

Supervision 1: Artificial Intelligence

Date: Saturday 18th January.

Excellence: *the purpose of this session is to introduce the students to the concept of artificial intelligence (AI) and its applications, and set them up on their machines for the practical coding work I will assign to them from supervision to supervision.*

Pre-knowledge required: preferably some prior knowledge of Python/coding, but will provide them with some introductory material for anyone to get up to speed.

Preparatory work required: [Lab 0](#)

Material needed:

- Buy a bag of skittles (give potential allergens to students: these are vegan, do not contain nuts, nor pork gelatine, but are not officially halal).
- Prepare PowerPoint slides for introduction and activity 1.
- Ask them to bring their computers to help them set-up their machines, but bring two of mine just in case.

Plan

Session Start and Introduction (2min)

Remember to take attendance and ask for colour blindness, or to tell me about any disability they may have. Introduce myself to the group (slide).

Activity 1: Powerpoint (13min)

- **Video:** [AI: What is Machine Learning?](#) (3min)
- Examples of real-world applications of AI (present some headlines), then:
 1. Refer to the preparatory work they have done for this first session.
 2. Ask students to summarise to the others the application that they looked at.
 3. Brainstorm together on all the other applications they can think of (draw a mind-map).
- Present the rough curriculum of the topics we will cover together, and open the floor to suggestions: are there particular topics you would like to learn more about?

Ice Breaker: Colourful Introductions (10min)

- For introductions, go around the room and ask each student to pick a coloured candy at random (one at a time)—there are 8 students, so have two candies of each of the 4 colours to form pairs (if any are missing, make a team of 3).

- Then, ask them to introduce themselves by answering a questions depending on the colour of the candy:
 1. **Red:** Do you have any idea of what you would like to do in the future? If not, tell us about that: are you struggling to decide, not found your passion yet, etc.
 2. **Orange:** Why did you decide to join this programme, what do you hope to get out of it?
 3. **Blue:** Tell us about a hobby that you have (does not have to be tech-related).
 4. **Green:** What is your favourite subject, or what do you like learning about?
- Once everyone has introduced themselves, ask them to team up with the students with the same candy colour as them.
- They can now eat the sweets and we are ready to start the next activity.

Activity 2: IT Setup and Lab 1 (20min)

The students should sit in their groups and get their computers out.

- Show the instructions, and ask them to help each other out within their groups (at least for the setup phase). Help them set-up a Jupyter notebook on their computers, going from group to group.
- Tell them to access the Lab 1 on Google Drive, and start working through it (it will also be their homework).

Summary: Question Time (5min)

Any questions?

Set the work for the following supervision: mention that they should submit by **Monday 20th January, 5pm** (~24h before the next supervision) if they want me to mark their work.

Buffer (5min)