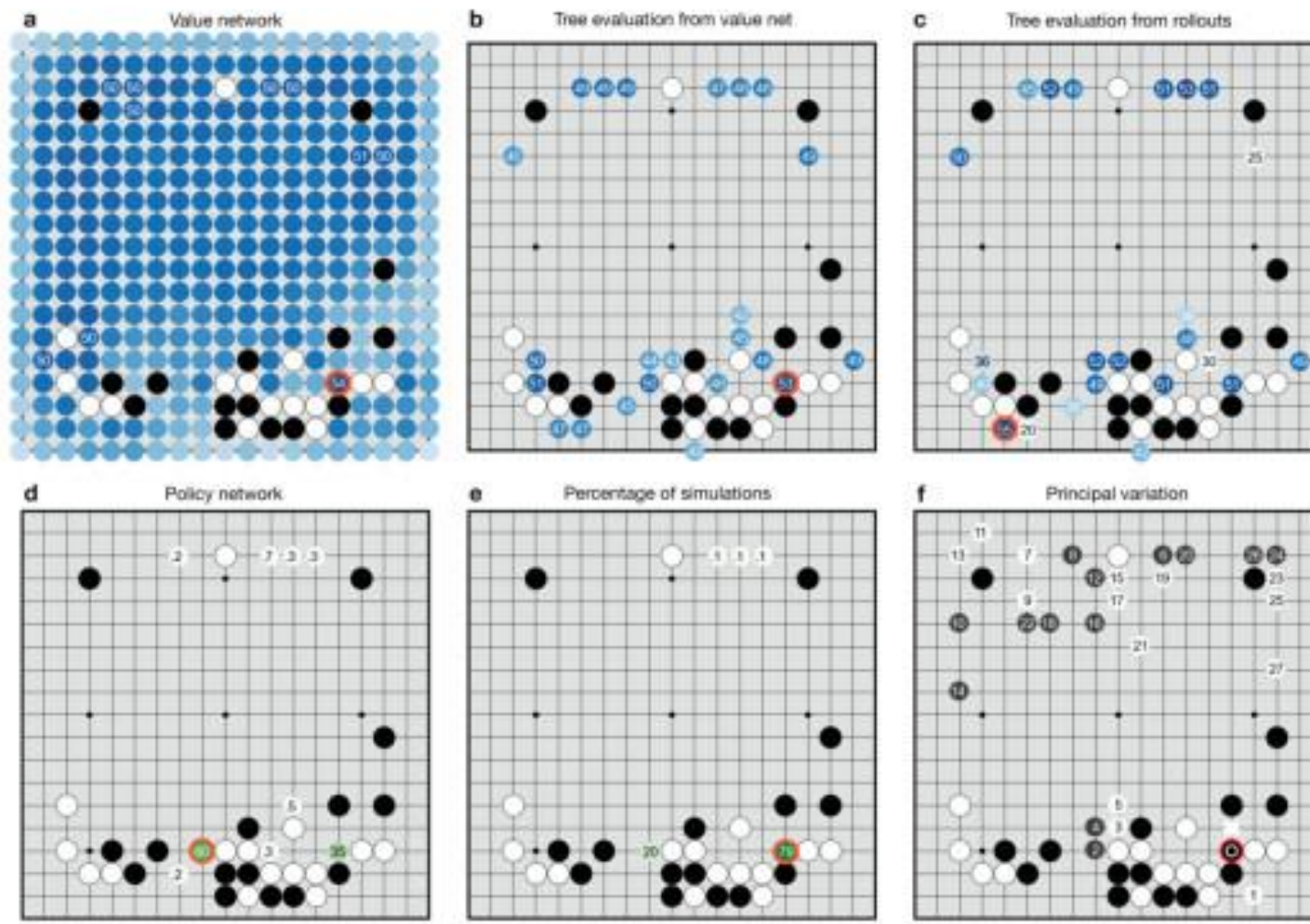


Are We Neural Narcissists?

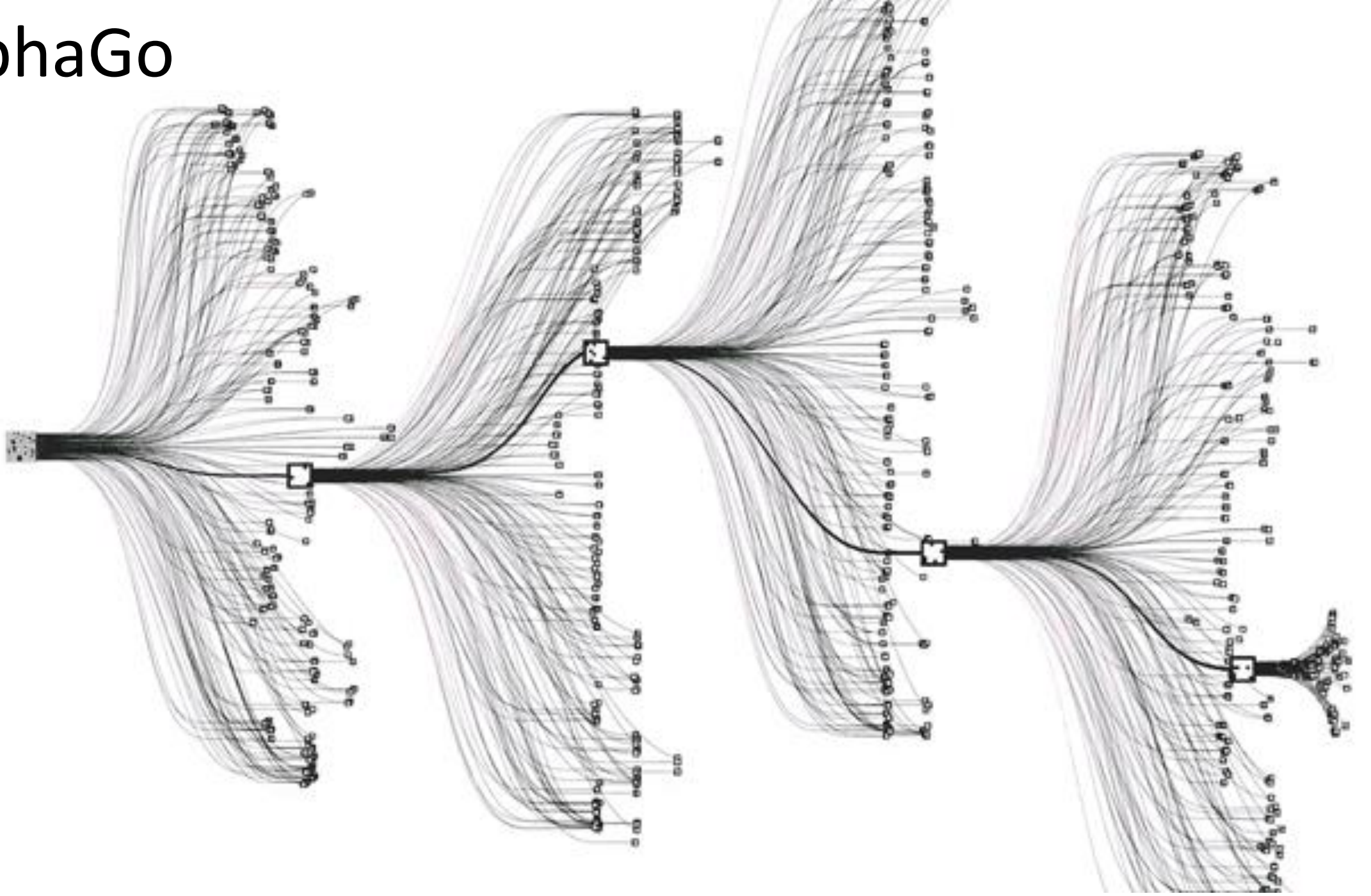
AI's Existential Threat to Humanity,
and A Pragmatic Solution

Trent McConaghy
London, June 2, 2016

The most likely
singularity scenario



AlphaGo



Robots waking up



Who is Stoker?

(FOR ONE WELCOME OUR
NEW COMPUTER OVERLORDS)

\$18,200

Q: How soon?

A: Follow the \$

Transistors

Per Die

10^{10}

10^9

10^8

10^7

10^6

10^5

10^4

10^3

10^2

10^1

10^0

◆ 1965 Actual Data

■ MOS Arrays ▲ MOS Logic 1975 Actual Data

● 1975 Projection

■ Memory

▲ Microprocessor

1960

1965

1970

1975

1980

1985

1990

1995

2000

2005

2010

1K
4004

4K
8080

16K
8086

64K
80286

256K
i386™

1M
i486™

4M
Pentium®

16M
Pentium® II

64M
Pentium® III

128M
Pentium® 4

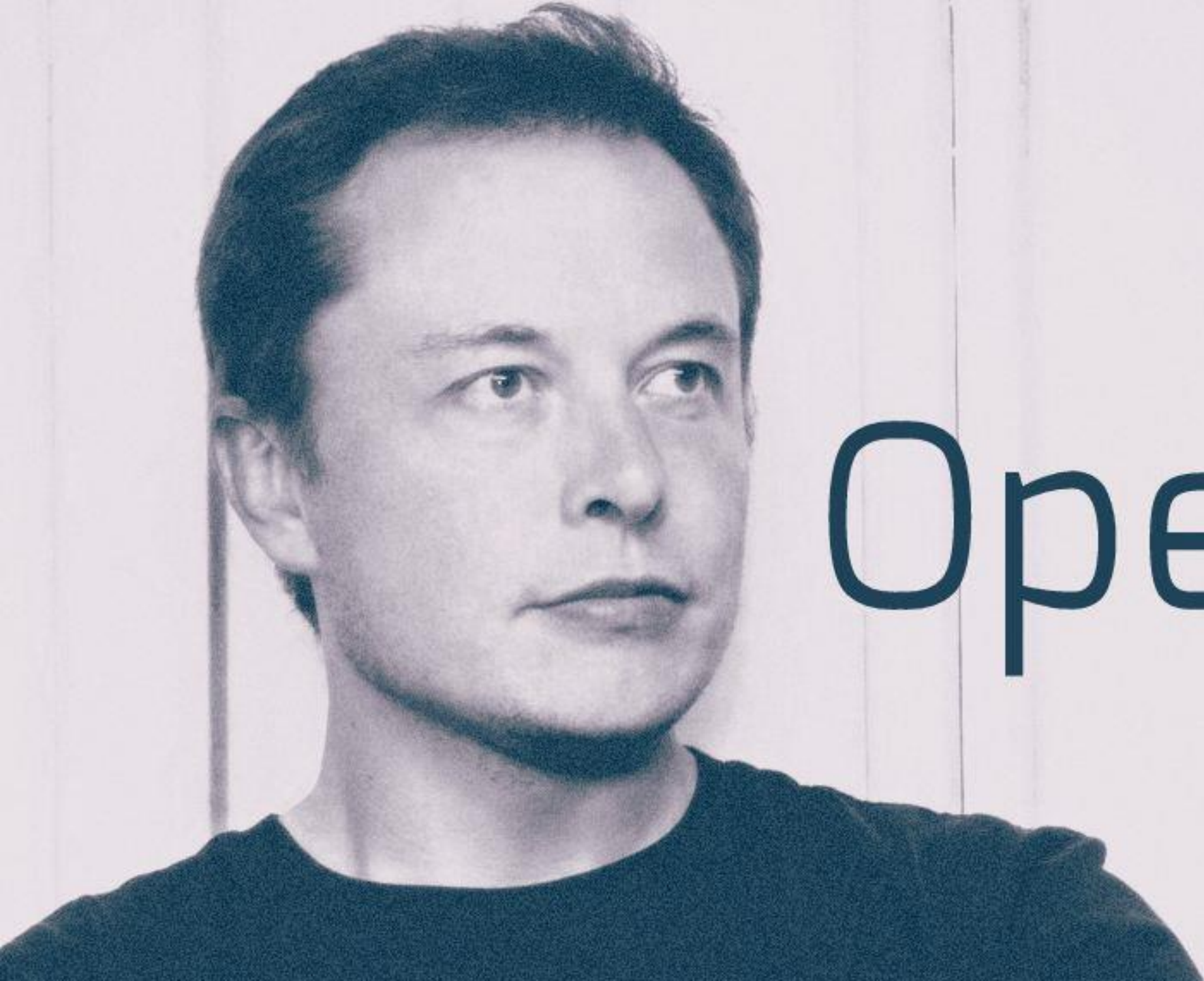
256M
Itanium™

512M
1G

2G

4G

Moore's Law



OpenAI

And:
GOOG, FB, ...

Q: If AI wakes up, what then?

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We're not sure!

But: everything will change.

And, it certainly includes a contest for
resources.

Q: If AI wakes up, what then?

We're not sure!

But: everything will change.

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resources.

Will the AIs share?

Can we force them to share?

Can we construct them to be friendly?



Elon:
“We’ll just regulate it”



Can ants regulate
humans?

Als will wake up.

And it will be hard for our
neurons to compete.

So, what do we do?

So, what do we do?

Let's re-consider what it
might mean to be human...

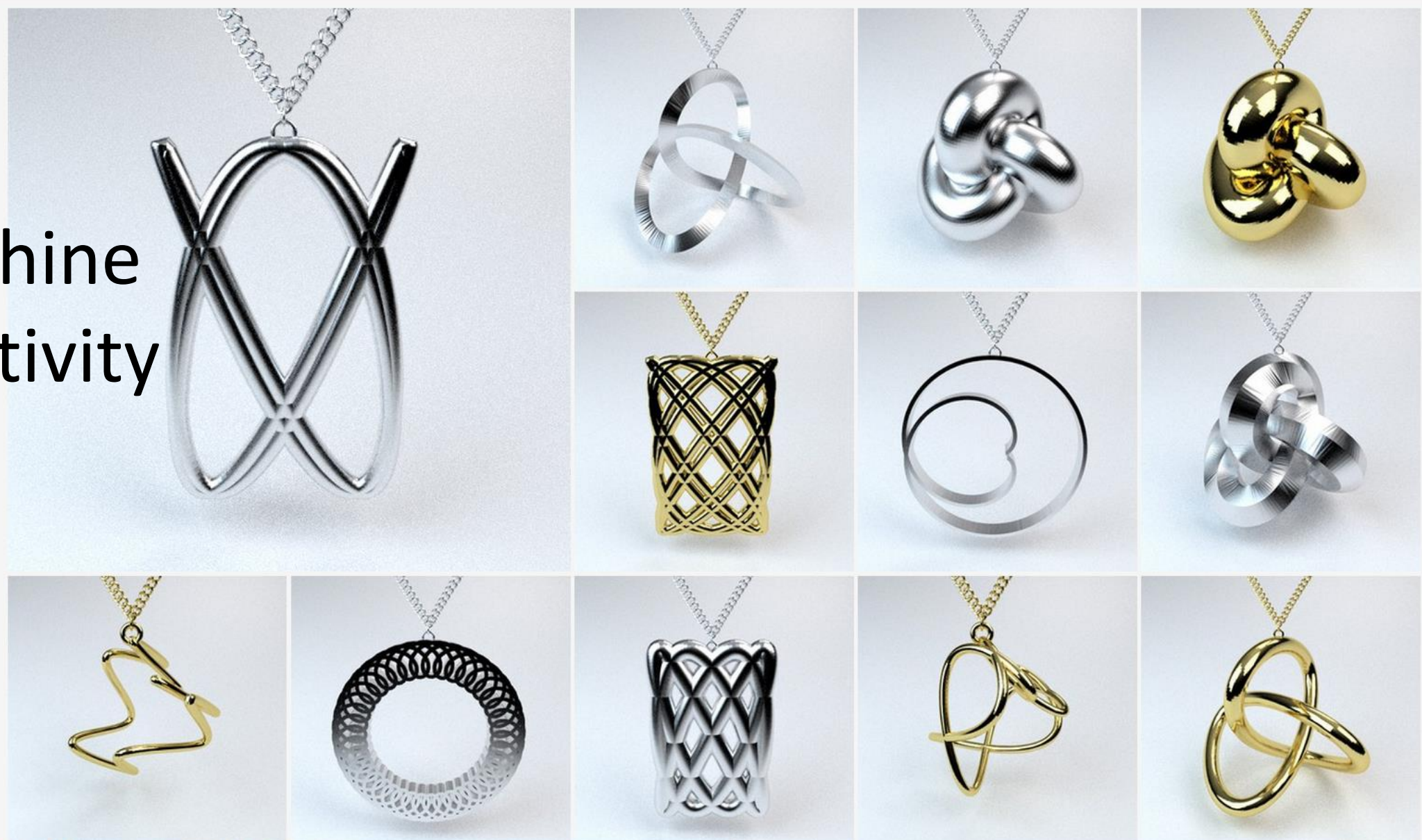


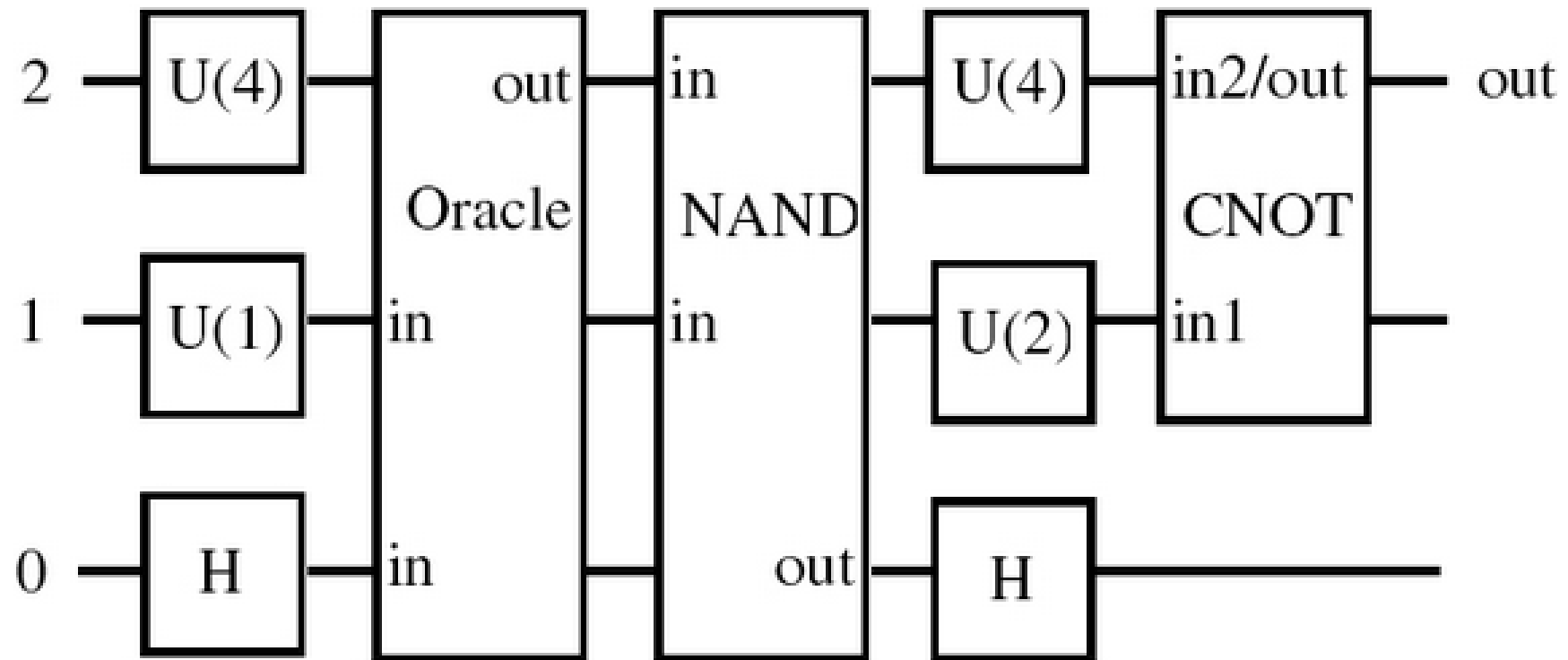
Is the essence of
humanity
creativity?

There is no doubt that creativity is the most important human resource of all. Without creativity, there would be no progress, and we would be forever repeating the same patterns.

Edward De Bono

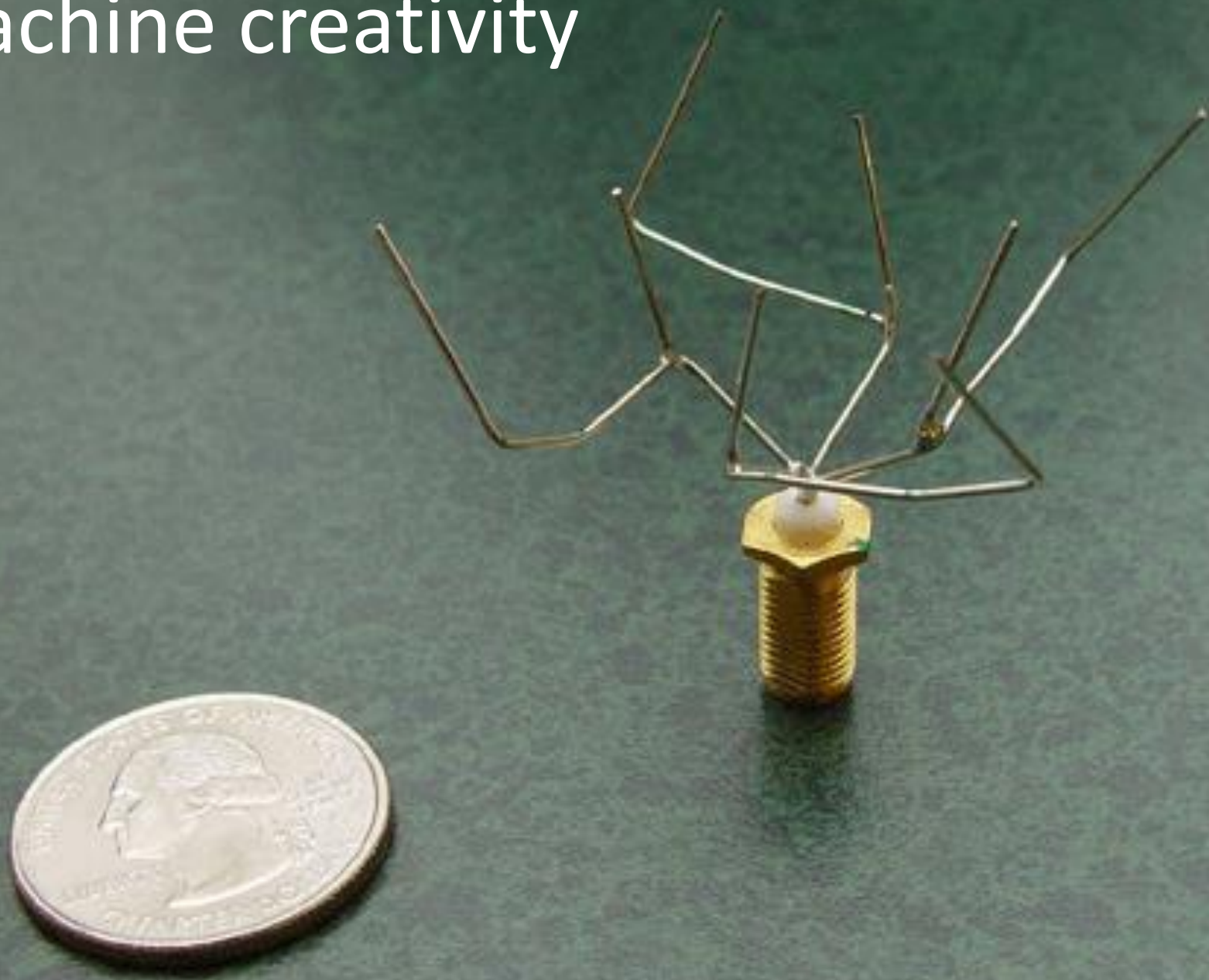
Machine
creativity



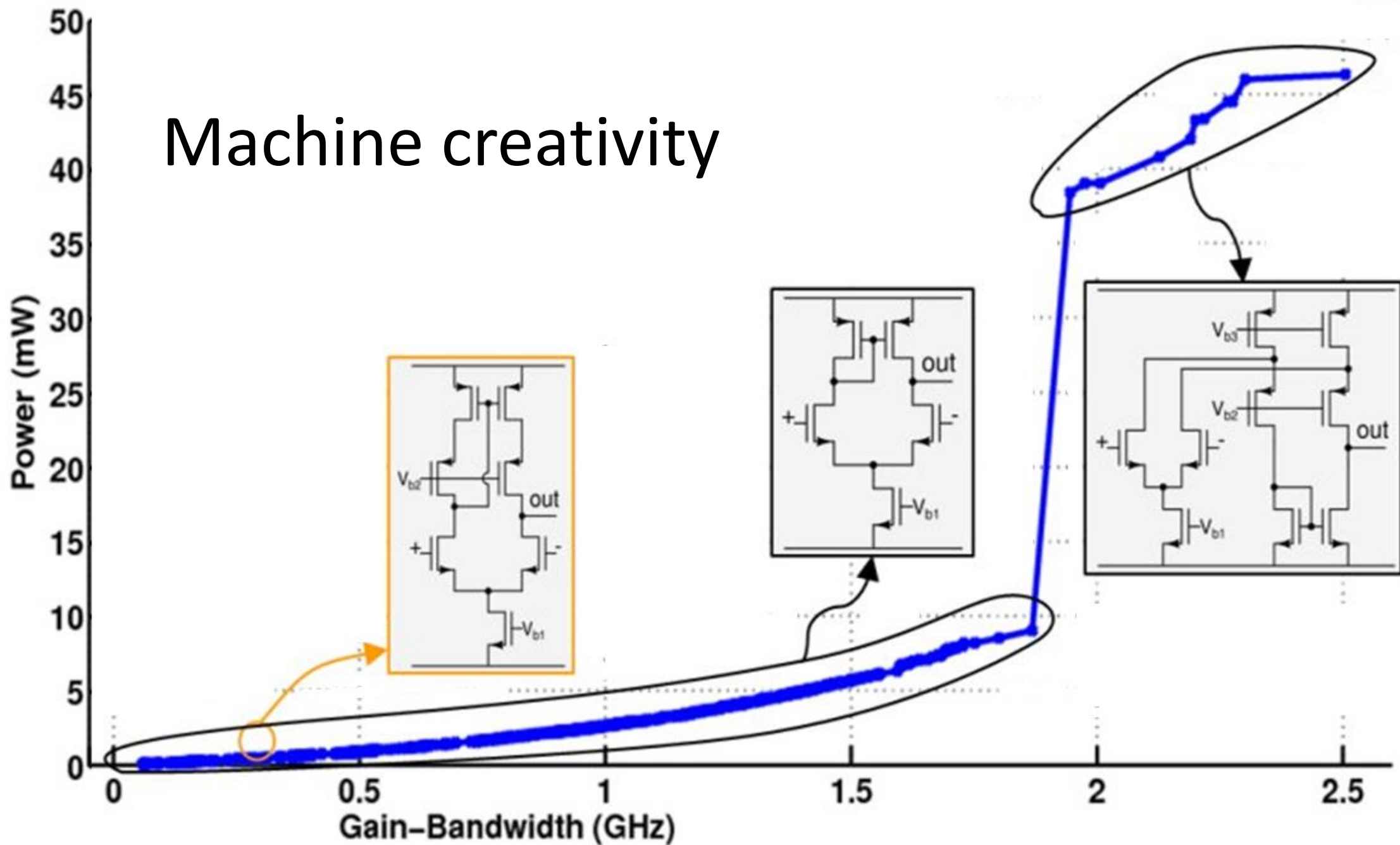


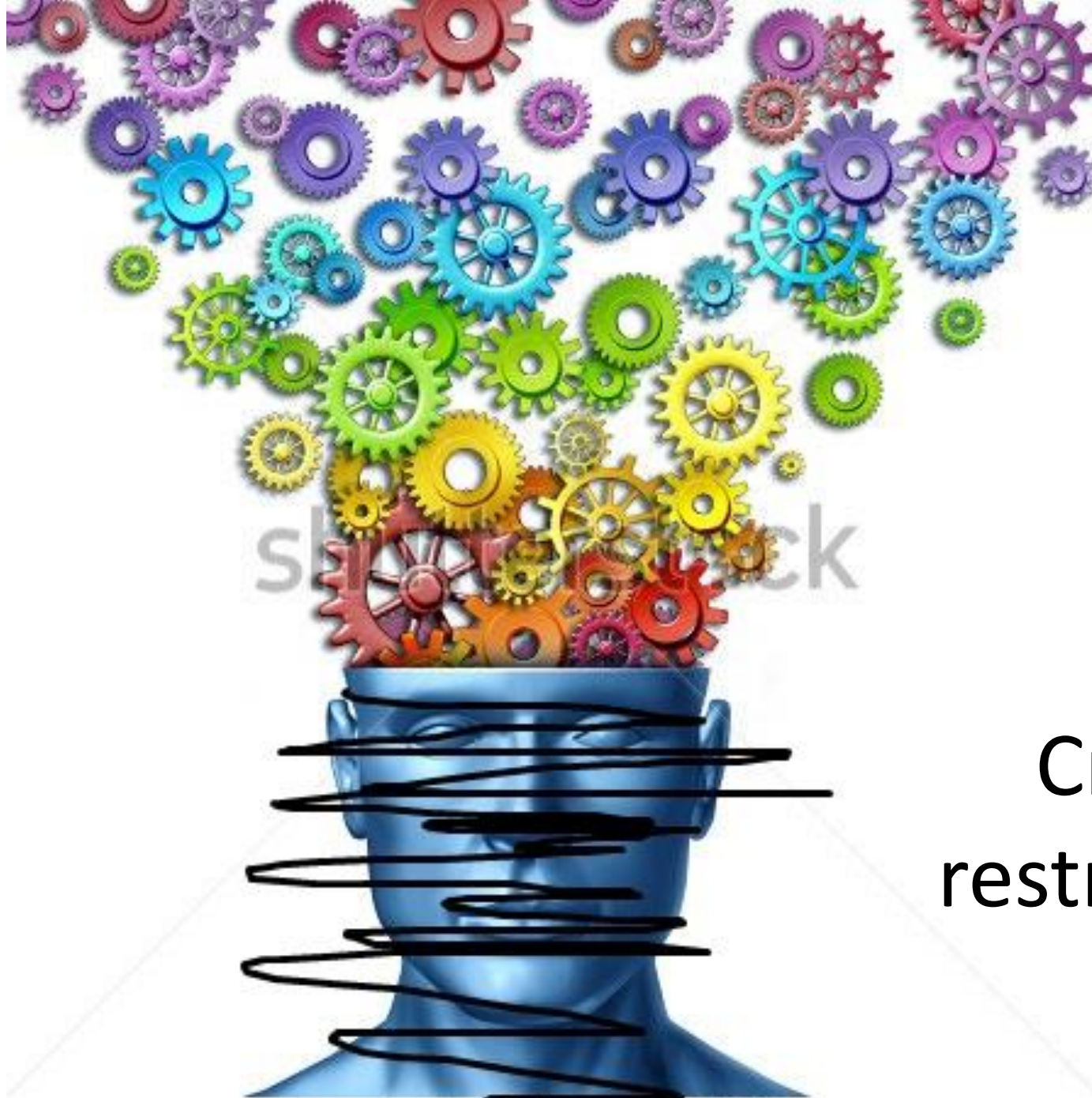
Machine creativity

Machine creativity



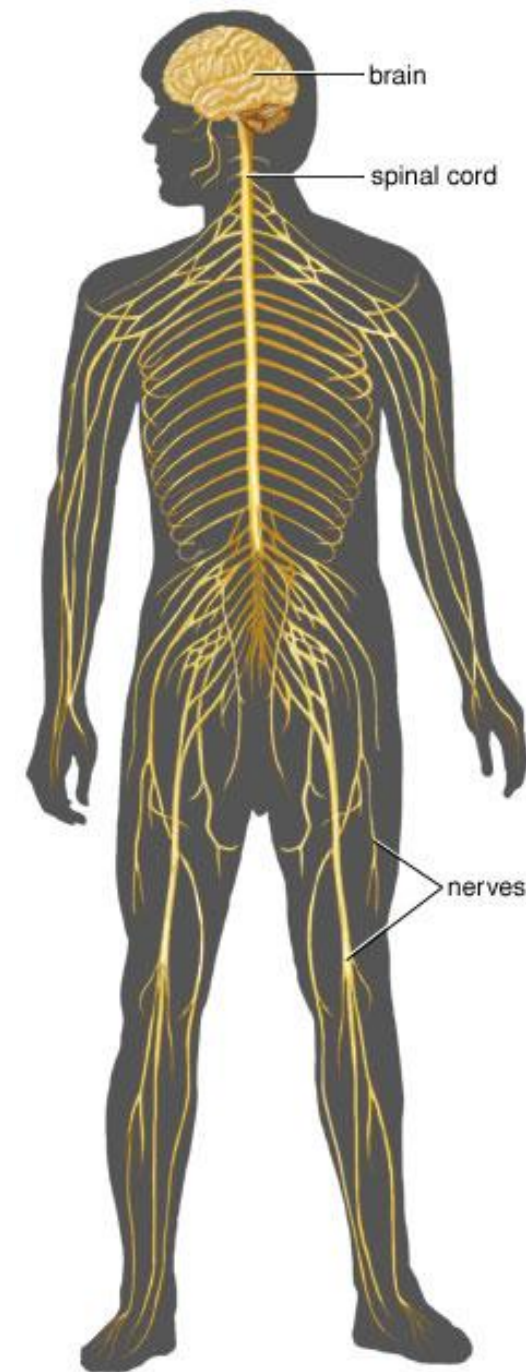
Machine creativity





Creativity is not
restricted to humans

Is the essence of humanity
our brains?
(+ nervous system + body)



Dynamical systems primer

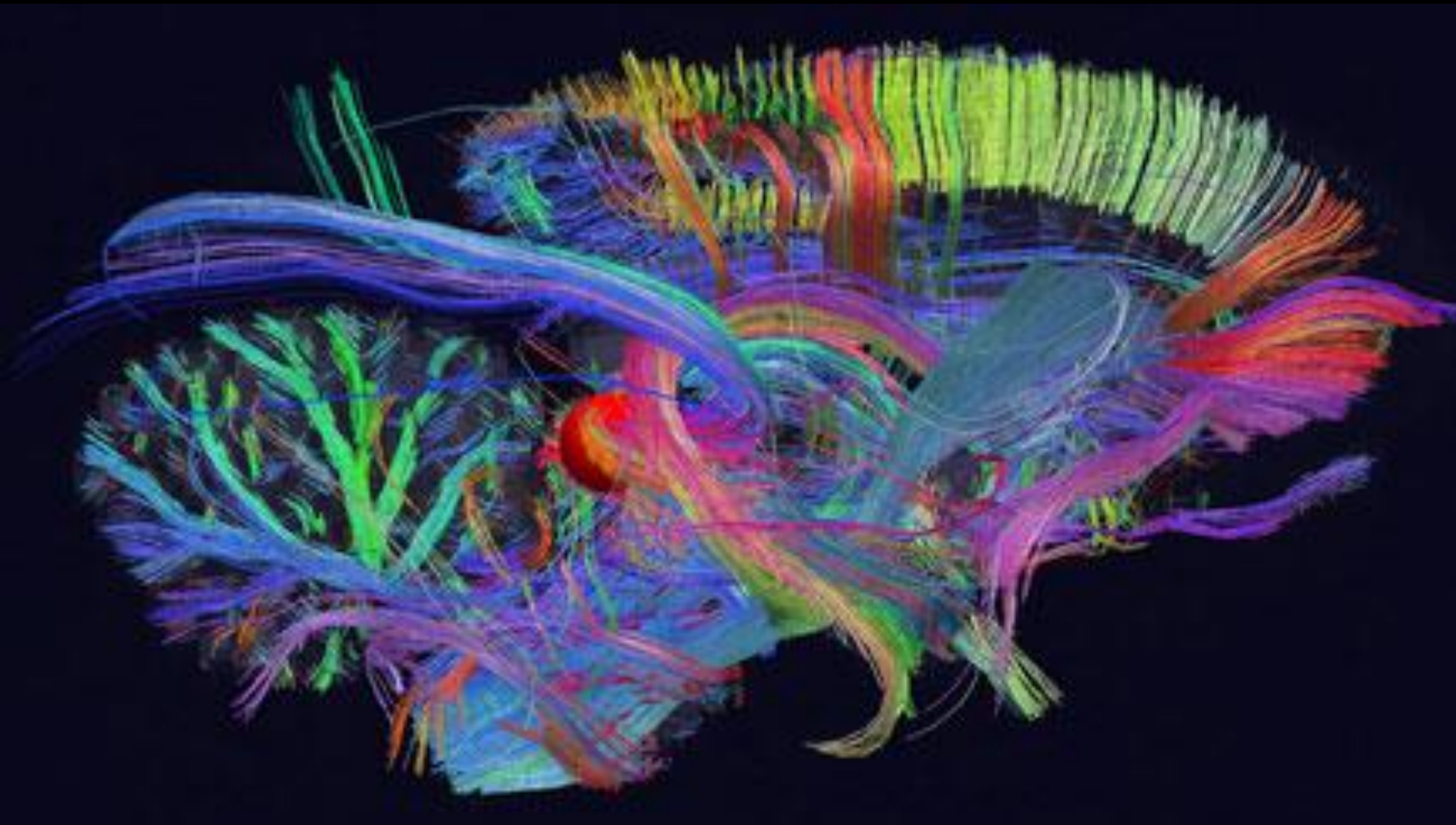
Once you have a model of a system ...

(the dynamics of a system, ie state update rules)

You can instantiate those dynamics in whatever
substrate you please!

Mechanical, electrical, thermal, ...

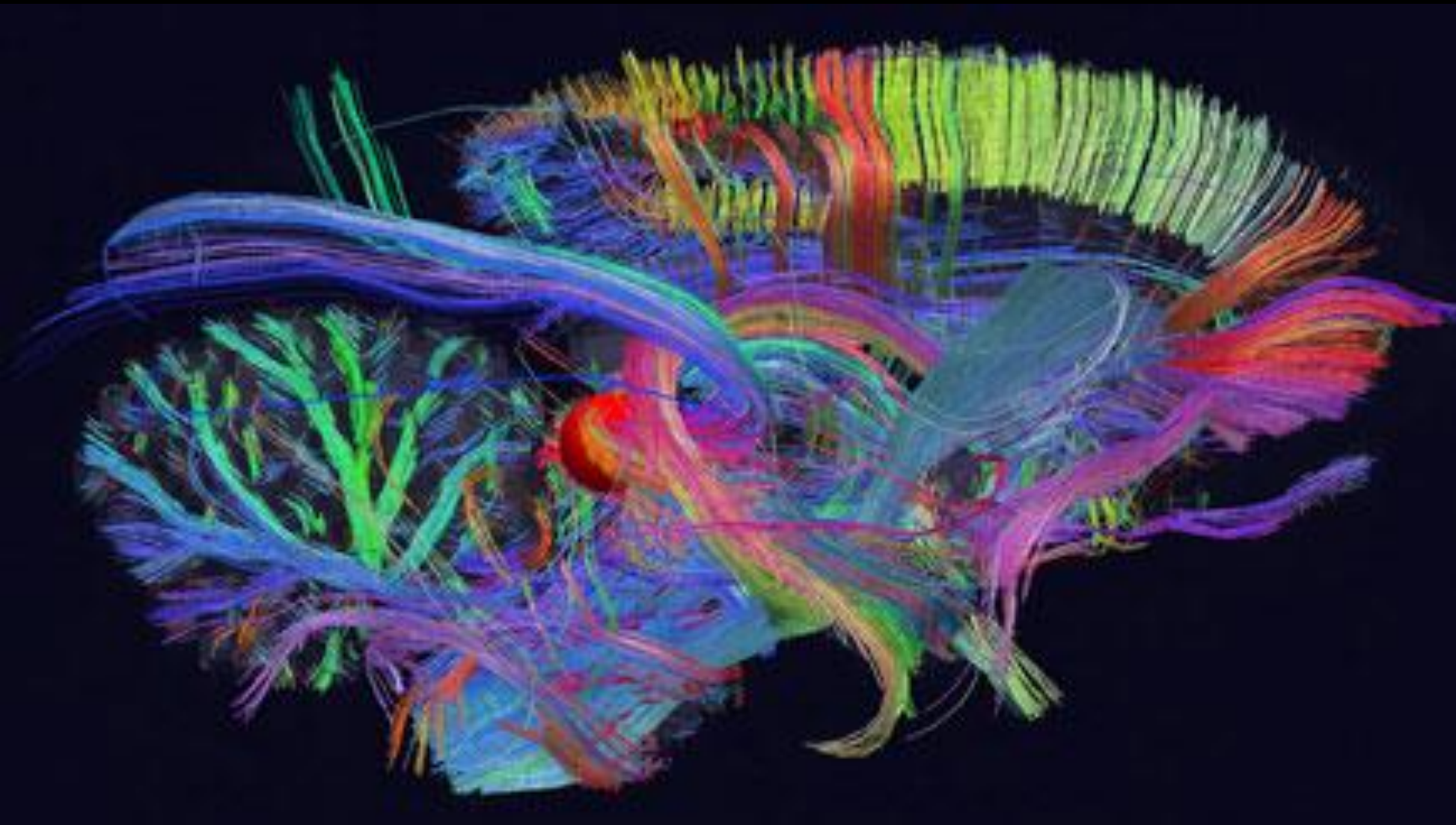
(Subject to the constraints of the substrate)



Our brains house *human patterns of intelligence*.



Is the essence of humanity patterns of intelligence?
My assumption: yes. And that gives us hope...



Our brains house patterns of intelligence. But, these patterns are not constrained to one medium.

AI will wake up.

And it will be hard for our neurons to compete.

Unless we use a competitive substrate?
(Get over your neurons!)

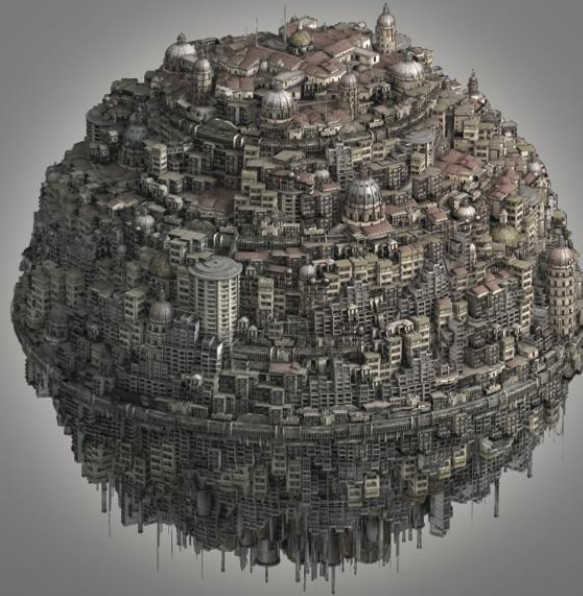
Als will wake up.

And it will be hard for our neurons to compete.

**Let's use a substrate that *is* competitive with Als
(silicon, post-silicon)!**

Then, how might we port to such a substrate?

WORK, LOVE, AND LIFE
WHEN ROBOTS RULE THE EARTH



THE
AGE
OF **EM**

ROBIN HANSON

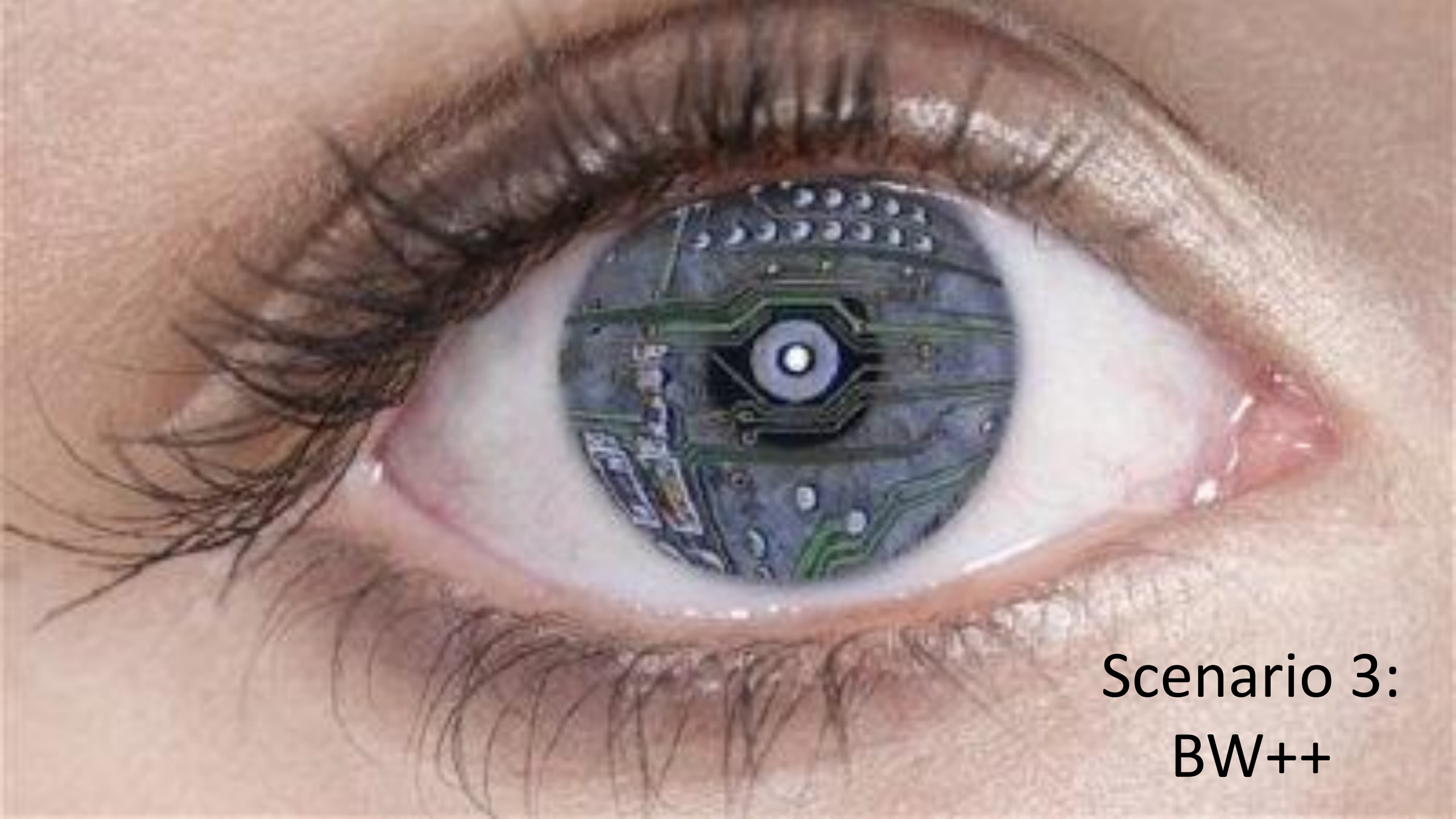
Scenario 2:
Uploads



Scenario 3...

Scenario 3...





Scenario 3:
BW++

IT'S A RACE!

IT'S A RACE!

How to win?

\$\$ into the human side
(brain scanning etc)

Summary:

- AIs will wake up, on silicon.
- If we want to compete, we need a competitive substrate. Silicon.
- It's a race!
- We can't slow down the AI side. Or regulate it.
- But we *can* speed up the human side!
- \$ into brain-scanning, etc.

See you on the other side...