SDG12 Future of Enterprise MM3: Step into the Future(s)



MM3: Step into the Future(s)

Research and **Development**

Lesson 6: Divergent Scenarios + Storytelling

Subject Areas: CSPE Climate Action and Sustainability, English **SPHE**

DECENT WORK AND









AND INFRASTRUCTURE



Lesson Title and Summary: Divergent Scenarios

Learners create diverse future territories using trend +AI (ChatGPT), cultivating interdisciplinary thinking. Collaborative narrative-building communication and sparks creative solutions to diverse challenges.

Learners will set up a ChatGPT account and learn to create prompts to develop future scenarios. Learners will also create a digital artefact for the class repository for this module that shares their findings from the activities.

This lesson is in preparation for Lesson 7 - Futures Thinking Scenarios and Storytelling

Vocabulary: Divergent, Transformation, Collapse, Discipline, and Growth Scenarios

In this lesson, the learner will:

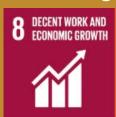
- develop critical thinking by using trend analysis to generate distinct future territories.
- · enhance their creative thinking by envisioning diverse narratives within each territory.
- develop interdisciplinary thinking as learners explore the intersection of trends.
- cultivate their collaboration through group storytelling and scenario development.
- have improved communication skills as learners present their findings for the lesson's activities

Materials

- ChatGPT account Internet access
- Worksheet: The Future of Food Security
- Worksheet: Using ChatGPT for Community Scenarios
- Printer
- Tape

MM3: Step into the Future(s)

L6: Divergent Scenarios + Storytelling











Activity Instructions

Activity 1 – Understanding Scenario Building (30 minutes)

- 1. Watch the Video: 'Four Generic Images of the Future' introducing Jim Dator's Framework the arcs Grow, Collapse, Discipline and Transformation.
- 2. Assign pairs, the numbers 1,2,3,4 until all pairs in the class have a number 1 4
- 3. Using Worksheet: The Future of Food Security ask each pair to read their assigned scenario (1-4) and highlight key points and discuss if they feel they are plausible or probable futures using the question prompts on the worksheet. Allow 10 minutes for this activity
- 4. Ask learners to find another pair with the same assigned scenario and share their findings with each other.
- 5. Then Using Canva, Google slides or Microsoft Powerpoint have learners create 2 slides
 - one slide has the image and scenario information from their assigned scenario
 - and one slide consolidates the findings of the group of 4 from the discussion prompts

Activity 2 – Using ChatGPT to develop Community Scenarios (20 minutes)

- 1. Using the Worksheet: 'Using ChatGPT for Community Scenarios' learners will first create a ChatGPT account. If working in small groups, learners can set up one account per group.
- 2. Once the account is set up have learners use the worksheet: 'Create a Prompt to Develop a Community Scenario' to create a prompt in ChatGPT for their community using the trends / issues list or an issue that is current in their community in the year 2050.
- 3. Using the prompt outline: (selecting community issue or use issues list, work through three trends using one of Dator's arcs, Grow, Collapse, Discipline and Transformation) learners will create 3 prompts and enter them into Chat GPT to generate 3 scenarios for their community in 2050.
- 4. Learners will copy these into a word document and store in the module / lesson's digital repository
- 5. Learners can repeat the exercise using a number of variables of the trends and different arcs.

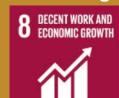
REFLECTIVE EXERCISE: 3-2-1 (10 mins)

- Three things they feel they have learnt from the tasks
- Two things they found most interesting and would like to explore more
- One their opinion they have about the tasks

Use Post-its or a mentimeter survey - www.mentimeter.com - to gather reflections

MM3: Step into the Future(s)

L6: Divergent Scenarios + Storytelling











EXTENSION / REDUCTION ACTIVITIES

Reduction: For a shorter lesson,undertake activity 1 only and complete activity 2 and 3 in a followup lesson

Extension: For a longer lesson, spend additional time on activity 2 by selecting other trends and a different arc to create more divergent prompts and intitate a class discussion, to share their thoughts about the following

- How did the scenarios change when you changed the arc?
- Did you experiment with different trends and timelines?
- Using ChatGPT requires some tweaking, share your experience creating a strong prompt

Option B: Use the weblink in the Media Box 'Foresight Transformation Missions' to find out more about the following seven themes: Climate & Just Transitions, Democracy & Governance, Emerging Technology, Futures Methods from Around the World, Intergenerational Fairness, Nuclear Security, and Peacebuilding

MEDIA BOX: (materials, online video links, extra resources, case studies etc)

Video: Activity 1 – Scenario Building 4 generic Images of the Future [7:50 mins] https://youtu.be/Bay_znXcgjU

Extension Option B: Foresight Transformation Missions https://nextgenforesight.org/fellowship/global-challenges/

Uploading your own images to Mid-Journey https://nerdschalk.com/how-to-upload-image-to-midjourney/

LOCAL TRIP / EXPERTISE / ADDITIONAL WORK AND ASSESSMENTS

Explore AI image generators Midjouney, Dall-e or Canva AI to create illustrations to support the group's scenarios, using the prompts you have developed.

Create an exhibition of localised scenarios e.g. in the local library. Using images from their location gathered from Google Maps or their own photographs in combination with AI image generators Midjouney, Dall-e or Canva AI. Learners apply their group prompts to generate new futures images, to create discussion as part of the opening to discuss the images with the local community.

Jim Dators 4 scenarios can be understood as



- Continuation (further status quo growth and change, eg., 'business as usual')
- Limits and Discipline (behaviors to adapt to growing internal or environmental limits)
- Decline and Collapse (system degradation or failure modes as crises emerge)
- Transformation (new technology, business, or social factors that disruptively change the system)

The notes here are also in the video

The Future of Food Security



In the bustling green metropolis of Verdetown, amidst the tangle of vertical farms and rooftop gardens, we meet Lina. An agricultural engineer, she begins her day checking the air-quality reports from her window, which displays real-time climate data.

Post breakfast, which comprises of crops grown on her balcony using recycled water and compost, she logs into her office. Her primary project?

Developing resilient crops that can thrive despite unpredictable weather patterns. Every product she designs fits perfectly into the circular economy, designed for reuse. Online, she's been getting anonymous threatening messages lately. A product of her work's success? Maybe.

She reports these using the city's anti-cyberbullying platform, which employs AI to analyse and track down malicious users while offering emotional support to victims.





Eli wakes up in the commune of TerraGuard, a walled city that was built in response to the chaotic extremes of climate change. Citizens here live by strict codes, ensuring minimized carbon footprints.

Meals are rationed, consumption is limited, and recycling is mandatory. Every resident has a role, and Eli's is to oversee the communal vertical farms, ensuring that they produce just enough to feed the community without waste. Physical bullying has all but disappeared, as any deviation from the set codes means exile.

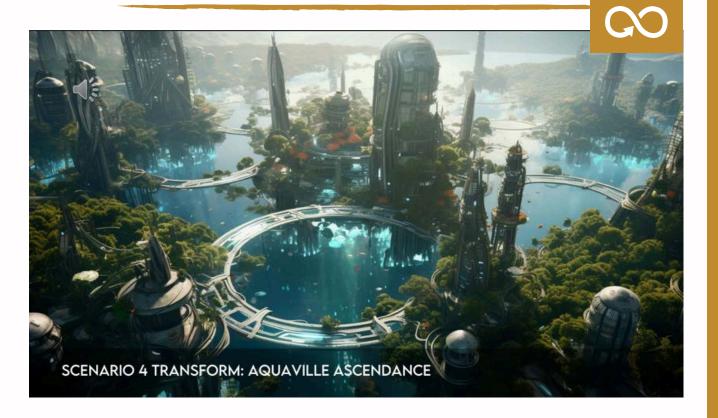
However, whispers still spread, now digitally, and when Eli confronts a resident for water wastage, he's met with a flurry of covert online harassment. He seeks solace in his communal support group, discussing ways to maintain emotional resilience.



Mara navigates the remnants of a once-thriving city, now reduced to drought-ridden wastelands. Climate change has escalated beyond control, and society, unable to adapt, has fragmented. Mara scavenges for resources, reusing every find in the true spirit of a forced circular economy. Food and clean water are luxury items.

As she negotiates trades on a battered old tablet, she's frequently the target of cyberbullying from anonymous barterers looking to exploit her vulnerabilities for a better deal. Old school cliques have formed roaming bands, and in this harsh environment, bullying takes a more perilous tone.

Yet, Mara keeps moving, always seeking safer havens and digital sanctuaries.



In the floating city of AquaVille, Noa starts her day by donning her algae-fabric suit. Cities have transformed and adapted to the rising sea levels, building upwards and over the water. An artist in this future, Noa creates sculptures from reclaimed ocean plastic, embodying the circular economy's principles.

The city's digital realm is interconnected, with AI systems that sense emotional distress in its users, immediately providing resources or interventions for those feeling the pressures of cyberbullying. Over time, this has fostered a community where mutual respect, both online and offline, reigns supreme.

As Noa unveils

her latest masterpiece, the community gathers, appreciating art and unity in their transformed world.





Using three trends, one arc from Dators 4 generic images of the future create a prompt in ChatGPT for your community or an issue in your community in the year 2050

- Repeat the exercise and substitute for a different arc.
- Find some interesting scenarios share them by taping them to the wall for others to read,
- a) Note how the scenarios changed,
- b) What did you learn?
- c) Are there ideas that you could bring back to the present and implement in some way today?

MM3: L6 THE FUTURE OF FOOD SECURITY

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Activity 1 Understanding Scenario Building

- 1. In your pairs read your assigned scenario, underline key aspects or points that stand out for you and consider the following questions:
 - Do you think this is a plausible or probable scenario? Please discuss your choices and why you think this.
 - What evidence do you have for your thoughts on the question above is this your perception or a reality?
 - If you do not have evidence for your where might you find information that would either affirm or change your thoughts on this as an outcome?
- 2. Find another pair working on the same scenario and discuss your answers then use this information to create two slides 1. the image and text from your scenario 2. the findings from your whole group.



In the bustling green metropolis of Verdetown, amidst the tangle of vertical farms and rooftop gardens, we meet Lina. An agricultural engineer, she begins her day checking the air-quality reports from her window, which displays real-time climate data. Post breakfast, which comprises of crops grown on her balcony using recycled water and compost, she logs into her office. Her primary project?

Developing resilient crops that can thrive despite unpredictable weather patterns. Every product she designs fits perfectly into the circular economy, designed for reuse. Online, she's been getting anonymous threatening messages lately. A product of her work's success? Maybe.

She reports these using the city's anti-cyberbullying platform, which employs AI to analyse and track down malicious users while offering emotional support to victims.

MM3: L6 THE FUTURE OF FOOD SECURITY



ACTIVITY 1 UNDERSTANDING SCENARIO BUILDING

- 1. In your pairs read your assigned scenario, underline key aspects or points that stand out for you and consider the following questions:
 - Do you think this is a plausible or probable scenario? Please discuss your choices and why you think this
 - What evidence do you have for your thoughts on the question above is this your perception or a reality?
 - If you do not have evidence for your where might you find information that would either affirm or change your thoughts on this as an outcome?
- 2. Find another pair working on the same scenario and discuss your answers then use this information to create two slides 1. the image and text from your scenario 2. the findings from your whole group.



Eli wakes up in the commune of TerraGuard, a walled city that was built in response to the chaotic extremes of climate change. Citizens here live by strict codes, ensuring minimized carbon footprints.

Meals are rationed, consumption is limited, and recycling is mandatory. Every resident has a role, and Eli's is to oversee the communal vertical farms, ensuring that they produce just enough to feed the community without waste. Physical bullying has all but disappeared, as any deviation from the set codes means exile.

However, whispers still spread, now digitally, and when Eli confronts a resident for water wastage, he's met with a flurry of covert online harassment. He seeks solace in his communal support group, discussing ways to maintain emotional resilience.

MM3: L6 THE FUTURE OF FOOD SECURITY

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

ACTIVITY 1 UNDERSTANDING SCENARIO BUILDING

- 1. In your pairs read your assigned scenario, underline key aspects or points that stand out for you and consider the following questions:
 - Do you think this is a plausible or probable scenario? Please discuss your choices and why you think this
 - What evidence do you have for your thoughts on the question above is this your perception or a reality?
 - o If you do not have evidence for your where might you find information that would either affirm or change your thoughts on this as an outcome?
- 2. Find another pair working on the same scenario and discuss your answers then use this information to create two slides 1. the image and text from your scenario 2. the findings from your whole group.



Mara navigates the remnants of a once-thriving city, now reduced to drought-ridden wastelands. Climate change has escalated beyond control, and society, unable to adapt, has fragmented. Mara scavenges for resources, reusing every find in the true spirit of a forced circular economy. Food and clean water are luxury items.

As she negotiates trades on a battered old tablet, she's frequently the target of cyberbullying from anonymous barterers looking to exploit her vulnerabilities for a better deal. Old school cliques have formed roaming bands, and in this harsh environment, bullying takes a more perilous tone.

Yet, Mara keeps moving, always seeking safer havens and digital sanctuaries.

LMM3: L6 THE FUTURE OF FOOD SECURITY



ACTIVITY 1 UNDERSTANDING SCENARIO BUILDING

- 1. In your pairs read your assigned scenario, underline key aspects or points that stand out for you and consider the following questions:
 - Do you think this is a plausible or probable scenario? Please discuss your choices and why you think this
 - What evidence do you have for your thoughts on the question above is this your perception or a reality?
 - If you do not have evidence for your where might you find information that would either affirm or change your thoughts on this as an outcome?
 - 2. Find another pair working on the same scenario and discuss your answers then use this information to create two slides 1. the image and text from your scenario 2. the findings from your whole group.



In the floating city of AquaVille, Noa starts her day by donning her algae-fabric suit. Cities have transformed and adapted to the rising sea levels, building upwards and over the water. An artist in this future, Noa creates sculptures from reclaimed ocean plastic, embodying the circular economy's principles.

The city's digital realm is interconnected, with AI systems that sense emotional distress in its users, immediately providing resources or interventions for those feeling the pressures of cyberbullying. Over time, this has fostered a community where mutual respect, both online and offline, reigns supreme.

As Noa unveils her latest masterpiece, the community gathers, appreciating art and unity in their transformed world.

MM3: L6WS CHAT GPT FOR COMMUNITY SCENARIO



1.Detailed instructions For Activity 2 Setting up a ChatGPT account

- 1. Go to Chat GPT https://chat.openai.com/auth/login and set up an account, you will. need an email and a password for this. Make a note of what this is. This can be one account for your whole group to use.
- 2. Once you have your account set up continue working through the next activity Create a Prompt to try the example in ChatGPT.
- 3. Using the Issues List on the next page, choose an issue from the list provided as a starting point for developing your community scenario for the year 2050.
- 4.Using three trends and an arc from Dator's Framework from the video https://youtu.be/Bay_znXcgjU create a prompt in ChatGPT for your community.
- 5. You can also use an issue that is currently a concern in your community and ask what that might look like in the year 2050.
- 6. Use the following trends to create 3 different scenarios to consider how the effects and outcomes impact on the scenarios. The trends should be critical scenarios drivers e.g. Artificial Intelligence is everywhere; Weather / Disaster Disruption; Declining Mental Health, Population Growth, Equality, Diversity and Inclusion
 - INSERT TREND 1 (choose a critical scenario driver from the list above)
 - INSERT TREND 2 (choose a critical scenario driver from the list above)
 - INSERT TREND 3 (choose an outlier or a lesser trend to mix things up as your third trend e.g. Animal Intelligence; Free Energy; Accessing human consciousness; End of over consumption
- 7. Use this outline to create your prompt and insert into ChatGPT generate your scenarios
- 6. Save your scenario to a word doc and save in the digital repository for sharing later.
- 7. Repeat the exercise and substitute using a different arc (Growth, Discipline, Collapse, Transform) than you uesed the first time. Note the following
 - Note how the scenarios changed,
 - What did you learn?
 - Are there ideas that you could bring back to the present and implement in some way today?
- 8. Save each any additional scenarios as before.
- 9. These can then be exibited in school or more publicly e.g. using social media or the local library.