UNIVERSITY of GUELPH

COLLEGE of ENGINEERING AND PHYSICAL SCIENCES

SCHOOL OF COMPUTER SCIENCE

MSc Seminar

Wednesday August 14, 2019 at 9:30AM in Reynolds, Room 2224

Investigating Perceptions, Motivations, and Challenges in the Adoption of Precision Livestock Farming in the Beef Industry

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ABSTRACT:

Precision Livestock Farming (PLF) aims to automate and optimize the detection of illness, injury, and reproductive cycles in livestock through real-time automated data collection, analysis and reporting. While many researchers and farmers agree that PLF can help optimize farming practices and outcomes, in certain farming sectors there has been low adoption rates of PLF technologies. This research aims to investigate this low adoption in one key sector of the Canadian agricultural industry: beef farming. This project aims to employ a human-centred design approach to understand farmers' perceptions of PLF technologies and the potential challenges they face in adopting these technologies on their farms.

We wish to determine whether there is a mismatch between the technology design and capabilities and the needs of the technology users in this farming sector. Through surveys and interviews, we aim to understand how beef farmers and other relevant stakeholders perceive and value this technology, their motivations for adopting or not existing PLF technologies, what effect of the technology may have on animal welfare and health on beef farms, and potential challenges farmers face in adopting such technologies. Findings from this research may help in the future development of more usable and cost-effective technology for the beef industry, and potentially other farming sectors.