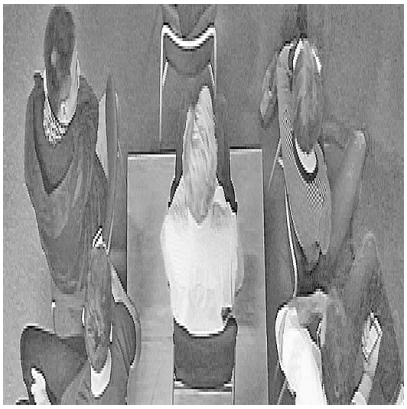


Disintegrated intelligence

Description

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One of the impediments to convincingly intelligent systems is that their functions are *specific*. A smart chess playing program may be able to win against a chess master, but it canâ??t author a blog about AI, or make an omelette.

Nor can it play other games, such as Pictionary â?? that is, unless itâ??s programmed to perform those tasks, and with the necessary interfaces. Most consumer-oriented smart systems are mono-functional: smartphone face recognition, the Shazam app that identifies a piece of music in seconds, translation apps, etc.

These can be combined into a single system or device (e.g. a smartphone). But we might expect a smart system to do more than combine an array of clever programs. It needs to *integrate* these functional components, i.e.

- incorporate some mechanism for activating each AI system as it is required: â??this is a chess-playing situation so itâ??s time to activate the chess algorithmâ?•
- bring several systems to bear on a particular problem-solving task: to navigate through the city the mobile robot needs to recognise visual features, pick up sonic cues and interpret spoken instructions
- manage conflicting information and logics delivered through its sensors and rule sets: it sounds like Iâ??m being told to turn right, but it looks (visually) like a dead end.
- learn across its various functional components, and develop new functionalities.

None of these integrative tasks is/are trivial.

The audio attached to this post is a one-sided conversation about AI integration and some of its problems, introduced via a class Q&A activity about AI. We set up a notional pyramid, with a human at the apex supported by a series of chat bots, fed by hand-written questions from radiating tables of human interrogators.

Iâ??m over-dramatising, but it looked like this.



https://richardcoyne.com/wp-content/uploads/2018/11/ai_2-10112018-12-50.mp3

To listen as a podcast on a smartphone or other podcast app see Podcast instructions

Notes

- There was some discussion about Mechanical Turk. See https://www.mturk.com.
- On the flipped classroom model see Flipped classroom 101.
- On AI see The hermeneutical intractability of Asimovâ??s three laws of robotics.
- Chatbots used: http://www.mitsuku.com/, https://www.eclecticenergies.com/ego/eliza, http://www.cleverbot.com/, Rose, Siri, Alexa, etc.
- Denitsa Petrova took the overhead photograph.



Category

1. Artificial Intelligence
2. Podcast

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Tags

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