AI module leaders guide

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This module is broken down into small chunks – no chunk lasts more than about 20 minutes and the aim is to mix it up with a mix of activities (A), computer sessions (C), talk/discussion (T), and pen & paper work (P). There are a number of youtube videos linked in the videos.html file which can inserted as required; only one of these (cleverbot v. cleverbot) is linked from the presentation so the leader has discretion on what to show when. There is also a shortened version which requires access to the internet and the worksheet but little else, and which can be run in about an hour.

This workshop can be run with one leader and one demonstrator; it might be possible to run it with just one leader if there were a helpful volunteer or teacher in the room, who'd been briefed on the content.

Overview & Theme

The module centres around the idea of whether or not computers could be intelligent, bringing together Turing's work on intelligence, chatbots, and the idea of embodied cognition and robotics. There are two strands running through the workshop

- A vote in which you get the group to say whether they think computers could be intelligence (this happens repeatedly, and it's good to be able to show the results as they get a better understanding of the ideas and the questions; it's rare to run this workshop without changing a few minds). If there's a whiteboard handy you can put the vote result on that, otherwise post-its work fine.
- The Turing test, which we look at repeatedly (running a test using a mobile phone & two humans to begin with, which gets the participants familiar with the concepts before introducing ideas of AI and chatbots).

It is a very good idea for leaders to familiarise themselves with the Turing test by reading the original article: Turing, A.M. (1950). Computing machinery and intelligence. Mind, 59, 433-460 (there are lots of online copies). For the later parts of the workshop (on embodied cognition) Valentino Braitenberg's book is worth looking at: Braitenberg, V. (1984). Vehicles: Experiments in synthetic psychology. Cambridge, MA: MIT Press. (Again, copies can be found online.) Both of these texts are interesting and readable.

Kit list/technical requirements: full module

- Printed versions of the “Am I intelligent or not” ordering game – these can be laminated if necessary, and there are about 30 of them enabling a whole class to get involved. These are in the file intelligence_ordering_game.pdf
- Worksheets (one per participant or one between two) tcai_worksheet.pdf
- Physical Braitenberg vehicles if possible (video if not)
- Pens for the students

- Whiteboard pens for the leader
- Some means of displaying the vote (post-its work OK; a whiteboard is fine)
- Sound – speakers/a computer with amplification
- Access to the internet, particularly these sites:
  - Youtube.com
  - www.cleverbot.com
  - www.jabberwacky.com
  - Whatever site has Turi on it (e.g. currently www.turi.org.uk)

Kit list/technical requirements: 1 hour version

- Worksheets (one per participant or one between two) tcai_worksheet.pdf
- Pens for the students
- Whiteboard pens for the leader
- Some means of displaying the vote (post-its work OK; a whiteboard is fine)
- Sound – speakers/a computer with amplification
- Access to the internet, particularly these sites:
  - Youtube.com
  - www.cleverbot.com
  - www.jabberwacky.com

Running order and details

There's a detailed running order with tips for the workshop leaders on the next page. This is for the full-day version, but it is straightforward to work out which elements apply to the one-hour version. Within Technocamps we have evaluation questionnaires at the start and end of the module; without these, you could probably do the whole thing in 3h or so.

Type	What	Notes
T	Intro & Vote	
A	Telephone Turing test (could do two of these if going well)	Use paper, with a helper running from room to room, if phone signal is bad!
T	What's a chatbot	
C	Play with cleverbot for a bit	Just to get used to the idea; also to get the students on the computers early on
A	What's intelligence: ordering game	If space permits this is fun outside. Once in a line and in order, you can get them to think about the properties of intelligent agents by doing “Put your hand up if you can...” remember things, talk, make friends, have emotions, see etc.
V	Insert video here	Creepy Japanese robots is good – they look impressive but are just mimicking, can spark a discussion about appearance vs function
P	What's intelligence: what's important	Some kids don't get the words here – emotions means happy/sad … relationships means friendship
T	What clever things to you know that computers do?	Have some examples up your sleeve - satnav, autopilot, chess computer...
T	Turing, Loebner Prize	The dialogue is between Alice and Jabberwacky, both chatbots
P	Come up with 3 questions to test a chatbot	Hark back to the telephone Turing test, get them to think about *how* the question might tell them about the answerer
C	Try questions on jabberwacky	Make sure they write down the answers
V	Cleverbot-v-cleverbot video	
C	Try questions on cleverbot	Again write down the answers
T	What's the best question you had?	
A	Rule following: imagine you're a robot – get the group to "program a volunteer to walk around the room"	Get one or more to stand up and walk around (after the sit at computer bit)
V	Rule following: Asimo on QI video	
T	Bodies and robots - maybe show more videos here	
A	Braitenberg stuff	If you have a real braitenberg vehicle make sure some of them get to have a play – otherwise you are stuck with videos (there's a lego version in the video list).
V	Show some videos to finish	

Credits

Workshop concept and slides: Hannah Dee hmd1@aber.ac.uk with assistance from Reena Pau reenapau@gmail.com and Roger Boyle rogerdboyle@gmail.com.

Intelligence ordering game graphic design: Mathew Keegan mathew@jollygoodwebsites.co.uk

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