



COLLEGE of ENGINEERING AND PHYSICAL SCIENCES

SCHOOL OF COMPUTER SCIENCE

MSc Seminar

Friday November 15, 2019 at 2PM in Reynolds, Room 3324

Investigating the Usability and Impact of Notifications Generated from Automated Monitoring Systems in Modern Dairy Farms Muhaiminul Islam

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ABSTRACT:

Modern dairy farms are becoming increasingly high-tech, with common on-farm technologies including robots that tend the animals, sensors that monitor animal activity and environmental conditions, and desktop and mobile displays that provide 24/7 information about farm conditions. These technologies help farms run more efficiently and, thus, reduce the demand for human labour. Yet, farm staff must now monitor these technologies to maintain smooth and safe operations, and a healthy herd. Farms often adopt different technologies over time, each of which tend to communicate with farmers in distinct ways. For instance, some provide information through desktop or mobile phone dashboards, while others send text messaging alerts. Thus, farmers may receive information notifications from various systems with different levels of importance or urgency at any given time. Recent research on European farming technologies indicates that the lack of coordination and management of such notification systems can be overwhelming and increase the overall stress level of farmers. This Master's thesis research will investigate the usability and impact of current notification mechanisms of on-farm technologies in the dairy industry in Ontario, Canada as an initial step toward a broader understanding of this problem. The goal of the research is to better understand farmers' informational needs as well as how well the current notification mechanisms offered by current on-farm technologies meet these informational needs.