and information sciences through an integrative approach that improves measurement and control of existing and emerging food systems. But first we must build the institutional capacity to be able to systematically and effectively work towards these goals.

THE APPROACH:

A core group of visionary multidisciplinary faculty teamed up in 2017 to advance digital agriculture. To engage a larger group of researchers and further foster collaborations across colleges, the Cornell University Agricultural Experiment Station provided Federal Capacity Funds (FCF) to selected multidisciplinary digital ag projects through a competitive grant opportunity. A series of workshops and events followed, building excitement, spurring ideas, and advancing the vision. An outside consultant provided guidance in solidifying the vision, identifying the best approach and establishing the necessary framework - the Cornell Initiative for Digital Agriculture (CIDA).

Through multidisciplinary work of Cornell’s faculty, staff and students and diverse partners from the private sector, foundations, civil society organizations and government agencies, CIDA aims to develop integrated responses and innovative solutions to complex global food system challenges. Approximately 60 researchers are working diligently in one or more of the initiative’s many working groups or project teams.

Following the FCF seed funding, in 2018 CIDA has been able to secure substantial additional funding from colleges, university, and private donors. Through the collaborative efforts with the private sector, funding agencies and foundations CIDA will be self-supporting in the future.

IMPACTS:

With CIDA Cornell now has the organizational structure and institutional capacity in place to expedite the evolution of digital agriculture. CIDA marshals the university’s multidisciplinary strengths and connects researchers with practitioners to tackle global food system challenges. Cornell’s Provost Michael Kotlikoff named the initiative as one of Cornell’s eight collaborative, university-wide efforts.

An inaugural DA Hackathon kicked off the 2019 CIDA events, drawing a crowd of 150 participants. Through enhanced curricula Cornell now offers new opportunities to students to join CIDA’s efforts and engage in cross-college, digital agriculture research projects and partnerships with industry.

WEBSITE: http://www.digitalagriculture.cornell.edu/