Tachyum Prodigy







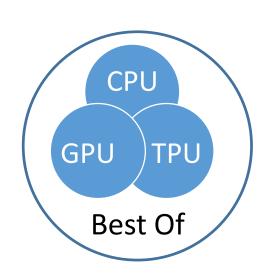
Introduction

Dr Radoslav Danilak

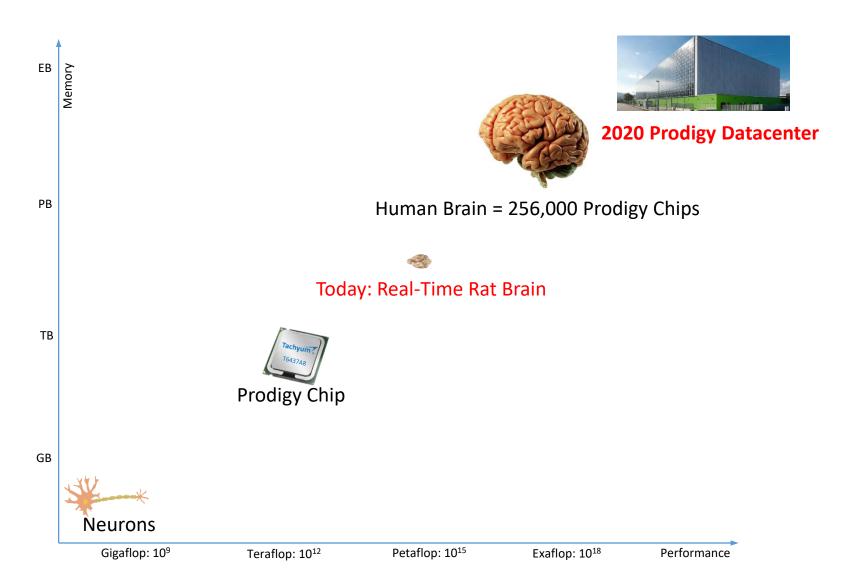
- Over 100 granted patents & over 100 patents pending
- The founder of Skyera acquired by Western Digital in 2014
- The founder of SandForce acquired by LSI for \$337M in 2009
- Member of the Forbes Technology Council, IDC and others
- Tachyum: Cloud Chip Company with Over \$10B Potential
 - Tachyum: Universal Processor / Artificial Intelligence HPC Chip
 - 2020 Real-Time Simulation of Human Brain Sized Neural Networks
 - Big AI for Datacenters for Free

Tachyum Universal Processor / Al Chip

- First time humanity can simulate human brain sized neural networks in real-time
 - Critical tool for the Human Brain Project
- Prodigy is Server / Supercomputer
 - Critical chip for world fastest supercomputer
- Prodigy is Best of CPU, GPU and TPU
 - CPU: easy to program, costly & power hungry
 - GPU: very hard to program but much faster



Real-Time Human Brain Simulation: 10¹⁹ Flops in 2020

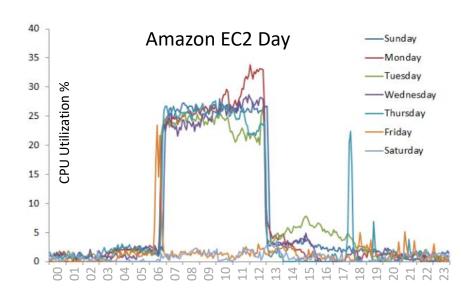


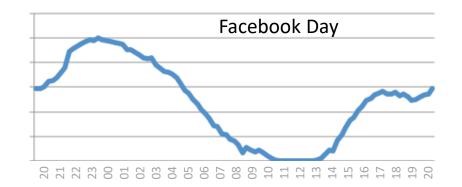
Big AI for Datacenters for Free

Universal Processor / Al chip:
 10x more Al using idle servers

60-80% of server time wasted
 <5% of server have AI GPU

 Processors are not good for Al and GPU or TPUs are used





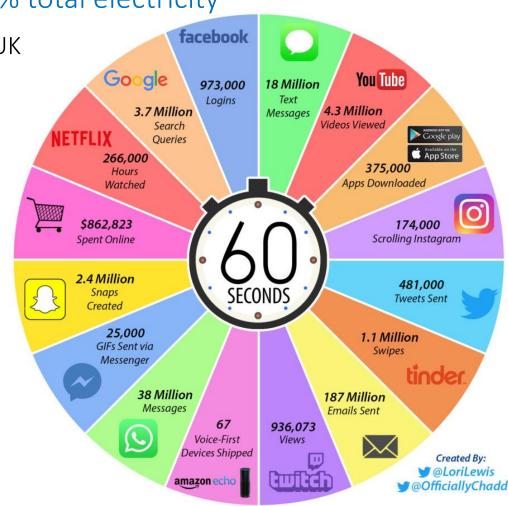
10% of Planet's Energy Consumed by Cloud in 2030

Datacenters today consume 2% total electricity

Consume 40% more power than UK

- 10% of planet energy by 2030
 - 15% growth: is 2x every 5 years
 - 40% of planet energy by 2040

- New Technology is needed
 - To continue technology growth



One More Thing ...

• Much smaller servers



Summary

- Available in 2020 in European R&D Center:
 Prodigy Universal Processor / Artificial Intelligence Chip
- Prodigy Enables European Supercomputer in 2020 to Simulate Human Brain Sized Neural Networks in Real-Time
- Big AI for Datacenters for Free



5/17/2018

High Performance Computing Challenges

