

Machine Learning For Kids :: Teachers' notes

Worksheet	Make Me Happy
Activity	Create a character in Scratch that smiles if you say nice things to it and cries if you say mean things to it.
Objective	Teach a computer to recognise compliments and insults <ul style="list-style-type: none"> How computers can be trained to recognise emotional tone How supervised learning builds systems that can deal with unexpected input
Difficulty level	Beginner
Time estimate	45 minutes
Summary	Students will train a machine learning model to recognise compliments and insults by typing examples of kind statements and mean statements. They will use this in Scratch to make a character that reacts to messages based on sentiment.
Topics	sentiment analysis, supervised learning

Setup

Each student will need:

Print-outs	Project worksheet (download from https://machinelearningforkids.co.uk/worksheets) Blocks in Scratch scripts are colour-coded, so printing in colour will make it easier for students.
Access	Username and password for machinelearningforkids.co.uk

Class account will need:

API keys	Watson Assistant 1 workspace per student One "Lite" API key is free but can only be used to create 5 workspaces One "Standard" API key can be used to create 20 workspaces more detail at: https://github.com/IBM/taxinomis-docs/raw/master/docs/pdf/machinelearningforkids-apikeys.pdf
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Help

Potential issues	<ul style="list-style-type: none"> Younger students may get carried away when writing insults to train the machine learning model. It may be helpful to set boundaries for what language is appropriate. Time management is important for this project. Students often lose track of time drawing their face and don't leave enough time for training or coding. "https://machinelearningforkids.co.uk" is a long URL to type for some children. You may find it easier to set up a bookmark that they can click on instead. The worksheet screenshots are based on Scratch 3. You may prefer to use Scratch 2 instead, however students may find it harder to find some blocks. <p>General troubleshooting and help at https://machinelearningforkids.co.uk/help</p>
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