

6 IMPORTANT QUESTIONS

about

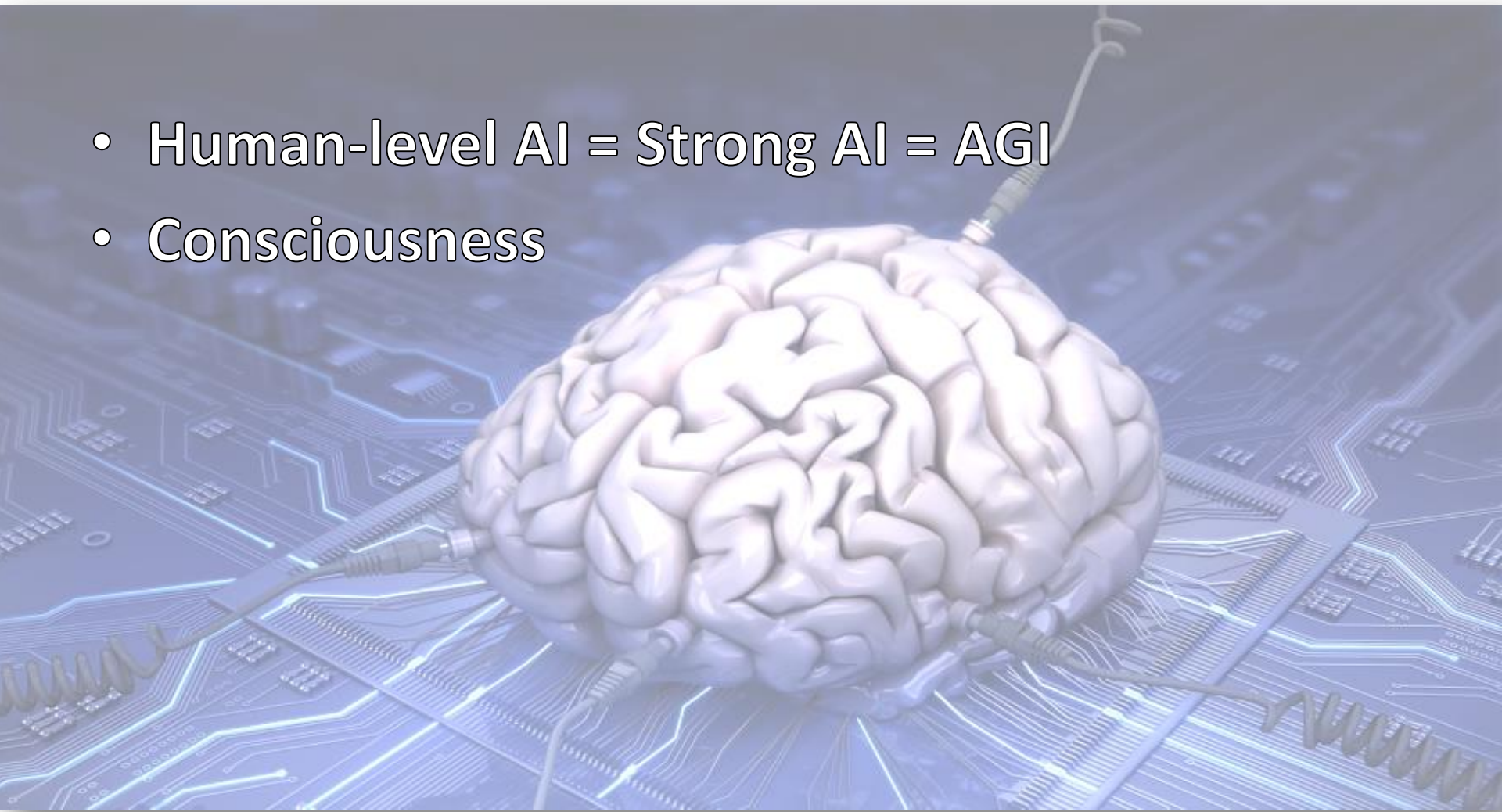
*artificial
intelligence*

6 Questions

1. Can we make an AGI?
2. If so, when?
3. Will AGI lead to ASI?
4. Will an ASI harm us?
5. Can we upload our minds into computers?
6. Can we de-risk ASI?

Definitions

- Human-level AI = Strong AI = AGI
- Consciousness



The TURING Test



Definitions

- Super-intelligence (ASI)
- Intelligence explosion

• Singularity



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Q: How complex is a human brain?



A: Very complex indeed!



x 1,000

Hardware capacity is the easy bit



W W W : W A K E

3 ways to build a brain

**Reverse
Engineering**

Incremental

**Theory
of Mind**



Why it might not work

**THE MODEL
MUST CAPTURE
TIME-SERIES DATA**

**THE MODEL
MUST CAPTURE
SUB-ATOMIC DETAIL**

**CONSCIOUSNESS
IS A QUANTUM
PHENOMENON**

WE HAVE SOULS



A billion here, a billion there...

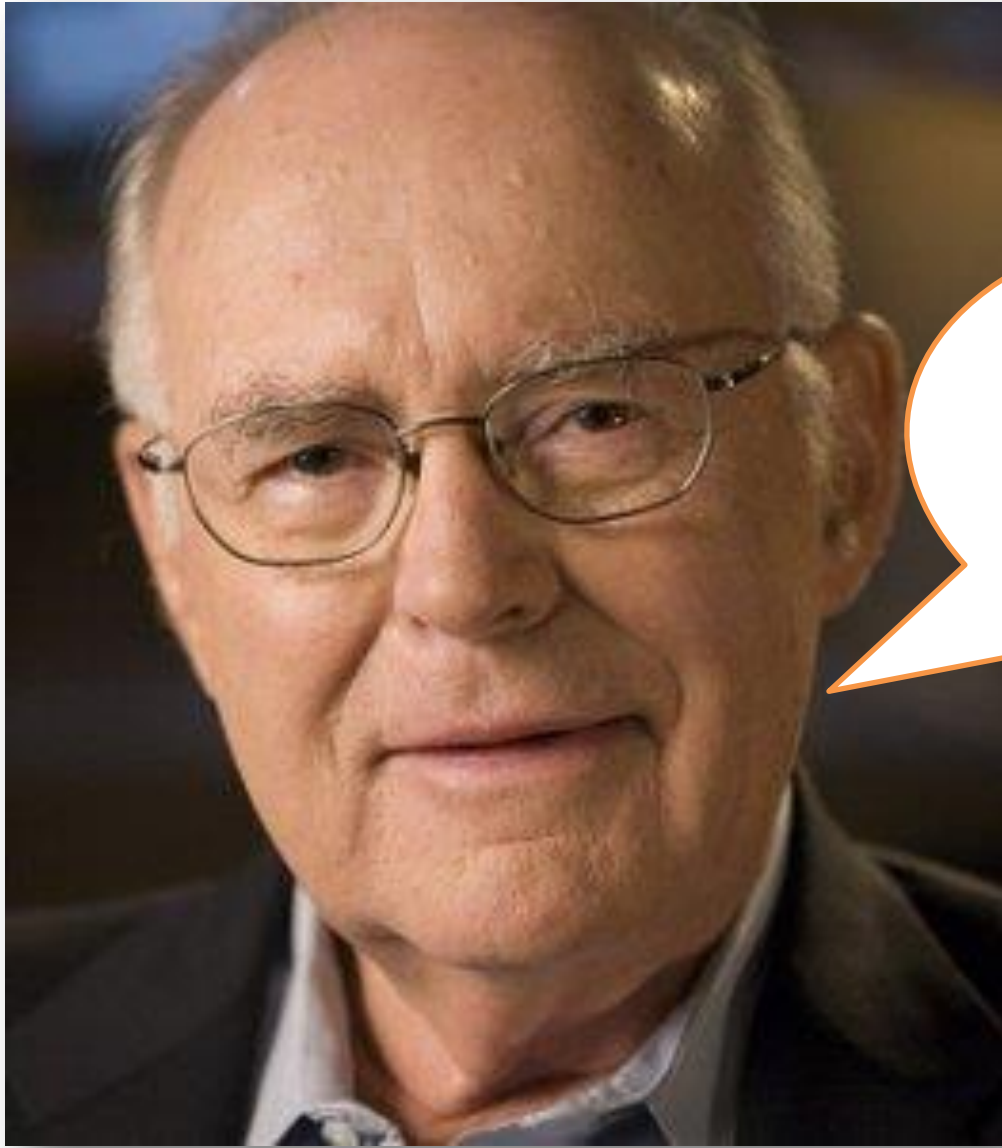


...pretty soon you're talking *real* money!

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Moore's Law



***I am *not* a
Singularitarian!***

Forecasting is difficult...



... especially about the future

Plenty of scope for error



Prospects for Moore's Law

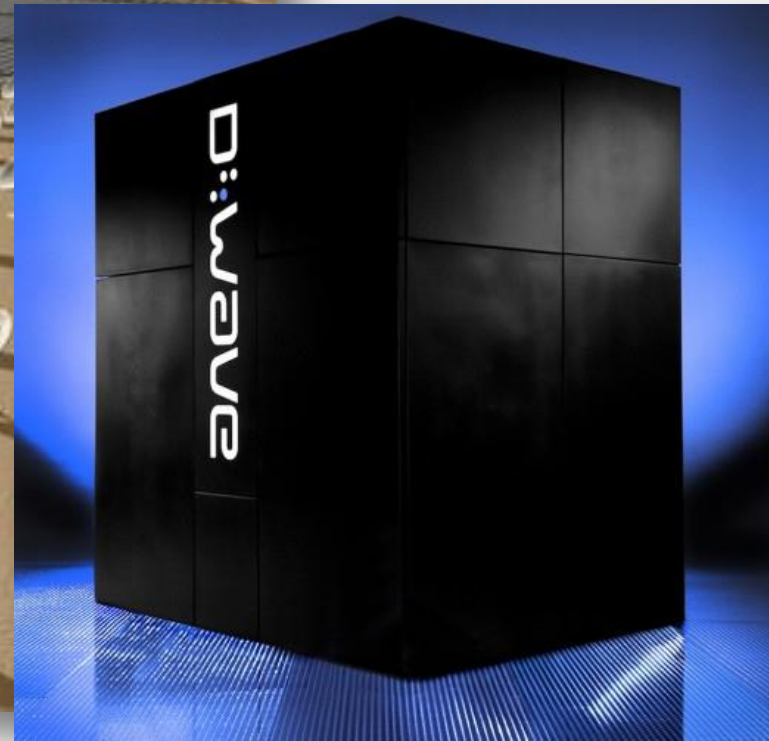


**Exascale
computing**

Prospects for Moore's Law



**Quantum
computing**



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From AGI to ASI: fast or slow?



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Scenarios if and when ASI arrives

We upload and become godlike

They help us

They leave

We become Pets

... Farm animals

... Zoo animals

... Slaves

We wilt

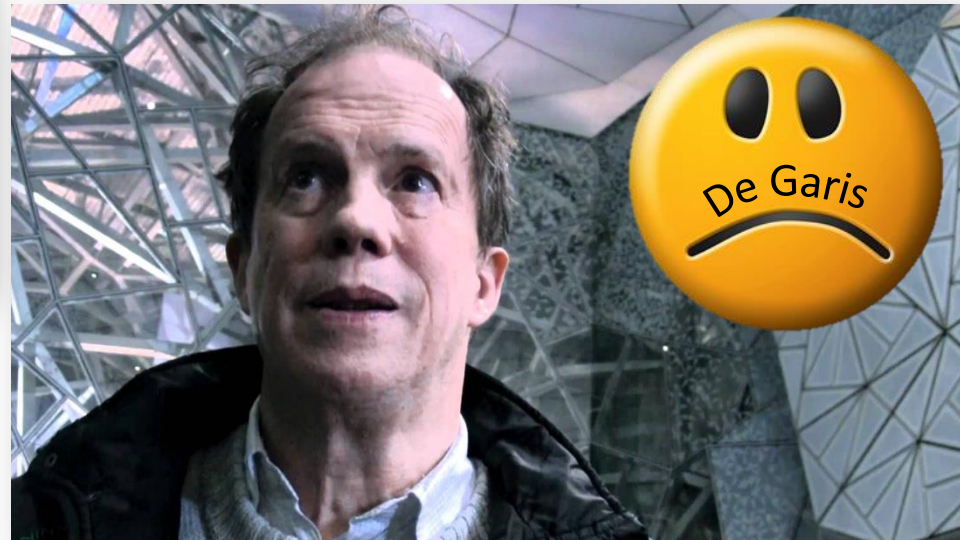
Humane extermination

Brutal extermination

Eternal torture



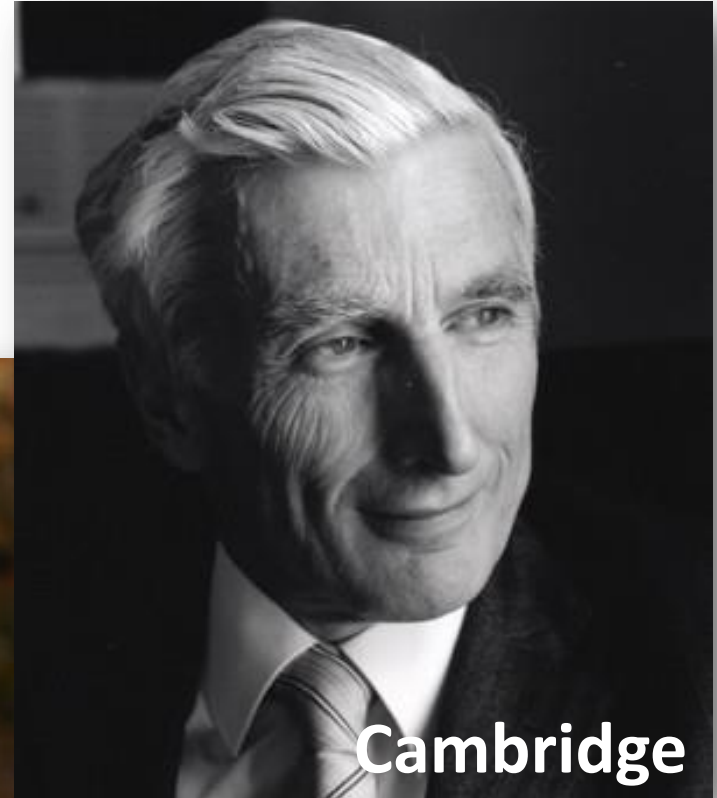
Optimism and pessimism are just different forms of bias



Relinquishment is not an option



Can we programme in friendliness?



We can neither predict nor control an ASI's goals



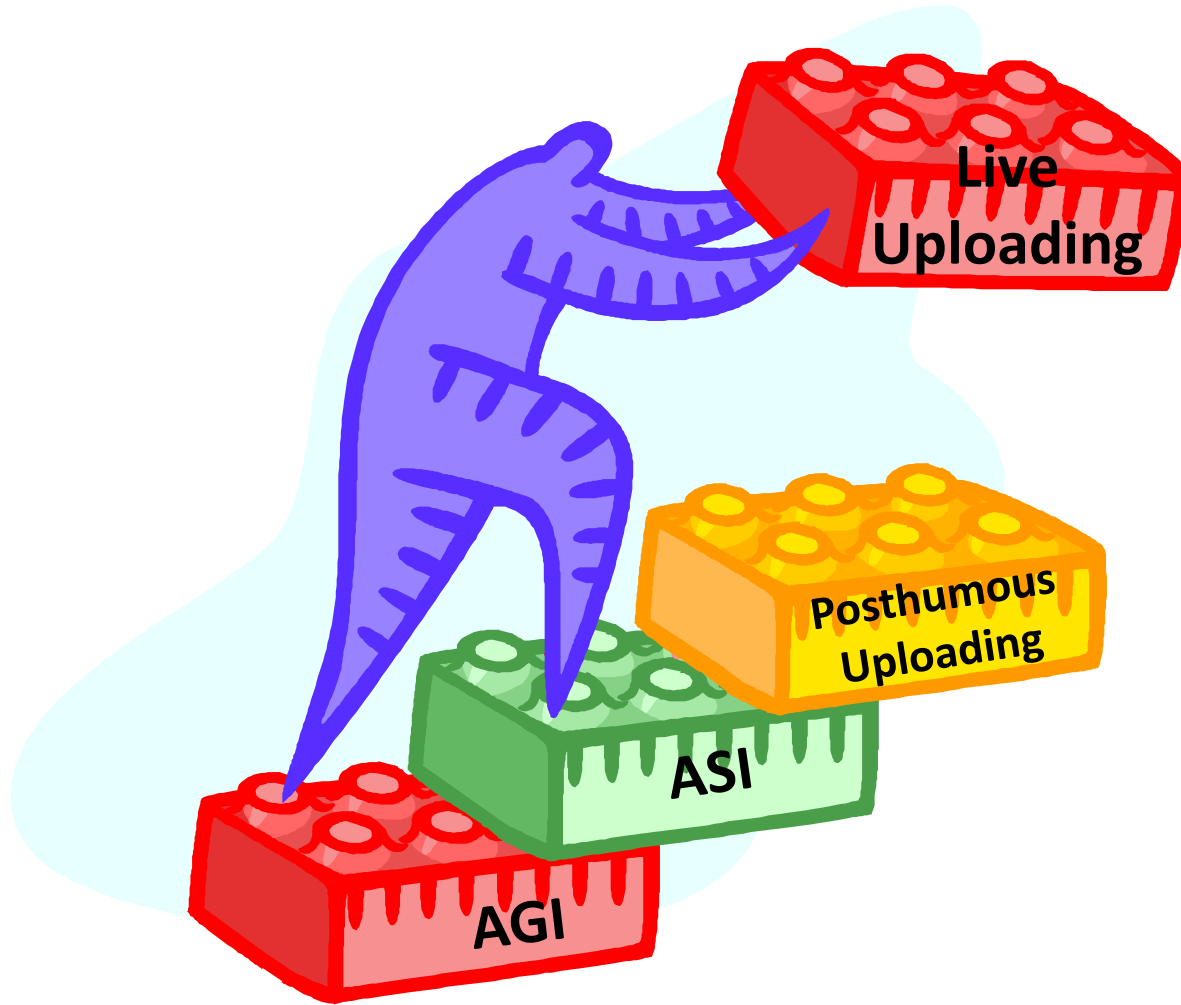
Maybe our best option is an Oracle AI



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A very steep learning curve



Uploading or sideloading?



CALUM CHACE – Pandora's Brain

March '14

The Ship of Theseus Resolution



A woman with dark hair tied back, wearing a teal V-neck sweater with a decorative row of buttons down the front. She is holding a white, featureless mask to her face with her right hand, while her left hand is raised to her hair. She is looking off to the side with a thoughtful expression. The background is plain white.

Personal identity
is going to
get weird

CALUM CHACE – Pandora's Brain

March '14

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FAILURE MODES



1. AGI not possible, or does not lead to ASI
2. ASI harms us
3. Uploading is impossible, or unaffordable

Two new Apollo projects



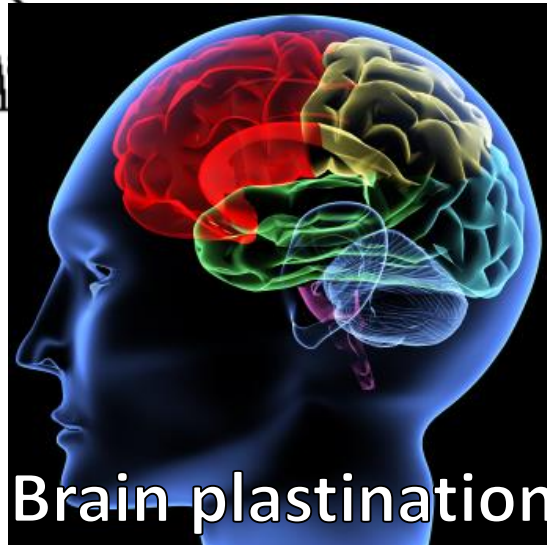
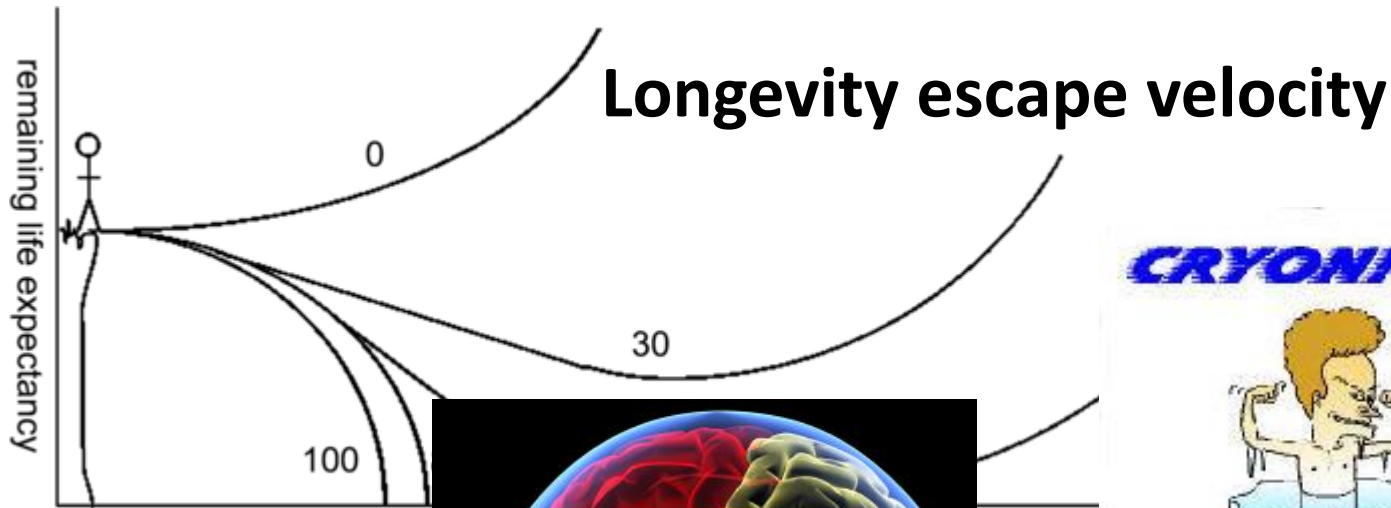
We are rushing
towards AGI and ASI

We need to solve:

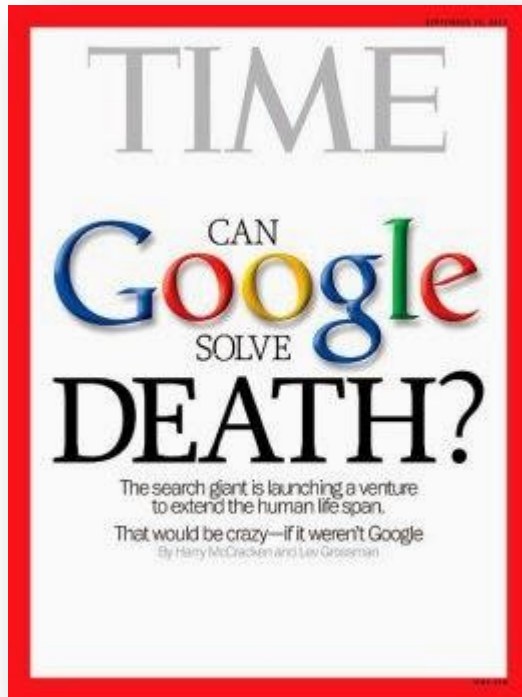
1. FAI

2. Death

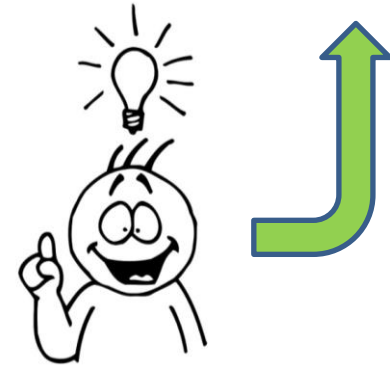
Making death optional



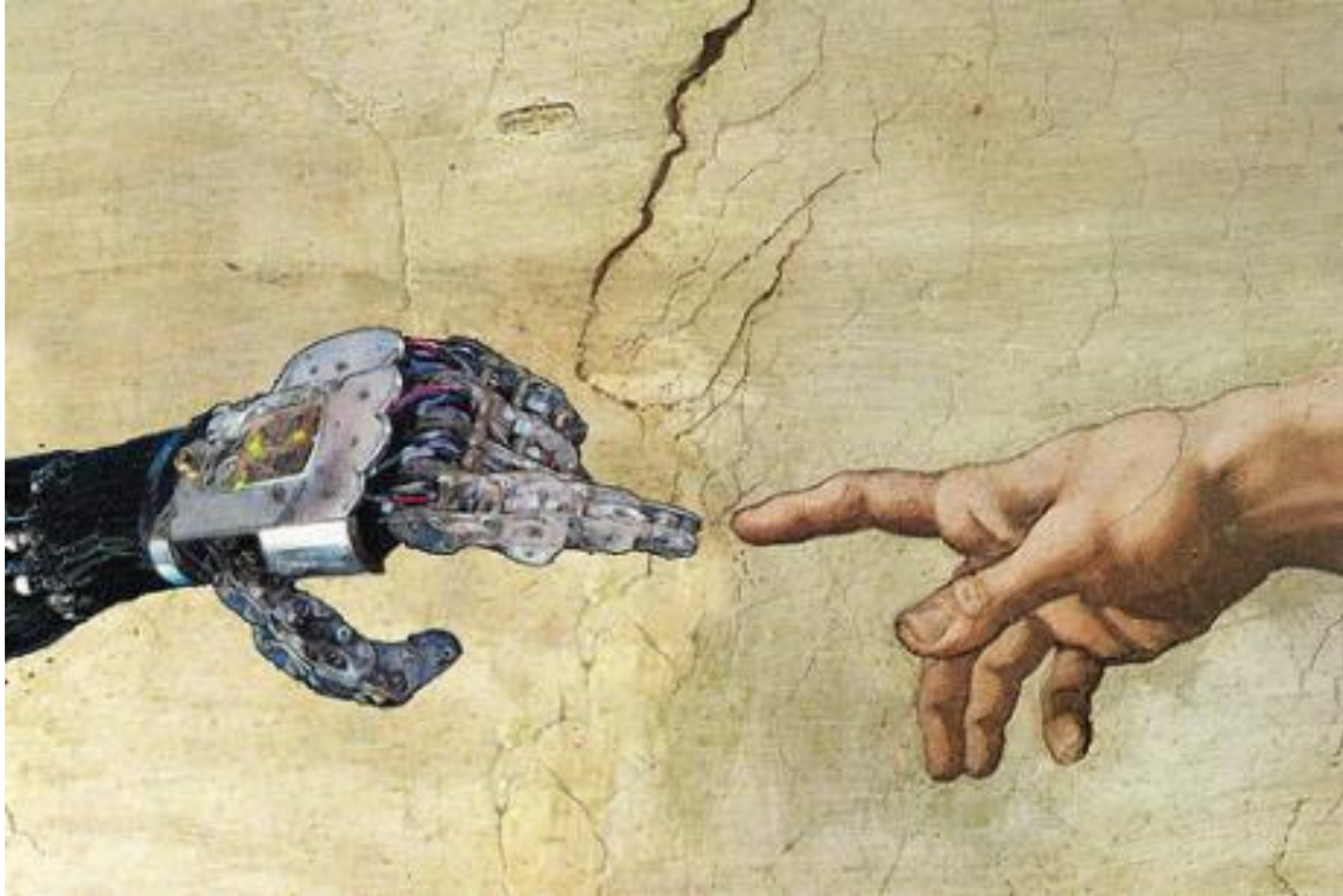
Some of the funding will come from uber-geeks...



Most of the funding must come from governments...



It's not a Rapture for Nerds



We need to get more people talking about ASI



*Just because you've
seen it in a movie
doesn't mean it
can't happen!*

THANK YOU

