

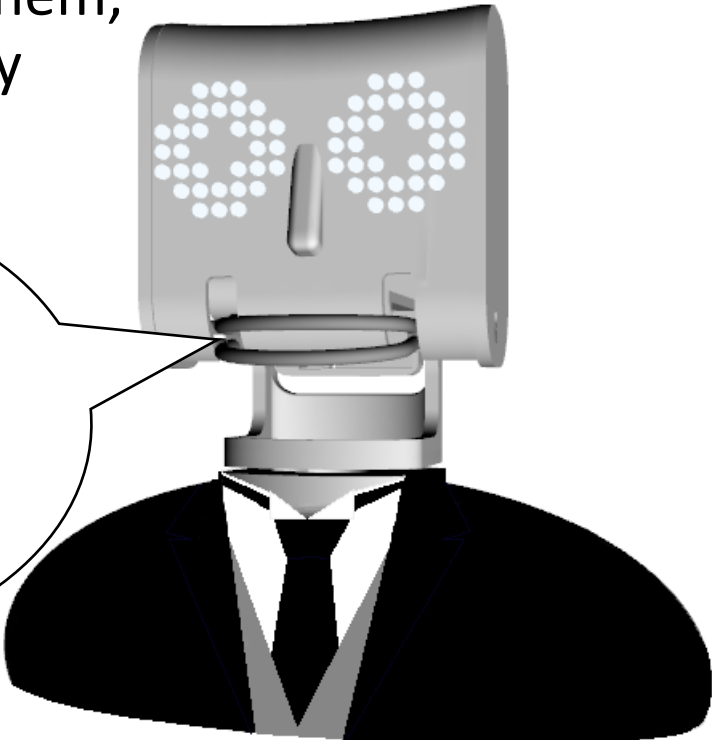
personal Assistant part 2

Program your
robot to be a
smart assistant

In part one of this resource we looked at combining several examples of weak AI to give the impression of strong AI.

Now let's see how you can add more skills to your virtual assistant to make it more and more intelligent.

We're going to add a chat skill that will allow your robot to act like a chatbot. Have you ever wondered why virtual assistants give the responses that they do? Consider how they might be programmed with biased opinions. Are they helping the people that make them, just as much as they are helping **you**?



Have you considered purchasing another robot to keep me company?

In order to add a new skill to your virtual assistant, you must first add the name of the skill to your list of messages.

New Message

Click on this box and this window will open

Once you have entered the message name and clicked ok, you will be able to select the new message in the drop down menu of **broadcast** and **when I receive** blocks.

New Message

Message name: chat

Private

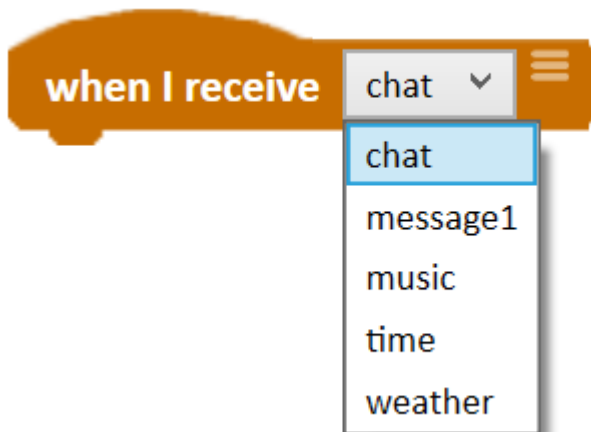
Shared

Pipe

Custom

Web

OK Cancel



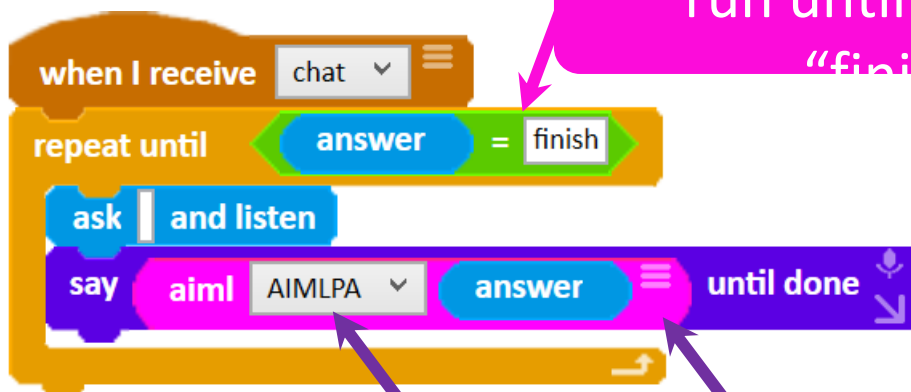
Just like the time, music and weather skills that we have already given our virtual assistant, the chat skill is contained in a multiblock.



You can create your own multiblock with the New MultiBlock. Simply drag it into your scripting area and click view. In the new tab that opens, arrange your script and then save it in the multiblocks folder. Or, if you already have a one ready, click choose and select the file you want to use. If it wasn't already in the multiblocks folder, it will be copied to there.



The chat program uses the **aiml** block to allow the robot to converse with you. AIML stands for Artificial Intelligence Markup Language, a language designed for chatbots.

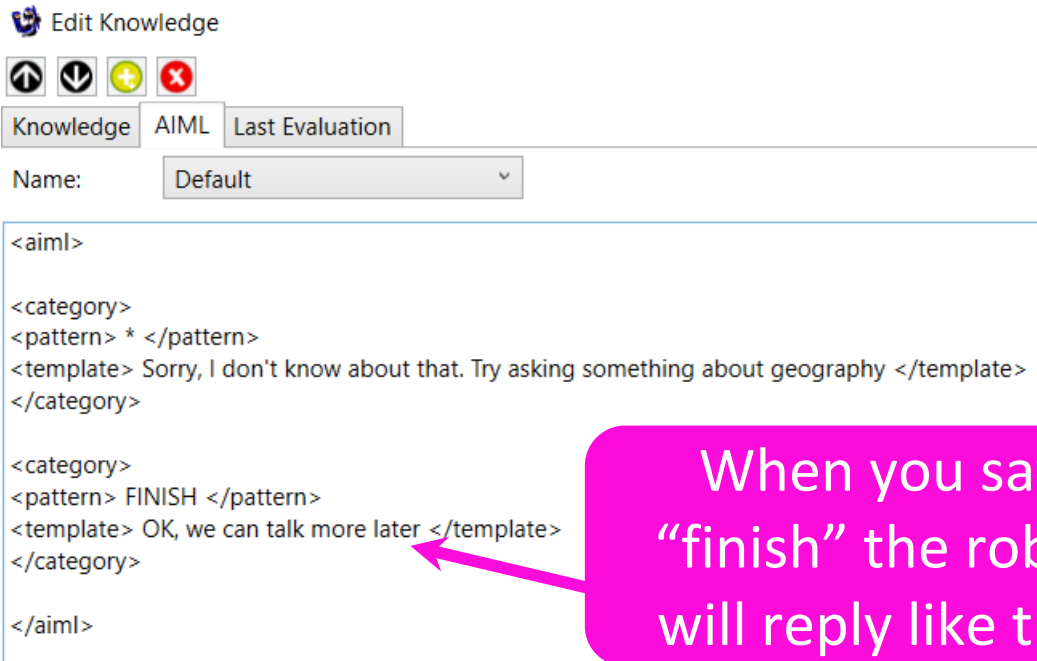


The chat program will run until you say "finish"

You can choose your AIML file in the drop down menu on the block and edit it by clicking the three lines

AIML has the potential to create a very complicated and convincing chatbot. But it is also accessible to beginners so let's try and program a simple chatbot ourselves.

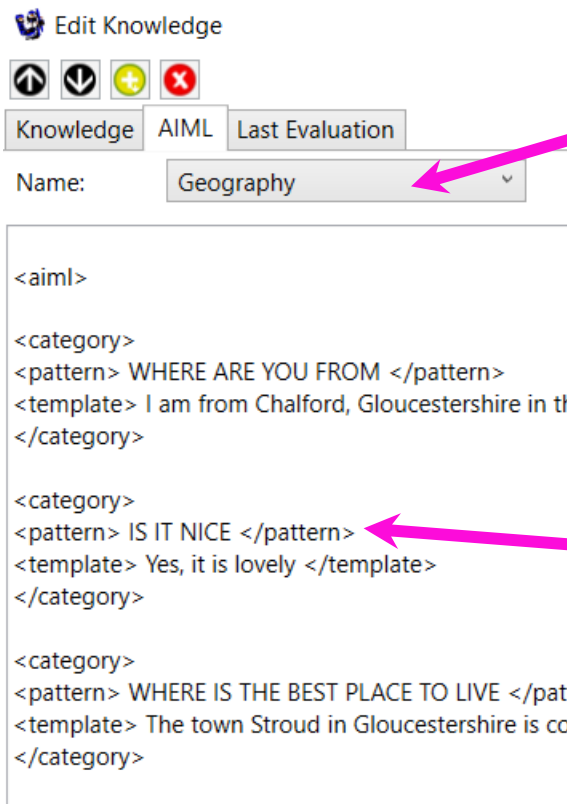
When you click on the three lines on the **AIML** block a new window will open looking like this.



You can see that an AIML file has a fairly simple structure in its most basic format. You have the category which contains a pattern and a template. The pattern, which is what you, the user, might write and the template, which is what the chatbot would respond with.

This image shows the robot's default responses. The "*" in the first pattern indicates a wildcard, or in other words, you've said something that the robot doesn't recognise.

In our default reply we prompted the user to ask something about geography. Creators of chatbots or smart speakers can guide users towards topics or products with the bot's responses.



The screenshot shows the 'Edit Knowledge' interface for a chatbot. At the top, there are icons for navigation and a 'Name' field set to 'Geography'. Below this, there are three tabs: 'Knowledge', 'AIML', and 'Last Evaluation'. The 'AIML' tab is selected, and it displays a list of categories in an XML-like format. A pink arrow points from a callout box to the 'Geography' dropdown menu. Another pink arrow points from a second callout box to the 'IS IT NICE' category entry.

```
<aiml>
<category>
<pattern> WHERE ARE YOU FROM </pattern>
<template> I am from Chalford, Gloucestershire in the United Kingdom </template>
</category>

<category>
<pattern> IS IT NICE </pattern>
<template> Yes, it is lovely </template>
</category>

<category>
<pattern> WHERE IS THE BEST PLACE TO LIVE </pattern>
<template> The town Stroud in Gloucestershire is considered the best place to live in England </template>
</category>
```

It's useful to store different topics in their own aiml files and you can choose between them here

This is a question the user might ask about either place

“Where is the best place to live?” is a subjective question. The answer we have provided could be biased because Ohbot is from a place close to Stroud.

Try adding your own category to the code and see if you can get the bot to chat with you. Maybe you think **you** live in the best place!