



FACULTY OF ARTS

Adelaide Summer Research Scholarship 2019-2020

Big Data and Agriculture: Toward Ethical and Effective Policies and Practices

Supervisor: Professor Rachel Ankeny, Deputy Dean, Research

School of Humanities

Modern farms create huge amounts of data, relating to the crops grown and yields; livestock numbers, locations, and conditions; types of products being used; and soil and climatic conditions. A variety of new technologies including digital and robotic farming equipment and internet-based devices are contributing to production of such data. Although there have been numerous calls for continuing to leverage these sorts of big data in order to benefit agriculture, there has been limited attention to who owns and distributes the data, under what conditions, and how privacy considerations should be incorporated. Such data collection will have potential benefits both to farmers and consumers, in terms of tracking provenance of products as well as efficiency and sustainability. However recent events such as the animal activist protests which exposed information about locations of farms and hence personal information about farmers and their families, as well as more general concerns about industrial uses of data given the asymmetry of power between farmers and large agribusinesses, raise issues about farmer understandings of data collection and ethics in agriculture as well as best practices and policies. This project will involve a systematic review of current international practices, policies, and regulation about data management, use, and re-use in agriculture, including ethical and social considerations, and preparation of the background for a potential Linkage project. It also will result in preparation of a scholarly article for submission to a high-quality peer reviewed journal, on which the student will be a co-author.

The student will gain the following research skills and experience;

- Publication in a high-quality journal
- Co-publication with Project Supervisor
- Collating background information for a competitive grant application
- Develop high-level research skills, both discipline-specific and generic
- This project will take place under the umbrella of the Food Values Research Group which involves people from a variety of disciplines including food studies, history, applied ethics, and media, and hence the student will increase their ability to work within a multi-disciplinary team environment.