

OCSE Activity Report - Value Sensitive Design

287871 - Bianconi Luca, 290247 - Micco Ferdinando, 292496 -
Bincoletto Alessio, 292479 - Bodnarescul Paolo Stefanut, 279240 -
Colangelo Maria Letizia, 289587 - Banouie Alireza, and 292457 -
De Florio Giovanni

Team P03

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1 A

1.1 A1: Direct Stakeholders: find at least one concern for each stakeholder.

- **Farmer:** I want to be able to profit enough through selling my products via SPG.
- **Deliverer:** I want to be safe while delivering the products
- **Client:** I want to be sure that the products that I buy are produced in a sustainable way and are fresh.
- **Warehouse employee:** i want to be able to carry out my work without degrading productivity stress.
- **Shop employee:** I want to have easy-to-use tools to carry out my job
- **Manager:** I need to be able to track profits, expenses and employees productivity.

1.2 A2: Indirect Stakeholders:

- Other grocery shops in the (geographical) area: Do not want to lose clients due to competition.
- Food Brokerage Agency: Are not involved anymore.
- Farmers not part of the SPG organization: drop of value of their product.

2 B - Speculate

2.1 B1: make a list of values

- Safety
- Sustainability
- Quality of work
- Usability
- Efficiency
- Affordability of food for anyone

2.2 B2: define one of the values before

Sommario

Sustainability: a set of activities, checks, best practices data and evidence-driven, done to reduce the impact of human actions on the environment and over the non renewable resources

3 C - Explore

3.1 C1: Identify three main value of SPG

- Sustainability
- Quality of work
- Efficiency

3.2 C2: Identify three value tensions

- **Efficiency vs Quality of Work:** Employees need time to have a break during the working time, vacations, days off, while on the other side the manager wants to minimize the cost and therefore the number of employees and maximize their productivity.
- **Efficiency vs Sustainability:** Farmers might produce a higher quantity of products with synthetic insecticides but on the other side I want to have as low an impact as possible on nature with my activity.
- **Affordability of food vs Sustainability:** Products produced with sustainable techniques that are less cost-efficient than standard methodologies have a higher cost so are less affordable to the poorest people.

3.2.1 Design features that favors one over the others:

- Feature 1, related to tension Efficiency vs Quality of Work: the system doesn't allow deliverers to work more than a certain amount of hours per week, favoring quality of work over efficiency.
- Feature 2, related to tension Efficiency vs Sustainability: the system allows the selling of a product by a farmer only after the manager has accepted it in order to let him check for the quality standards of the organization, including sustainability.
- Feature 3, related to tension Affordability of food vs Sustainability: customers of the shop can see the different prices of all products but have no way to compare them on the sustainability dimension, this means that the competition between farmers is based mostly on price, favoring affordability of food over sustainability

4 D - Adapt:

4.1 D1: Imagine changes in the system that mitigate value tensions:

- Affordability of food vs Sustainability: to increment the importance of sustainability in our system, metrics and information about the impact

on the environment of the products should be provided to customers in order to make sustainability a conscious choice of the consumers. Eg of information that could be displayed near the price could be the carbon footprint of the product expressed in CO₂eq and the environmental-related certifications of that product. Products with a lower carbon footprint could also appear higher in the shop in order to make them more visible.

- Efficiency vs Quality of work: to increase the levels of both efficiency and quality of work, a tracking tool for deliverers could be implemented in our system. The data collected in this way could be used either to avoid that the workload is not equally distributed among deliverers or either to monitor their efficiency and eventually motivate them with a reward.
- Efficiency vs Sustainability: To favor sustainability, it could be useful to introduce a mandatory field in the “new product” form (used to propose products that have to be approved by the manager) to upload/select one or more certificates of low environmental impact. This would make it impossible for products without any certification to be accepted by the manager.

5 E - A look into the future:

5.1 E3: Check the envisioning card and follow the activity

REIMAGINING INFRASTRUCTURE

Infrastructure constrains design. Thinking longer-term (e.g., 50 years in the future) lets us consider more broadly the physical and organizational contexts in which our systems are deployed. As infrastructure becomes part of the design space, it creates opportunities to reconsider the processes that affect many functions of our society (e.g., security and privacy, energy generation and storage, transportation, education).

Picture an alternative infrastructure more supportive of your goals. What does this infrastructure look like? How might your system be different if that infrastructure was in place?

Physical infrastructures: transportation, roads

- The rise of automatic-driven cars in the future might make the profile of the deliverer disappear.
- It would be great to have better ways to transport food from the countryside to the high density populated zones like city centers in order to favor the flow of fresh and healthy food without the need of big companies supply chain management.

Physical infrastructures: means of production, storage

- The improvement of sustainable techniques to produce food will lower prices of healthy and fresh food
- The improvement of storage techniques to store for more time and with less waste of nutritional values all kinds of fresh products. This would reduce the waste of unused food and a higher quality of products.

Physical infrastructures: water supply

- The improvement of water infrastructures could help farmers that have restricted water access that is limiting their productivity to have more freedom on what and how much to produce. Having more farmers and increasing their productivity would also make it easier for users to find and secure sustainable food.

Physical infrastructures: digital division

- Expand broadband connectivity and accessibility allowing farmers from deeply rural places to join our spg project and use the app.

Social infrastructures: bring new life to the countryside/cities organization

- Improving social infrastructures could minimize the gap between large cities and small rural places to increase their population and create new job opportunities by making them more desirable. More people working would mean a boost of production and, again, make it easier for users to find sustainable food in their cities.
- These infrastructure changes could also mean that cities and rural areas will not be separate entities anymore but will become a new single entity that includes both of them. This change would make it easier to secure sustainable food.

5.1.1 What might need to happen for infrastructure to transform in 20 or 50 years?

- Public investments in rural areas to make them appetizable as places to move to.
- Renewal and realization of new roads between rural areas and cities
- Taxing high impact activities to finance the sustainable ones in order to make their products more competitive to the end users.
- More attention to sustainability in the educational system.

5.2 E4: Look back at B1 and B2: would you change them after considering the long term view?

We are still convinced with our original definition of sustainability and think that the values we listed are durable in time. With the infrastructure changes, the means to reach those values will only be made easier and more straightforward.