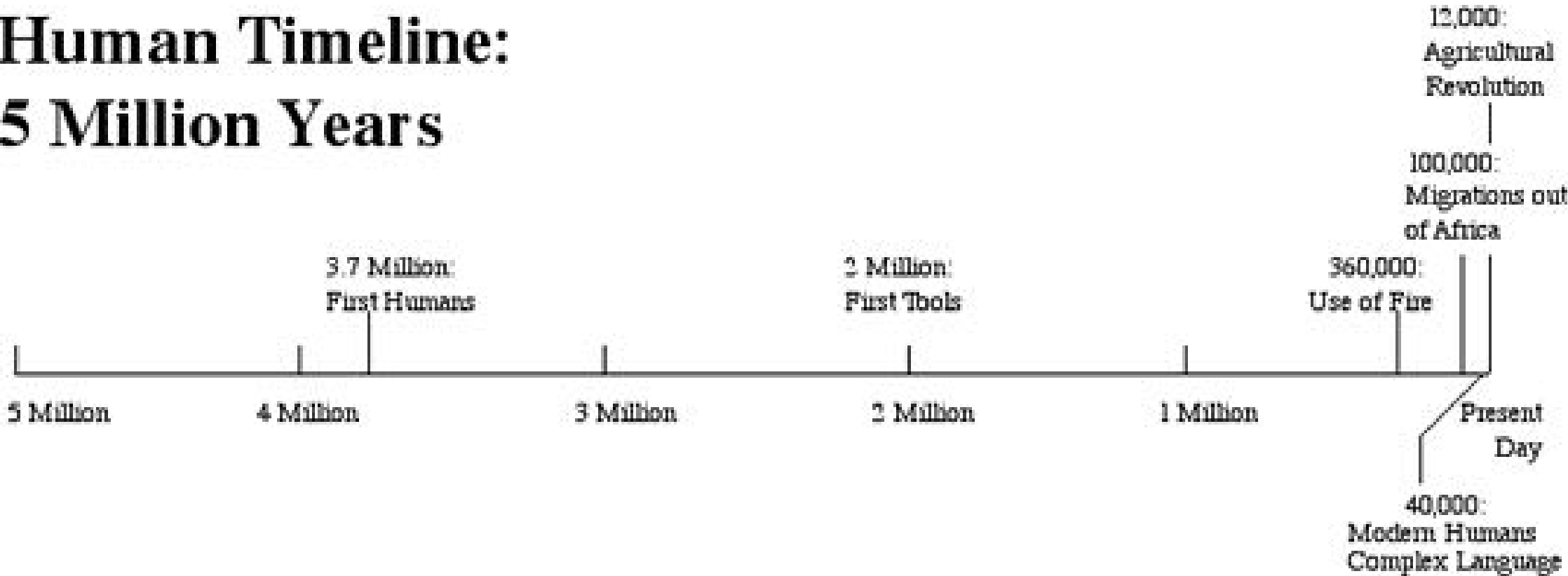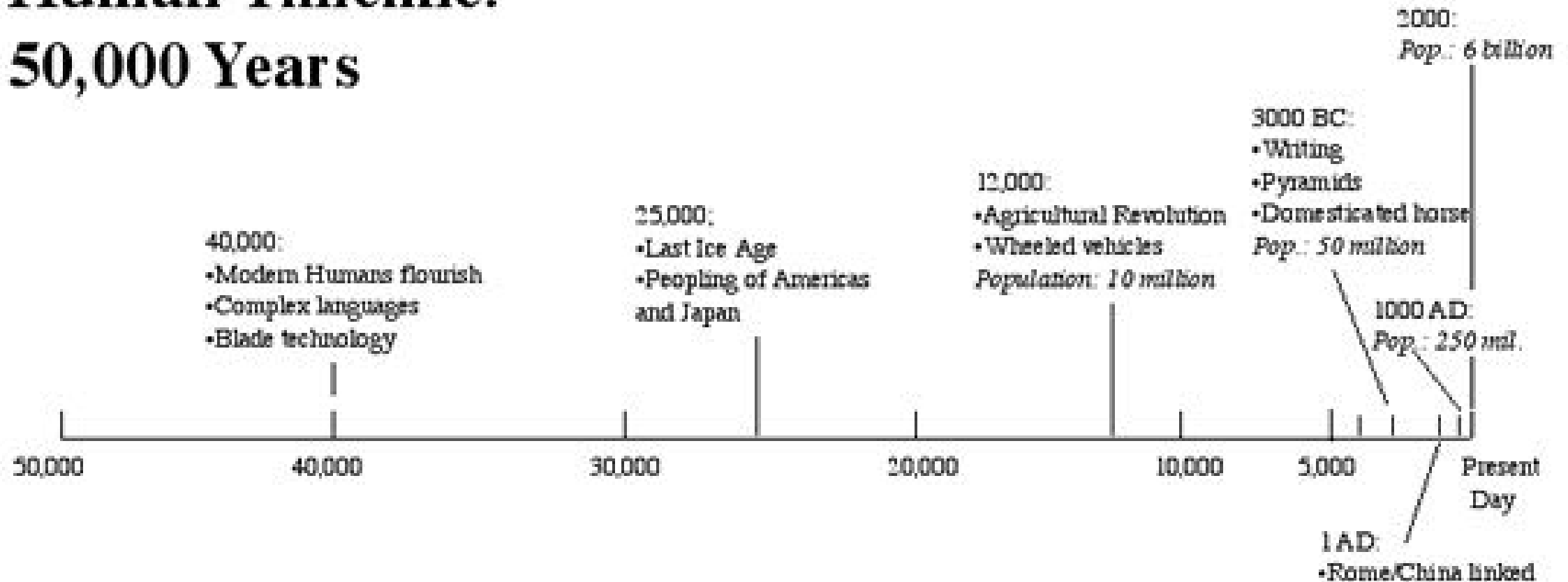# A comparative analysis of governmental AI strategies: from narrative, to utopia passing by ethics

Kave Salamatian, University of Savoie
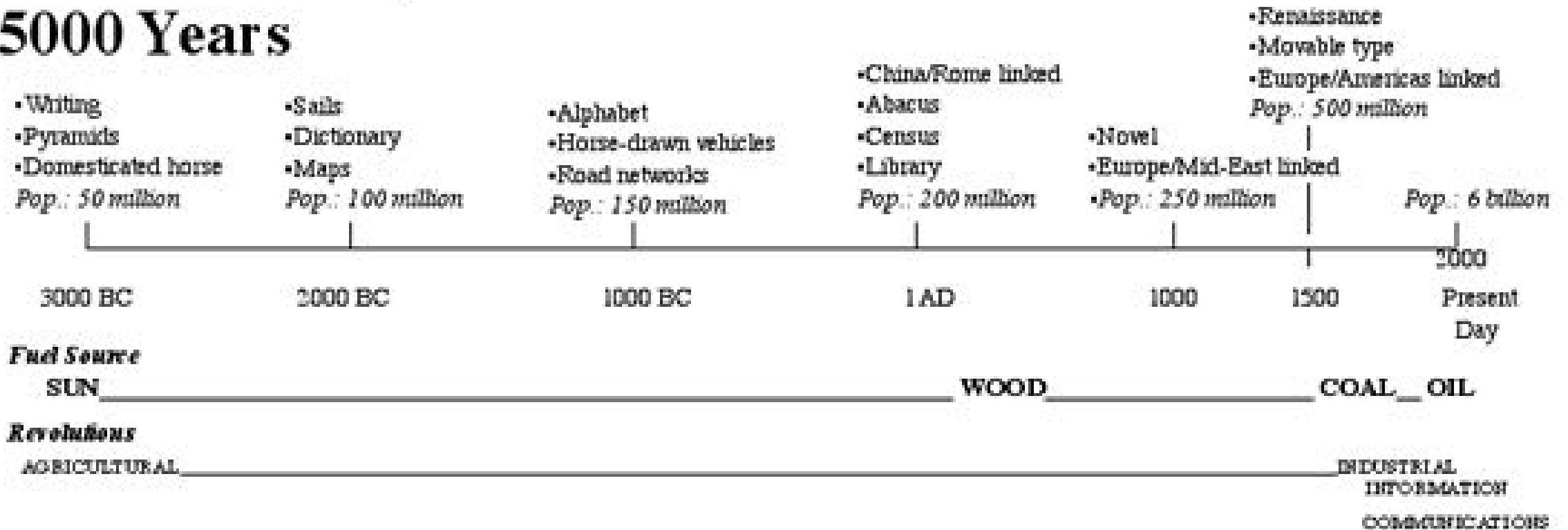
Human Timeline: 50,000 Years

40,000:
- Modern Humans flourish
- Complex languages
- Blade technology

25,000:
- Last Ice Age
- Peopling of Americas and Japan

12,000:
- Agricultural Revolution
- Wheeled vehicles
- *Population: 10 million*

3000 BC:
- Writing
- Pyramids
- Domesticated horse
- *Pop.: 50 million*

2000:
- *Pop.: 6 billion*

1000 AD:
- *Pop.: 250 mil.*

1 AD:
- Rome/China linked

50,000   40,000   30,000   20,000   10,000   5,000   Present Day

Human History Timeline:
5000 Years

- Writing
- Pyramids
- Domesticated horse

Pop.: 50 million

- Sails
- Dictionary
- Maps

Pop.: 100 million

- Alphabet
- Horse-drawn vehicles
- Road networks

Pop.: 150 million

- China/Rome linked
- Abacus
- Census
- Library

Pop.: 200 million

- Novel
- Europe/Mid-East linked
- *Pop.: 250 million*

- Renaissance
- Movable type
- Europe/Americas linked

Pop.: 500 million

Pop.: 6 billion

2000

| 3000 BC | 2000 BC | 1000 BC | 1 AD | 1000 | 1500 | Present Day |

Fuel Source

SUN_____WOOD_____COAL__ OIL
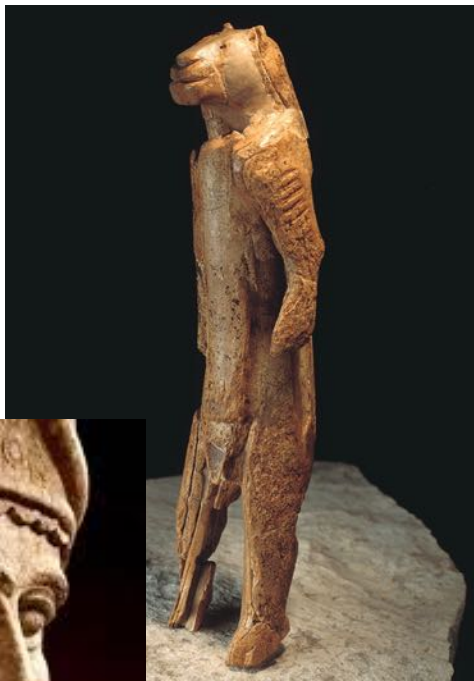
Revolutions

AGRICULTURAL_____INDUSTRIAL

INFORMATION

COMMUNICATIONS

Myths and legends

- The importance of legend/myths/unseens
  - Animism
  - Gilgamesh legend
  - Babel tower
  - Pythie of Delft
- Utopia
  - Harmony with nature
  - Immortality
  - Unification
  - Overcoming uncertainty

Digital ?

- Trade-off between freedom and cooperation
  - Individualism vs. Society, specie vs. Individual, ….
- Digital is trading-off the precision and the uniqueness of individual experience with the necessity of coordinating/exchanging
  - Intrinsically related to communication/coordination/cooperation
- Digital revolutions
  - Langages
  - Tools
  - Writing
  - Printing
  - Computers
  - Internet
  - AI

Claude Shannon's Life Overview

- 1916 (April 30) – born in Petoskey, Michigan
- 1936 BS EE and BS Math – University of Michigan
- 1937 MS EE – MIT, thesis applied Boole's logic to circuit design
  - Considered "best MS thesis of the century"
- 1940 PhD – MIT, Department of Mathematics
- 1940 – National Research Fellow, Institute for Advanced Study in Princeton, NJ (Hermann Weyl, von Neumann, Einstein, Gödel)
- 1941-1956 – Bell Labs, Murray Hill, New Jersey
  - During World War II – worked on fire-control systems and cryptography
  - 1943 – met and shared ideas with Alan Turing at Bell Labs
  - Proved the cryptographic one-time pad unbreakable
  - Invented information theory – key paper 1948
- 1956-1978 – MIT Research Lab of Electronics
- 2001 (February 24) – died at age 84 (almost 85)

Shannon's Ultimate "Useless" Machine

https://www.youtube.com/watch?v=jh86qheC2Es

What is AI ?

- Wikipedia : Artificial intelligence (AI) is intelligence demonstrated by machines.
  - the term "artificial intelligence" is applied when a machine mimics "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving »
- On anthropologic ground IA is the utopia of the human without its weaknesses
  - Physical
  - Psychological
  - Political

Science fiction/litterature
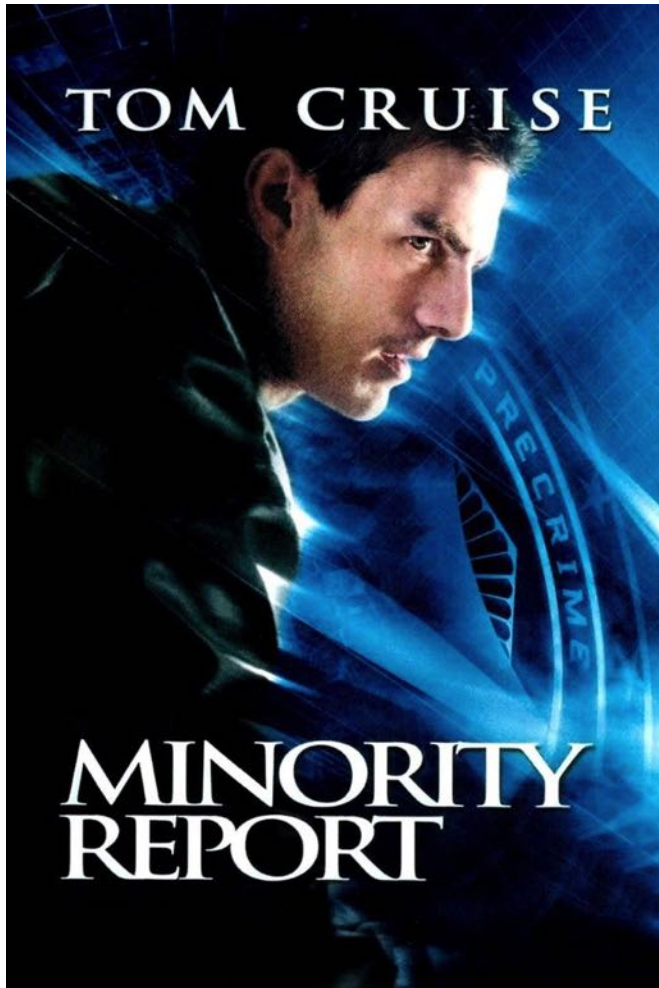
Science fiction
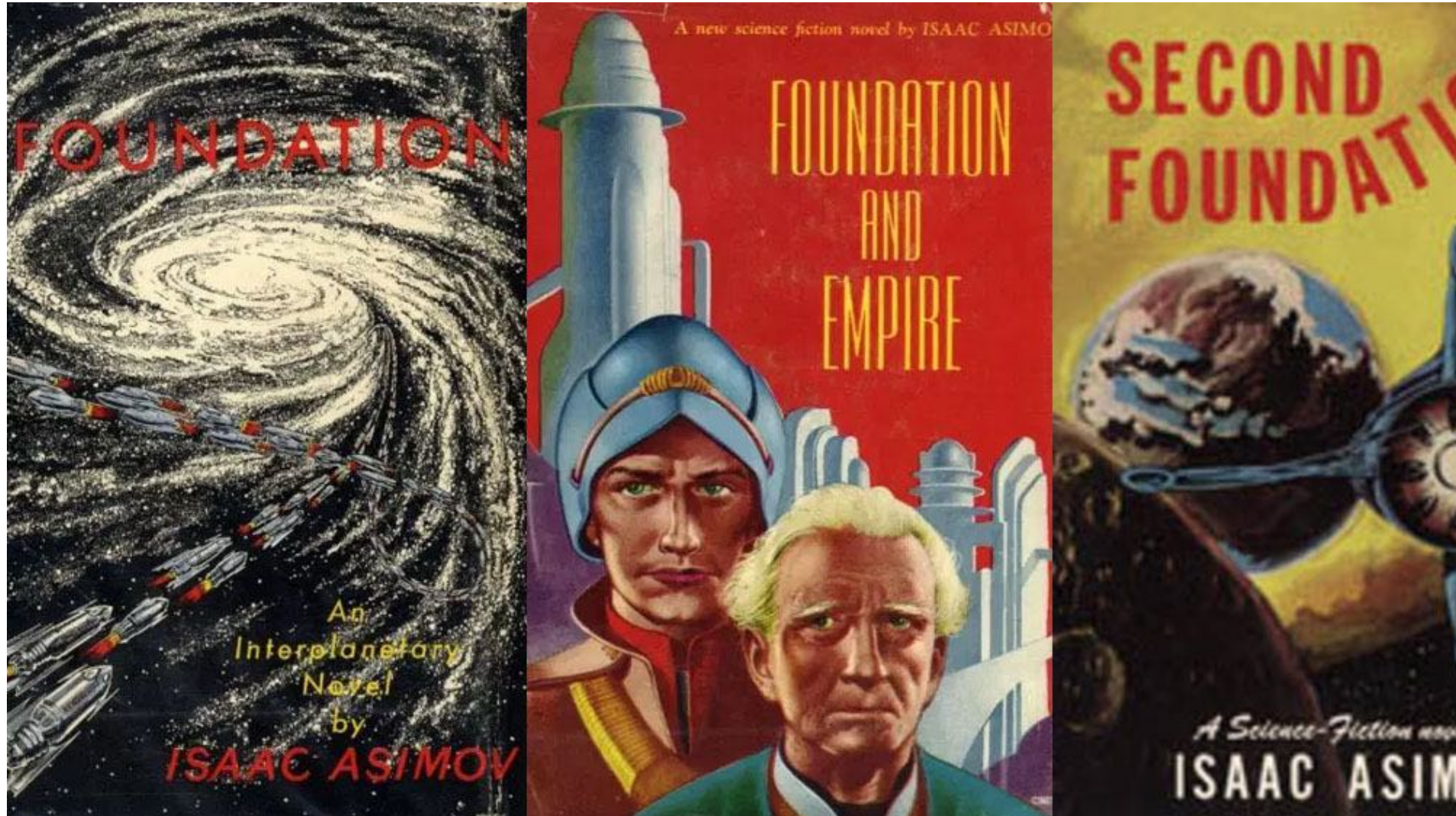
Utopian/dystopian views of IA

- Humans are unpredictible, they are messy, they are unreliable
  - They are weak and corruptible
- Computers are there to help
  - We need IA to tame the uncertainty of humanity
  - Max Weber bureaucracy
    - All regular activities within a bureaucracy can be regarded as official duties;
    - Management has the authority to impose rules;
    - Rules can easily be respected on the basis of established methods.

RULE #1
The Boss is Always Right.

RULE #2
If The Boss is Wrong, See Rule #1

DATASphere and Anthropocene

The Economist
MAY 28TH–JUNE 3RD 2011   Economist.com

Getting Spain's protesters off the plazas
Obama, Bibi and peace
The costly war on cancer
How the brain drain reduces poverty
A soft landing for China

Welcome to the Anthropocene
Geology's new age

Mainframe → Client/Server → The Internet → Mobile, Social, Big Data & The Cloud

Every 60 seconds

- 98,000+ tweets
- 695,000 status updates
- 11million instant messages
- 698,445 Google searches
- 168 million+ emails sent
- 1,820TB of data created
- 217 new mobile web users
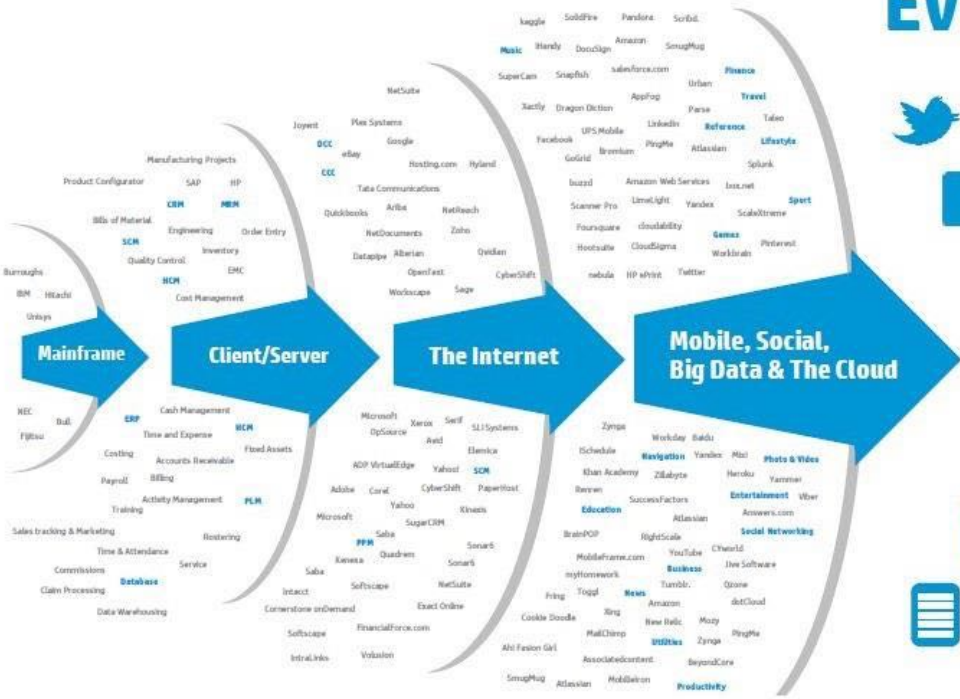
Utopian/dystopian views of IA 2

- Humanity is not wisely dealing with world ressources
  - Climate crisis, energy waste, ….
- BUT «human should be in control of nature » so
- IA is there to help
  - IA will let human to optimize the resource
  - IA is here to tame to bad environmental habits
- Environmental punishment is a common theme

Utopian/dystopian views of IA 3

- Humans are imperfect
  - They are weak, mortal, imprecise
  - Death is difficult, illness is tough, ….

- We need to make human better
  - Transhumanism
  - Cyborg
  - Humanoid robot
  - Matrix /
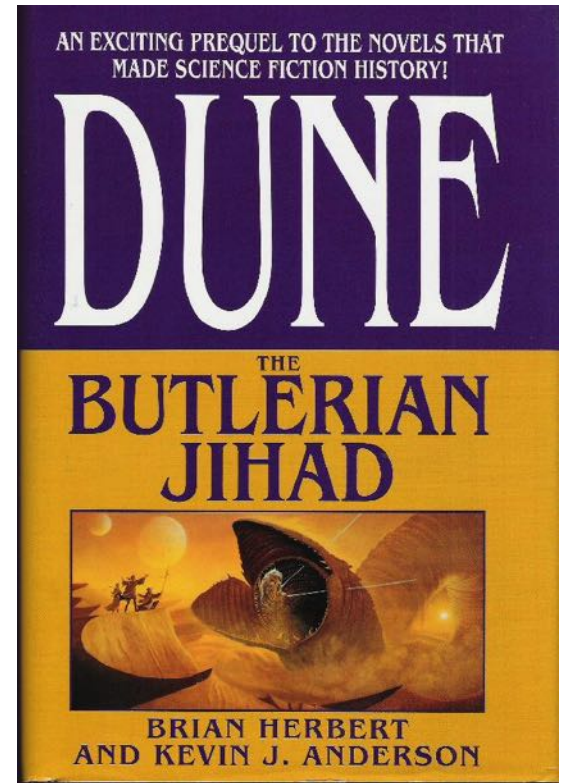
Artificial Intelligence Strategies

March: Pan-Canadian AI Strategy

May: AI Singapore Announced

October: AI Strategy 2031

December: Finland's AI Strategy

January: Budget for AI Taiwan

March: AI at the Service of Citizens

April: First Workshop for Strategy

April: UK AI Sector Deal

May: White House Summit on AI

May: Sweden's AI Strategy

June: Towards an AI Strategy in Mexico

Fall 2018: EU's AI Strategy

2017

2018

March: AI Technology Strategy

July: Next Generation AI Plan

December: Three-Year Action Plan

January: Blockchain and AI Task Force

January: Strategy for Digital Growth

March: France's AI Strategy

April: Communication on AI

May: Australian Budget

May: AI R&D Strategy

June: National Strategy for AI

Fall 2018: Germany's AI Strategy