

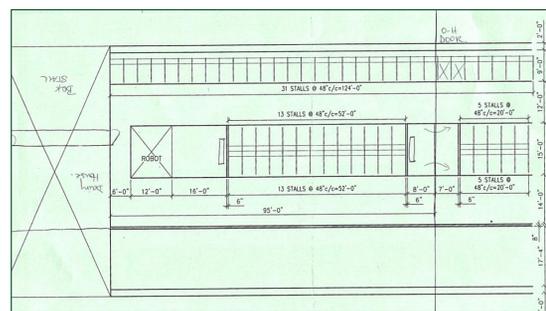
Farmers, Animals and Robots: Automation in the Canadian dairy industry

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Research Question

This project studies the changing landscape that is automation technology in the agriculture sector. Specifically, the introduction of robot milking systems into small farms around Ottawa is explored.

What labour practices are changing in agriculture that have created a space for automation of farm work, and how is this technology changing the work life of those effected?



A drawing of Flevo Hill's barn made during the installation of the robot milking system.

Setting

I talked with two families running dairy farms south of Ottawa: Flevo Hill Acres and Melna Holsteins. I also interviewed a project manager who works on the installation of milking robots in barns.

The barn from the outside looked just like all the others I drove past on my way to meet Nathalie and Wim, but inside the robot was working hard, even as they were eating lunch before I arrived. The new addition of the robot was changing the way they farmed, and I was soon to see how.



Scan this to see the robot in action at Melna Holsteins!

Actors on the Farm

Listed below are some of the key actors on the farms. They all take part in actor-networks and impact the decision making processes surrounding the robot installation. They are also identified to explore the rippling effects on labour from these decisions.

Farmers

- Owners and operators of the farms.
- The main decision makers.
 - Base decisions on many factors including weather, animals, and the robot.
- I interviewed 5 different farmers across the two farms.

Animals

- There is a variety of animals on the farms but the main focus for this project are the cows.
- Each farm has between 55 and 60 cows currently being milked.
- The cows are held in free stalls. They are not confined or tied up and have a number of stalls available to rest and sleep in.



Our 3 actors at Melna Holsteins: Farmers Jos and Marc, one of their cows, and the Monobox.

Robots

- Both farms had a GEA Monobox.
- The robots replace hiring extra help.
- They allow the cows to be milked on their own schedule.
- The robot provides data to the farmer to track milk production and cow health.

Future of Farm Labour

1. Efficiency of Labour

The robot aims at extending labour so that **less people can do more work**. The robot also aims to increase efficiency through the tracking of in-depth data, including information on diet, breeding, time since last milking, udder quarter measurements, and real-time milk quality control.



The robot's information screen showing data on cow #438, Veronica.

2. Future of Labour

One main concern of the farmers was the toll that farming took on their bodies and how the robot would allow them to work even longer. The future of labour also looked to handing off the farm to the next generation and **continue to be profitable**. The future of labour relates to the cows as it aims to improve their wellbeing.

"People are obviously looking to the future and seeing how is this going to be done in the end. What is going to be the future of milking?"

Corey (Project manager at Lawrence Dairy Supply)

3. Movement of Labour

In facing automation, there can be a fear of loss of jobs. In borrowing from Ian Lowrie, the positive aspects of automation can be seen through the creation of new assemblages of labour. The robots **displace labour into new areas**.

References

1. Gray, B. J., & Gibson, J. W. (2013). Actor-Networks, Farmer Decisions, and Identity. *Culture, Agriculture, Food and Environment*, 35(2), 82-101.
2. Lowrie, I. (2018). Algorithms and Automation: An Introduction. *Cultural Anthropology*, 33(3), 349-359.