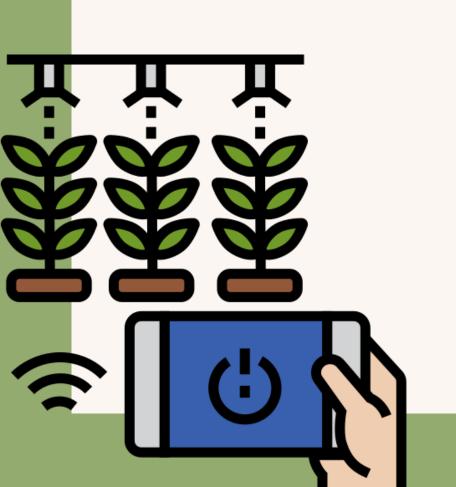
## Thinking Through Alternative Digital Futures



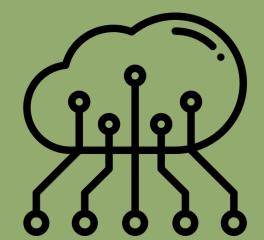


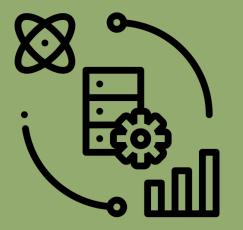


# What is the Digital Economy?









01.

Digitisation versus Digitalization

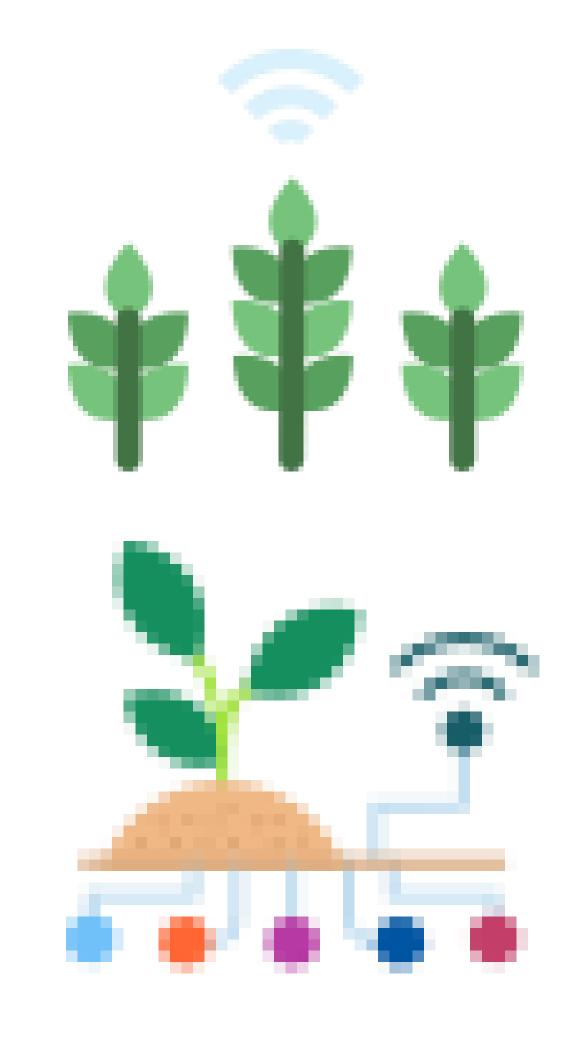
02.

Big Data

03.

Digital Infrastructures

Uses of Digital Technology in Agricultural and Environmental Management



# Types of Technologies Used



#### Big Food x Big Data x Big Tech

Big Food controls most of the major markets Big Food positioned as savour of food sytstems

Financialisation of food sector

Technofinance fix

'Overall, this digital agricultural revolution is being driven by the low cost of collecting data on everything from soil conditions to animal health and crop development along with weather station data and data collected by drones and satellites. The promise of these technologies is more food, produced on less land, with fewer inputs and a smaller environmental footprint.' (Weersink et. al. 2018).

#### Agriculture 4.0

Data used to grow, process, track, trade, sell

Targeted interventions

More output with less input

Addresses sustainability issues

Climate-smart interventions

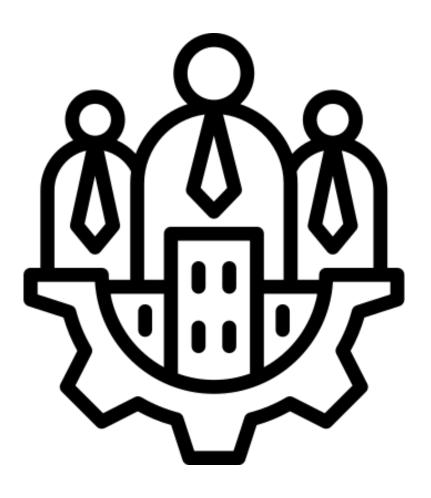
Removes middlemen

### The (further) embedding of private capital in agriculture

- GAFAM and other large tech companies are taking a large role in the agriculture sector
- Agriculture and tech firms are partnering
- Firms in the agriculture sector are partnering with tech firms to expand their reach
- Information is commodified
- Data acquired on one operation is used to sell products for other operations

### The (further) embedding of private capital in agriculture

- Proprietary products
- Restricts farmer autonomy, creates technology lockins
- Unclear data governance protocols in the absence of sufficient regulation



"[E]nvironmental narratives are legitimizing a digital transition in the food system that might otherwise raise critical questions about issues such as data sovereignty, increased surveillance and corporate control over farming practices." (Prause et. al, 2021)

# Potential implications of unchecked corporate-led digitalisation

- 01. Unequal access to data
- O2. Digital control and value extraction
- 03. Widening gaps
- O4. Expansion of monopoly power and platform dependencies

- 05. Replacement of state services
- 06. Ecological implications
- 07. Complexities of farm and ecological environments

#### Considerations for digital rights

Account for data rights of portability, transparency, ownership, liability

Prevent data grabs and dispossession

Account for the collective value of data

Protection against profiling

Addresses sustainability issues

Proper oversight

#### Alternative Data Futures

Rethinking data

Unpacking data infrastructures

Alternative data frameworks and technologies

Collective data governance

Digital Public Goods

Alternative policy frameworks

#### Resources

Alistair Fraser (2019) Land grab/data grab: precision agriculture and its new horizons, The Journal of Peasant Studies, 46:5, 893-912, https://mural.maynoothuniversity.ie/12154/1/Fraser\_Lamd\_2018.pdf

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#### Resources

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# Thank you very much!

