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Making Things Think

I²OT- Embedded Vision and Embedded Intelligence

Dr. Ren Wu

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- **Founder and CEO, NovuMind Ltd.**
- Distinguished Scientist, Baidu
- HSA Chief Software Architect, AMD
- PI, HP Labs CUDA Research Center
- World Computer Xiangqi Champion

- **AI expert**
- **HPC expert**
- **Big Data Analytics expert**
- **Heterogeneous Computing expert**
- **Computational scientist**

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I have no time to see a salesman, I've got a battle to fight.
flantoons

AlphaGo VS Human Master

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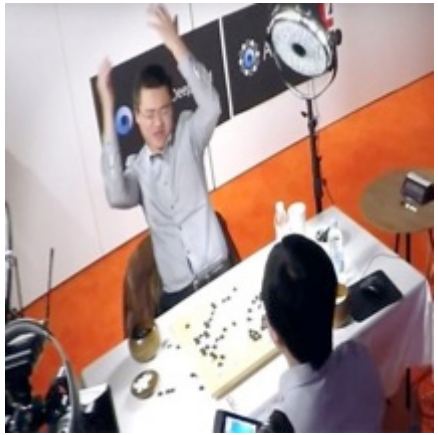

BUSINESS INSIDER

DeepMind secretly unleashed its Go-playing AI online, and it beat some of the world's best players 50-0

SAM SHEAD
JAN. 4, 2017, 10:40 AM

The creator of a mysterious artificial intelligence (AI) that has beaten some of the world's best human players at the Chinese board game Go over the last few days has been revealed as Google DeepMind.

Demis Hassabis, the cofounder and CEO of Google DeepMind, tweeted a screenshot of a DeepMind update that stated: "We've been hard at work improving AlphaGo, and over the past few days we've played some unofficial online games at fast time controls with our new prototype version, to check that it's working as well as we hoped.

"We thank everyone who played our accounts Magister (P) and Master (P) on the Tygem and FoxGo servers."

Hassabis's announcement came within hours of a

Google DeepMind CEO Demis Hassabis

QUARTZ

MASTER

Google's AlphaGo AI secretively won more than 50 straight games against the world's top Go players

When Google's artificial intelligence program AlphaGo made history by taking down Korea's Lee Sedol—one of the world's best Go players—in a landslide 4-1 victory in...

Machines with Brains · Zhaping Huang · January 04, 2017

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Computational power is the key

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Deep Blue VS Gary Kasparov

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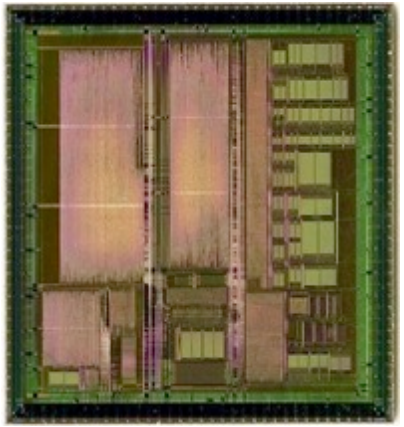

Computational power is the key

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AI's future:

from better to everywhere

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Cloud Computing: What's Missing?

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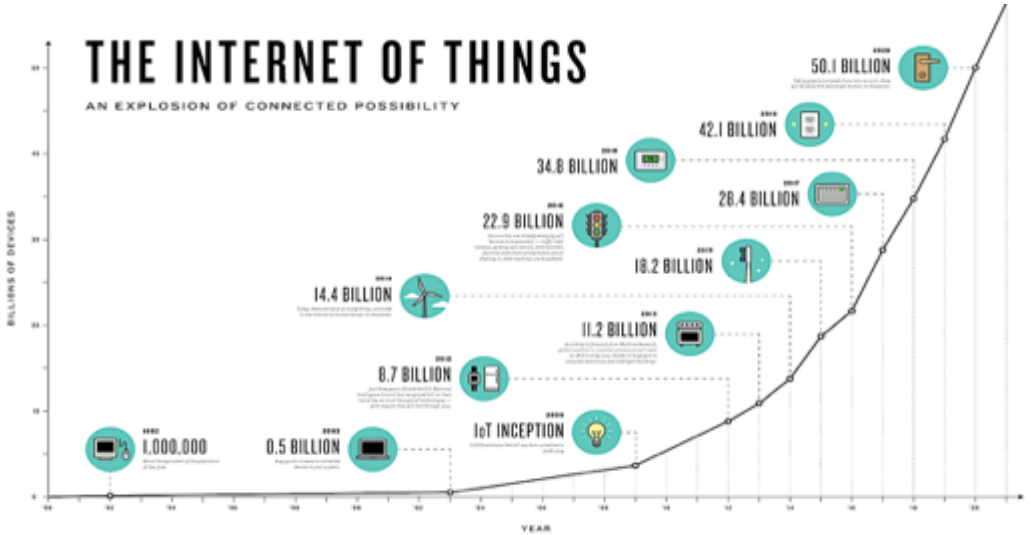

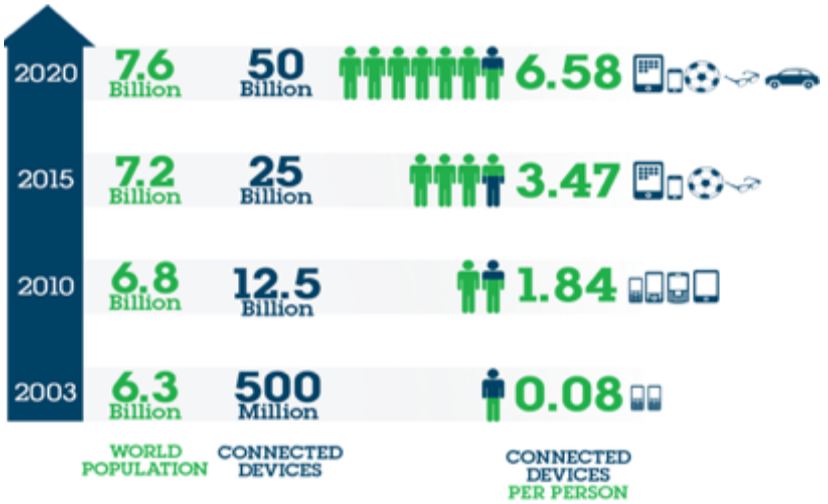

Image source: Cisco

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Cloud Computing: What's Missing?

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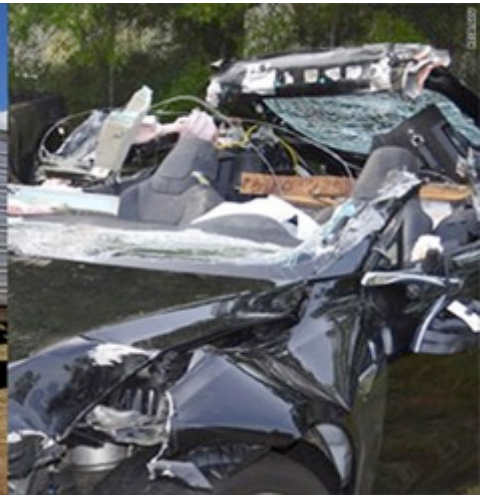

Bandwidth?
Latency?
and
Power Consumption?

Moving data around is expensive, **very expensive!**
And how about no connection?

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Cloud Computing: What's Missing?

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"WHY DO I HAVE THE FEELING THAT YOUR PARENTS DON'T TRUST ME ?"

How about

privacy?

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Deep Learning: Two Steps

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Supercomputers used for training

And then deploy the trained models everywhere!

Datacenters

Tablets, smartphones

Wearable devices

IoTs

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What's Next?

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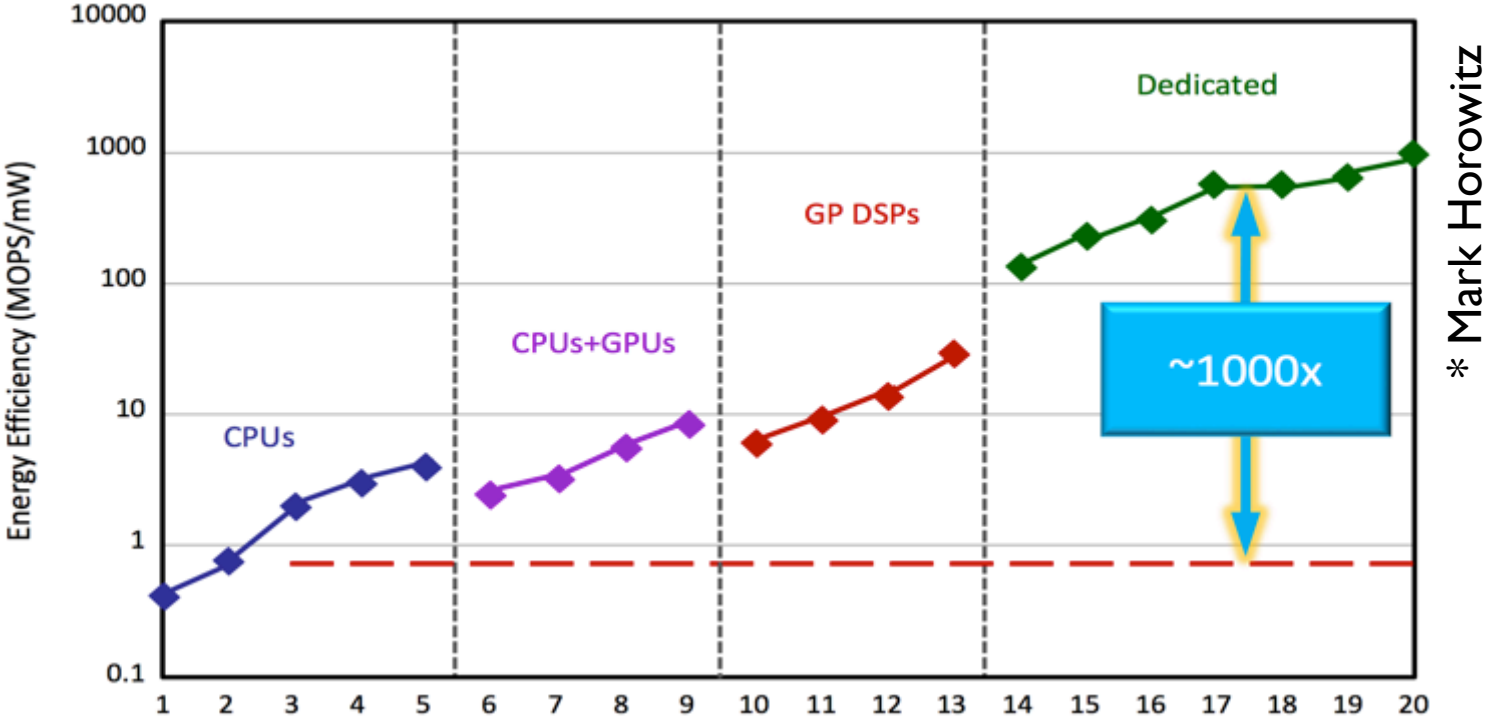

Dedicated Hardware + Heterogeneous Computing

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Heterogeneous Computing

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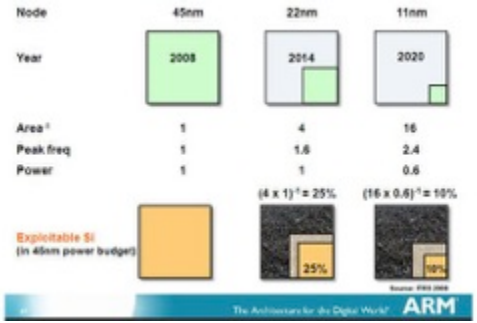

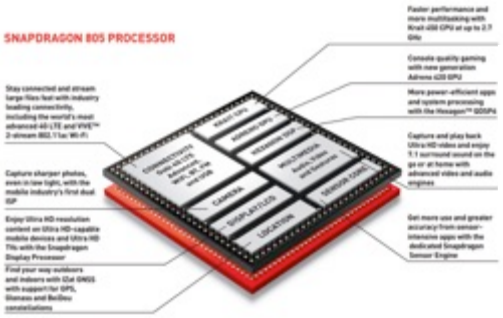

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Heterogeneous Computing

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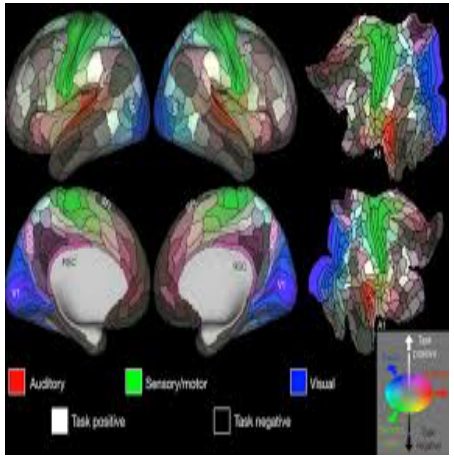

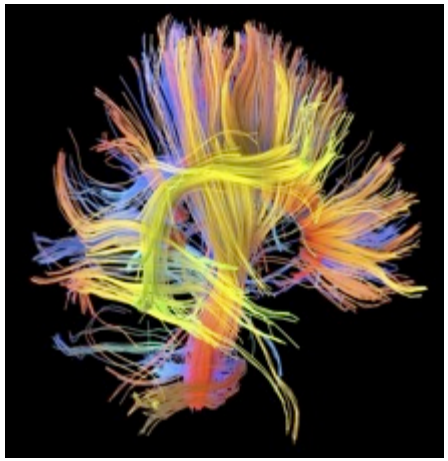

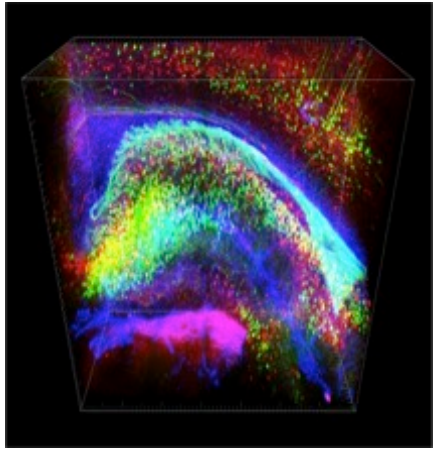

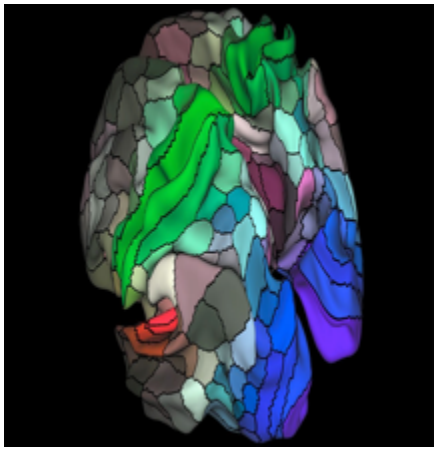

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Embedded Vision

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Intelligent
Internet
of
Things

I²oT

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Embedded Intelligence

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NovuTechnologies

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NovuStar
Supercomputer specially designed for AI, providing industry leading performance for AI training

NovuFlow
Hardware accelerators offer best performance and power efficiency for AI applications

NovuBrain
Little brain that senses, processes, reacts and adapts to its own environment and interacts with rest of the world - intelligently.

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Intelligent Internet of Things

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Everything Connected

Big data era

I²oT
Powered by
NovuMind

Everything Intelligent

AI era

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