Machine Learning For Kids :: Teachers' notes

Worksheet	Chatbots
Activity	Create a chatbot that can answer questions about a topic of your choice.
Objective	**Teach a computer to recognise questions** • How computers can be trained to recognise the intent behind writing. • How chatbots are used to automate answering people's questions
Difficulty level	Beginner
Time estimate	1 hour
Summary	Students will train a machine learning model to recognise questions by typing examples of how those questions could be asked. They will use this in Scratch to make a character that answers those questions.
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 to create 20 workspaces more detail at: https://github.com/IBM/taxinomitis-docs/raw/master/docs/pdf/machinelearningforkids-apikeys.pdf

Help

Potential issues	• The worksheet tells students to make a chatbot that can answer five questions. If you think that might be too much typing for your students, you could tell them to train it to answer three or four questions instead. • "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 2. You may prefer to use Scratch 3 instead, however students may find it harder to find some blocks. • There is also a version of this project that uses Python instead of Scratch. Chatbots are a text-based project, so this is a good fit for using Python for students starting to learn about text-based programming. General troubleshooting and help at https://machinelearningforkids.co.uk/help