Society 5.0:
Advanced Technologies in the Existential Era

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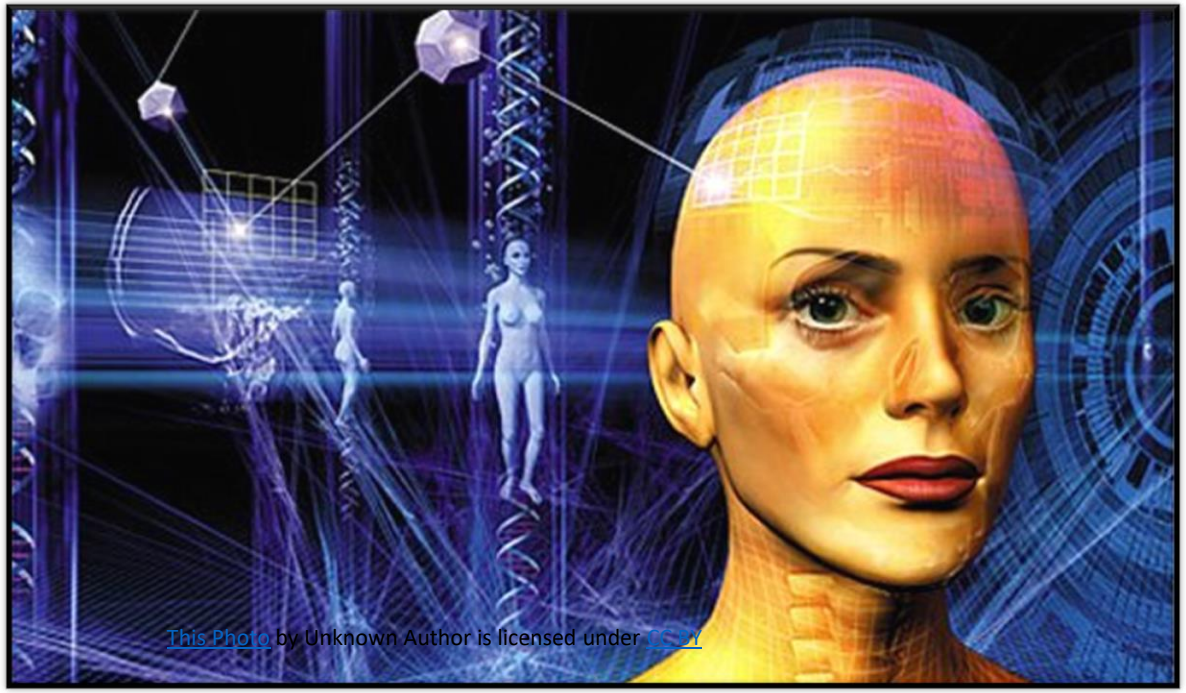
EDT, Rijeka

June 24, 2022

Last Year
Meet the future mayor of Rijeka



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Brookings – "Advanced Tech is NOT a futuristic Vision"

- Transportation - Autonomous Vehicles
- Finance - High Frequency Trading on Exchanges and Robo-advisers
- National Security – data and video surveillance and troving, facial recognition, cyber networks, etc.
- Health Care – deep learning medical diagnostic systems
- Criminal Justice – future perpetrator rankings and profiling based on behaviors, age, arrest records, etc.
- Cities – improving services, planning, resource and energy management, smart city hall

Japan's 5.0

- Japan's Basic Science and Technology Plan (2020)
- Focuses on a data-driven, knowledge led, non-monetary society
- Written by a multi-disciplinary group

Title	Industrie 4.0 (Germany)	Society 5.0 (Japan)
Design	•High-Tech Strategy 2020 Action Plan for Germany (BMBF, 2011) •Recommendations for implementing the strategic initiative INDUSTRIE 4.0 (Industrie 4.0 Working Group, 2013)	•5th Science and Technology Basic Plan (released 2016) •Comprehensive Strategy on Science, Technology and Innovation for 2017 (released 2017)
Objectives, scope	• Smart factories • Focuses on manufacturing	• Super-smart society • Society as a whole
Key phrases	•Cyber-physical systems (CPS) •Internet of Things (IoT) •Mass customization	• High-level convergence of cyberspace and physical space • Balancing economic development with resolution of social issues • Human-centered society

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Karl Marx (Material Life) Four Stages

- Primitive Communism
- Agrarian Slaves
- Feudalism
- Capitalism

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August Comte (Mental Life) Thought in terms Three Stages of Causation and Understanding

- Theological
  - Gods
- Metaphysical
  - Abstract speculations:
    - Natural rights, social contracts, self-evident truths
- Positive
  - Observations and empirically determined society

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Gerhard Lenski (1924-2015)

- Defined Society in terms of their technological sophistication
- Each advance of technology the relationship between and humans and nature is altered.
  - Rudimentary societies fluctuate with their environment
  - Advanced societies have more control over their environment
- Encompasses all aspects of social life
  - Mental (Comte)
  - Material (Marx)

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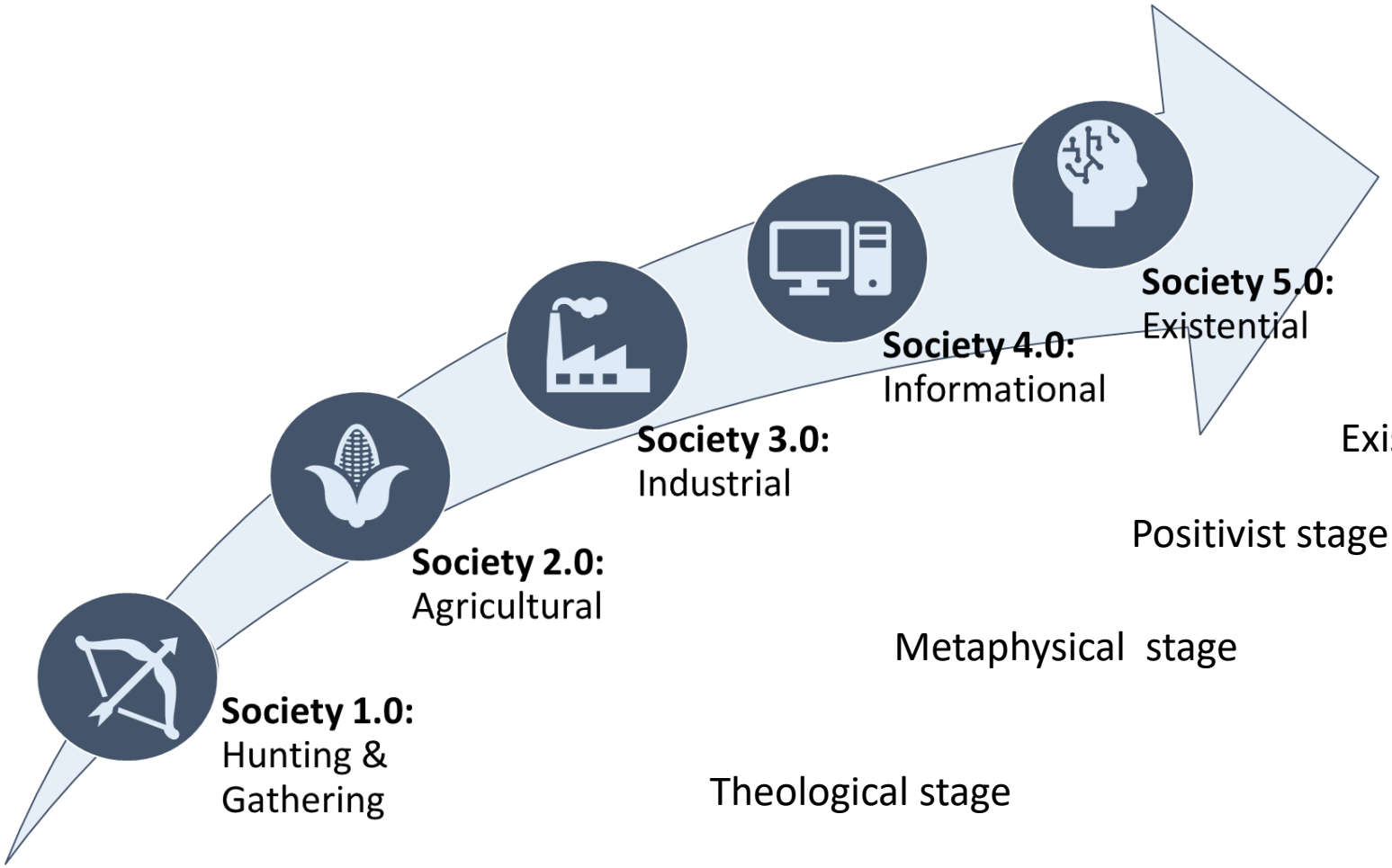
Society 5.0: Existential
Embodied Tech and the Sylicarbon Future



Theological stage

Metaphysical stage

Positivist stage

Existential stage

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Existential

- Mental - What does it mean to exist, How do I exist, where do I exist, who am I.
- Material – post capitalism
  - State capitalism or stratified capitalism combined with…
  - The Sharing Economy

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Case Study: the transfer of touch over distance via neuroreality™

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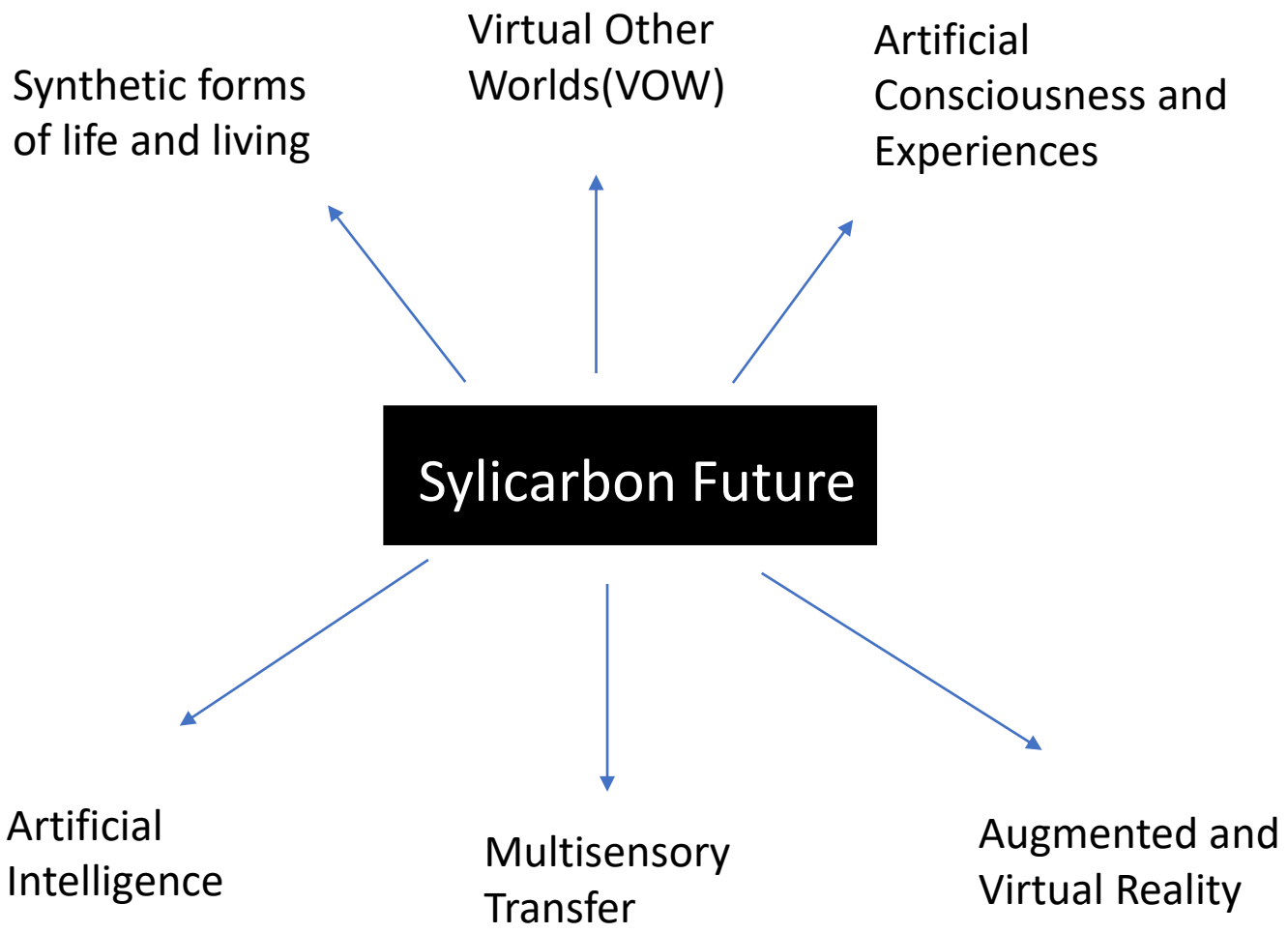

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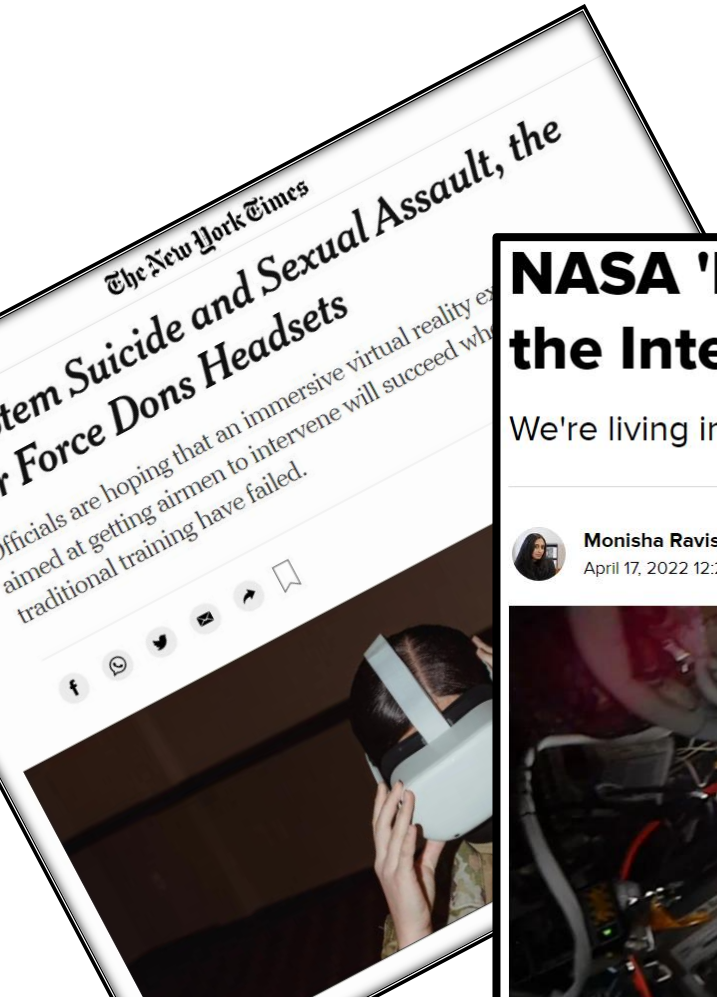
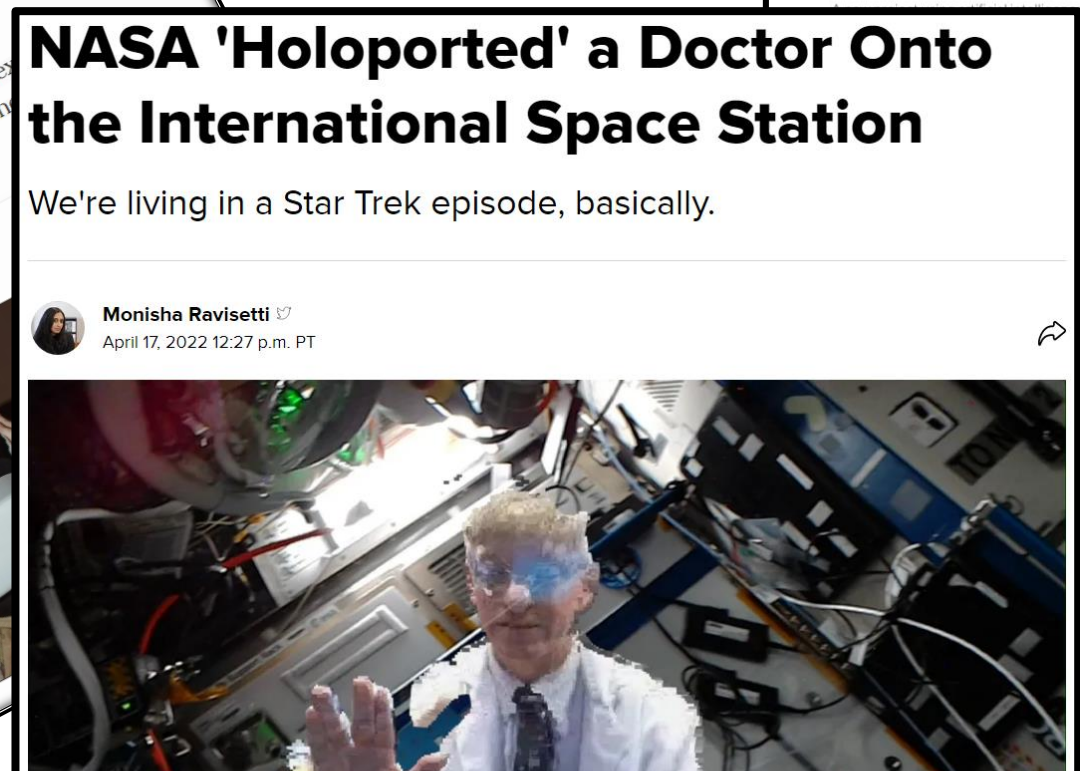
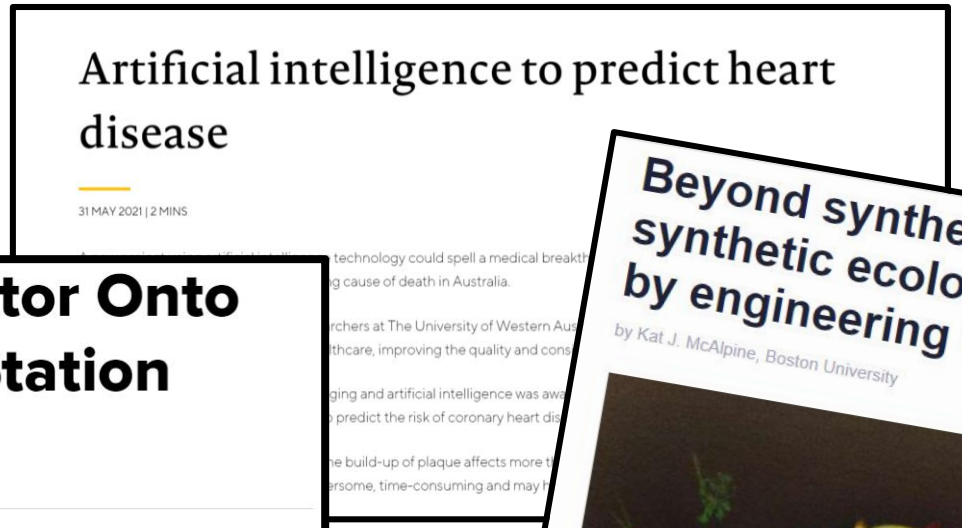
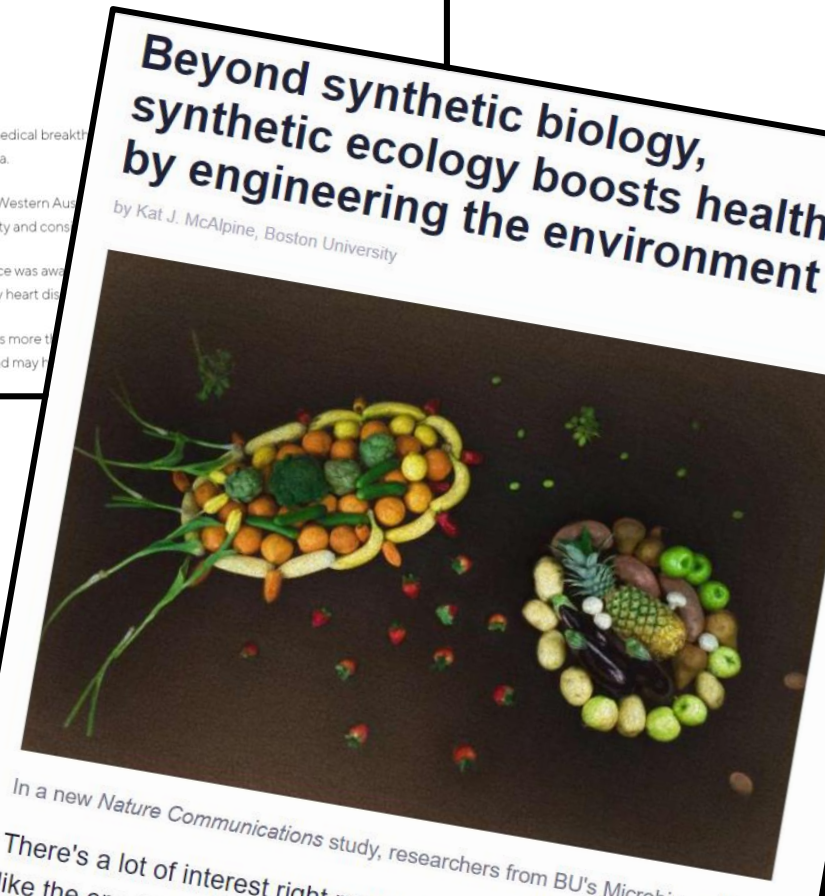
Society 5.0's "Sylicarbon Future" : the potential









Society 5.0's "Sylicarbon Future" : the threats

ome people feel threatened': face to
ace with Ai-Da the robot artist

Self-portraits by ultra-realistic android go on show at Design
Museum in London

▲ Ai-Da, described as the world's first ultra-realistic rob
the Robot, at the Design Museum in London. Photogra
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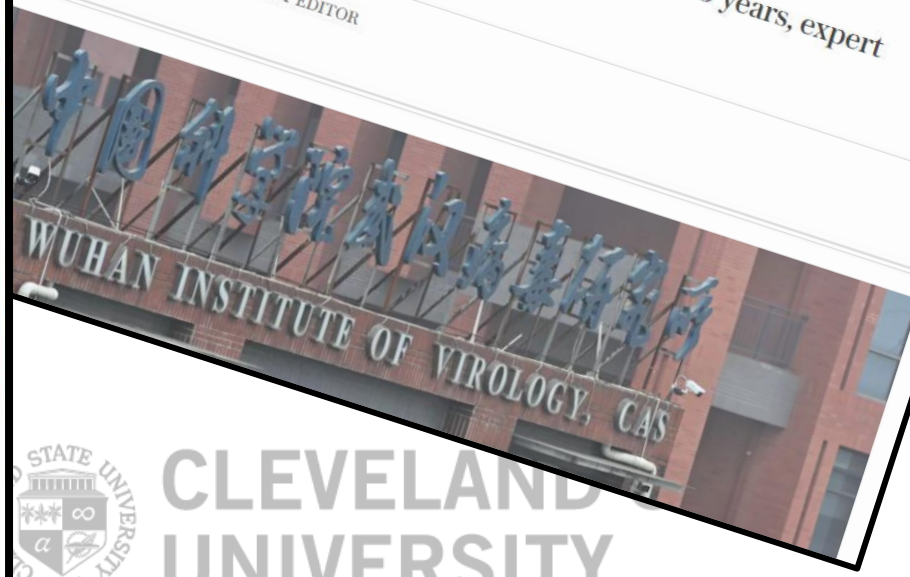
WOMAN RECALLS HORRIFIC VIRTUAL GANG-RAPE INCIDENT WITHIN THE METAVERSE

'Engineered pandemic' as big a threat as nuclear war, report warns

One in six chance that a catastrophic event could occur in next 100 years, expert calculates

By Anne Gulland, GLOBAL HEALTH SECURITY DEPUTY EDITOR
2 June 2021



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What will Society 5.0 Mean

- Unfathomed medical breakthroughs
- Unfathomed experiential opportunities
- Redefined Educational Systems - Knowledge Expansion and a hyper-informed Society (AI assistants)
- Redefined Social Structures and Human Connections
- Redefined Work and Economy
- Others??

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It Could Also Mean

- Post-Modern confusions with reality
- Governmental Misalignment – Marginalization
- Strained Democracies
- Societal and Community Confusion
  - Connections, Crime, Capital
- Human-Machine Conflation
- New Physics
- Mental Disorders
- Increased Inequities
- Others ???

Society 5.0's Big Questions

How are these technologies shaping and reshaping our human experience?

How are technologies influencing the ways we interact?

What do we want technologies to do for us/humanity?

What do we want the future of life to look and feel like?

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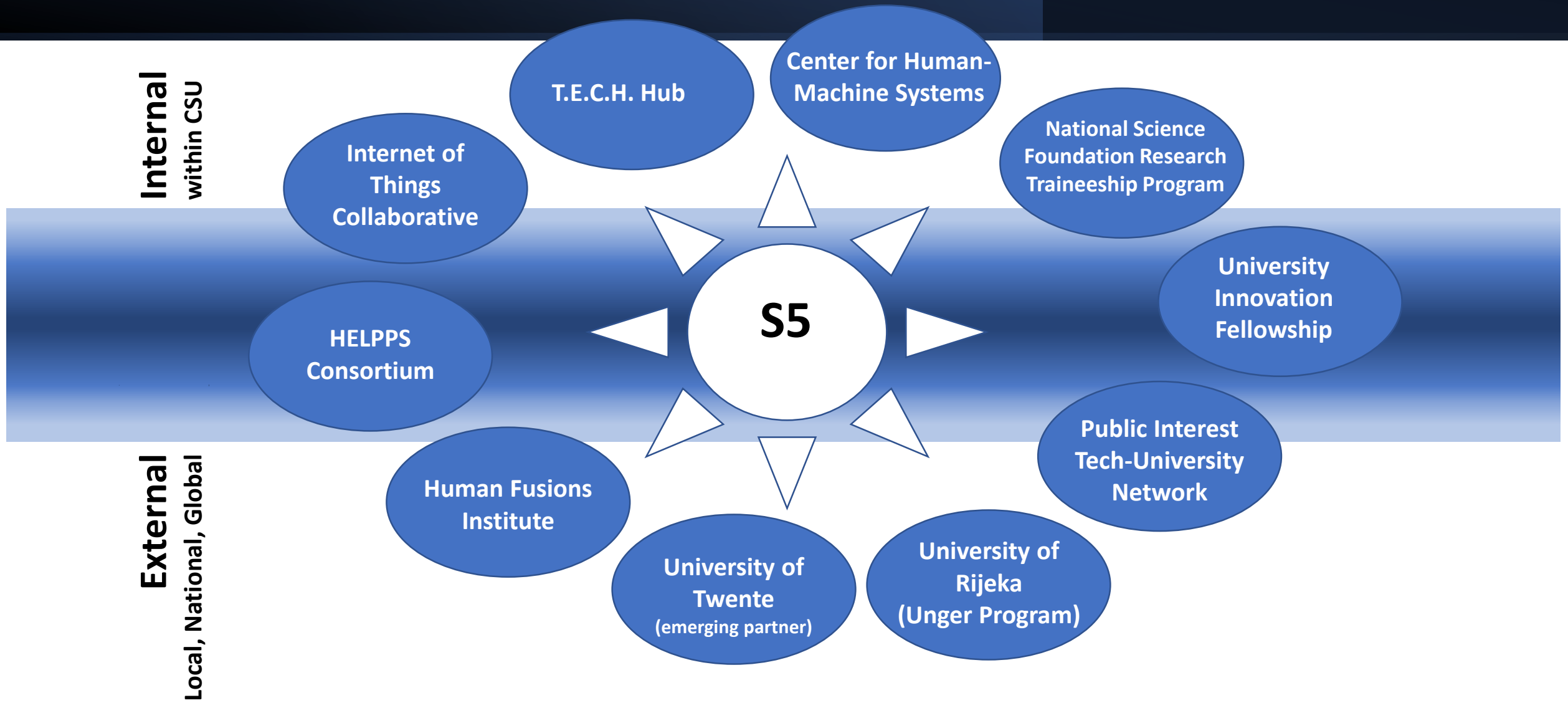
Society 5.0 Situated at CSU



Graduate Certificate and Website

- Society 5.0 Graduate Certificate
  - 4 courses
  - Fall 2022: Transdisciplinary Perspectives or Logic of Inquiry
- urban.csuohio.edu/society5.0

Transdisciplinary City Halls and Governing the Future

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EDT June, 2022
University of Rijeka

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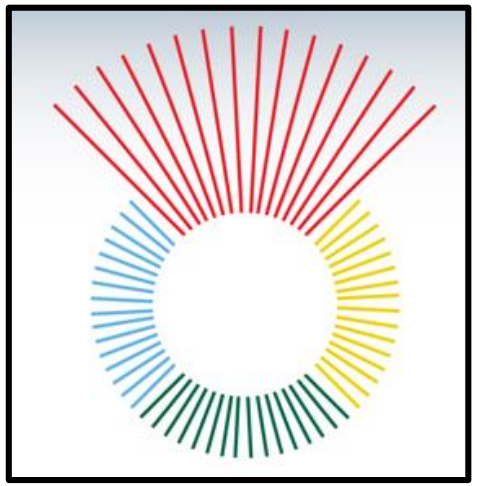
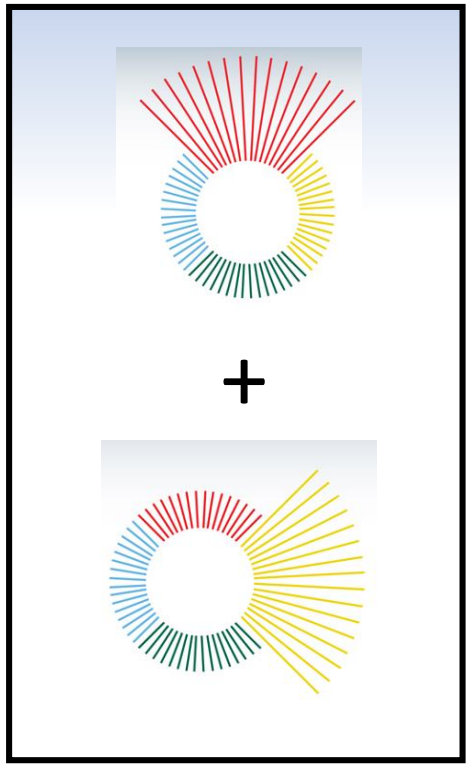
Transdisciplinarity

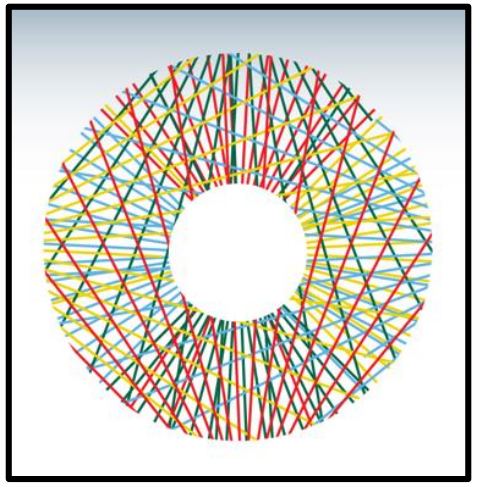
Monodisciplinary



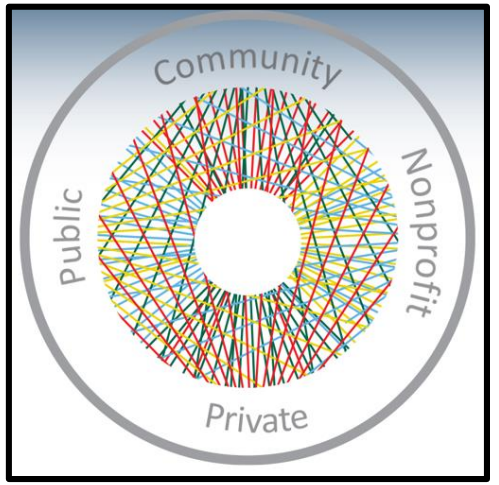
Multidisciplinary



Interdisciplinary



Transdisciplinary



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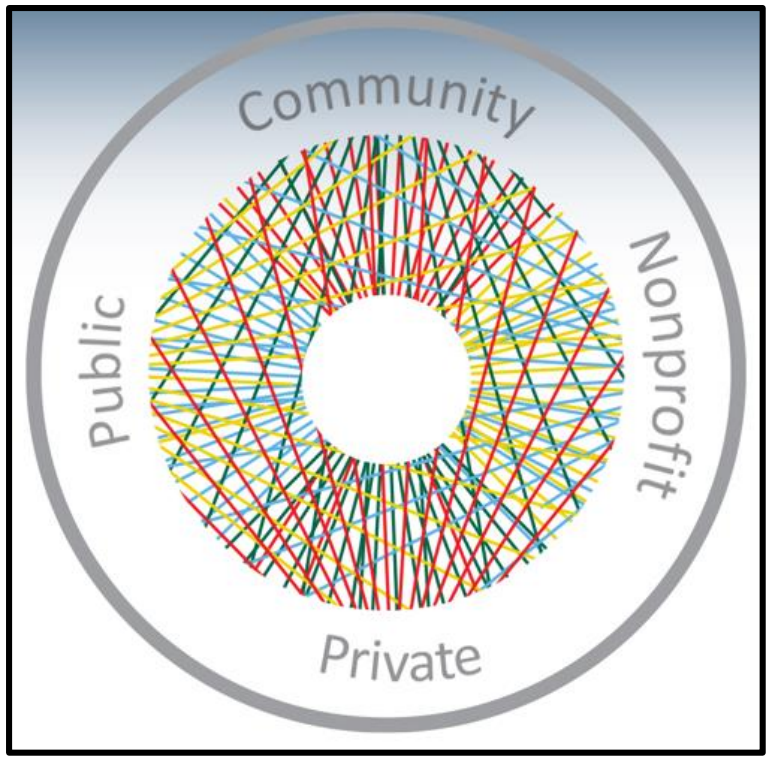
Transdisciplinary City Halls: Collaborative Governance



Violence Prevention in Cleveland

Across City Hall: Public Safety, Education, Youth & Families, Parks & Recreation, Economic Development, Innovation & Technology, Communications

Beyond City Hall: universities, nonprofits, philanthropic foundations, faith community (churches), grassroots orgs, community leaders and members

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Default Approach in Government?

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Solving the Wicked Problems of Today and Tomorrow

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Disability and Society 5.0: a Rehabilitation Engineer's Perspective

Cameron LaMack
PhD Student
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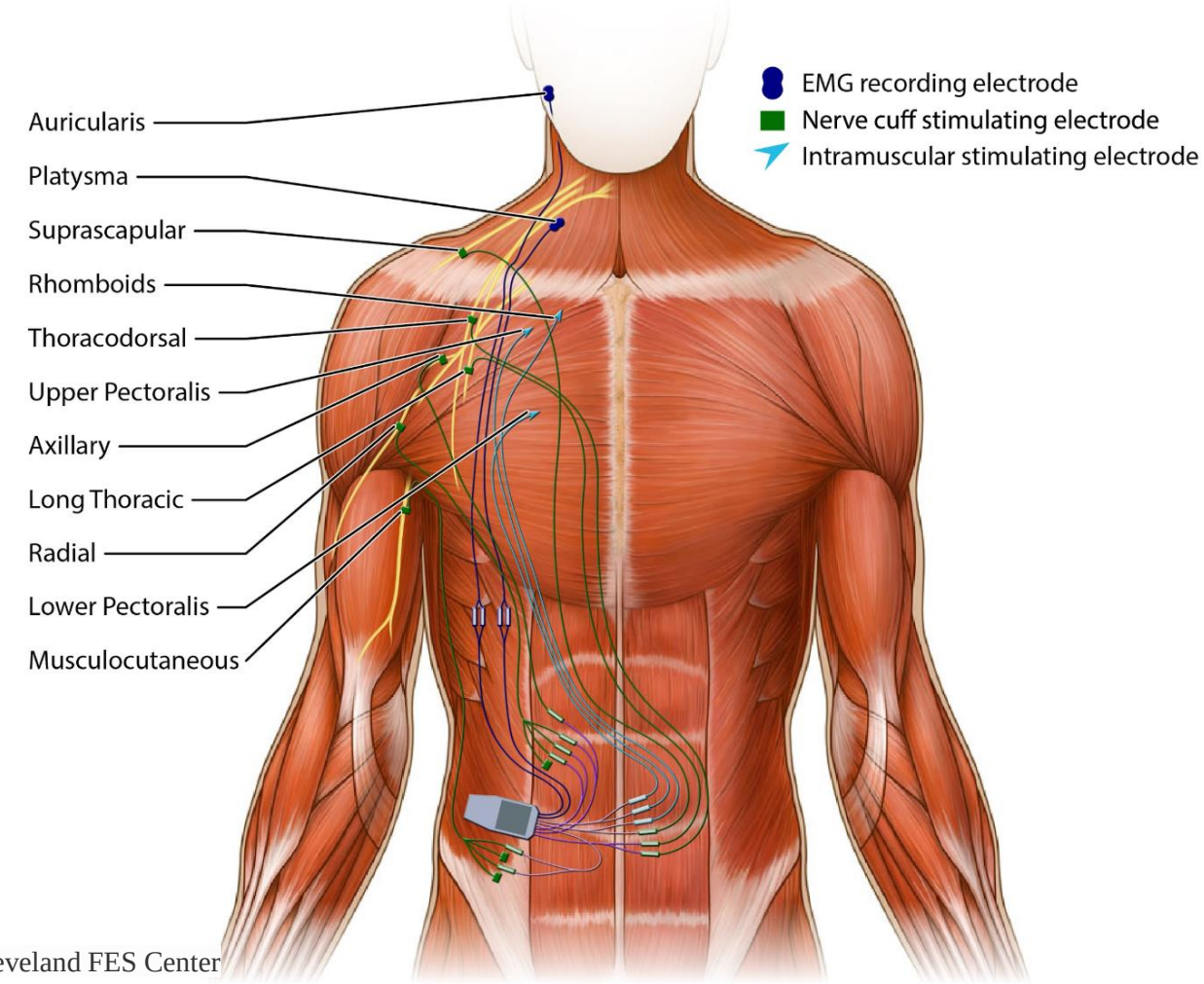
Functional Electrical Stimulation:
a possible solution for Spinal Cord Injury



Courtesy of Cleveland FES Center

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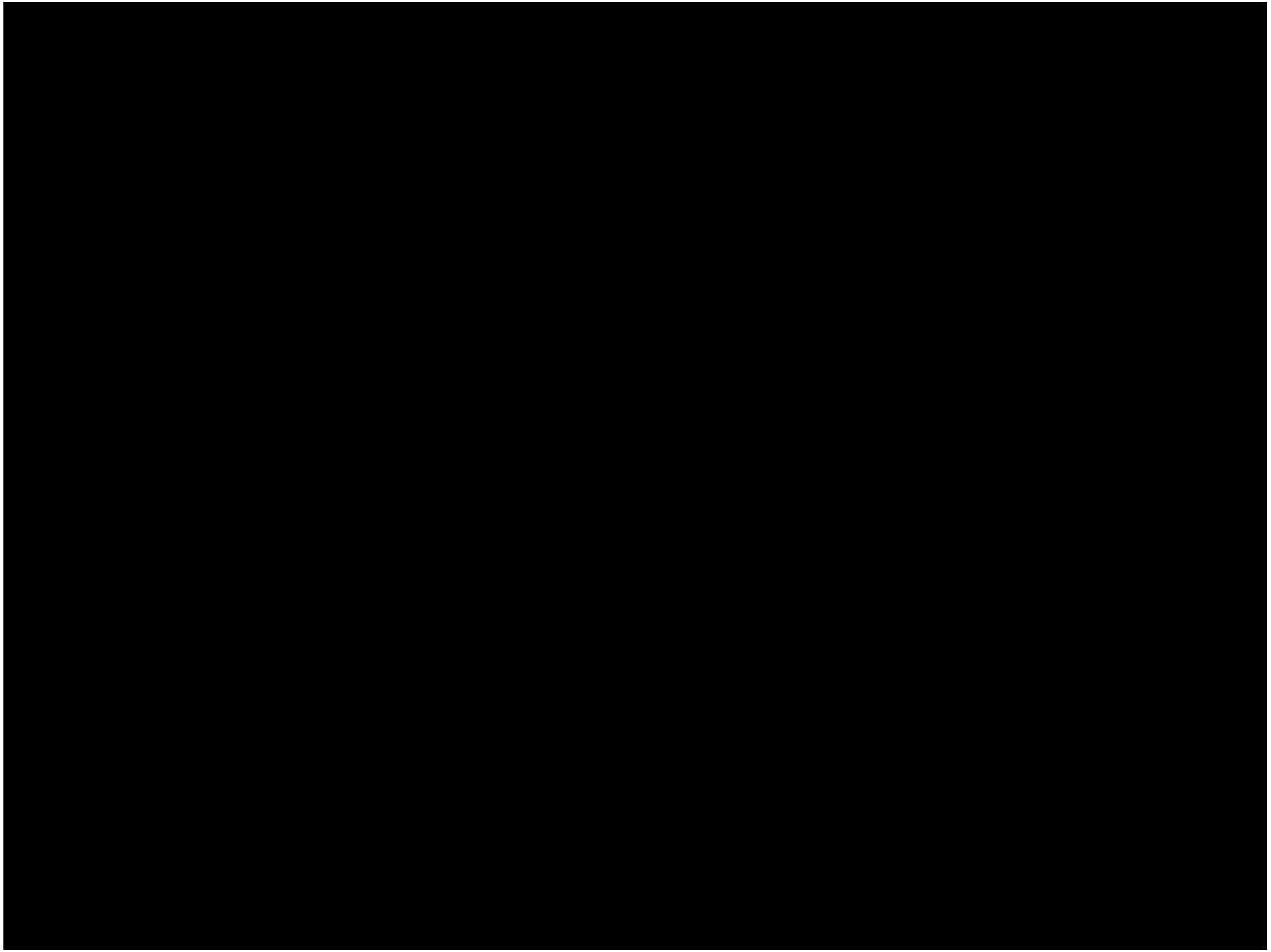
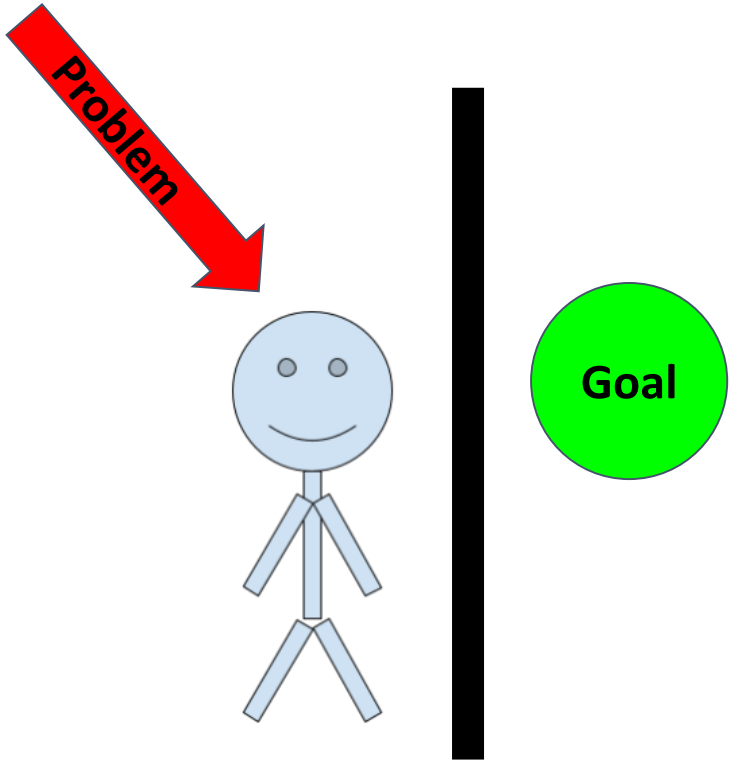
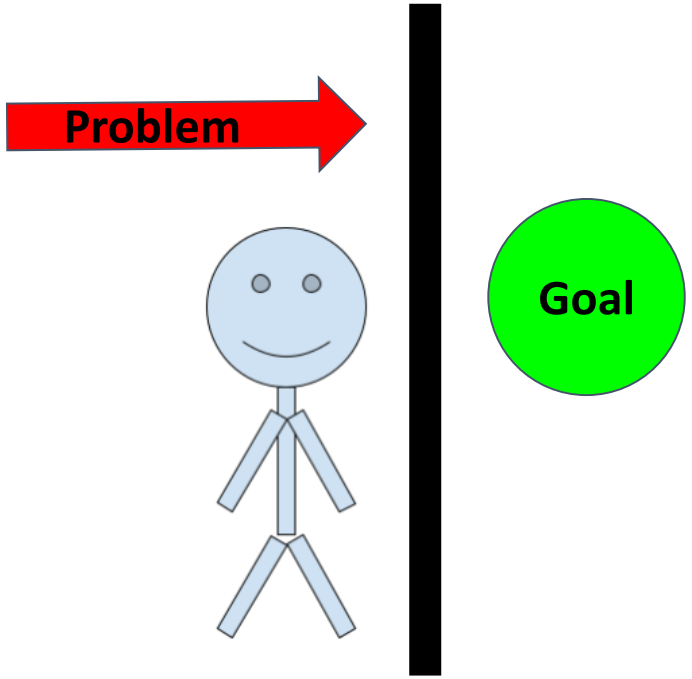


Models of Disability

Medical Model of Disability
(impairment is the problem to be fixed)



Social Model of Disability
(infrastructure and attitudes are the primary problem)



Goering, Sara. *Current reviews in musculoskeletal medicine*

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What might a “city” that minimizes disability look like?

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