**WHAT IS THE PROJECT ABOUT?**

The project is about engaging our young students and ourselves in discussions and debates on issues that impact our lives today and in the future. The topic is STEM (Science, Technology, Engineering and Maths) but the skills it aims for you to further develop in your students are life skills that will continue to benefit your students in their future lives. Science and Technology has improved our lives enormously in many ways, but it also if not properly considered, has the potential to cause enormous damage. This is about beginning to encourage our students to engage in the ethics and responsibilities around – in this instance augmented reality & artificial intelligence – that currently challenge society and will do so in the future.

**DO I NEED TO BE TECHNICAL TO EITHER UNDERSTAND OR RUN THIS PROJECT?**

No, the project is a communications and engagement project about issues that impact on our lives. These issues are real today and are being discussed now. From driverless cars to social media and smart houses, artificial intelligence is evolving rapidly. Our newspapers, TVs and radios have much commentary on technology, how we are all engaging with it and where responsibilities lie for ensuring everyone’s health, safety and well-being.

This project is about encouraging the generation you are working with to develop and to engage in thinking about the ethics and responsibilities that need to be considered in terms of this, both now and in the future.

**WHY IS IT RELEVANT?**

When it was released 50 years ago (1968), the movie ‘**2001: A Space Odyssey’** by Stanley Kubrick was a ground-breaking futuristic – some people called it fantasy – movie, indicating that as much as machines might assist humans in the future, we would be foolish to hand over total control.

Apart from watching the movie (<http://www.imdb.com/title/tt0062622/?ref_=nv_sr_2> ) there are many online resources available to analyse the movie and the technology:

<http://2001.wikia.com/wiki/HAL_9000>

<http://miscel.wikidot.com/2001-transcript>

The main subject of this project is HAL, the on-board talking computer that is supposed to assist the humans in every aspect of their Jupiter mission, including monitoring 3 astronauts in hibernation.

HAL believes that it is superior to humans: “*The 9000 series is the most reliable computer ever made. No 9000 computer has ever made a mistake or distorted information. We are all, by any practical definition of the words, fool-proof and incapable of error*“.

50 years ago most people would not have expected to encounter situations where they would be assisted by technology – for example Siri on the iPhone, helping you find where you need to go, or Alexa turning on/off heating etc. In the movie, HAL is suspected of having some problems but is able to take control of the mission including killing the hibernating astronauts and cutting the oxygen supply of another during a maintenance check. Luckily, the last astronaut surviving was able to disconnect HAL and rescue the mission.

**HOW DOES THE PROJECT WORK?**

The project involves you leading your class group in a number of structured discussions on trusting technology with our safety, and pupils putting together some artwork (poster) that will allow them to tell the story of this discussion and its outcomes at a group event towards the end of June. They should present the outcomes of their discussions in a poster format (**max size A1**).

A representation of the class group (5-6 students) will then attend the final event where students from several schools present their poster.

**Questions that could be discussed by a class/school group in that structured discussion include:**

1. In the movie 2001: A Space Odyssey, what is the role of HAL?
2. Why did HAL decide that it would be better if it took total control of the mission?
3. What devices for homes/offices are available nowadays that are similar to HAL?
4. Which of these devices do you like/dislike and why?
5. Are there similarities between HAL and social media applications?
6. How do you currently use technology such as Alexa, Echo, Apple Homepod, Smartlock, Siri and Google maps?
7. Many people knowingly and unwittingly hand over ownership of private information to Google, Facebook, Snapchat, Amazon etc., for them to use as they want to. Usually this involves sending us targeted advertising with offers etc., do you think we can really trust these machines (organisations) to not start working against us?
8. How much information do we actually give to these platforms & who can access it?
9. How do you see this technology being used in the future?
10. Can you list some positive ways technology has improved and/or transformed our lives?
11. How might technology continue to improve/transform our lives in the future?
12. What do we need to watch out for?

The HAL programme is not a competition – all participating schools will receive a certificate of achievement, acknowledging the students efforts in terms of their work, insights and predictions.

**WHAT DO I DO NEXT?**

Look at the PowerPoint, this is a tool to help you engage with you class, and initiate group discussions. Encourage them to discuss it at home, to look at newspapers, TV, internet, to cut out or print relevant pieces they may encounter in papers/magazines/websites and bring them in to class, look at opportunity, equally think of challenges, we want to encourage discussion and debate.

We are very excited to have you engage with us and look forward to discussing the results of their work. Any clarification or assistance you require CEIA are happy to assist. Please contact Eamon, our Outreach Officer on [connollye@ceia.ie](mailto:connollye@ceia.ie) or call him on 086 2228339.