NCSA Blue Waters

13.34 Pflop
(13,340,000,000,000,000 floating point operations / second)

396,040 AMD processor cores
4,224 NVIDIA GPUs

1.476 PB System Memory

26.4 Pbytes Primary Storage
> 1 TB/s aggregate I/O Bandwidth

Up to 0.5EB Near Line Storage
58 GB/s

NCSA Blue Waters in Context

13.34 Pflop
Multiplying two 15-digit numbers together every second would take more than 422 million years

1.476 PB System Memory
~190,000 DIMMS

~ 300 million dSLR images

26.4 Pbytes Primary Storage
> 17,000 Disks

Enough to store all the printed documents in all of the world's libraries

Up to 0.5 EB Near Line Storage
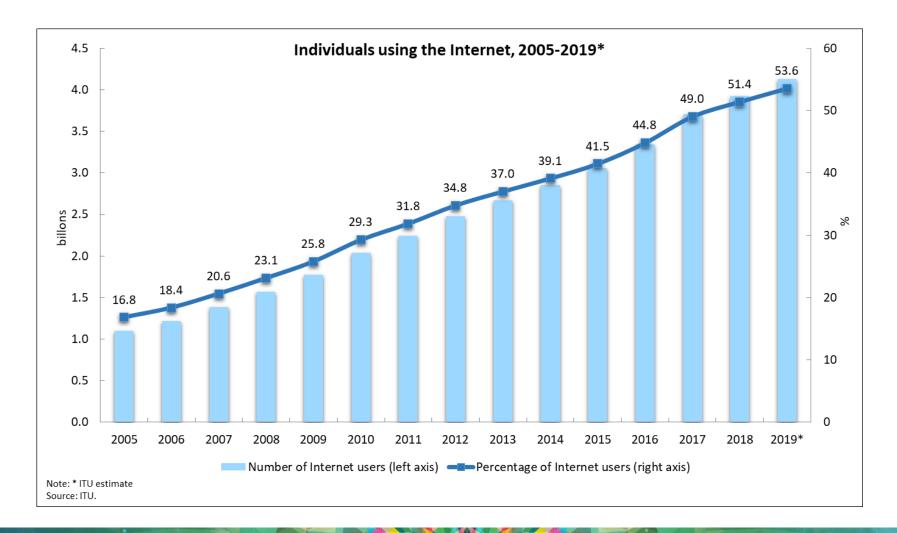Enough to store 10% of all the words spoken in the existence of humankind

For all practical purposes in public health computing IS unlimited

Individuals using the Internet, 2005-2019*

Note: * ITU estimate
Source: ITU.

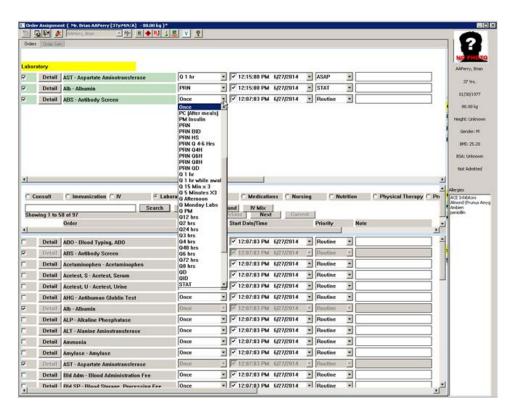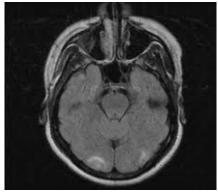Number of Internet users (left axis) — Percentage of Internet users (right axis)

~2.8 Billion Users

www.internetworldstats.com
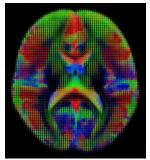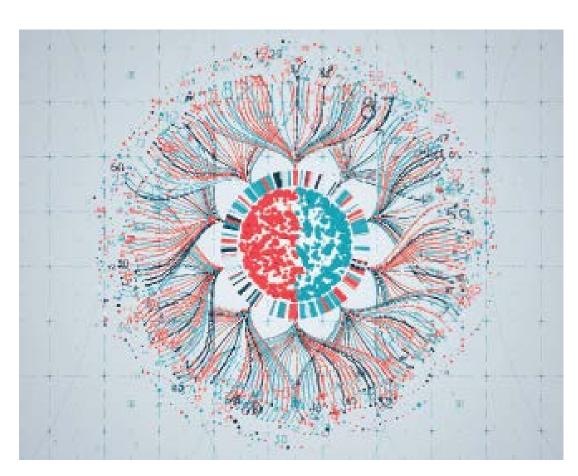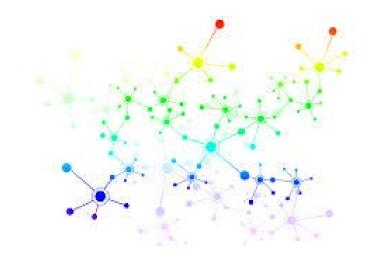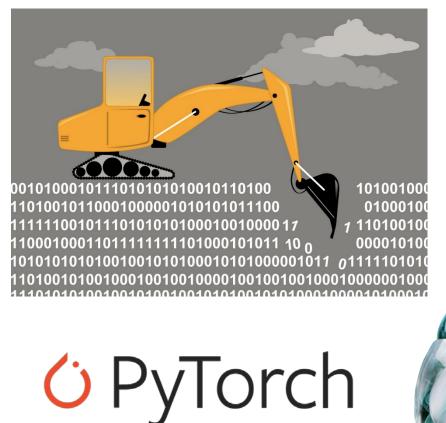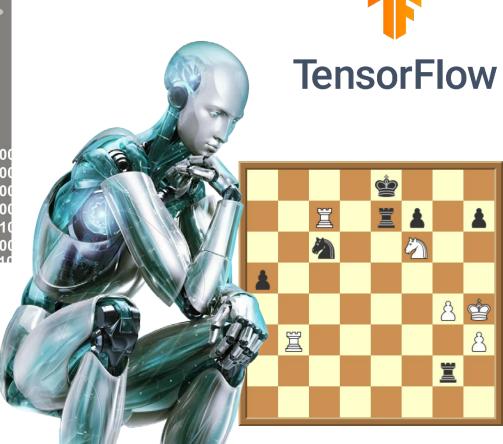
H1N1 Outbreak 2009
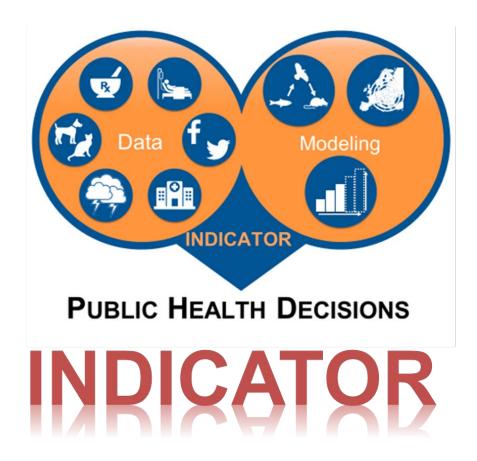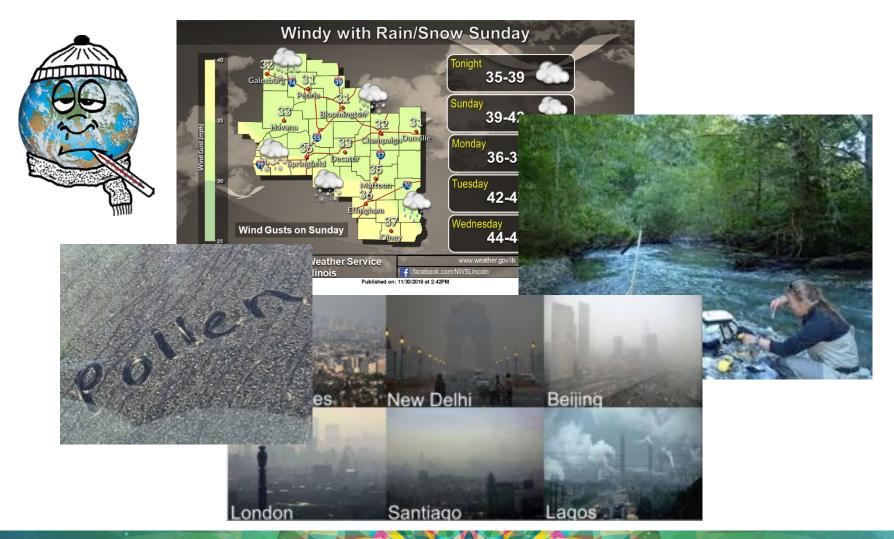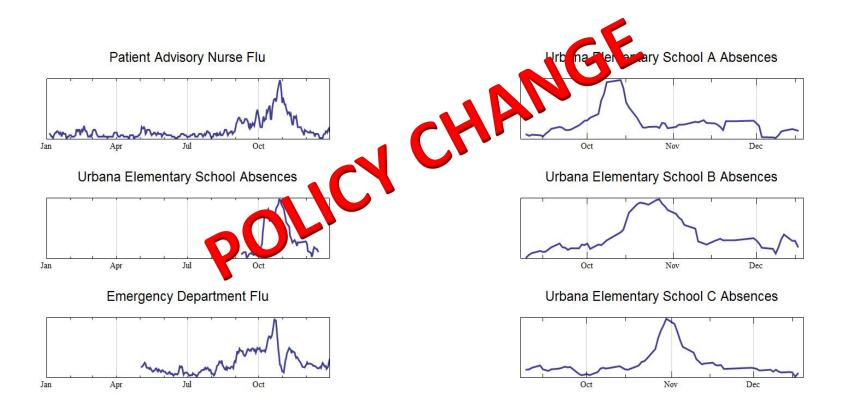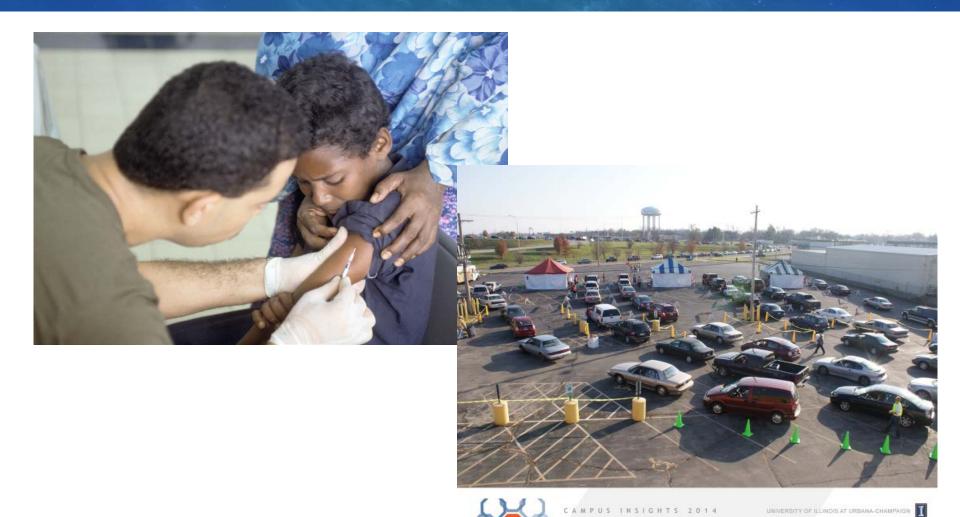
CAMPUS INSIGHTS 2014   UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Lessons learned

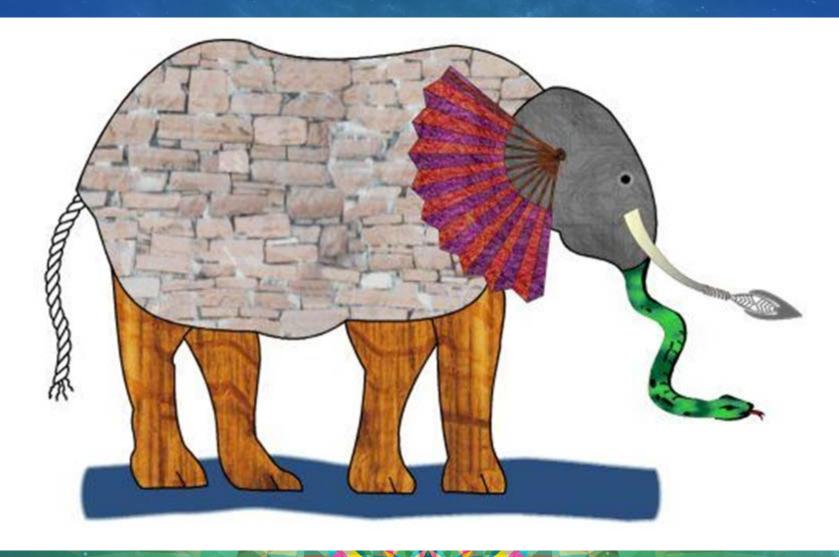# Final Thoughts

Technical Engineering of Health Informatics projects is easy

At least when compared to the required **Social Engineering**