MAY 2, 2024

ASSOCIATION FOR GOVERNMENT FINANCING LEASING & FINANCE

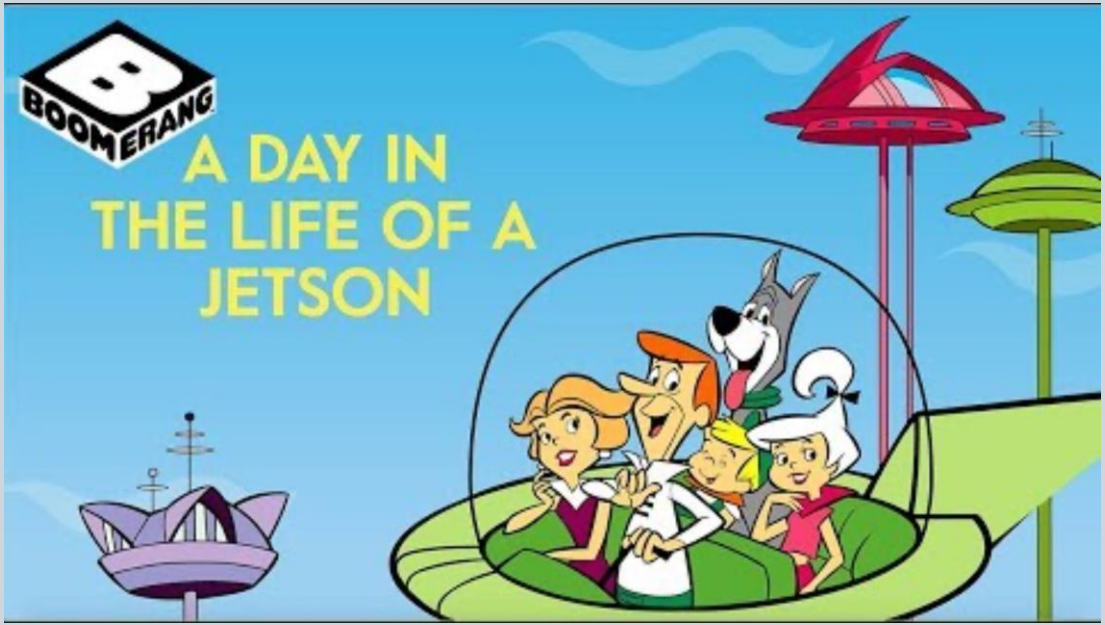
TEXAS
The University of Texas at Austin

AI & Local Governments

Promise, Peril, Performance & Public Service

Sherri R. Greenberg, Professor of Practice & Assistant Dean for State and Local Government, LBJ School of Public Affairs
Chair, Good Systems: Ethical AI at UT Austin, The University of Texas at Austin

The Jetsons - Futurism

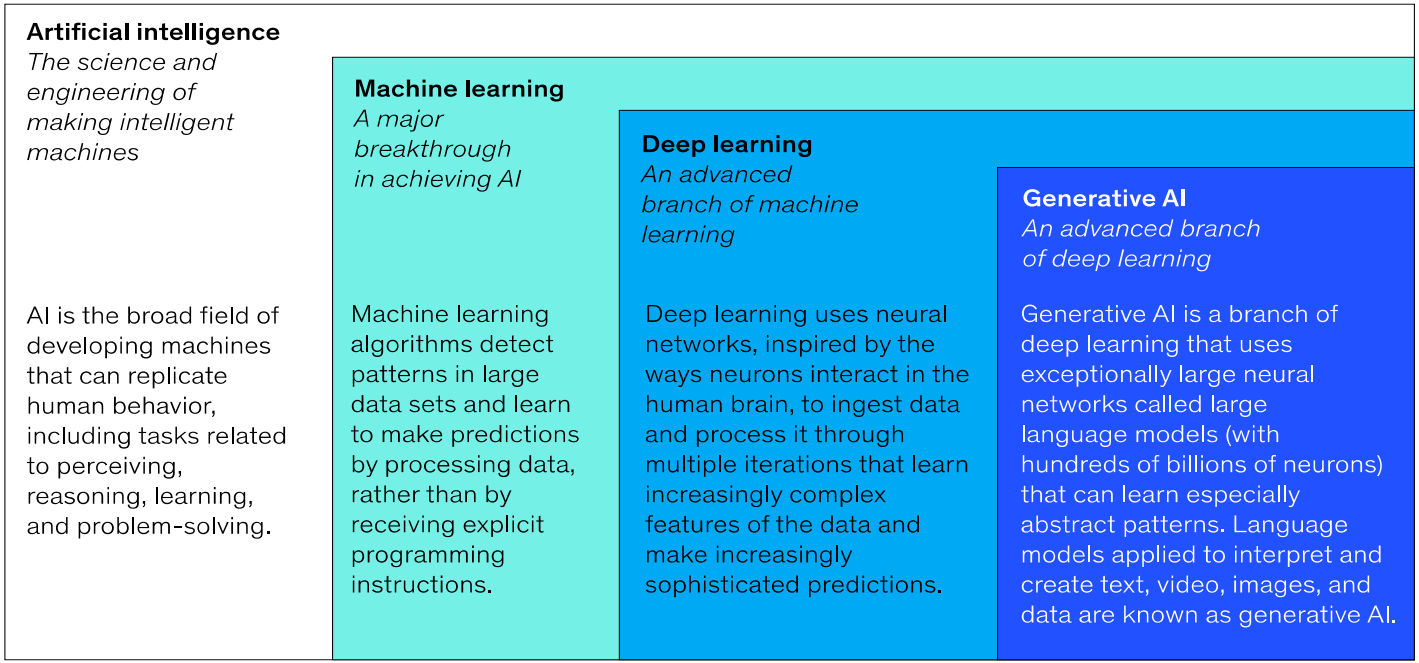


The Jetson's &Technology

- Robot Assistance
- Chatbots
- Smart Watches
- Smart Homes
- Video Meetings
- Drones
- Self-Driving Cars
- AI's Impact on Work – George Jetson

Artificial intelligence is a machine's ability to perform some cognitive functions we usually associate with human minds.

The evolution of artificial intelligence



https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-ai

McKinsey & Company

Technology keeps marching forward

The Industrial Revolution

First and Second Industrial Revolutions: Approximately 1750-1914

- Technology & Mechanization
- Movement from an agrarian/ small-scale farming society and and artisan/handicraft society to an industrial and machine society
- Began in 1700s in Great Britain with the textile industry
- Spread to Europe and US
- Nature and location of work changed
- Society changed
- People moved from working in small villages and homes to cities and factories
- Eventually factories automated

Industrial Revolution: Policy Changes

- Factory Laws: Working Conditions
- Child Labor Laws: Ages and Hours
- Anti-Trust Laws
- Labor Unions

Third and Fourth Industrial Revolutions

- Third Industrial Revolution: 1969 Development of Microprocessor
  - Followed by personal computers
  - Digital Transformation
- Fourth Industrial Revolution: 2016 coined by Klaus Schwab, Founder of the World Economic Forum
  - IOT
  - Robotics
  - AI

Today: Fifth Industrial Revolution

- Continued development and Evolution of AI
  - Large Language Models
  - Generative AI such as ChatGPT
  - Other

POLICY CHANGES

Issues

- Security/Safety
- Transparency
- Privacy
- Trust
- Accountability
- Ethics
- Bias

Workplace Changes & Challenges

- Hiring
- Performance Evaluation
- AI Assistants
- Privacy
- Intellectual Property
- Reskilling & Upskilling

AI in Cities

- Chatbots
- Digital Twins
- Data Analytics
- Urban Design
- Traffic Mitigation
- Community Engagement
- Reporting
- Efficiency
- Budgeting & Auditing
- AND MORE

Cities Using AI

- Austin: Combat Wildfires
- New Orleans: Improve Vehicle Safety
- Seattle: Reduce Emergency Vehicle Time
- Raleigh: Combat Climate Change with Digital Twin
- DFW Airport: Digital Twin for Runway Operations

Cities Using AI

- Boston: Generative AI for Job Descriptions
- San Diego:
- Santa Cruz:
- Cleveland: Data Analytics
- AND MORE

Government AI Coalition

- City of San Jose Leading
- GovAI Coalition founded November 2023
- **“The GovAI Coalition is composed of over 600 public servants from over 250 local, county, and state governments that represent over 150 million Americans across the nation united in our mission to promote responsible and purposeful AI in the public sector. ”** https://www.sanjoseca.gov/your-government/departments-offices/information-technology/ai-reviews-algorithm-register/govai-coalition

Policymaking & Regulations

- EU
- UK
- China
- Congress
- Biden Executive Order
- State Government
- Local Governments

Cities: Guidelines & Policies

- New York City
- San Jose
- Tempe
- Santa Cruz County
- Seattle
- AND MORE

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GOOD SYSTEMS
Ethical AI at UT Austin

An Interdisciplinary Approach to Human-centered, Values-driven AI

The University of Texas at Austin
Research Development
Vice President for Research, Scholarship and Creative Endeavors

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MISSION

Design ethics-centered AI technologies for the benefit of society.

GOOD SYSTEMS BY THE NUMBERS

121 active researchers

50+ published papers in 2022-23

31+ departments & disciplines

$**16**M awarded in external funding

$**10**M UT Austin investment

6 core research projects

GOOD SYSTEMS
Ethical AI at UT Austin

CORE RESEARCH PROJECTS

Living and Working with Robots
Works to overcome the technical and social hurdles to deploying robots by building and studying them in the communities where they will be used.

Designing Responsible AI Technologies to Curb Disinformation
Employs machine learning to understand how disinformation arises and spreads and how to design effective human-centered interventions.

Making Smart Tools Work for Everyone
Designs smart hand tools that have embedded AI to empower workers to accomplish more while keeping their jobs secure.

CORE RESEARCH PROJECTS

AI to Advance Racial Equity

Explores racial disparities in AI-based systems and seeks to design and implement solutions in the areas of public safety, transportation, and health.

Being Watched: Embedding Ethics in Public Cameras

Investigates the social acceptance of cameras and video data and how to develop technical solutions that will satisfy privacy concerns.

A Good System for Smart Cities

Seeks to build a system that links city datasets across domains including housing, mobility, and energy to help improve public services and better predict the effects of urban development projects, using the City of Austin as a model.

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