



LICENSURE AND INDUSTRY 4.0

CAITLIN KENNEY, P.E.
INTERNATIONAL SYSTEMS MANAGEMENT, CORP
CKENNEY7@GMAIL.COM

DECEMBER 16, 2020



“Over the next decade, Artificial Intelligence (AI) won’t replace managers, but managers who use AI will replace those who don’t.”

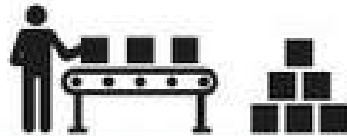
-Harvard Business Review

Source: <https://hbr.org/cover-story/2017/07/the-business-of-artificial-intelligence>



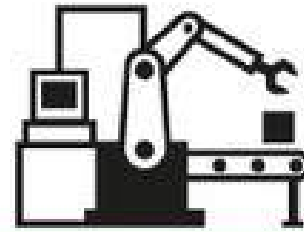
INDUSTRY 1.0

Mechanization, steam power, weaving loom



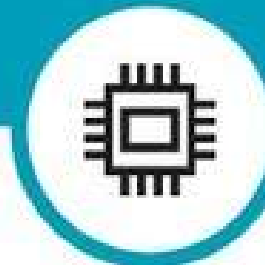
INDUSTRY 2.0

Mass production, assembly line, electrical energy



INDUSTRY 3.0

Automation, computers and electronics

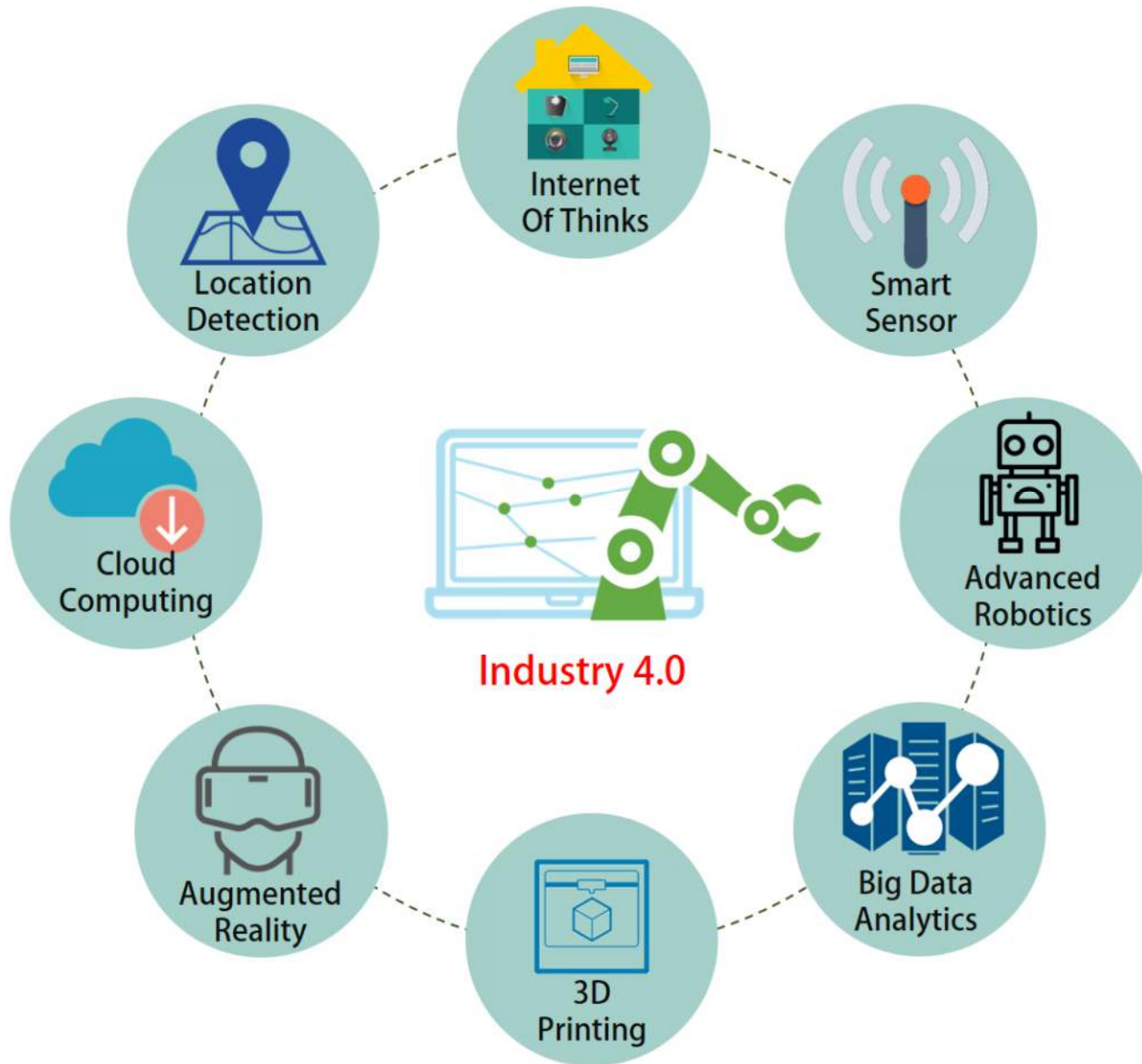


INDUSTRY 4.0

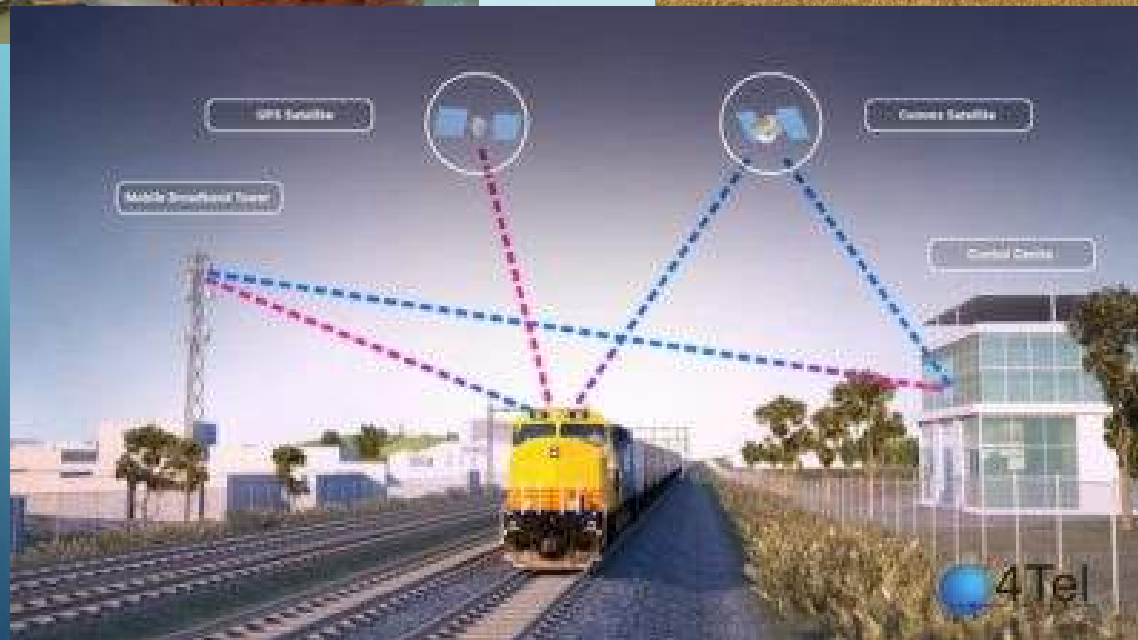
Cyber Physical Systems, internet of things, networks



INDUSTRY 4.0 FRAMEWORK - THE DIGITAL TECHNOLOGIES



BEYOND MANUFACTURING



*See notes for sources

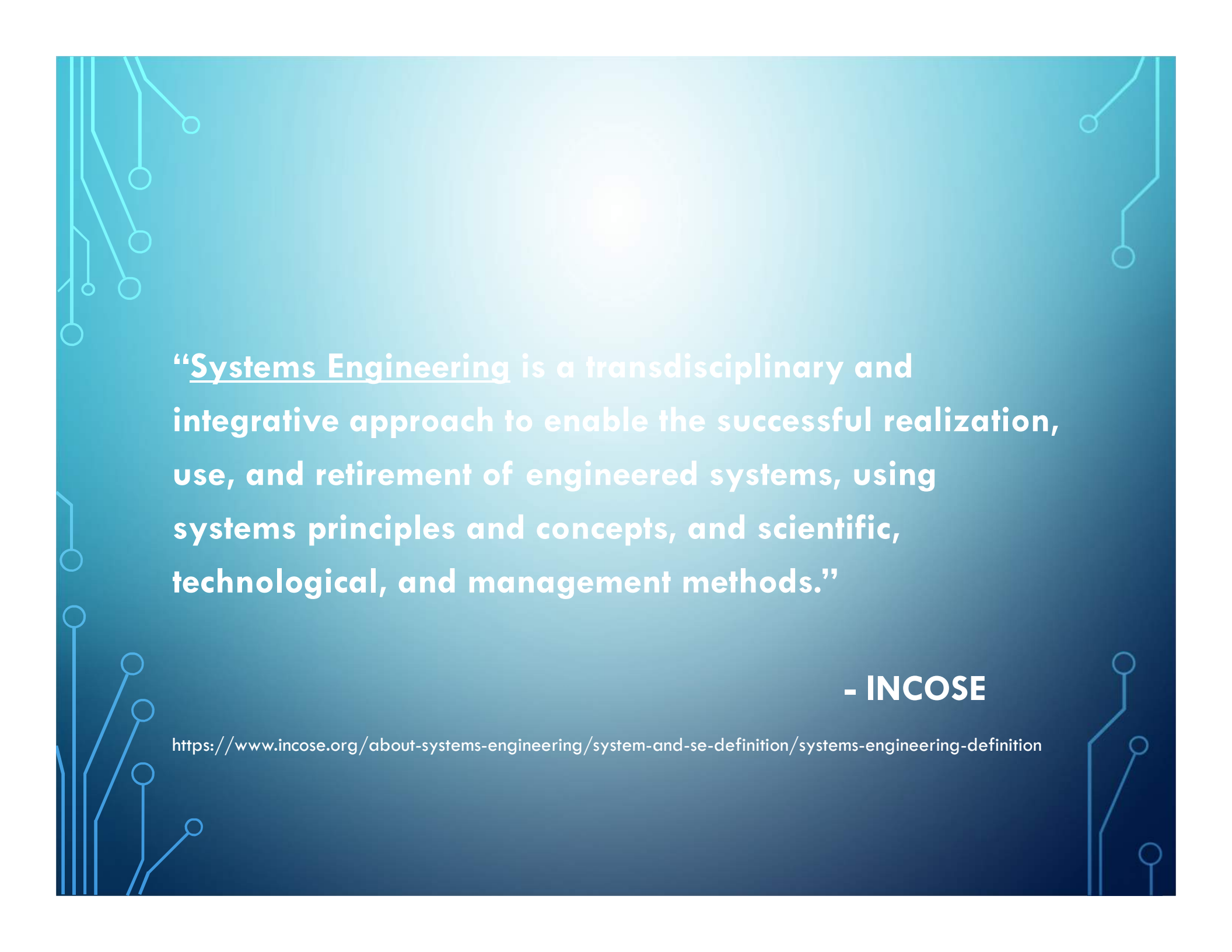
WHAT'S HAPPENING?



More Humans in the Loop

Technology is outpacing our policy and implementation abilities

Protecting users and user data



“Systems Engineering is a transdisciplinary and integrative approach to enable the successful realization, use, and retirement of engineered systems, using systems principles and concepts, and scientific, technological, and management methods.”

- INCOSE

<https://www.incose.org/about-systems-engineering/system-and-se-definition/systems-engineering-definition>

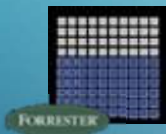
CHALLENGES OF INDUSTRY 4.0

DATA/PROCESS

TALENT

TRUST

The lifeblood of technology, but complexity slows progress



60%

Are challenged in managing data quality

Digital interdisciplinary skills are rare and in high demand



62%

Are challenge to acquire talent [and build skills]

Skepticism of new systems & processes can be overcome with data/process & talent



62%

Need an approach to AI production readiness

Stuck in Experimentation

51%

find operationalizing, sustaining and scaling challenging

LICENSURE & WHAT'S NEXT?

