

## **Student Pre-Workshop Preparation:** **Introduction to Artificial Intelligence and Machine Learning**

### **What to bring to your workshop:**

**During EVERY day of the workshop you MUST have:**

- \* **A fully charged computer** (a laptop is preferred, but a tablet is acceptable if you do not have a laptop) **with WiFi** – the workshop will include many diverse "hands-on" learning activities requiring a computer and Internet access (UNSW will provide access to its wireless network); some of these activities are easier with a keyboard than with a touch screen
- \* **Earphones** (headphones are acceptable if you do not have earphones) – some learning activities will require independent watching of short educational videos
- \* **A working free Google account** (e.g. Google email) – required for some of the "hands-on" online learning activities (many students already have a Google account through their school, but if you do not have it then your parents/carers should create it for you)

### **What you should know/do before attending your workshop:**

**BEFORE the start of the first day of the workshop you are REQUIRED to:**

**la) Watch 5 (FIVE) videos on "What is artificial intelligence (AI)? What does AI do?" [total duration 26:43]**

1) Simplilearn (2019, Apr. 30) *What is Artificial Intelligence? | Artificial Intelligence in 5 Minutes | What is AI? | Simplilearn* [video, duration 5:27]. YouTube. Available at: <https://www.youtube.com/watch?v=ad79nYk2keg> (older 10:22 long video by the same authors is available at: <https://www.youtube.com/watch?v=15PK38MUEPM> )

2) CrashCourse (2019, Aug. 10) *What Is Artificial Intelligence? Crash Course AI #1* [video, duration 13:21]. YouTube. Available at:

[https://www.youtube.com/watch?v=a0\\_lo\\_GDcFw](https://www.youtube.com/watch?v=a0_lo_GDcFw)

3) ABC [Australian Broadcasting Corporation] (2017) *Sciencey Series 1 Episode 7: Artificial Intelligence: Good or Evil?* [video, duration 5:00]. ABC (Australian Broadcasting Corporation). Available at:

<https://iview.abc.net.au/video/SC1605H007S00> (if this ABC iView link is no longer valid, see this YouTube post: <https://www.youtube.com/watch?v=fnLfjz7w0wA> )

4) YouTube Originals (2019, Dec. 12) *The Age of A.I. | Official Trailer* [video, 0:58]. YouTube. Available at: <https://www.youtube.com/watch?v=5lvQ3fYKnfM>

5) North Carolina School of Science and Mathematics (2019, Oct. 2) *5 Big Ideas about AI* [video, duration 1:57]. YouTube. At:

[https://www.youtube.com/watch?v=\\_1nIXMUUGY](https://www.youtube.com/watch?v=_1nIXMUUGY)

**lb) Fill-in the short "GERRIC 2021 July AI&ML Prior Knowledge and Interests Survey" [estimated time: 10 minutes]**

<https://forms.gle/MyZVY49dFg5ZFNad8>

The purpose of this short survey is to learn about your prior knowledge, so that the workshop activities can be customised to YOUR needs (e.g. not to teach you what you already know, but provide you something new). Therefore, your honest answers are appreciated.

**Additionally, BEFORE the start of the first day of the workshop you are ENCOURAGED to:**

**IIa) Research 1 of the following 4 AI research areas and its related ethical issues [estimated time: 30 minutes]**

\* Open

<https://docs.google.com/document/d/16D3jRO2Q3KxM8FHvC8sdGLa19sxa5DGperetnX9gqcY>

(note you must not edit this document, but you can download/print it if you wish).

\* Choose 1 (ONE) of THESE 4 (FOUR) AI research areas listed in that document:

- A) Social Media, Shopping, and Entertainment
- B) Employment, Economy, and Finance
- C) Healthcare, Human Life, and Well-being
- D) Environment, Natural Resources, and Wildlife

Note that the research areas i) Computer Vision and Sensors and ii) Human-Robot Interaction will be discussed during the GERRIC 2021 workshop on AI, so you should NOT choose one of them for this research task (if you wish, you can explore them after you finish this research task).

\* For your chosen research area, watch all listed videos and read all listed articles (both in Background and Ethical Issues), plus at least 1 other additional source of your choice.

**IIb) Fill-in the short form "GERRIC 2021 AI Ethics Research Insights" with answers about ethical issues in your chosen AI research areas [estimated time: 10 minutes]**

<https://forms.gle/DjBde5rRoUCrZKit5>

\* As you explore your chosen research area, answer all questions specified in this short form.

\* In the workshop, you will participate in a discussion in which you will explain or justify your answers.