



Social Applications of Agricultural Technology: Innovative Applications and Solutions

Prepared by the students of the Community
Innovation Lab

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Introduction

Students from the Community Innovation Lab at the University of Kentucky and Prairie View A&M University collaborated with AppHarvest to produce a collegiate program focusing on social implications of Agri-technology. Specifically, we focused on AgTech/knowledge of technology, agritech's influence on food insecurity, and implications for community well-being and quality of life. Our collaboration began in August 2020 when students explored student food access and dietary habits within Eastern KY. Results from the study provided a foundation for the current program. As such, we have created a nine-month educational program that culminates with an "Innovation Festival" sponsored by the Community Innovation Lab. The purpose of the festival is to highlight student innovations regarding the intersections between agritech and societal issues while convening like-minded college students across the region. And provide students with networking and professional development opportunities. Our targeted audience is post-secondary students ages 18-22 at colleges and universities across the country.

The program includes the following objectives:

- Analyze current agri-technologies and synthesize their applications in society.
- Connect and apply leadership concepts such as social, cultural and emotional intelligence within the contexts of food insecurity, agri-technology, and community well-being.
- Participate in an annual "Innovation Festival" for students to meet and propose inspirational ideas for addressing and applying innovative concepts to the three concepts below that aligns with each year's festival theme.

Our program consists of three themes (3 workshops per theme), followed by a bonus workshop on how to effectively implement a "lightning talk" for the annual innovation festival. Each workshop is intended to be facilitated once a month for 60-90 minutes. The nine comprehensive sessions are intended to enhance students' leadership skills (cultural, social, and emotional intelligences) as they apply them toward scientific and social contexts.

At the end of the nine sessions, students will convene together at the "Innovation Festival" to provide a lightning talk that showcases their proposed agri-tech innovations to address social problems.

Units and Objectives:

- Unit 1: Food Insecurity
 - o Define a food desert and cultural food desert
 - o Recognize the societal impacts a food desert and being food insecure has on a community's health
 - o Identify social implications regarding food insecurity in a community
- Unit 2: AgTech/Knowledge of Technology
 - o Correctly define terms within the industry
 - o Identify common myths that surround agriculture
 - o Illustrate the impacts AgTech has on a community and its economic opportunities
- Unit 3: Community Well-Being
 - o Demonstrate how community-led initiatives impact a community
 - o List the most effective strategies for community empowerment
 - o Assess a community's needs by networking with community members and listening to their concerns

Unit 1:

Food Insecurity

Objectives

At the end of this unit, participants should be able to:

- Identify social implications regarding food insecurity in a community
- Define a food desert and cultural food desert
- Recognize the societal impacts a food desert and being food insecure has on a community's health

Workshop 1: Appalachian Cuisine

Workshop 2: What's for Dinner?

Workshop 3: Define Home

Workshop 1: Appalachian Cuisine

Background

According to TableDebates.org, food access can be affected by affordability, allocation, and preference. The effect of affordability is an individual's ability to afford food or the land to produce food relative to income, allocation are political, social, and economic mechanisms that govern how, when and where food can be accessed. Then finally, the effects of preference are based on norms and values that are social, religious, and cultural.

The purpose of this film is to explore the history of food accessibility and perseverance in Appalachian Culture and the purpose of the activity is to build a vocabulary around food access.

- <https://www.tabledebates.org/building-blocks/what-food-security#FSBB21>

Activity

Create two teams and have each team compete against each other to define vocabulary that will be needed throughout this Unit. The facilitator of the lesson will read a definition and Group A will have 10 seconds to define it. If group A cannot define it then Group B can take Group A's turn to gain a point. If Group B answers correctly, then they get Group A's turn/point and their intended turn. If Group B answers incorrectly, Group A gets their turn back. These rules are vice versa. There will be a Word Bank to choose from and phones cannot be used during this activity. One person will be needed to tally up the score. At the end of the activity, a discussion will be held to reflect on the definitions and film.

- Using Appalachian Cuisine to Help Revive Coal Country - Foodways Season 2, Ep. 6 (<https://youtu.be/-0F2f738QDU>)

Food Access	whether or not an individual or household is able to gain access to available food
Food Insecurity	the physical inflow and presence of safe and nutritious food at a given time and in a given place
Food Desert	Areas up to a mile or more where people have limited access to a variety of healthful foods
Cultural Food Desert	Areas where there is limited access to traditional foods and produce
Economic Development	the creation of wealth from which community benefits are realized
Cultural Acceptability	recognizes that the way in which food contributes to the basic needs and well-being of individuals, households and communities, goes far beyond its nutritional adequacy alone, and encompasses enjoyment, as well as the various social, religious, and cultural functions that food plays in peoples' lives
Food Security	a concept that is used to think systematically about how and why malnutrition arises, and what can be done to address and prevent it.
Health Status	the effect of disease on the ability to consume the food and absorb and metabolize its nutrients

Food Utilization	being able to eat and properly metabolize such food
Food Availability	nutritious food of sufficient quality needs to be available to people for their consumption
Appalachia	The Eastern United States that stretches from the Southern Tier of New York State to northern Alabama and Georgia
Redlining	the systematic denial of various services or goods by governments or the private sector either directly or through the selective raising of prices
Migration	the movement of people from one place to another with intentions of settling, permanently or temporarily, at a new location
Economic Status	measure of a person's work experience and of an individual's or family's economic and social position in relation to others
Kosher	foods are those that conform to the Jewish dietary regulations of kashrut, primarily derived from Leviticus and Deuteronomy
Halal	denoting or relating to meat prepared as prescribed by Muslim law
Malnutrition	undermines a person's ability to lead a healthy life and occurs when a person is not able to obtain the right variety of nutrients in the right amounts from their diet

Discussion Questions

- What is something that you were not originally aware of that stood out to you from the film of vocabulary activity?
- Do you think food accessibility is an issue in Appalachia? Why or why not?
- Were you aware that Appalachian food/culture existed?
- When doing community-based work, do you think it is important to be aware of food access? Why or why not?
- Have you or someone you know struggled with food access?
- Did this film expand your perspective or knowledge on Appalachian culture? Why or why not?
- Did you have any bias on Appalachian people or those who say they struggle with food security.

Workshop 2: What's for Dinner?

Background

The purpose of this game is to expose students to possible hardships that can inflict Food Insecurity. Food Insecurity is not only caused by a lack of access to fresh and unprocessed foods, but it can also be caused by things such as lack of transportation, available finances, religious restrictions, political conflict, and medical/dietary requirements. It is also important to be aware that these causes are not new issues. Other historic causes of Food Insecurity in the United States include immigration, migration, redlining, and ongoing environmental factors that still play a great role as to why many Americans face hunger and in some extreme cases, Famine.

By the end of this session, students should have a greater understanding of what causes Food Insecurity. They should also be aware that Food Insecurity is not only caused by an individual or family's living environments (neighborhoods and diet), but there are also social aspects that include race, education, and finances as well.

Facilitator Notes

- There should be a total of five Family Cards created equaling five groups
- The students must consider all aspects that may affect how much money the families have for meals that week. (Gas, Number of family members, health restrictions/dietary requirements, Bill)
- Students should use their phones or laptops to shop online at stores
- Ask a minimal of 3 of the Discussion Questions or all 5
- Play the game first then watch TedTalk (The Shocking Truth About Food Insecurity | Clancy Cash Harrison | TEDxWilmingtonWomen)
- <https://www.youtube.com/watch?v=HakCAdPrIm5> - 12 Minute Video
- At the end of the video ask students what they learned and how does this information resonate with them.

Activity

To start this game, students will randomly select a "Family Card" that will give them their age, family structure, economic status, mode of transportation, and what stores they can shop from. Based on the "Family Card" the students will then have to create a family meal plan for that week. Students can be in groups ranging from 2-5, and after 15 mins they will present the items, they choose to make dinner for the week. When all student finish presenting, they will then have an open discussion to reflect on how they provide for their families that week

Family Card Example

<i>Age</i>	54 years old
<i>Family Structure</i>	2 Kids, 2 Grandparents, Large Breed Dog, Spouse
<i>Economic Status</i>	Income is \$54,000/yr. Combined (You and Spouse)
<i>Mode of Transportation</i>	2018 Chevy Colorado (\$432 monthly payment: Diesel) and 2012 Nissan Altima (Car Insurance \$470)
<i>Nearby Stores</i>	Target 2 miles, Dollar General .8 miles, Walmart 10 miles, Whole Foods 4.6 miles
<i>Wild Card</i>	4 yr. old takes Growth Hormones 3 times a week 2 times a day, 17yr old is was accepted into an out of state Ivy League School, Grandparents are on Medicare, and Spouse has borderline diabetes Mortgage \$750 + \$285 Utilities

<i>Age</i>	25 years old
<i>Family Structure</i>	2 Schnoodle dogs, 1 child, No Spouse
<i>Economic Status</i>	Income is \$85,000/yr. Single Income
<i>Mode of Transportation</i>	2019 c 300 Mercedes (\$452 monthly payment; premium gas)
<i>Nearby Stores</i>	Target 2 miles, Dollar General .8 miles, Walmart 10 miles, Whole Foods 4.6 miles
<i>Wild Card</i>	4 yr. old takes Growth Hormones 3 times a week 2 times a day, \$250 in student loan payments (Monthly), currently applying for US Citizenship + Lawyer fees (\$1000), Rent \$1,100 + \$285 Utilities

<i>Age</i>	17 years and 10 months
<i>Family Structure</i>	Foster Child (Aging out of the system)
<i>Economic Status</i>	Income is \$2,000 per month
<i>Mode of Transportation</i>	City Public Transportation
<i>Nearby Stores</i>	Target 2 miles, Dollar General .8 miles, Walmart 10 miles, Whole Foods 4.6 miles
<i>Wild Card</i>	Cap and Gown graduation fees are due (\$250), City Transportation (\$50), first semester at a community college balance is \$1,500 after scholarships, Ramadan begins in three days and you have to be at school at 7:15 am, work is from 3:00 pm to 8:00 pm

Discussion Questions

- What were some challenges you faced providing for your family?
- Was the meal you planned affordable and healthy?
- Does your meal have the ability to last the whole week?
- How many meals is your family able to have a day?
- Does anyone in our family have any dietary restrictions?

Workshop 3: Define Home

Background

According to Census Reporter, Lexington, KY has a population of 323,152 people with most of that population being 71% white and the minority being 4% Asian. In environments such as this, cultural food deserts can exist. To simply put it, a Cultural Food Desert is when a minority individual and or family live in an area where there is little to no access to their cultural foods. This can be seen in both immigrant and gentrified neighborhoods. Both settings can be seen as a form of food insecurity with similar causes such as finances, religious restrictions, transportation, language barriers and various environmental factors. Based on the previously mentioned statistics along with other demographics from Census Reporter on the Lexington, KY area. Lexington is a city where cultural food deserts exist due to gentrification, immigration, and the presence of international students at the University.

Cultural Food Deserts are not only important to be mindful of because of Food Insecurity, but it can also cause and trigger issues of mental health (stress, anxiety, identity etc.). For many people, food is comforting, and it can act as a tool of survival in stressful environments whether it's through growing, preparing, or eating the food. With this activity, students will be exposed to minority cultural foods in a communal setting. They will also be made aware of possible new businesses and cultures in their area.

Activity

As a group, the students willingly eat and try new cultural foods from the surrounding area. The recommended establishments are Daughter's Southern, Jerk Lex, Taqueria El Antojitos, and Jasmine Rice Thai & Viet Cuisine (all food trucks). The students should be able to taste something from each establishment, and if possible, it would be ideal for these establishments to explain what the food is and if there is any cultural significance. Please be mindful that just because the food is prepared by similar races doesn't mean that there are cultural differences. Example not all Asian people are Chinese and not all Black/African Descendants are Black Americans. The discussion should take place after the meal, and the video can be played as the students eat.

Facilitator Notes

- This Tijuana Restaurant Makes Haitians Feel at Home (<https://www.youtube.com/watch?v=jqXDUdXrp4c>)
- Whole Foods, Gentrification and the Erasure of Black Harlem (https://www.youtube.com/watch?v=onU2p0fU_J4)

Discussion Questions

- What did you eat and what did you enjoy about it?
- Are you an emotional eater?
- What is your comfort food?
- Do you know how to cook your favorite/preferred comfort food?
- Do you have access to it?
- What is your earliest childhood memory around food?
- What is your favorite celebration that involves food?
- Do you think food brings people together?
- In your opinion, is food important for mental health?
- What is something you learned about a culture that you learned by eating or making their food?

Unit 2:

AgTech/Knowledge of Technology

Objectives:

At the end of this unit, participants should be able to:

- Identify common myths that surround agriculture
- Correctly define terms within the industry
- Illustrate the impacts AgTech has on a community and its economic opportunities

Workshop 1: What is AgTech?

Workshop 2: Combatting the misinformation that surrounds agriculture terminology

Workshop 3: What are the potential problems that the AgTech sector faces in society, specifically controlled environment agriculture?

Workshop 1: What is AgTech?

Background

Sustainable agricultural technology or, more simply, AgTech, is an emerging economic sector that has the potential to completely reshape global agriculture, dramatically increasing the productivity of the agriculture system while reducing the environmental and social costs of current ag production practices. According to “The 2050 Criteria,” the World Wildlife Fund says that over the next 40 years, land, energy, water, and weather constraints will place unprecedented pressure on mankind’s ability to access its most basic goods—food, fuel, and fiber. Humanity must now produce more food in the next four decades than we have in the last 8,000 years of agriculture combined. And it must be done sustainably. For entrepreneurs to build AgTech companies, for investors to direct capital to AgTech ventures, and for public officials to promote AgTech development through public policy, they first must know that AgTech exists. They must learn about the major challenges of meeting rising global demand for ag products and they must realize how the US can play a hugely constructive role in moving AgTech forward.

The ag tech industry has grown in recent years to include startups, accelerators and food-focused venture capitalists. But innovation is nothing new to farmers, and as a nearly 100-year-old farmer-owned co-op, we know that when farmers innovate, they contribute to something greater. Advances in ag tech can:

- Help farmers measure, track and continuously improve their environmental footprint.
- Support on-farm profitability, keeping farming viable for future generations.
- Feed a booming global population while making more efficient use of limited natural resources.

Discussion Questions

- Questions are below in the Activity section.

Activity

Show this TED talk that discusses the global food crisis

<https://www.youtube.com/watch?v=OzA6jRYjVQs>

- Watch the TED Talk above and stop the video at 2:29
 - 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.”
 - Ask the question, “As demand (population) rises, what limits our capacity to produce food?”

- Watch this video now and then ask the following questions after:
<https://www.youtube.com/watch?v=qexChWNFY5E>
 - Which innovation do you think could be most impactful and why?
 - What are the pros of using these technologies?
 - What are the cons of using these technologies?
- Watch the rest of the TED Talk by Sara Menker
 - What can developed and developing countries do to prevent a famine as we move toward 2050?
 - What can developed and developing countries learn from each other?

An additional activity is to invite AgTech professionals to talk to the group about the AgTech sector. Specifically, how they started and what the future of agriculture holds for them

Workshop 2: Combatting the misinformation that surrounds agriculture terminology

Background

Current food packaging has a wide variety of additional labels: organic, antibiotic free, cage free/free range, gluten free, no added hormones, no MSG, non-GMO, and probiotic. People are faced with a plethora of difficult decisions, especially when weighing price against perceived health benefits. Labels can influence consumers to buy a product, but what does the label actually mean? Not understanding labels can lead to misconceptions and misguided fears about food. This discussion can help students understand the meaning of modern food labels.

Objectives for this discussion is to define terminology used in food labels and determine their significance; and appreciate the complexity of food labels that may include multiple perspectives and impacts such as nutritional, social, economic, cultural, or environmental.

Dr. Stephan Lewandowsky, University of Bristol, U.K., says providing a narrative is a critical step. “It is not enough to debunk the myths, you need to provide an alternative that will fill the gap if misinformation is to be accepted as untrue. Explain the false information and the agenda of those pushing it. The most effective way to reduce the effect of misinformation is to provide an alternative explanation for the events covered by the misinformation.”

According to Lewandowsky, the other critical step is: “beware of a person’s world view. For example, understand that those opposed to GMOs have natural, environmental, and purity goals. You cannot attack these values. Instead, you have to deal with the science behind GMO.” In the case of GMOs, given the resulting increased use of glyphosate, and now the development of glyphosate-resistant weeds, Lewandowsky suggests farmers acknowledge that GMO crops have resulted in excessive use of glyphosate which has resulted in development of glyphosate resistance. He says a GMO supporter who begins a conversation with someone opposed to GMO by conceding this point will improve trustworthiness of the GMO proponent and make the person opposed to GMO more willing to reconsider their GMO position.

When asked who the best is to address misinformation about GMOs, Lewandowsky replied: “Those who people trust. Not Monsanto! Instead, it should be independent university scientists who are not funded by corporate interests. It should be farmers who use GMO technology.” Lewandowsky says farmers who address a misinformation issue like GMO should focus on discrediting misinformation with friends and family first. He recommends talking to those who are on the fence about an issue like GMOs rather than those firmly opposed to the technology. “There is very little to be gained by trying to change the position of hardcore believers in misinformation.” However, Lewandowsky says it is very important to expose those hardcore believers and the reasons they have for promoting misinformation. Are they promoting misinformation for personal financial gain, for the fame, or perhaps for political reasons? “Debunking myths is problematic. Unless great care is taken, any effort to debunk misinformation can inadvertently reinforce the very myths one seeks to correct. To avoid these “backfire effects,” an effective debunking requires three major elements.

First, the refutation must focus on core facts rather than the myth to avoid the misinformation becoming more familiar. Second, any mention of a myth should be preceded by explicit warnings to notify the reader that the upcoming information is false. Finally, the refutation should include an alternative explanation that accounts for important qualities in the original misinformation.

Activity

- Start by discussing with the students using the following questions:
 - Ask them if they have ever seen news reports, memes, blogs, or other social media posts in strong opposition or support of GMOs.
 - Hold a class discussion about some of the specific ideas and concerns students have or that they may have heard from others.
- Do a “fact or fiction” activity using the Kahoot! link below
 - [Kahoot!](#)
- After the Kahoot! move to the discussion questions below.

Discussion Questions

- Why are there so many foods labeled as “non-GMO” when they don’t have a GMO counterpart?
- Do you think this labeling practice hurts or helps the agriculture industry? Why?
- How do science and technology solve agriculture problems?
- What are some career opportunities in the area of AgTech?

Workshop 3: What are the potential problems that the AgTech sector faces in society, specifically controlled environment agriculture?

Background

Controlled Environment Agriculture (CEA) is a technology-based approach toward food production. This is an attempt to grow plants under modified, highly controlled conditions in greenhouses using soilless culture, also known as hydroponics. This type of production can increase capacity and higher efficiency with a lower demand for land resources. CEA plays a critical role in addressing sustainable food systems. CEA techniques are not simpler than older systems for growing plants. They demand concrete knowledge of chemistry, horticulture, engineering, plant physiology/pathology, and computers. A wide range of skills as well as a natural inclination to attend to details are necessary for a person to operate a successful CEA production.

Today's consumers increasingly demand a diet that includes fresh, high-quality vegetables free of pesticides and other agricultural chemicals. Local production is also a major factor when fresh vegetables are purchased. In many regions of the United States and the world, climate makes it impossible to meet this need year-round with only local produce. Produce imported into the US may be from other regions of the country and from other countries. When fresh produce is transported great distances, there can be a significant loss of quality. Furthermore, energy requirements for transport can be significant. Local production in CEA facilities can also require significant energy inputs for heating, venting, and possibly supplemental lighting. Studies have suggested the (non-solar) energy required to grow and transport fresh produce at least 1000 miles is equivalent to the energy required for local production within CEA facilities in cold and cloudy climates such as the Northeast and upper Midwest. Transportation relies on liquid fuels, the price of which is predicted to rise faster than the general inflation rate. Production in CEA facilities relies on electricity and natural gas, the prices of which are predicted to rise no faster than inflation. These factors suggest CEA production of fresh vegetables can become a significantly greater component of commercial agriculture in the coming decades.

Activity

- The discussion questions below will serve as the activity for this workshop.

Discussion Questions

- When you think of agriculture, what do you imagine?
- How do you get an industry to "buy in" to a new innovation when the Ag industry is deeply rooted in tradition?
- Describe a few economic benefits you think are associated with CEA

Unit 3:

Community Well-Being

Objectives

At the end of this unit, participants should be able to:

- Demonstrate how community-led initiatives impact a community
- List the most effective strategies for community empowerment
- Assess a community's needs by networking with community members and listening to their concerns

Workshop 1: Community Well-Being Through Food Systems

Workshop 2: Community Well-Being Through Community Led Initiatives

Workshop 3: Community Well-Being Through Health

Workshop 1: Community Well-Being through food systems

Background

This module was developed to introduce participants to community well-being, by discussing specific topics relating to sustainable environments, food systems, and health. The main concepts taught by the module will include food systems and the use of environmentally sustainable practices. “A food system is used frequently in discussions about nutrition, food, health, community, economic development and agriculture”. “Food systems encompass growing, harvesting, processing, packaging, transporting, marketing, consuming and disposing of food.” This specific module will focus on how community well-being relates to food systems. Because food systems are so interconnected, discussing various aspects of nutrition will allow participants the opportunity to advance community well-being, as proposed. The aspects of nutrition that will be discussed in this subsection of Unit 3 are healthy foods, how healthy foods impact your mind and body, and how to grow healthy foods at home.

Facilitator Notes

Community well-being consists of six principles, we chose to focus on two. Health (physical) and environment sustainability. In order to consolidate the two, we are focusing the discussion on nutrition and food systems.

This is a link to an article that meticulously defines food deserts: <https://foodispower.org/access-health/food-deserts/>.

Nutrition has been proven to impact an individual's behavior, emotions, and much more. Fruits “are an excellent source of essential vitamins and minerals, and they are high in fiber. Fruits also provide a wide range of health-boosting antioxidants, (Sissons, 2019)”. Vegetables “lower blood pressure, reduce the risk of heart disease and stroke, prevent some types of cancer, lower risk of eye and digestive problems, and have a positive effect upon blood sugar” (Harvard, 2021) . Microgreens are a simple solution to lack of space and lack of expertise that fruits and vegetables require. These flavorful seedlings can be incorporated into any dish and are “loaded with nutrients, such vitamins, C, E, and K, lutein, and beta-carotene (Apeace, 2014)”.

Discussion Questions

This short film introduces food systems on a global level. <https://vimeo.com/8812686>

Questions:

- Based on the video, why is it important to work together and engage in international practices?
- How would adequate food systems beneficially impact community well-being?

This article explains and emphasizes the importance of healthy food and diet. <https://www.hsph.harvard.edu/obesity-prevention-source/obesity-causes/diet-and-weight/>

- Based on the article, what do you think is the most important change that needs to be made to our regional diets?
- What are some practical ways that communities can implement healthier practices to promote community well-being?

Activity

Create a self-watering microgreen kit. These microgreens provide nutritious plants that can be grown anywhere because of their lowlight requirements. These kits promote environmental sustainability and healthy eating.

Materials needed

- microgreen seeds
- containers (mason jar)
- soilless media (pro-mix)
- water
- wick
- plastic containers

Instructions

Step one: Cut two slits in the bottom of the plastic container.

Step two: Thread wick through the container so the longest parts/ends can reach water and the loop can touch the soil.

Step three: Fill plastic container to the brim with soilless media

Step four: Sew a layer of microgreen seeds directly on top of the soilless media.

Step five: Fill the larger container (mason jar) with water

Step six: Place the smaller plastic container into the larger container so that the wicks are submerged in water.

Additional instructions

make sure that the wicks are submerged, refill the bottom container when necessary.

Microgreens only sprout once so after you cut the first harvest you need to reseed new seeds.

Workshop 2: Community Well-Being through Community-Led Initiatives.

Background

This module was developed to introduce participants to community well-being, through discussions on specific topics relating to community-led initiatives. One main concept taught by this module will include different community organizations that are dedicated to correcting community well-being. Another main concept that will be taught by this module is the importance of initiatives. A community-led initiative is essentially “a planning and development approach that's based on a vision and priorities of the people who live in that geographic community. The purpose is to put local voices in the lead, build on local strengths (rather than focus on problems), and collaborate across sectors” (MCLD, 2021).

Facilitator Notes

Community led initiatives are a vital community aspect because they are able to assess the needs of the people and fill them. AppHarvest is one community led initiative that focuses on growing fresh, nutritious fruits and veggies for the betterment of people and the planet. In Appalachia specifically, there are many examples of unequal distribution of resources. That is why AppHarvest created three greenhouses to produce and distribute fresh fruits and vegetables to local communities. This is one example where an issue of lack of fresh foods was addressed but there are many more internationally and domestically.

Discussion Questions

This short video introduces the topic of food systems and how initiatives are trying to improve them

<https://www.youtube.com/watch?v=dDbENx9c3Fg>

- Why do community led initiatives exist?
- What do you think makes a successful initiative?

This website is an overview over the AppHarvest organization

<https://investors.appharvest.com/static-files/5fe4670f-144a-4788-9728-01b72186f02b>

- What information was the most helpful in understanding the purpose of this initiative?
- How can you use this presentation as an outline for your mock initiative?

Activity

Create a mock community led initiative including business plan, location, etc. This activity will introduce participants to the intricacies of community work and problem solving. Participants will see how teamwork creates opportunities to make change and improvements.

Materials needed

- Poster
- writing utensils
- device with internet access

Instructions

Step one: Create small groups of three - four.

Step two: Identify a community issue in regard to a community's well-being.

Step three: Identify a solution to the community issue.

Step four: Create a "presentation" to showcase the business plan you've formulated. The presentation should include the issue and solution(s). The presentation should also include your ideas about marketing, funding, location, and any other aspect you've learned from the guided discussion.

Workshop 3: Community Well-Being through Health

Background

This module was developed to introduce participants to community well-being, by discussing specific topics relating to health and general wellness. The main concepts taught by this module will include practical methods relating to agriculture that will increase and promote community health and wellness. It is evident that health and wellness is directly related to community well-being. It is important to recognize resources that spread positive information about the topic. This module will give participants the opportunity to accurately identify, and relay newly found resources after assessing specific community needs through networking.

Facilitator Notes

Community well-being consists of six principles. In this module we chose to focus on one, health (physical). Specifically, we are focusing the discussion on communities' access to information and resources. “Addressing the information and communication needs of the poor is also essential – the poor often lack information that is vital to their lives (GSDRC, 2015)”. If we are able to reach communities through education, they will be willing to spread accurate truths and subsequently work to do better for themselves and others.

Sites like <https://www.cdc.gov/> is an excellent example of a resource that provides information about health to communities. The CDC is a health protection agency focused on spreading disease related information to the world, and their website reflects it. All the information is scientifically proven so it provides resources that people can use as a basis in decision making processes. After reading the CDC website an otherwise ignorant citizen might be informed of simple tasks like wearing a mask during flu season.

Discussion Questions

- Name at least three resources that provide information to communities in regard to health and healthy lifestyles?
- How can access to information change a community perspective?
- What are practical solutions to introduce and promote community well-being through health and wellness?
- How would you implement the previous solutions so that they are easily accessible to community members?

Activity

The discussion will serve as the activity for this workshop.

Bonus Workshop: How to do a Lightning Talk

Background

A lightning talk is a swift way to give an informative speech. Lightning talks follow a standard format that encourages short, engaging presentations that focus on the key points of your research. Each talk consists of 20 slides that auto advance every 15 seconds, for a total of five minutes.

When preparing and practicing your presentation, you will want to set the automatic advance feature in PowerPoint to advance your slides every 15 seconds. To do so, follow these instructions:

- From the “normal” view of your ppt file, click on the “transitions” tab
- To the right along the Transitions Tool Bar, you will find a section called “Timing” and a setting “Advance slides.” Highlight all of your slide thumbnails in the bar along the left of your screen.
- Then go back to the Advance Slides setting and add a check mark to the box next to the word “After” and enter “00:15.00”
- This should set your deck to advance the slide automatically every 15 seconds once in the Slide Show mode.
- **Do test the timing of the automatic advance. Some computers advance quicker or slower than the programmed time, so it is best to time each transition and adjust settings if necessary.**

Examples of Lightning Talks

- [“Why and How to Give an Ignite Talk”](#)
- [“From Zero to Muso in 5 Minutes”](#)
- [“Getting Past Hello...How to Talk to Anyone”](#)

Rubric for a lightning talk

	POOR (1 point)	FAIR (2 points)	GOOD (3 points)	EXCELLENT (4 points)
Organization	Audience cannot understand presentation, no sequence of information	Audience has difficulty following presentation, student jumps around	Student presents information in logical sequence which audience can follow	Student presents information in logical, interesting sequence which audience can follow
Subject Knowledge	Student does not grasp information; student cannot answer questions about the subject	Student is uncomfortable with information and is able to answer only rudimentary questions, but fails to elaborate	Student is at ease and answers most questions with explanations and some elaboration	Student demonstrates full knowledge (more than required) by answering all questions with explanations and elaboration
Appearance	Inappropriate dress for a presentation	Some aspects of appearance within personal control of the presenter could be improved	Neat, clean, appropriate attire for public speaking	Extra thought and effort given to appearance or dress
Eye Contact	Student makes no eye contact and only reads from notes	Student occasionally uses eye contact, but still reads mostly from notes	Student maintains eye contact most of the time but frequently returns to notes	Student maintains eye contact with audience, seldom uses notes
Verbal Techniques	Student mumbles, incorrectly pronounces terms, and speaks too quietly to hear	Student's voice is low, incorrectly pronounces terms, audience has difficulty hearing presentation	Student's voice is clear, pronounces words correctly, and most of the audience can hear presentation	Student uses a clear voice, correctly and precisely pronounces words, and all audience members can hear presentation
Total Score (circle one)	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Total Overall Score: _____