Principles: Fairness and non-discrimination, Sustainability, Transparency and explainability, Responsibility and accountability
Values: Environment and ecosystem flourishing, Ensuring diversity and inclusiveness, Living in harmony and peace
Stakeholders: Civil society, Public sector, Private sector, Technical community, International and regional organizations

Agriculture regulation technologies triggering unemployment and inequalities

An autonomous farming robot is created as to optimized food systems. It has the capacity of targeting and restoring degraded land and soil.

The robot relies on an automated data collection and decision-making as to optimize farming processes. The goal is to enable farms to become almost fully autonomous, but it will also lead to more organic, earth-friendly crops. The system detects and acts on the best times to plant, spray, and harvest, decreasing the need for the fertilizers and pesticides polluting the soil. The farm becomes autonomous and doesn't need human intervention.

Farmers lose their comparative advantage due the effectiveness of the new green robot. The technology "steals" the job of farmers and those who are not equipped with the robot lose their land, as they are less productive and efficient. In fact, due to the high price of the robot only some farmers can afford to have it. This only contributes in increasing the inequalities between rich and poorer countries, the richest having access to this technology.

Financial help is set up so that more farmers can afford a robot, but the prices remain high.

New technologies can represent a real benefice for the economy and the environment. However, because their production and selling cost can be very high, they can also deepen inequalities amongst people and countries. Giving access to these innovative and performing technologies will not only better the environment but also allow better people's situation.

How could this situation have been avoided in the first place?

Here are our recommendations per stakeholder:

- The technical community should lower their prices and offer more accessible options as to ensure that the greatest number of farmers / landowners can have access to these technologies.

- International and regional organizations should help farmers with lesser revenue in having access to these technologies by for example implementing micro credit opportunities. This

should be even more encouraged if these workers have an important environmental footprint as to help them to go greener.

- The public sector should also be able to help its farmers in going greener and helping financially as recommended previously. Furthermore, for those who find themselves unemployed due to the new technology “stealing” their jobs, professional reconversion possibilities should be set up and encouraged.

Sustainability & Responsibility and accountability & Transparency and explainability & Human Rights & Environment and Ecosystem flourishing

Know more about this case:

- “Harnessing Artificial Intelligence for the Earth”, The World Economic Forum, http://www3.weforum.org/docs/Harnessing_Artificial_Intelligence_for_the_Earth_report_2018.pdf
- “The role of artificial intelligence in achieving the Sustainable Development Goals”, Nature Communications, https://www.nature.com/articles/s41467-019-14108-y
- “How AI can help us clean up our land, air, and water”, Recode, https://www.recode.net/ad/18027288/ai-sustainability-environment

Related work:

- “Artificial Intelligence and Its Implications for Income Distribution and Unemployment”, National Bureau of Economic Research, http://www.nber.org/papers/w24174
- “The World Economic Forum. The Future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution”. Global Challenge Insight Report, The World Economic Forum, 2016.
- “Is Technological Innovation Making Society More Unequal?”, Unites Nations University, https://unu.edu/publications/articles/is-technological-innovation-making-society-mo

re-unequal.html