

Journey 2050 Lesson 7: Technology and Innovations Online Module

1. Begin the [Journey 2050 Lesson 7: Online Module video](#) (0:00-0:35). This video will guide you through the lesson.
2. Watch the TED Talk, [A Global Food Crisis May be Less Than a Decade Away](#) by Sara Menker. Stop the talk at 2:29 (15:04 remaining).

Consider Sara's statement, "We could have a tipping point in global food and agriculture if surging demand surpasses the agricultural system's structural capacity to produce food." As demand (population) rises, what limits our capacity to produce food?

3. Watch the [Journey 2050: Technology and Innovation](#) video
 - a. *Which innovation do you think could be most impactful and why?*
 - b. *What are the pros of using these technologies?*
 - c. *What could be the cons of using these technologies?*

4. Open the [Future of Agriculture: Technology and Innovation](#) PDF. Select one technology or innovation to research. Further instructions can be found on the [Journey 2050 Lesson 7: Online Module video](#). (1:55-2:08)
5. Continue the [Journey 2050 Lesson 7: Online Module video](#) (2:08-3:42). Prepare to watch the remaining portion of the TED Talk, [A Global Food Crisis May be Less Than a Decade Away](#) by Sara Menker.

a. What can developed and developing countries do to prevent a famine as we move toward 2050?

b. What can developed and developing countries learn from each other?

6. Wrap-up. Continue the [Journey 2050 Lesson 7: Online Module video](#) (3:42-4:32). Review the following key points.



Key Points:

- Technology and innovation play a critical role in the future of agriculture. Each innovation must be understood for the benefits and limitations it brings as there is no one-size fits all solution.
- If supported, developing countries have the greatest potential to make the most improvements.
- Consumers have a direct influence on what is grown and how. It's important that students take a science-based, informed approach when viewing information they may see on social media or in marketing campaigns trying to influence their purchasing behavior.
- As we strive to feed a growing population, every stakeholder must act in a way that encourages sustainable solutions. We need to begin to solve the problems today. Waking-up to address these issues on January 1, 2050 is too late!

Additional Activities:

- Watch the video [Will tech take over the farm?](#) This video highlights the "Hands Free Hectare" farm in England where the entire farm uses autonomous robot technology.

- Hear from Iowa farmer, [Mark Jackson](#), about the transformation of his family farm from the 1890s until today and moving into the future.