

My own feelings... not an official GE presentation...



#Saturn16
MAY
2-6
2016

SATURN 2016
12th ANNUAL S E I
Software Engineering
Institute
ARCHITECTURE TECHNOLOGY
USER NETWORK CONFERENCE
San Diego, CA USA

SKETCHNOTES @mjbrodbent

MY MANTRA @ GE:

Make no little plans.
They have no magic to stir men's blood and probably will not themselves be realized.

- DANIEL BURNHAM
Architect
responsible for 1893 Expo

KEY NOTE

JOE SALVO

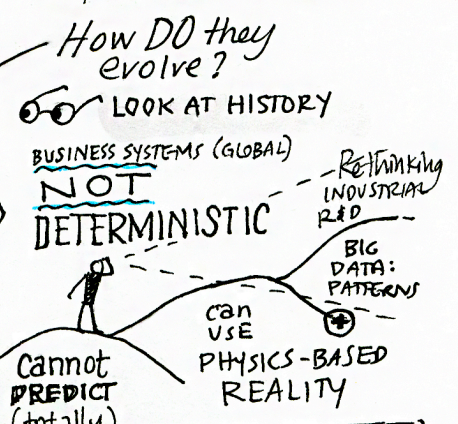
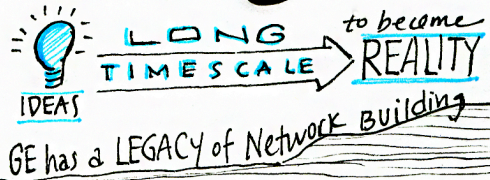
"Architectures are at the basis for how we connect and how our behavior is controlled."

since 2014:
open membership
3500 members
25 countries

- FOUNDER and DIRECTOR of the INDUSTRIAL INTERNET CONSORTIUM
- MANAGER of COMPLEX SYSTEMS ENGINEERING LABORATORY
- GE GLOBAL RESEARCH

for 30 YEARS Inventing THE FUTURE

Architecture and the Evolution of Complex Systems



HISTORICALLY...

1 The Industrial Age (USA) - DISRUPTIVE

- COLUMBIAN EXPOSITION OF 1893 - CHICAGO
- steel frameworks (great height) AFFECT BUILDING ARCHITECTURE
- electric lighting (distributed vs. centralized) ESTABLISHED GRID ARCH FOR 100+ YRS.

Captains of GRID Archi-ecture



Scale, "killer app", price of Copper

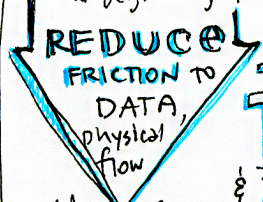
AC MOTOR ← (TESLA HAS)

CREATES

NETWORKS OF LIGHT AT SCALE
Changes the skyline and society fabric

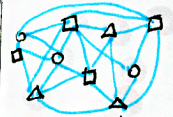
GE as COMPUTER COMPANY?

IN the 50s GE HELPED CREATE MICR FOR BANK CHECKS
* beginning of FinTech



Most important:
TRUST
& REPUTATION

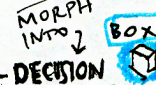
GE FORGE delivers the DIGITAL MARKETPLACE



- DATA
- MODELS
- EXPERTISE
- SIMULATION
- EQUIPMENT

Federated, distributed ARCHITECTURE enables marketplace AND protects IP RIGHTS

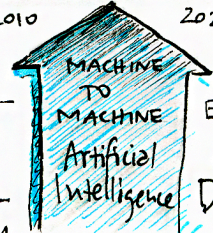
Products



SYSTEMS that LEARN
Welcome to the HYPER-NETWORKED **SYSTEMS AGE**

FOR EXAMPLE: Financial Industry (already in)

- DEMOCRATIZE the TOOLS!
- transparent
 - auditable
 - automated

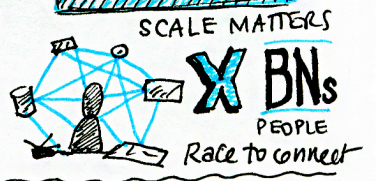


EVERYONE HAS DATA

INDUSTRIAL INTERNET for **RAPID** PRODUCT DEVELOPMENT and FLEXIBILITY
RELIABILITY, PREDICTABILITY and SECURITY

NOW 50 BN OBJECT NETWORK

TRILLIONS IN VALUE



MACROECONOMIC DRIVERS
Business systems are global, nondeterministic and vulnerable to pricing, regulations, natural disasters

BRAIN

MOBILE Connects People to people



2-3 bn



50 mil

SOFTWARE ASSET to ASSET

1985 2000 2010 2020

WE ARE CREATING A "GLOBAL NERVOUS SYSTEM"

