Longitude Explorer Prize

How to use the activity plans:

Each activity, apart from the introduction presentation, has a plan for you to follow, a powerpoint presentation and list of materials needed for the session.

Some activities recommend handing out materials during the session so it is advised to spend roughly 15 minutes prior to prepare.

Below is an example activity plan schedule, however, it is up to you how much you think the group you are supporting will benefit from the activities.

Example activity plan schedule:

Week 1: Introductory presentation & An introduction into AI activity (40 mins)
Week 2: Living Together activity (40 mins)
Week 3: Product development activity 1 & Product development activity 2 (40 mins)
Week 4: Product development activity 3 & finalise your application form (40 mins)

Theme 3: Living together

Learning objective:
This activity aims to provide young people with an understanding of the third challenge theme which is about how technology can help us to travel more easily, safely and greenly.

Time:
- 35-40 mins

Materials needed:
- Theme 2: Living together presentation
- Living Together information sheet
- Idea generation materials (whiteboard, pen/pencils, A3 paper, post-its)
- Design thinking template

Slide 2:
Explain that transport has changed a lot throughout history with lots of new ways to get around. This means that we now have loads of options to choose from when we want to get somewhere, e.g car, plane, train, bike etc.

Let's take a look at how it has changed over the years...

Show transportation video.

Slide 3:
Ask the participants to split up into small groups of 2 or 5. Hand out post-it notes, and ask them to write down at least 3 answers to the Q. With all the amazing and different ways we can travel now, what problems or issues might come with this?

If participants are struggling for ideas then you might want to provide some of these ideas:
- *Congestion - UK drivers wasted an average of 31 hours in rush-hour traffic last year!*[1].
- *Infrastructure - Intelligent infrastructure has the potential to reduce congestion in a wide range of ways from reducing motorway closure time following an accident to dynamic real-time traffic management.*[2].

1.BBC 2018 [ONLINE]: https://www.bbc.co.uk/news/uk-42948259
2. Highways UK 2018 [ONLINE]: https://highways-uk.com/huk/intelligent-infrastructure-hub/2018-challenges

- *Capacity and overcrowding - Overcrowding on trains is at the highest level for years, according to official data compiled by Labour showing some major routes are to be 208% of capacity by 2022.*[3]
- *Cost - Transportation costs within the UK are seeing a steep rise, impacting the lives of millions of people who rely upon transportation to commute to and from work. The rising costs have notably been seen with rail fares, which have risen by 3.2%, and could add more than £100 to annual season ticket prices.*[4]

Using a clear wall or whiteboard ask groups to share their ideas one group at a time by sticking them up at the front - grouping similar ideas together to start to create themes.

Once this has been completed summarise the key ideas which the groups came up with and hand out the **Living Together information sheet.**

Slide 3:
Explain that the challenge for this theme is: How can we use AI to make sure that we're able to move more easily, safely and greenly?

Ask the group if they need a reminder of what AI is. If yes, show the what is AI video using the link.

Slide 4:
Take participants through the two examples or ask them to discuss in their groups about how AI is being used already to answer some of the challenges they have identified around living healthier.

Example 1: Self-Driving Cars

Example 2: Bike Sharing Schemes

Explain that these are only a couple examples and that participants should not feel limited to these ideas - all ideas are welcome!

Slide 5:
Hand out the template at the end of this document to the groups and ask them to use it by starting with a problem or challenge e.g. older people needing to keep up to date with new skills in the workplace, that was identified in the first exercise.

3. Josh Halliday The Guardian 2019 [ONLINE]: https://www.theguardian.com/uk-news/2019/jan/03/uk-train-overcrowding-highest-level-in-years-labour
4. EnergiMine Medium 2018 [ONLINE]: https://medium.com/energitokennews/uk-transport-costs-are-rising-and-only-electric-vehicles-can-save-the-day-eb787287642b

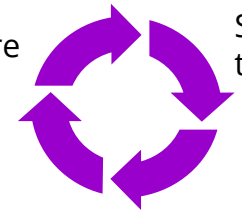
They can then work through the different questions using the case studies and other resources to help them think about ideas.

Encourage groups to use the case studies as examples but not to feel limited to these - all ideas are welcome no matter how different!

Slide 6:
To close the session ask one of the group members to take home their templates and any notes they made about their ideas.

Explain that over the next few sessions they will get the opportunity to continue to develop their ideas further so make sure they bring them with them next time.

Step 1: Observation (What issues are there to be solved?)



Step 2: What's the story? (How do you feel about those issues?)

Step 3: Generate Ideas (Work as a team to submit the best idea!)

Step 4: Planning (How you can turn your idea into reality?)

Remind them that there are lots of fun and useful resources available to them through the prize at https://longitudeexplorer.challenges.org/ which can help them develop their ideas further.

What is the challenge/problem? *E.g. Older people need extra help with day to day activities.*	**What is needed to solve the challenge/problem?** *E.g. Someone or something to help older people with day to day activities.*	**How can AI help?** *E.g. Machine learning: AI can learn to do specific task without human instructions.* *E.g. Natural language processing: AI can be used to help a computer understand human language (speaking or writing)* *E.g. Image recognition: AI can be used by a computer to see what is happening in images/videos*	**What are the risks?** *E.g. If a computer takes over some of the caring tasks for older people, who is still responsible for the care of these individuals (doctors/nurses? family?)?*	**Your idea!**