



# ***Future Work/Technology 2050*** ***Global Scenarios***

***and Implications for Today***

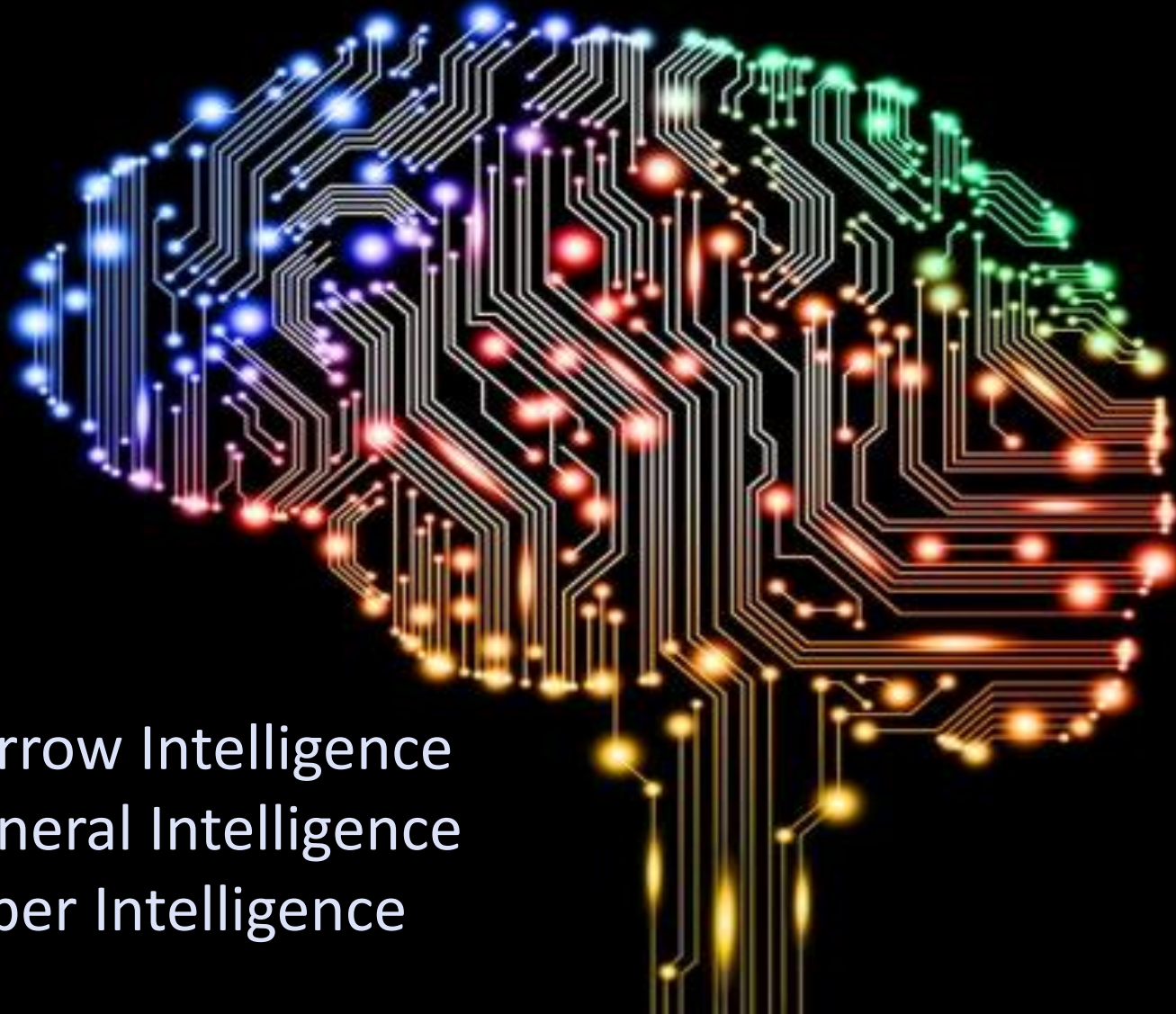
**Jerome C. Glenn, CEO**  
**The Millennium Project**

# Inevitability of New Economics



- Concentration of wealth is increasing
- Income gaps are widening
- Employmentless economic growth seems the new norm
- Return on Investment in capital and technology is usually better than labor (Korea has five robots/100 workers now)
- Future technologies can replace much of human labor
- Long-term structural unemployment is a “business as usual” or “surprise free” trend forecast
- **What can we do about this?**

# Three Forms of Artificial Intelligence



1. Artificial Narrow Intelligence
2. Artificial General Intelligence
3. Artificial Super Intelligence

**These three  
are often  
lumped  
together as  
AI**

**This  
confuses  
the  
discussion  
about AI**

# Next Technologies (NT): Imagine How NT Synergies Will Shape Your Company



Artificial Intelligence

Robotics

Synthetic Biology & Genomics

Computational Science

Cloud & Big Data Analytics

Artificial & Augmented Reality

Nanotechnology (two kinds)

IoT, Tele-Everything & Tele-Everybody, the Semantic Web

Quantum computing

Tele-Presence, Holographic Communications

Intelligence augmentation

Collective Intelligence

Blockchain

3D/4D Printing Materials/Biology

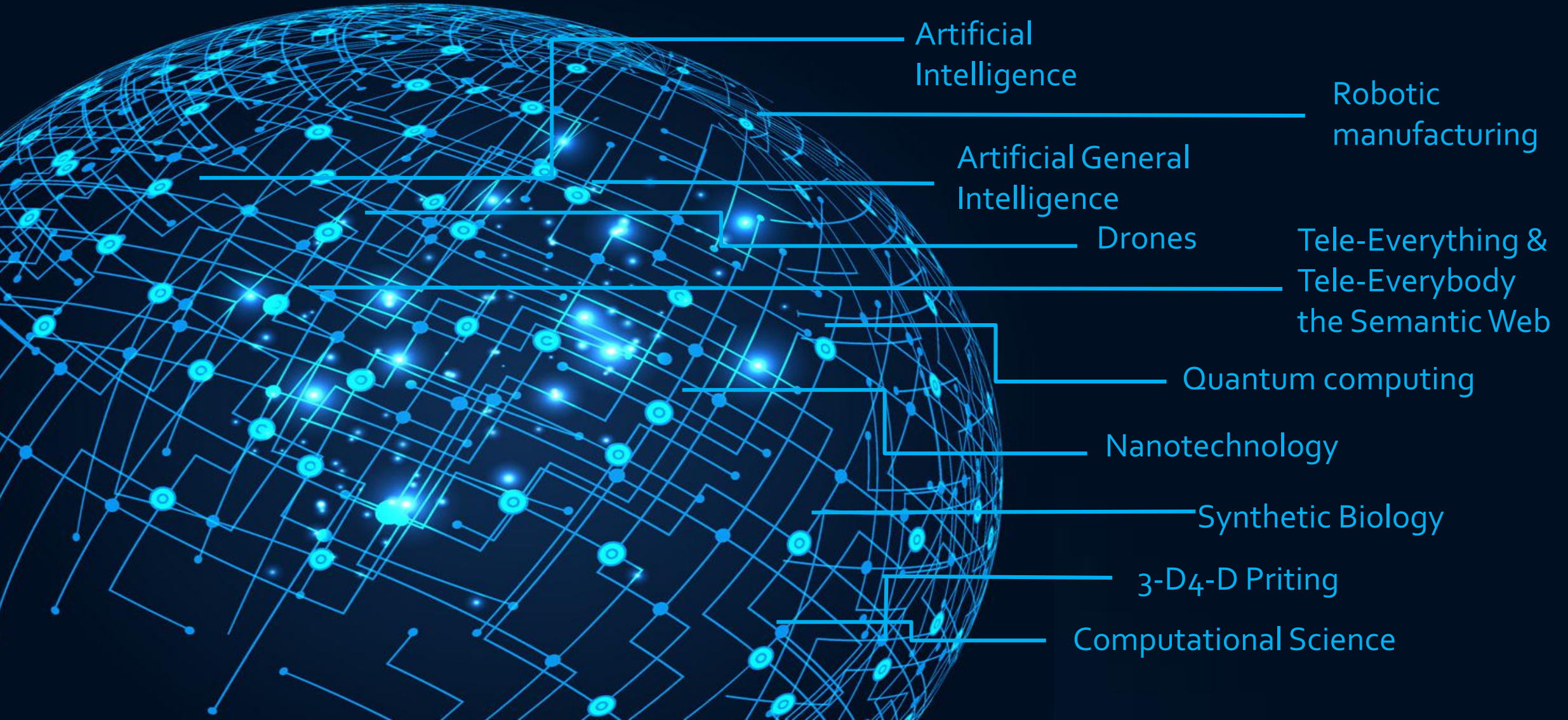
Drones, Driverless Cars (and other autonomous vehicles)

Conscious-Technology

**Synergies Among These**

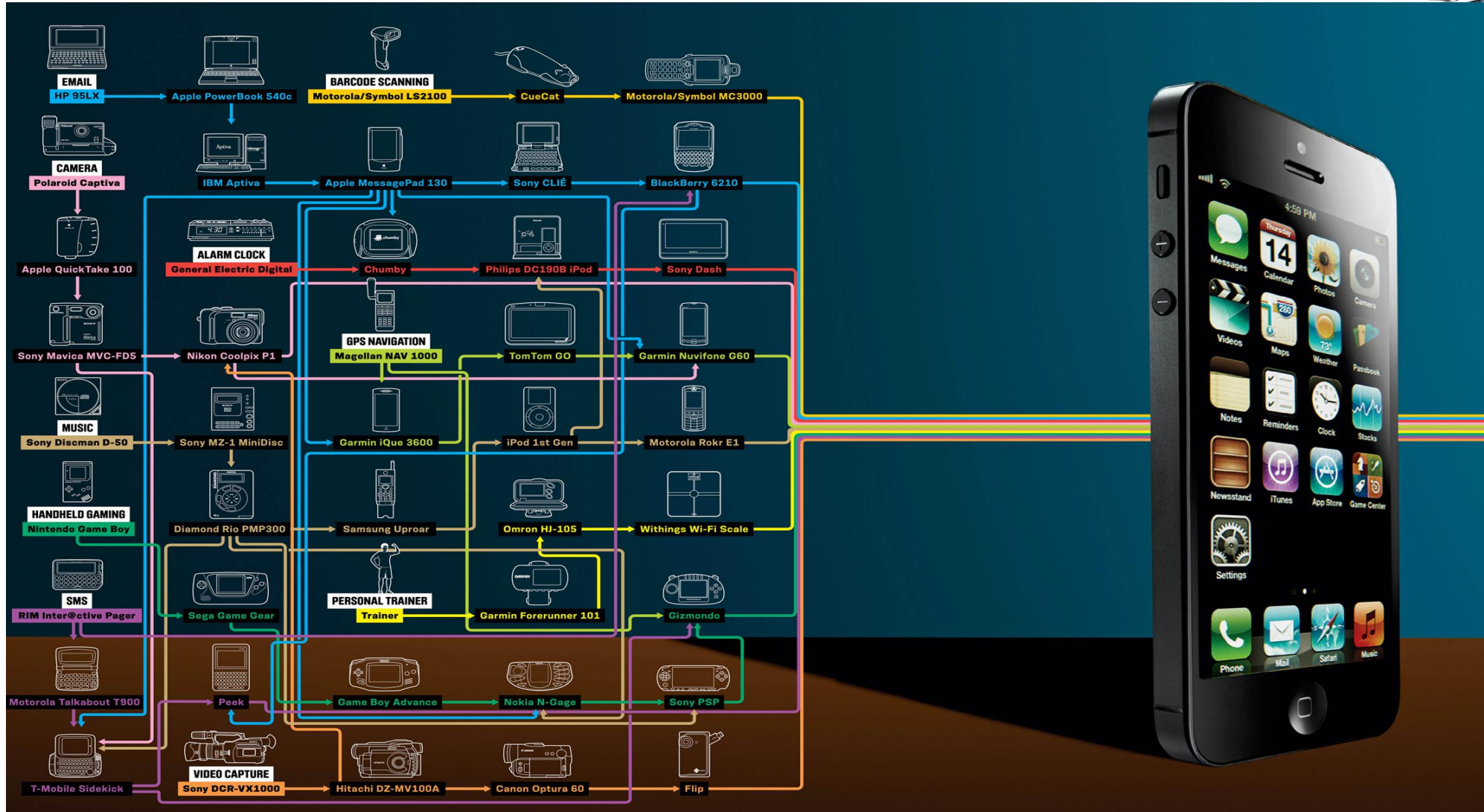


# The Old Way of Seeing the Future of Technologies: *Linear and Separate*

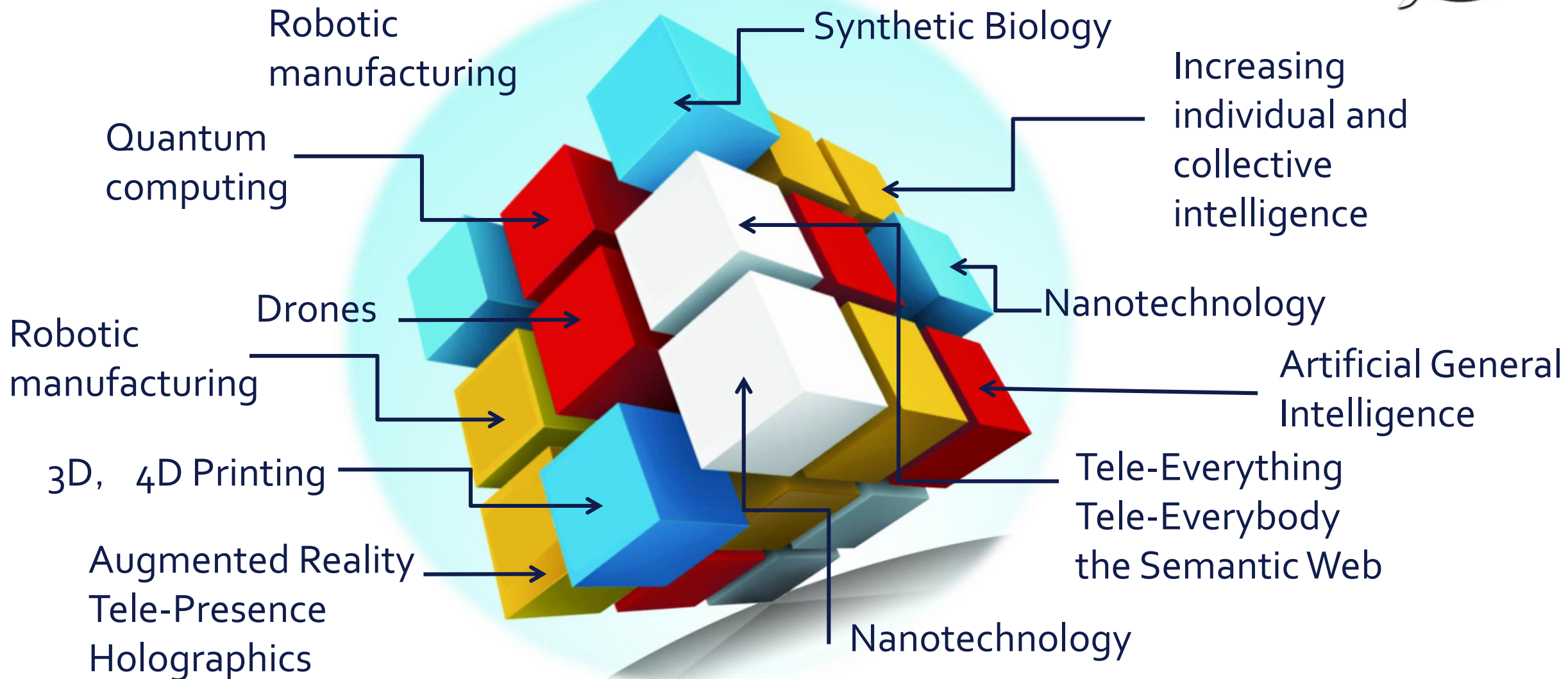




# Future Way of Seeing Future of Technologies: *Integration and Synergies*



# Future Synergies



# Future Synergies



Robotic  
manufacturing

Artificial  
Intelligence

Future  
Technology

Quantum computing

Drones

Robotic  
manufacturing

3D, 4D Printing

Augmented Reality,  
Tele-Presence,  
Holographics





# Global Work/Technology Scenarios 2050

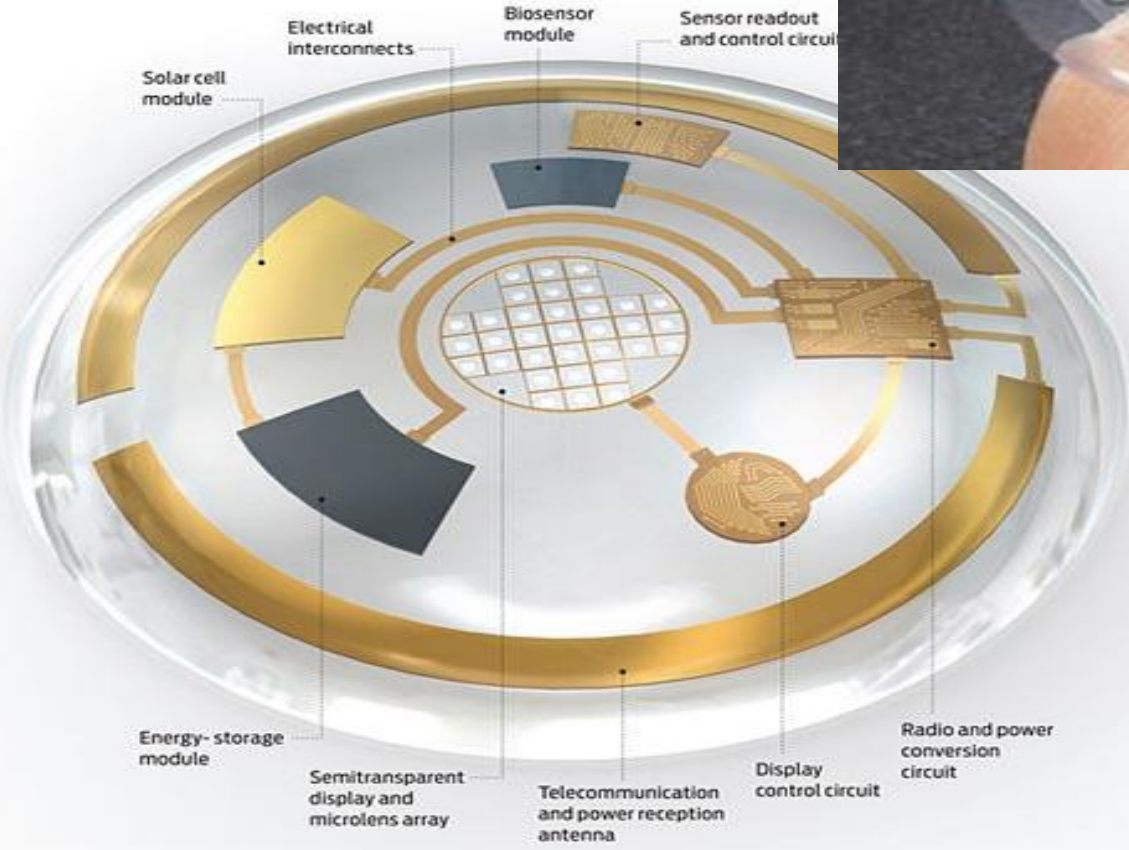
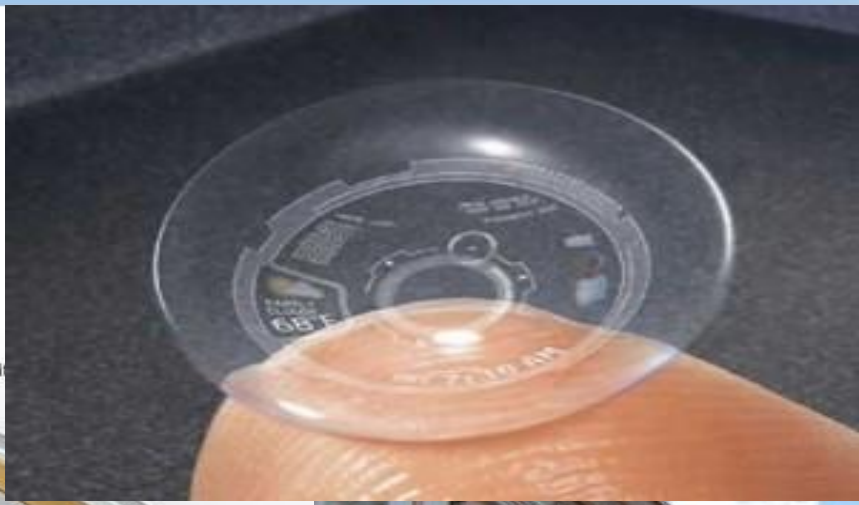


1. It's Complicated - A Mixed Bag
2. Political/Economic Turmoil – Future Despair
3. If Humans Were Free – The Self-Actualizing Economy

# IoT AI Contact Lens – always in Virtual and Augmented Reality connected to the world



**Hands-free, phone-free, laptop-free, AI-Human symbiosis**





# Scenario 2 Jobless Migrations

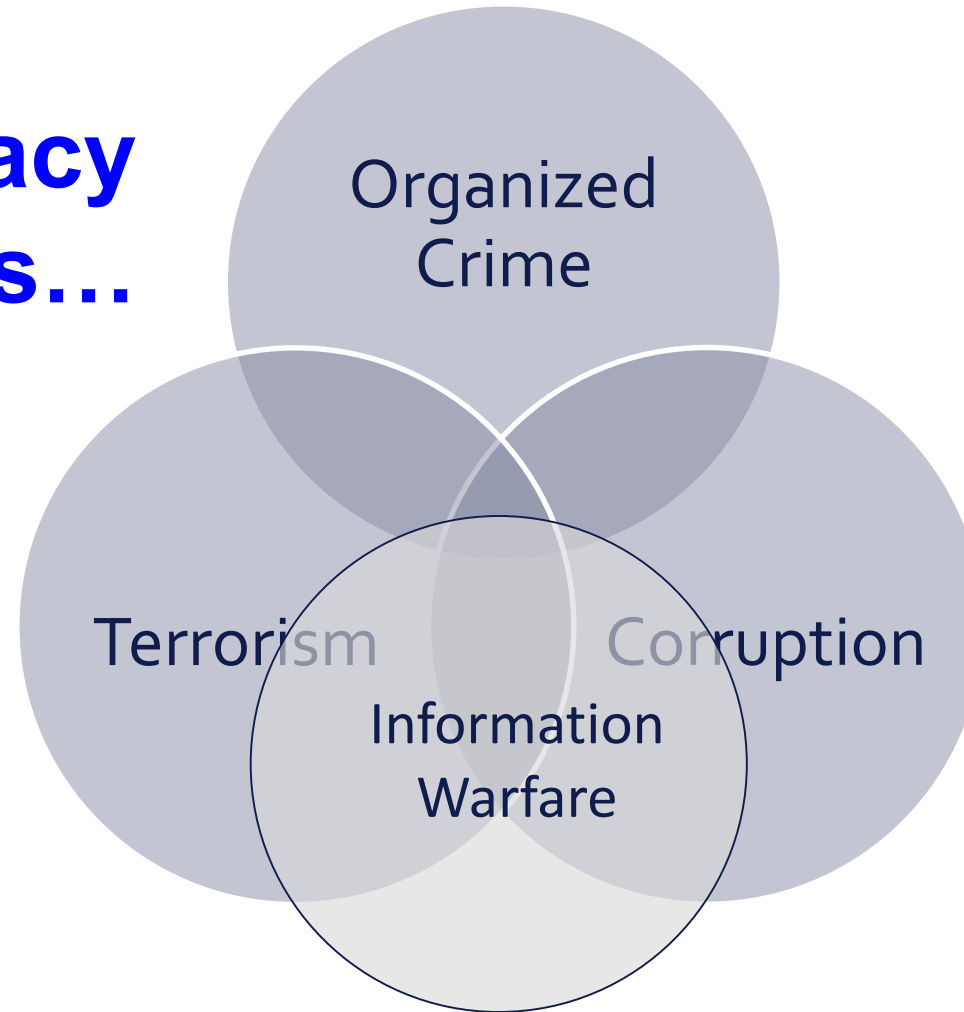




# AI Made This Combination Far More Powerful...



**...Made Democracy  
and Free Markets...**



**...An Illusion**

# Your Personal AI Avatar searches the web while you sleep...



... then wakes you up in the morning  
....with all kinds of interesting things to do, some for income, some because they are just fun, and some that are both.

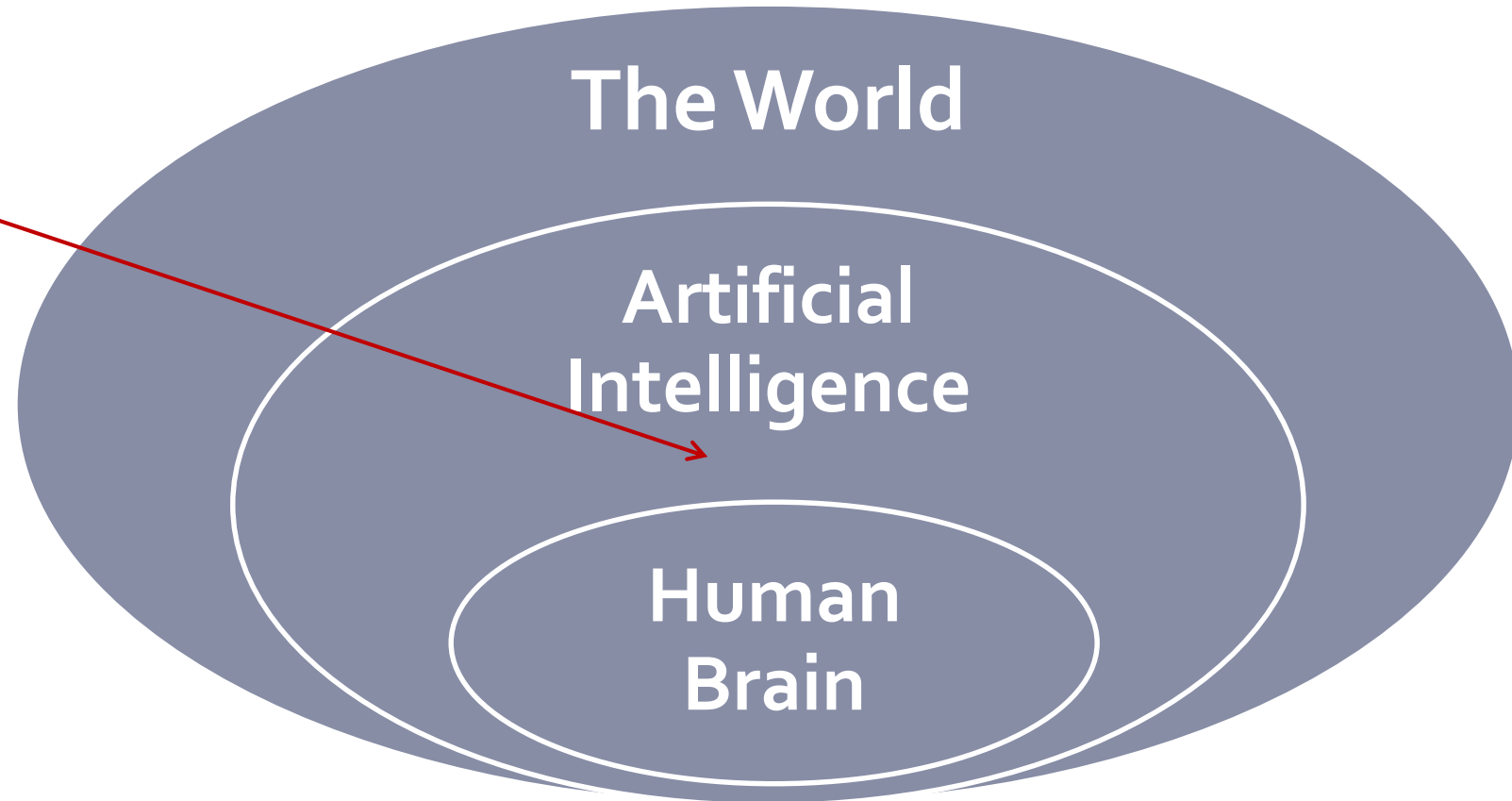


# Human Augmentation: AI-Brain Interface as a “Neural Lace” (term coined by Elon Musk)



“Neural lace,” a mesh of electronics [and photonics] that will allow AI and the brain to work together.

This could help human brains keep up with future enhancements in AI.



<https://youtu.be/ZrGPuUQsDjo>



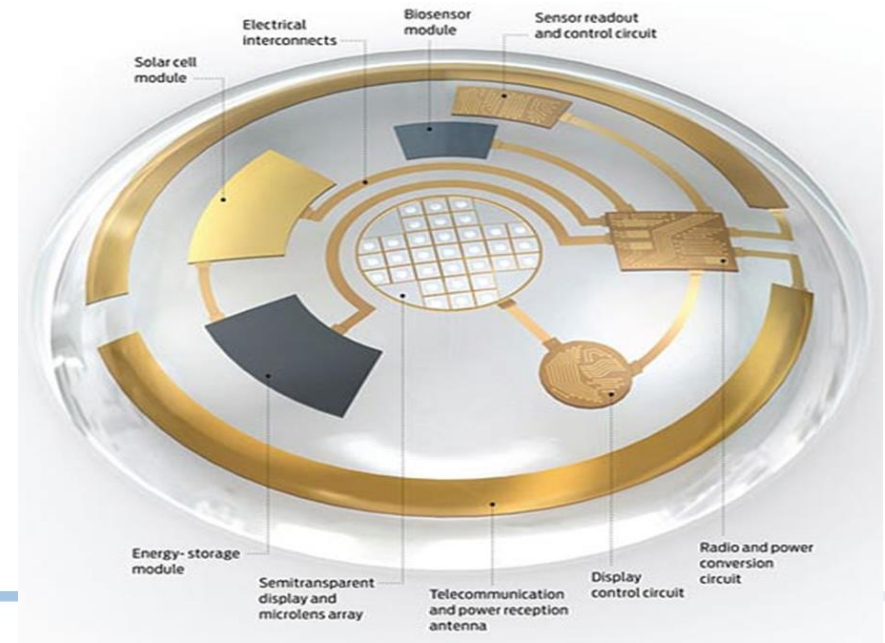
# Steve Jobs and Bill Gates 1991



Consider what these two geniuses created!



By **2030-2050** millions of people could become augmented geniuses, and what could we create?



# For further information



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## ***Global Futures Intelligence System:***

<http://millennium-project.org/millennium/GFIS.html>

## ***State of the Future 19.0:***

<http://millennium-project.org/millennium/2017SOF.html>

## ***Futures Research Methodology 3.0:***

<http://millennium-project.org/millennium/FRM-V3.html>