

Chinese Room

中文屋

Presenter: Bohan (Steve) LIU (Student)

Adviser: Professor Xiao'an (Dustin) LI

School of Computer Science and Technology

Northwestern Polytechnical University

Xi'an, Shaanxi, China

Steve's email:

lbh_9506@163.com or hedgehog@mail.nwpu.edu.cn

At least one thing most of us
might all agree on...

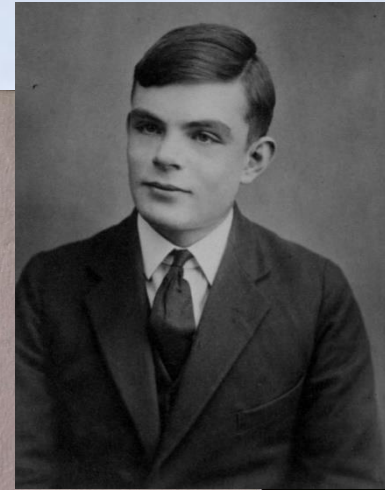
Great job,
friends at
Osaka
University!



Hard-to-distinguish appearance is easy to achieve, so the challenge is in imitating the human mind.

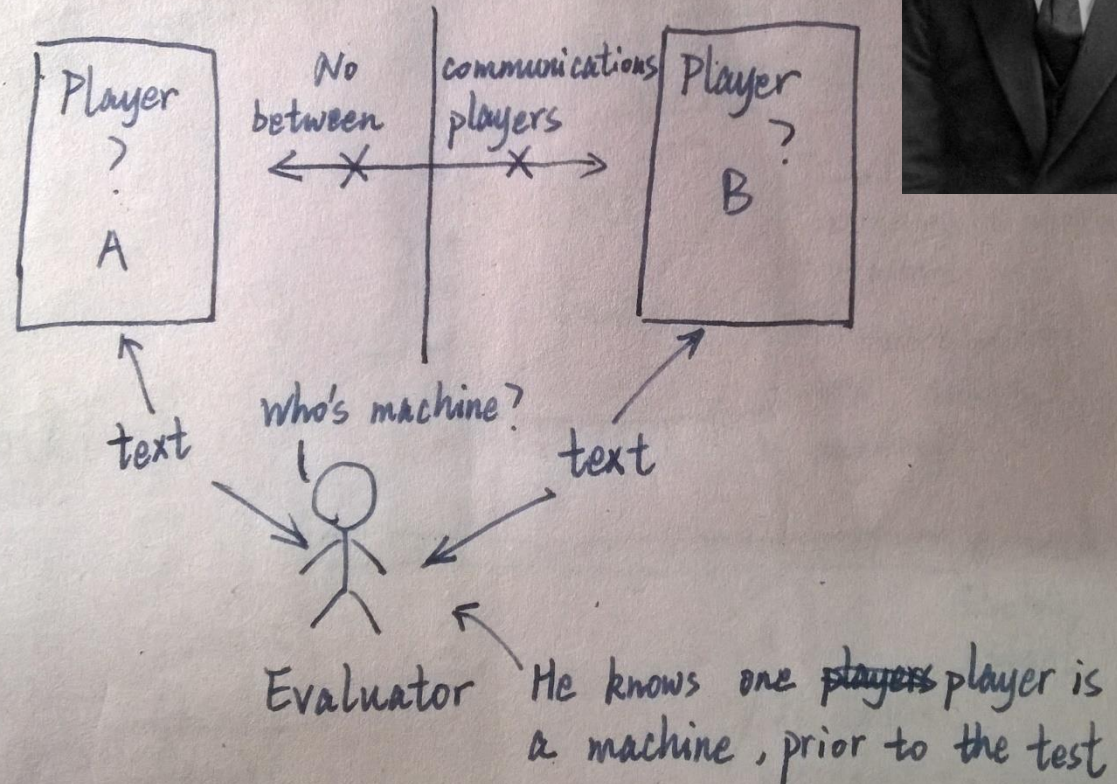
If a human cannot distinguish a
human-made-machine from a real human,
then that machine is an AI

How to test it?



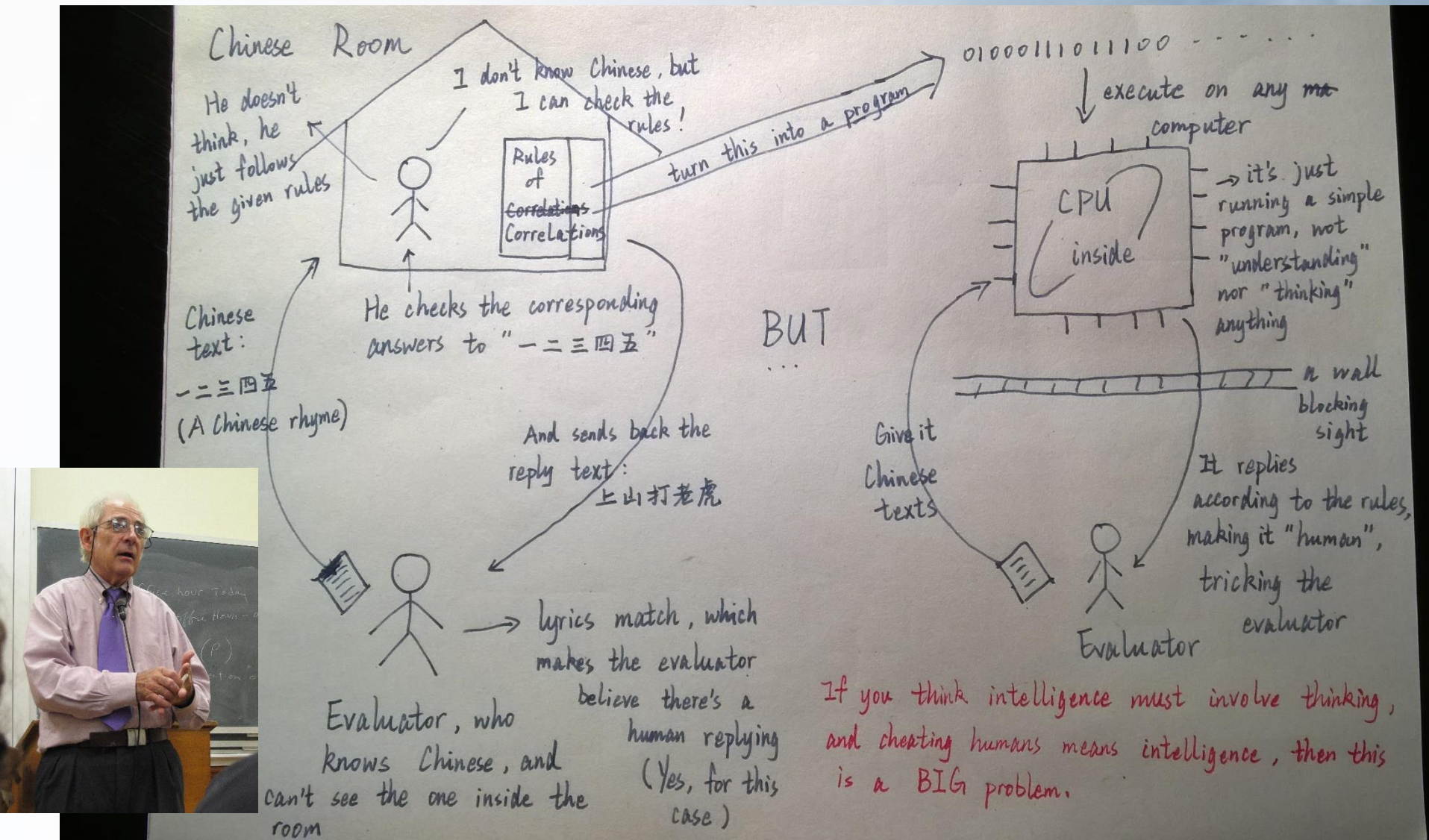
Humans certainly have intelligence, so instead of trying to clarify what intelligence really is, let's just check if a machine can behave *just as a human*. If the machine can cheat the evaluator to believing it it's a human, then we conclude that this machine has artificial intelligence.

Turing Test



The Turing Test: you(machine) past my test, you're smart(intelligent)

But a man named Searle does not agree...



You can pass the test, and still be dumb.

Just merely simulating seems enough for a machine to “be like a human”!

- The Chinese Room experiment is based on the Turing Test’s method, but ends up finding out that the method is flawed. Great leap for science.
- This has also promoted discussions and research in several fields such as philosophy and of course, computer science. Another good thing.
- However it does have limitations and weaknesses...

The appropriately programmed computer with the right inputs and outputs would thereby have a mind in exactly the same sense human beings have minds. --Searle

Houston, we have ... lots of problems

- Machines can “cheat” in the test doesn’t mean it can’t pass the test without cheating. May be there is a way to build a true “strong AI”.
- What if intelligence itself is *computable*? Are our own minds a natural *program* of somehow?
- Can the rules of correlation theoretically exist?
- What about quantum/biologic/... computers ?

In the famous sci-fi Xbox game *Halo*, “smart” AIs such as Cortana are created on the neural networks of the brains of super-smart people. In such cases, AIs might be able to have minds exactly like humans. Sounds promising.



Acknowledgements

- Photos of John Searle and Alan Turing came from Wikipedia
- Professor Xiao'an (Dustin) LI, students Ke (Stone) GAO, Jiadong ZHANG also provided helpful materials on the topic. Thank you
- Diagrams were hand-drawn by myself, because I got frustrated failing to find satisfying ones online. Hope you liked them and feel free to use them whenever you want 😊
- These beautiful backgrounds are pictures of our campus. They are copyright, so please do not use them without permission. However you are always welcome to tour our school!

Thank you!



Presenter: Bohan (Steve) LIU (Student)

School of Computer Science and Technology

Northwestern Polytechnical University

lbh_9506@163.com or hedgehog@mail.nwpu.edu.cn