Design Brief

Project: Digital Innovation for Small-Scale Sustainable Agriculture
Client: Multiple Small Farms in Northern England
Owners: Sebastian Prost and Henry Collingham

Project Overview

This project builds on ongoing fieldwork conducted by Sebastian Prost and colleagues at Newcastle and Northumbria Universities on the role of digital technologies in small-scale sustainable agriculture in North England, including organic farms, farming cooperatives, and community-supported agriculture (CSA) schemes. The aim of this project is to design 'provotypes' (i.e. provocative prototypes[1]) responding to some of the themes that we identified during visits to 10 farms around Newcastle, Leeds, and Manchester.

The data highlighted values, lifestyles, and challenges of small-scale farmers. Candidate themes that have emerged out of the data so far include:

- High diversity of farms (scale, customers, workers, volunteers, produce, business forms, distribution channels, income streams, experience, skills)
- Tensions around (digital) technologies and farm work (manual labour/automation, human senses/digital sensors)
- Tensions around digital technologies in a farm environment (robustness, aesthetics): Tensions around the values of nature-friendly farming and nature-unfriendly digital tech (social and ecological footprints)
- Challenges of nature-friendly farming (climate change, pests and diseases)
- Tensions around customer relationships (transactional/relational, exclusivity)
- Tensions around cooperative and collaborative farming (autonomy, power asymmetries, knowledge sharing)

The provotypes will be shared with farmers to facilitate critical reflection about their practices and the role of (digital) technology. Long-term, we aim to engage farmers in a co-design process to develop and deploy digital prototypes on their farm that are in line with their values and address some of their ecological and economic concerns.

Goals and Objectives

Your goal in this project is to develop critical design(s) responding to data collected during farm visits earlier this year (using transcripts and summaries of walk-abouts and interviews).
The project has the following objectives:

1. Get an in-depth understanding of farmer practices and values and identify tentative themes.
2. Explore potential design responses responding to the themes identified.

[1] See Boer and Dononvan, 2012 https://dl.acm.org/doi/pdf/10.1145/2317956.2318014

3. Build at least 1 provotype.

The provotype(s) should not be practical, but playful, strange, ridiculous, or even annoying. They should perform one or more of the following functions:

1. Explore appropriate and sensitive uses of technology for the target farmers.
2. Highlight tensions, contradictions, and limitations about technology and farming.
3. Challenge farmers' assumptions about technology.
4. Speculate about (far) futures of technology for/and farming.
5. Foster curiosity, reflection, and debate among farmers.

Provotypes can take different forms of elaboration, depending on your expertises and interest. As a minimum, they may take the form of scenarios, storyboards, or design fictions (using text, images, and illustrations). They may also be visual animations, videos, or wizard-of-oz enactments (e.g. with cardboard or other low-fi prototype materials). Finally, they may include simple interactive pieces of software and/or hardware (e.g. using Arduino or Raspberry Pi, 3D printed encasings). Prototyping equipment and materials are provided. Given the limited time we advice to stick to a prototyping method you are already somewhat familiar with.

Target Audience

You are designing provotypes for the farmers we worked with. The provotypes should be shareable with them, either virtually (e.g. a link to a video), in-person asynchronously (e.g., sent to them via mail to respond) or in-person synchronously (e.g., in a workshop).

Here is a list of the farms and their public websites:

- Gibside Community Farm http://gibsidecommunityfarm.co.uk/
- North East Organic Growers https://www.neog.org.uk/
- Go Local Food https://golocalfood.org.uk/
- Moss Peteral Farm http://www.mosspeteral.com/
- Abundant Earth https://www.abundantearth.coop/
- Swillington Organic Farm https://swillingtonorganicfarm.co.uk/
- Passion4Plants https://passion4plants.co.uk/
- Moss Lane Farm https://www.mosslanefarm.org.uk/
- Pennine Crop Share / Grow + Graze https://penninecropshare.co.uk/ https://www.growandgraze.co.uk/
- Jane's Farm https://www.instagram.com/janesfarmuk/

A map of all the farms can be found here.

Suggested Schedule

Monday 20th

- Introductions
    - Project overview
    - Shaping/scoping the brief based on backgrounds, interests
    - Ways of working/support needed
    - Decide on potential farm visit next week
- Familiarisation with data

Tuesday 21st

- Familiarisation with data (cont.)
- Identifying (new) themes
- Consolidation of themes

Wednesday 22nd

- Brainstorming/ideation
- Idea sketching/visualisation

Thursday 23rd

- Background research - existing technologies
- Idea review / provotype selection
- (tentative/if needed: Induction to 012 workshop space)

Friday 24th

- Making Day 1

Tuesday 28th

- Making Day 2

Wednesday 29th

- Option: Visit to Abundant Earth in Durham for volunteering, chat to Wilf, and (if appropriate) on-site making activity.
- Otherwise: Finalisation of provotype(s)

Thursday 30th

- Showcase presentations

Deliverables

1. Written summary/list of themes based on your engagement with the primary data.
2. Documentation of the design process (photographs, sketches, discussion records, decisions made, ideas kept and ideas discarded, reflections etc.)
3. One or several provotypes (in whatever form you chose to make it).