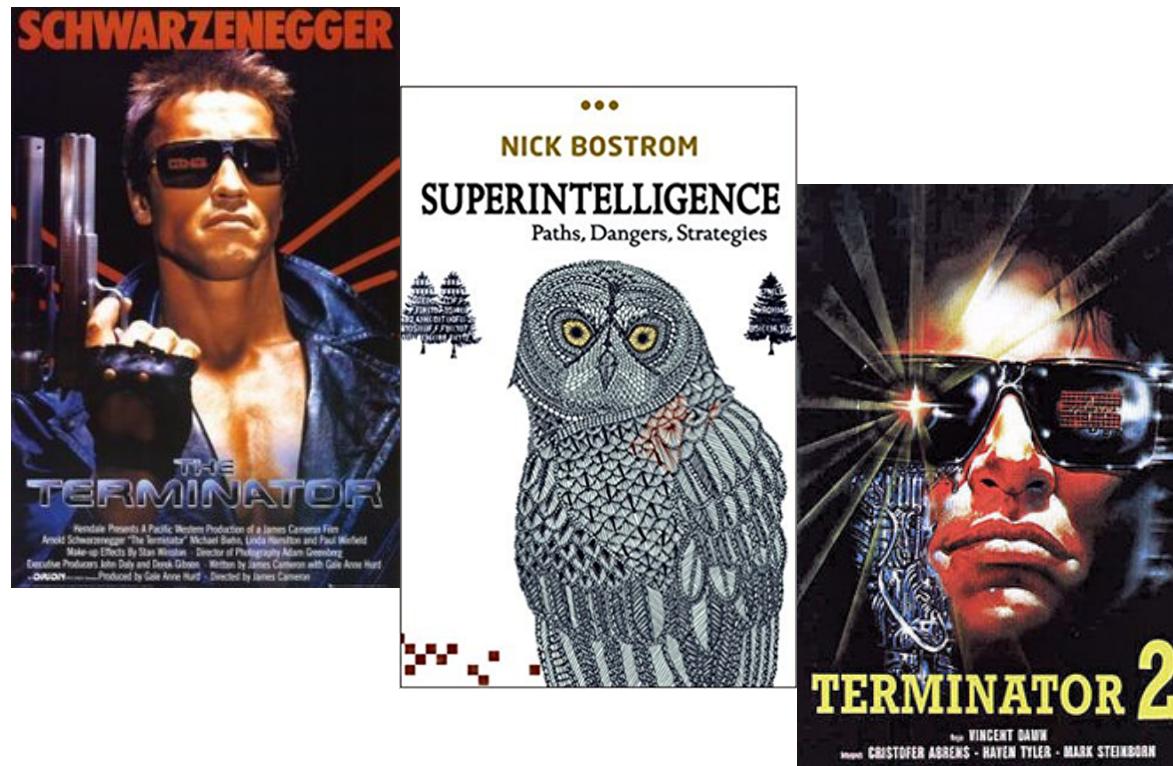


# Cross-cultural Narratives about Artificial Intelligence: Competing Imaginaries and Agendas of the U.S. and China



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# Global risks: Features and challenges

- Risks is defined as anticipated yet unknown catastrophes, which are omnipresent, indeterminable, incalculable, and non-compensable (Beck, 1999)
- Ranging from climate change to emerging epidemics to AI, globalized manufactured risks are “an inescapable structural condition of advanced industrialization” and intrinsically connected with responsibility, ethics, and security (Beck, 1999, p.16).
- Three reactions to global risks: Denial, apathy, or transformation.

# Critical rhetorical study of risks

- Usability research for participatory decision making (Grabill & Simmons, 1998)
- Emphasis on human values, beliefs, and emotions (Katz & Miller, 1996)
- Global politics and transnational grassroots participation (Ding, 2009, 2013, 2014)
- Human rights and social justice (Ding & Pitts, 2013; Ding, Li, & Haigler, 2016)
- Community participation and socially just policies (Simmons, 2007)
- Political, social, and economic dynamics of risk communication processes (Scott, 2003)

# Transnational study of risks: Research questions

To study global risks,  
“questions have to be  
remembered, reposed,  
reconsidered, and  
redisussed in a  
transnational setting,  
even if nobody has the  
answers” (Beck, 1999,  
p.8).

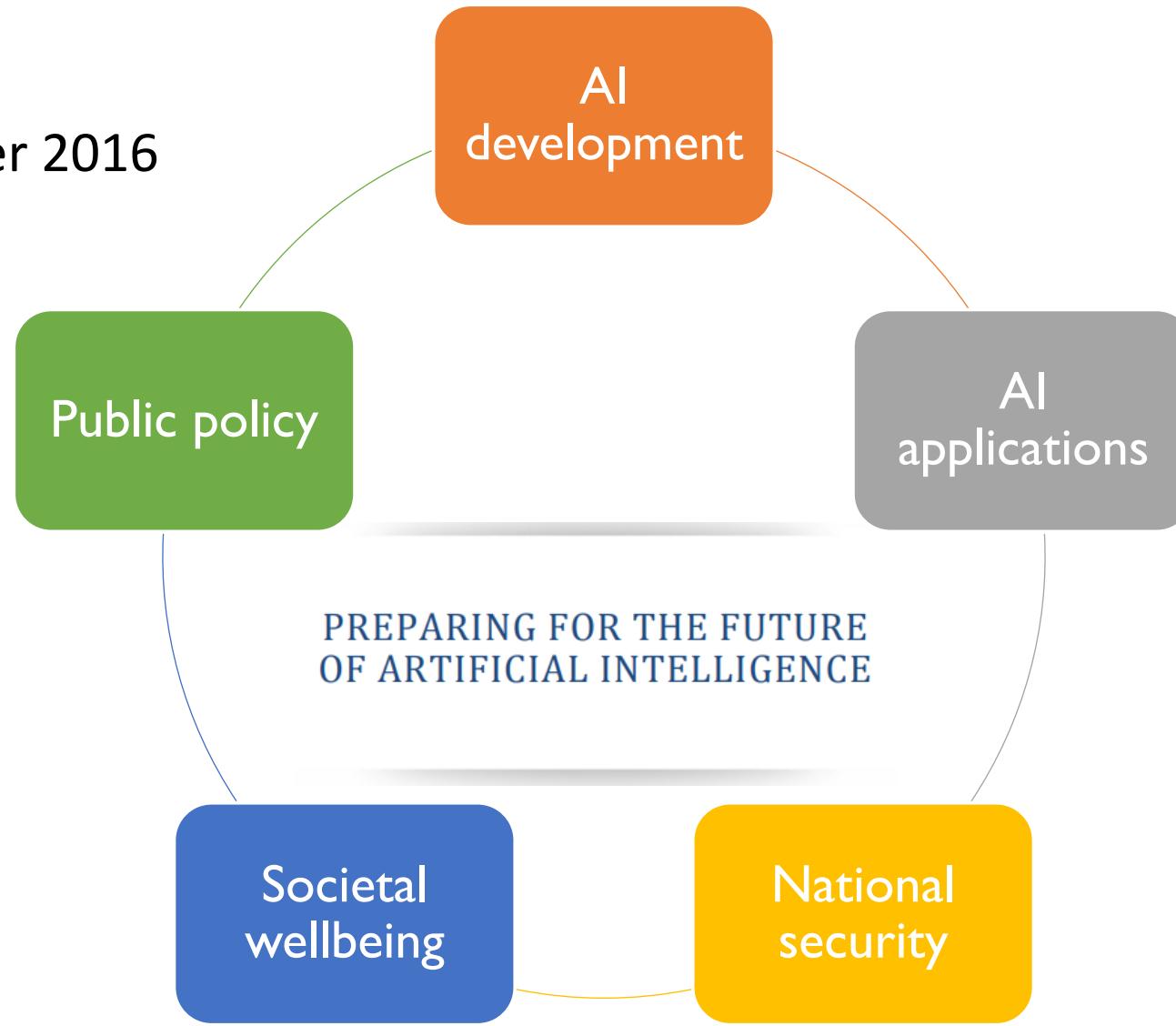
1. How is AI constructed in American and Chinese mainstream media?
2. What differences exist between these media constructions?
3. What implications do such constructions have for analysis of risk communication and global risk policies about AI ?



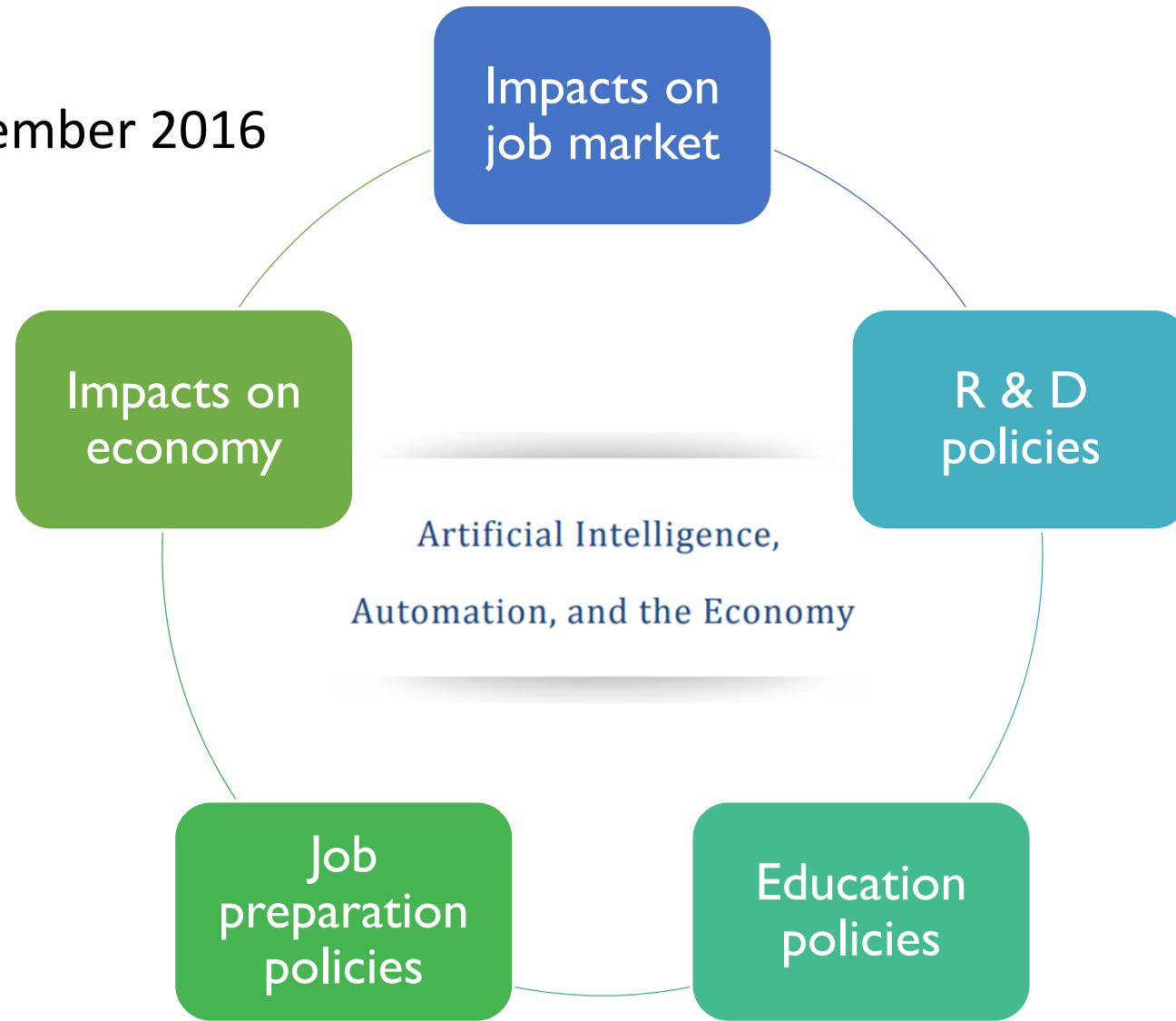
Cultural context:

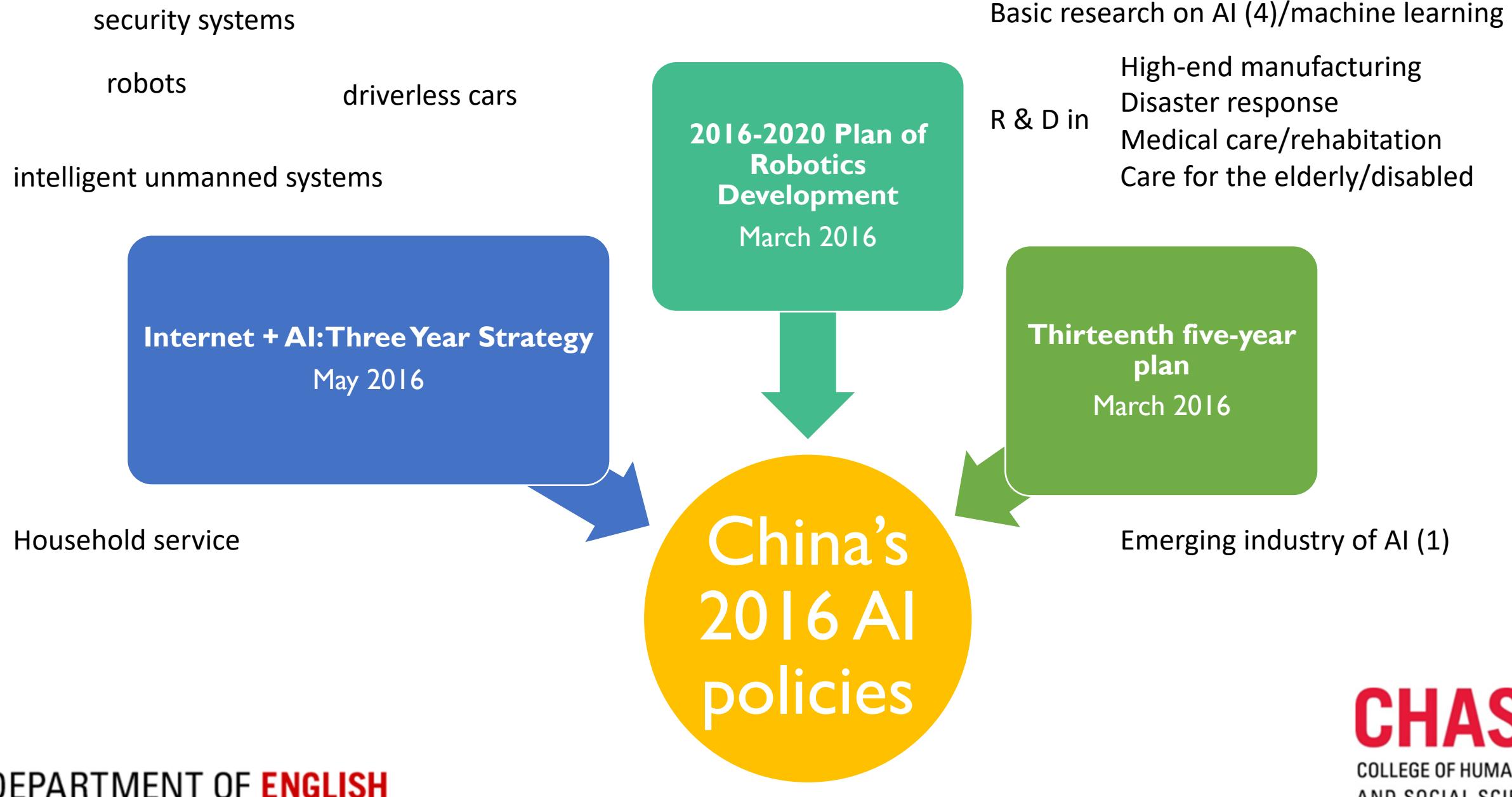
AI policies from U.S and China

U.S.: October 2016



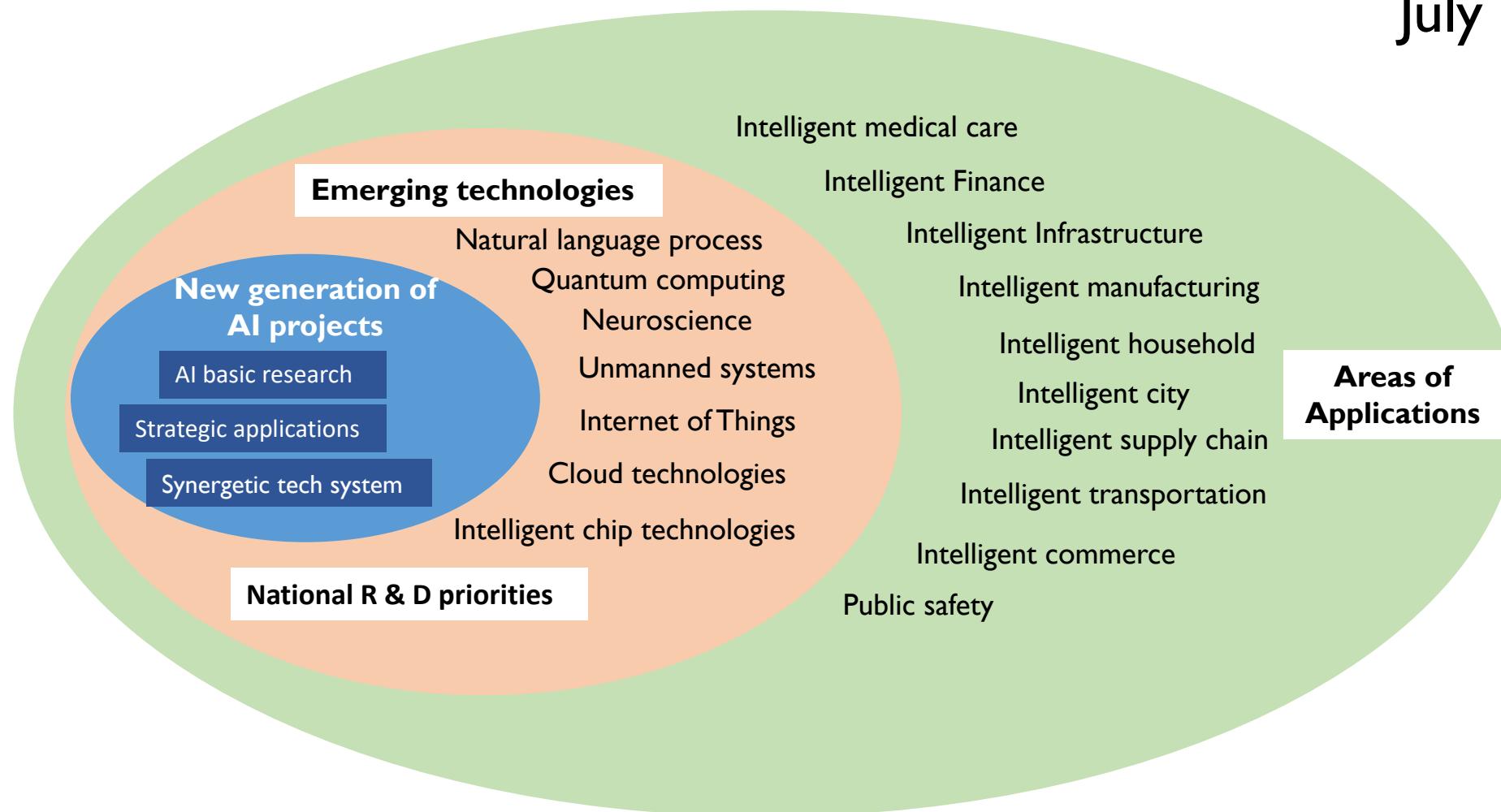
U.S.: December 2016





# Development plan for the new generation of AI.

July 2017



# Research design



# Data selection & collection

Data source: LexisNexis; chose the top mainstream newspaper covering AI from AI superpower, the U.S. and China

- New York Times and *China Daily*
- Decided to choose different types of newspapers because of different media infrastructure & lack of access to newspaper database in China
- Interrater reliability: 80%

# Research design: Analytical approaches

- Corpus-assisted discourse analysis
  - Concordance
  - Collocation
  - Keyword
- Critical rhetorical analysis

# Corpora: Total words and average lengths

Newspaper/Numbers	Reports	Total words	Average length
New York Times	59	51754	877
China Daily	39	16139	413

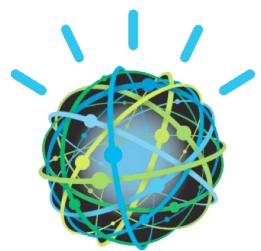
# Results: Icons, players, risky technologies



# Rhetoric construction of AI icons

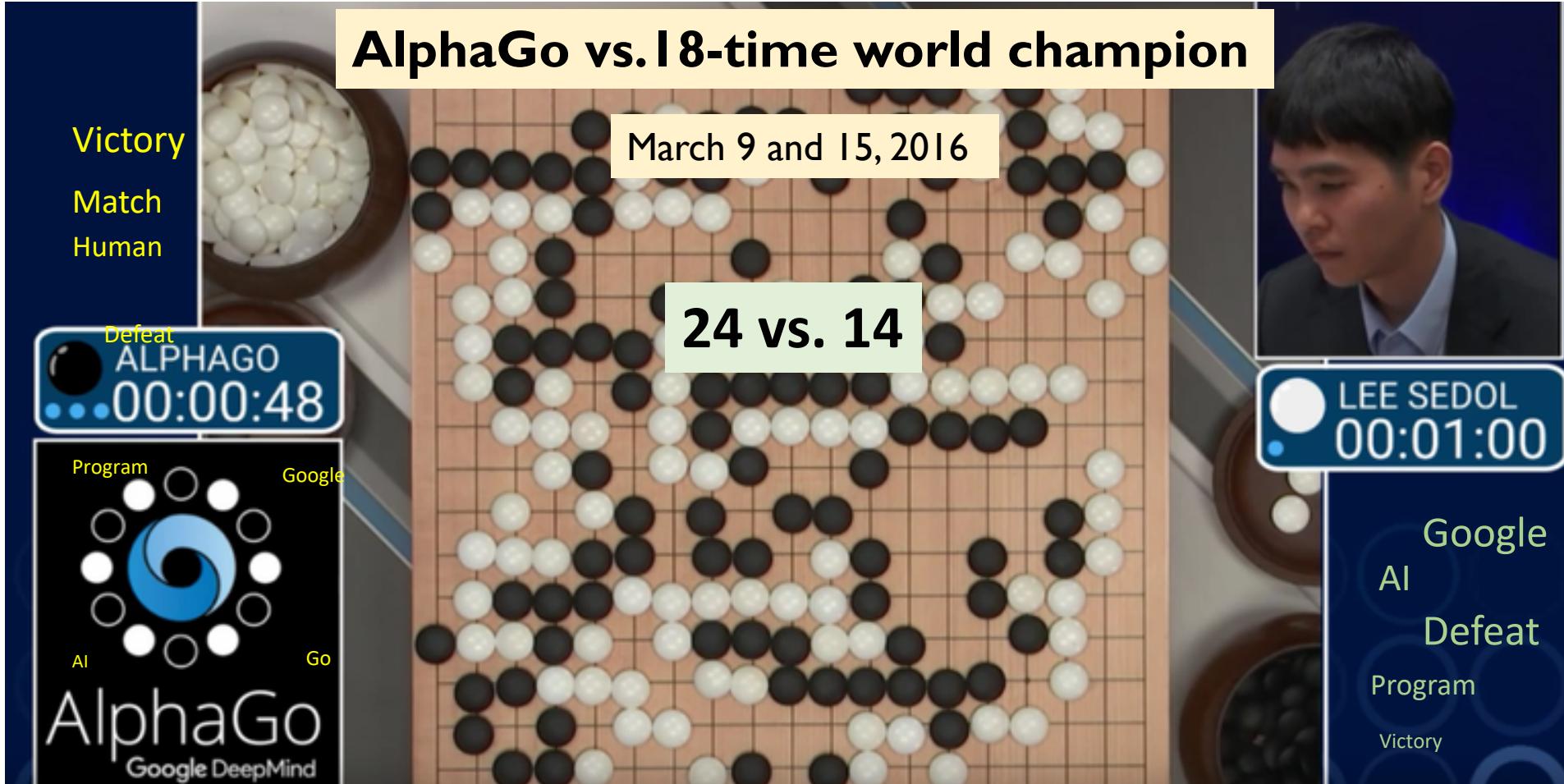


AlphaGo



IBM WATSON

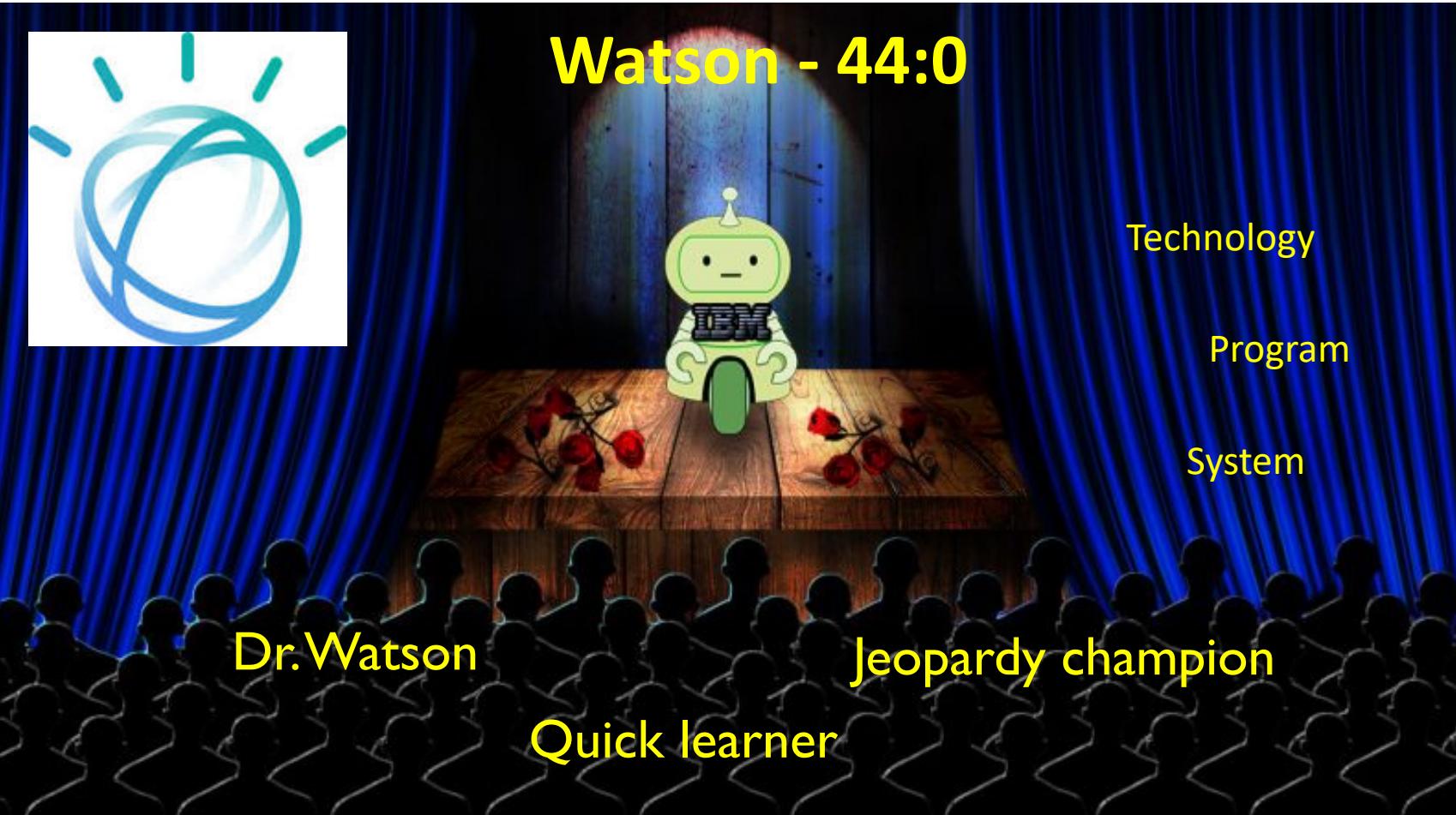




AI/Google defeated Asian Go champions

AI's historical victory against humans

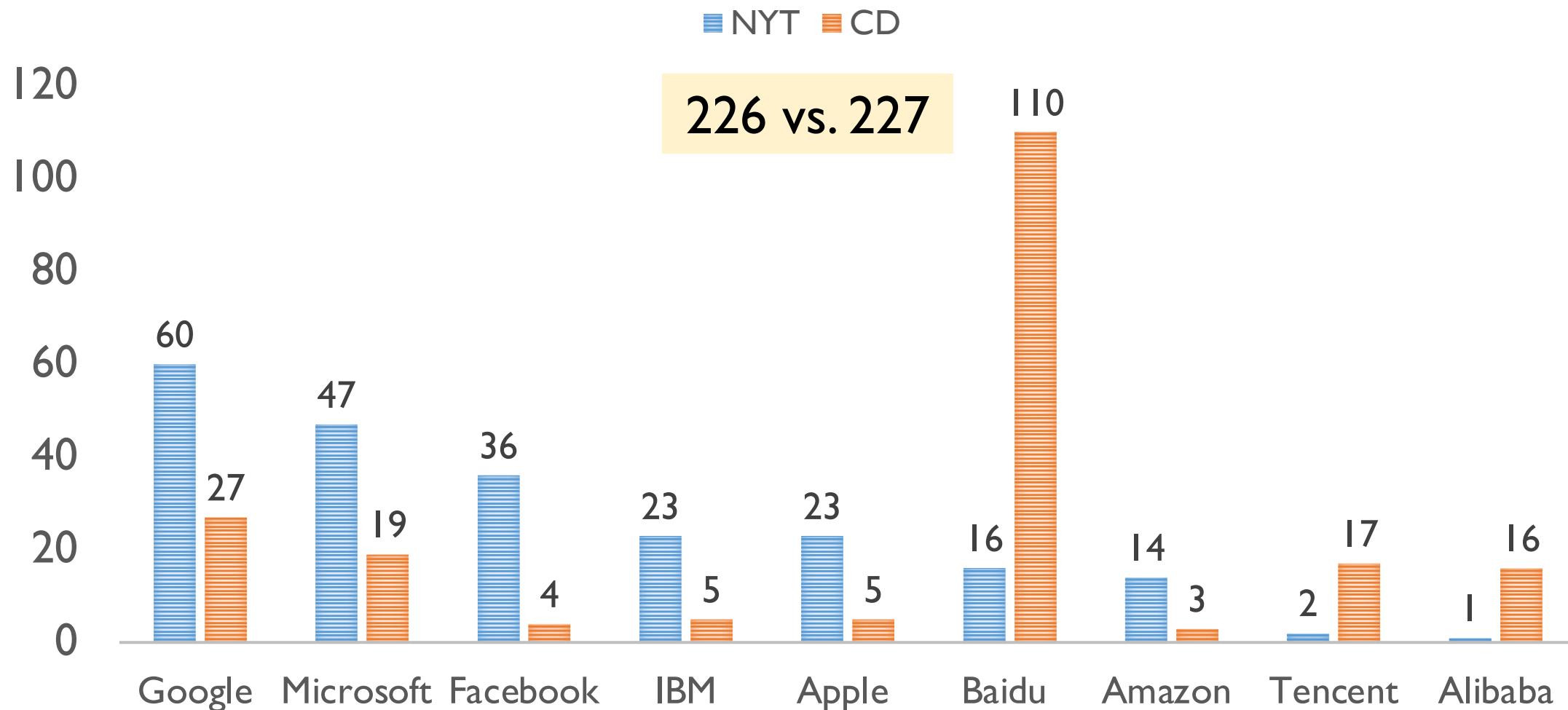
Wakeup call for East Asian countries to develop AI



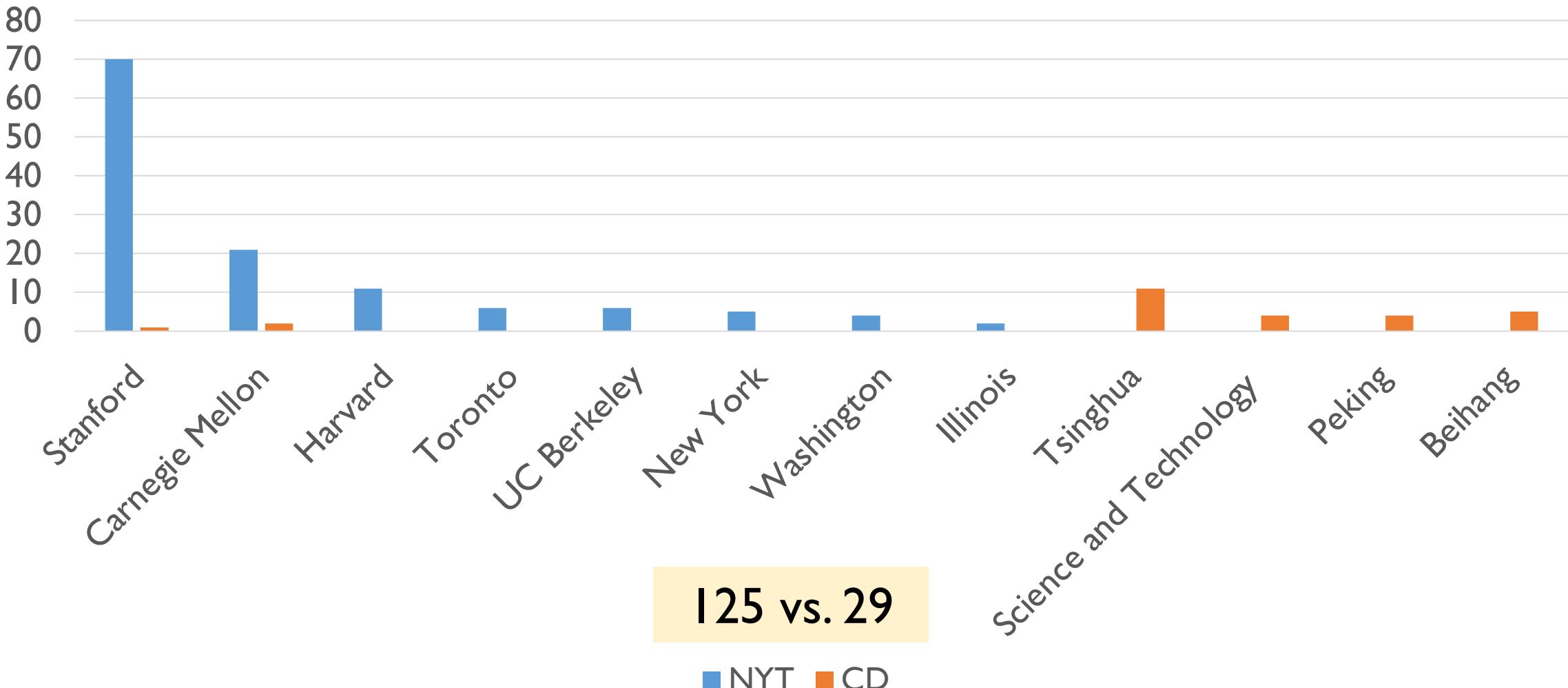
# Corporate, academic, & global players



# MAJOR CORPORATE PLAYERS



# Major academic players



# Global participants in AI race



# Renewed rivalry



# Russian investment in China's AI companies



# Supercomputer 1980s

# AlphaGo 2016

- Robots for college admission exam
  - English learning technology acquired



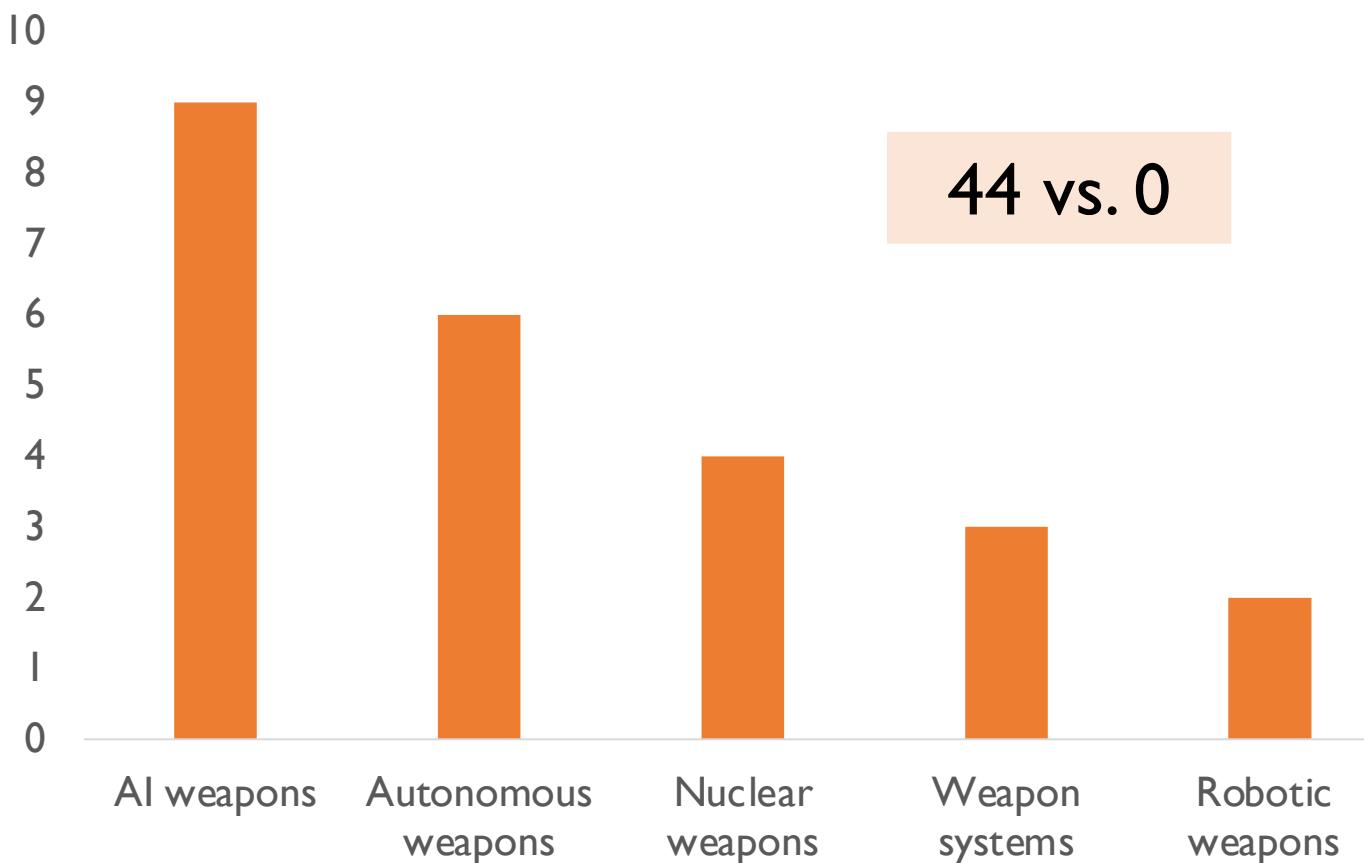
- High potential in AI
  - China and India should cooperate

Sponsor of U.S. -  
based research



Risky factors:  
Weapons, robots...

## Types of weapons discussed in NYT



Traditional weapons are “impossible to control once deployed”, thus “dumb”



Autonomous weapons are “Kalashnikovs of tomorrow”

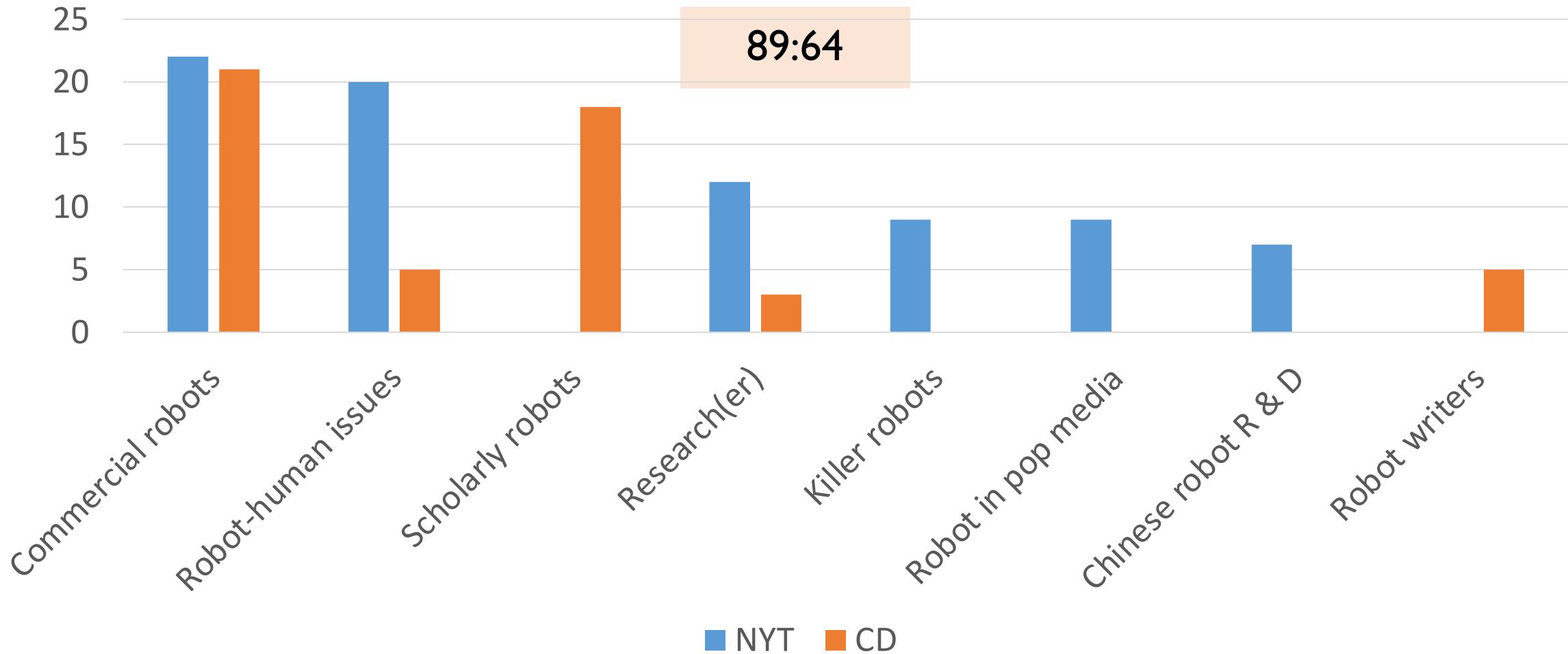


AI-based weapons may “set off a revolution in weaponry,” just like gunpowder and nuclear weapons

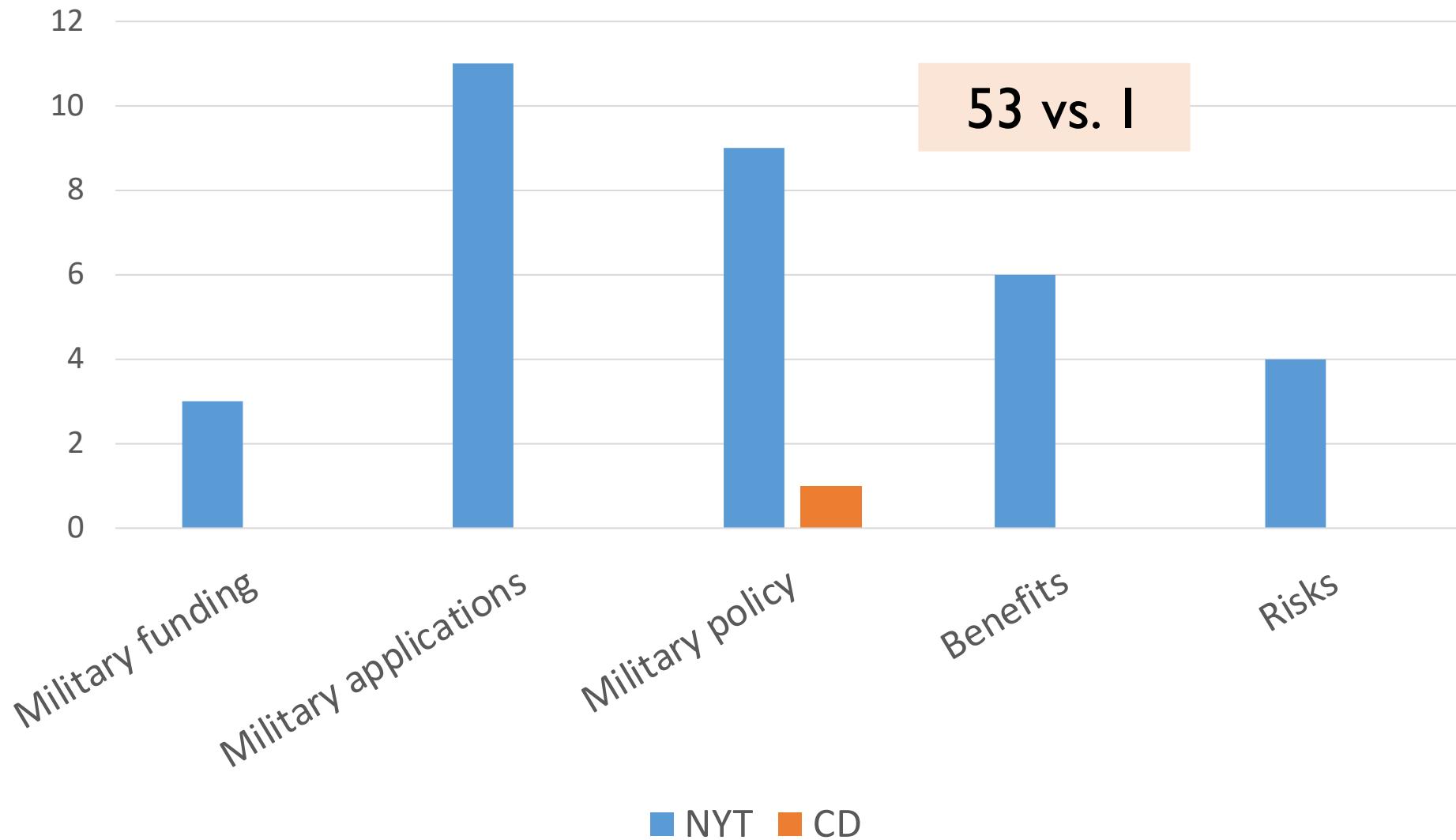


Killer robots

# Robots in NYT and CD

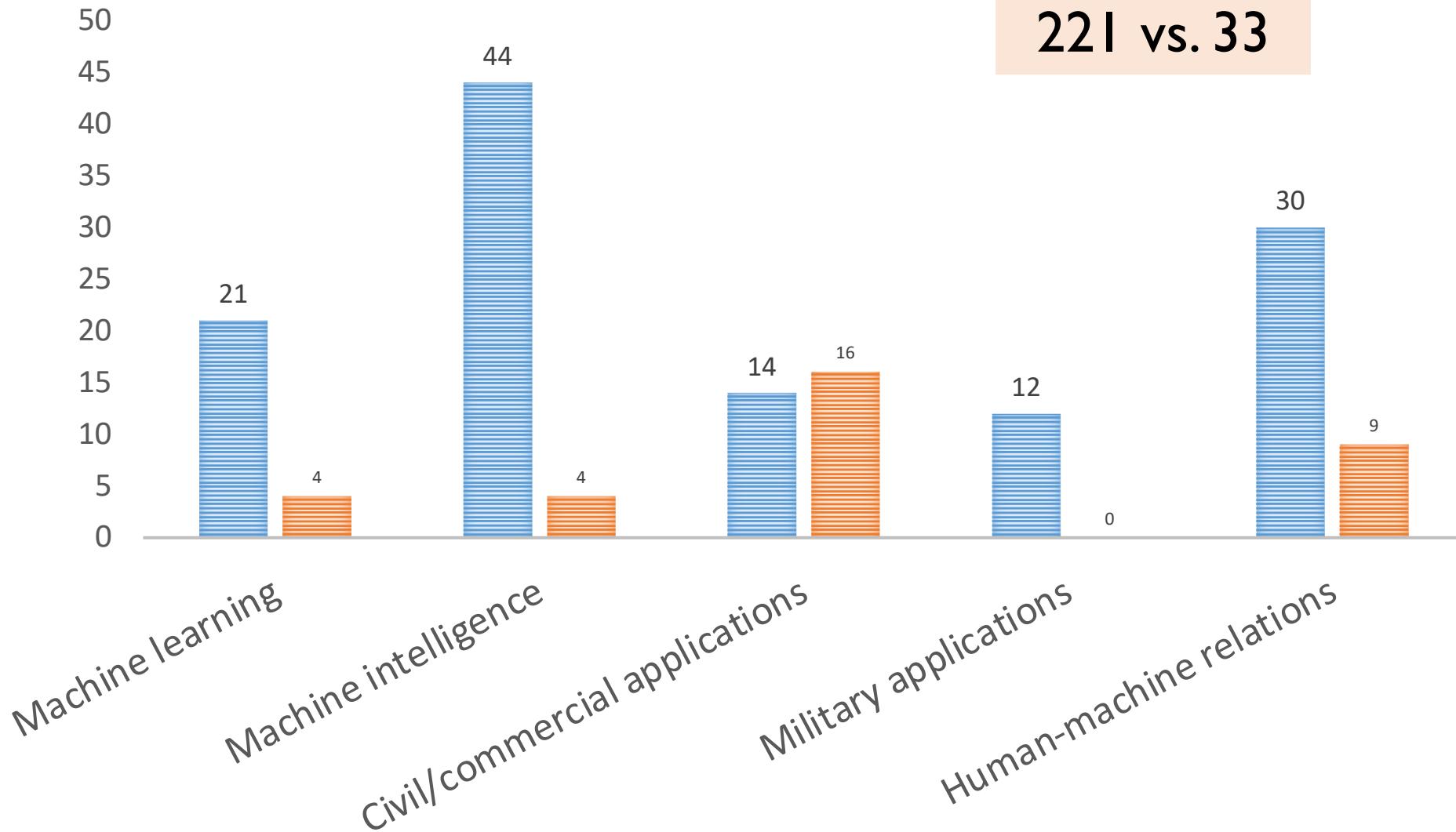


# Military in NYT and CD



# MACHINE IN NYT AND CD

NYT CD



# Critical risk rhetoric: Implications



# Larger issue at stake here

- Free market vs. centralized national priorities
- Risk policies vs. neoliberal drive to maximize profits
- The elite experts, blackboxed technologies, and the majority left behind
- Challenges for public participation because of lack of access/literacy

# Implications for risk rhetoric about AI

