Students' Documentation Space

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Ideas

- Group 4 Idea

group4_ppt.pdf

- Group 6 Idea

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- goup6_idea.pdf

Lets Plaiy!

IP-Poster

1. Introduction

Artificial intelligence is a prevailing technology entails both opportunities and risks to society and the environment. It is crucial for students to acquire these competences in school, enabling them to master the technology at an early age. This allows them to avoid being dominated by AI; to demystify AI; and to develop the ability for critical reflection in assessing opportunities, applicability and limits of AI for problem solving.

The usability of many AI toolkits is continuously improving. They require less and less expert

knowledge to utilize them effectively. This simplification can be taken further. The material we develop should be suited for children from 12 - 14 years. We have to hide the complexity of AI in the background and provide easy to use programming and user interfaces as frontends. An option we will investigate, is to use the open source graphical programming languages SNAP! similar to Scratch, and Micro Blocks to control AI enabled embedded computers.

The training material to be created focuses on education for sustainable development and other applications oriented towards the common good. Concrete examples are biodiversity monitoring by detecting plant and animal species with robot-borne computer vision and deep learning.

We will develop a course curriculum and tutorial material (brain ware), as well as hardware and software for AI-enabled small wheeled robots and tiny DIY drones to be used in education. The open course-ware will be provided and promoted appropriately. The ultimate goal is to design and implement course materials (brain ware, hardware, software) for teaching AI in schools.

2. Motivation

AI, or Artificial Intelligence, refers to the technique by which machines simulate human behavior by simulating routine human response patterns. Technology in its current form is no longer confined to science fiction authors' imaginations, but is moving into our everyday lives in subtle or not so subtle ways. The technology is now all pervasive, from aiding in weather forecasts, recommending shows on Netflix, filtering spam emails, enabling search predictions in Google, and voice recognition, such as Alexa, it is everywhere.

A technology which has a vast scope of growth attach to it, needs to work around minds who thought limitless of what one can imagine, and such a thought process lies mostly in kids, who with their creativity come up with vivid ideas. So a closer look to what A.I is and building a basic understanding in kids, not only by means of information but making them practically playing around with it by means of Snap and NVIDIA Jetson. This will set them on the ground of A.I understanding its working, limitation and capabilities.

Start Playing

3.Object Detection

Click here!

4.Snap

Click here!

5.Object detection with Snap

Click here!

6.The Game

Click here!

7.The Documentation for Developers

Snap side Documentation

Python side Documentation

8.The Documentation for Instructors

Click here!

Bonus Content

For further reading about machine learning

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