



COLLEGE of ENGINEERING AND PHYSICAL SCIENCES

SCHOOL OF COMPUTER SCIENCE

PhD Seminar 2

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Digitizing agriculture: Examining how the introduction of IoT in farming is governed

Advisor: Dr. Rozita Dara

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Abstract:

CONTEXT: A technology in smart farming, the Internet of Things (IoT), is predicted to continue altering farm life by introducing opportunities and obstacles. However, there are limited studies on how farmers' views of IoT influence their decision-making regarding technology adoption.

OBJECTIVE: To explore how farmers respond to IoT in farming, we conducted a discourse analysis of 32 interviews with farmers in Ontario.

METHODS: Discourse analysis was used to understand the range of meanings associated with IoT by farmers.

RESULTS AND CONCLUSIONS: We find that two main discourses are present (1) the extent to which IoT was viewed as useful/helpful vs not useful/unhelpful and (2) the extent to which IoT was viewed as being their choice. The results indicate that farmers respond to IoT in four categories: embrace, accept, ignore, and caution.

SIGNIFICANCE: This paper contributes to the literature by categorising the farmers' responses to IoT implementation and highlighting why farmers adopt these categories. These results have implications for policy related to the governance of technology in agriculture. Furthermore, understanding how farmers view opportunities enabled by IoT and how they experience diffusion of IoT is a foundation for suggesting recommendations for technology improvement and development in agriculture.