AI for Oceans

1. Introduce the website

Introduce the students to the project **AI for Oceans** from **code.org**. In general, this project consists of five consecutive exercises (2, 3, 4, 6 and 8) and three **optional** videos (1, 5 and 7). While the language can be selected, at the time of writing, most of the content is **only available in english**. The videos support subtitles in many languages but can also be skipped by selecting the next number (level) at the center top of the screen.

2. Start training the AI

Units 2, 3 and 4 are about training a basic *AI* to recognize what belongs into the ocean and what doesn't. At this point it is unclear **how** the *AI* differentiates between the objects, but students should get a basic idea that training is very dependant on the **amount and quality** of labeled data.

3. Learn about features

Unit 6 introduces the concept of **features**. After training the *AI* for categorizing fish in different categories, one can look at more detailed information (i-button at the top right) about how the *AI* makes a decision based on different features. It is also possible to click on the individual fish to see the relevance of individual features.

4. More abstract categories

The last unit (8) provides the students with more abstract categories with no clear boundaries. Therefore it becomes more clear that the process of training an *AI* can be very subjective and therefore prone to human biases.
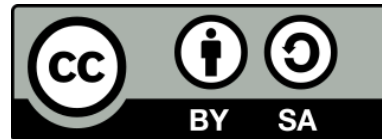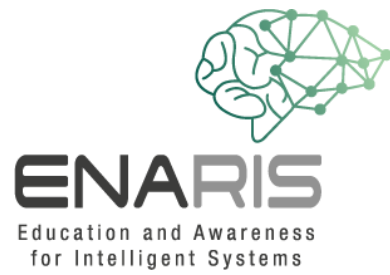
5. Discuss what was experienced

Lastly a short discussion is recommended, to reflect on what the students did and what they learned about training an *AI*. During the discussion focus on how

the *AI* was able to differentiate between objects (features) and how good the results where depending on the training sample size.

6. Material

- 🌐 https://studio.code.org/s/oceans/lessons/1/levels/2

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