What will be...  
...the future of **Nuclear Weapons**?

1. Where we’ve been  
2. Current trends  
3. Projected futures  
4. Lessons from history?  
5. The Future...
1. Where we’ve been

Where we’ve been:
Testing
Where we’ve been:
NW Arsenals
Where we’ve been: Proliferation

Total Nuclear Weapons States over time

- Germany
- US
- Russia
- China
- India
- Pakistan
- France
Where we’ve been

Rate of Proliferation, 1945-2019

Number NWS

1940s 1950s 1960s 1970s 1980s 1990s 2000s 2010s
Where we’ve been

<table>
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<tr>
<th>Argentina</th>
<th>Indonesia</th>
<th>Spain</th>
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<td>Australia</td>
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Constructing a Regime (Rules, Institutions, & Norms)

1. Limited Test Ban Treat, 1963
2. Outer Space Treaty 1967
4. Open Skies Treaty, 1972
5. Anti-ballistic Missile Treaty, 1972
8. Strategic Arms Limitations II, 1993
Biggest policy success in the 20th century?

1. Far fewer NW states than predicted
2. Far fewer states seek NW today than before
3. Since the 90’s, more given up than acquired
4. Of 9 violators of NPT, only 1 became NWS
2. Current trends

Tik Tok

Conspiracy theories

Baking at home

Short hair

Artisanal [fill in the blank]

Zoom

Long hair

Nuclear annihilation
Current Trends

• Reductions in US-RU stockpiles plateau since ‘09

• Pakistan, India, China NW arsenals increasing

• Changes in nuclear doctrine in India

• Most NWS increasing nuclear capabilities (qual)

• RU and US emphasizing role of NW

Negative developments
Current Trends

The Disappearing

- Anti-ballistic Missile Treaty
- Intermediate Nuclear Forces
- Iran agreement
- Open Skies Treaty
- Strategic Arms Limitations
- Outer Space Treaty
- Comprehensive Test-Ban Treaty
Current Trends

Positive developments

• Ban Treaty came into force (1/21)
• NWFZ cover large parts of the globe
• IAEA and safeguards regime
Projected Futures

2 Most Common Views

1. Increasing spread/importance of NW (dominant view)
   “2nd nuclear age”: proliferation in Asia and Middle East
   Return of great power competition

2. Incremental nonprolif/arms control -> disarm
   25-100 years
Projected Futures

Problems with the conventional views

• “Increasing importance” school: Structural determinism
• “Incremental regime building” school: Technical functionalism
• Both are teleological
  Events follow an inevitable & self-perpetuating arc
• Both are ahistorical
  Misreads/ignores history of CW & great power competition
  Misreads/ignores the history of arms control & disarmament
• Both are apolitical
4. Lessons from History

1. When has there been success and why?
2. When has there been failure and why?
What does success look like?

1. Limited Test Ban Treaty, 1963
2. Outer Space Treaty 1967
4. Open Skies Treaty, 1972
5. Anti-ballistic Missile Treaty, 1972
6. Strategic Arms Limitations I, 1979
8. Strategic Arms Reductions, 1991
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Governments are reactive, not pro-active

They are designed to be that way and for good reason

Sometimes govs acts quickly in response to an external shock

Once govs acquire an asset, they are reluctant to give it up

Gos will give up an asset, but only if they are pushed, esp but not exclusively, by a domestic audience
Forgetting... and failure
What was the most devastating event for progress towards nuclear disarmament???
Redefining Threat, Remedy, & Agency

1945-1989
Disarmament
Nuclear weapons (all)
Disarmament
Citizens

1989-2020
Proliferation
Non-nuclear countries
Sanctions, etc.
Governments

2001-2020
Nuc Terrorism
Fissile material
Fissile material security
Governments
Public opinion moved on...

1980s

Gallup (1987): “almost 2 out of 3 Americans worry ‘often’ about the chances of a nuclear war.”

Washington Post poll (1984): “nearly 2 out of 3 teenagers saw it as the nation's biggest problem.”

2019

- Economy 70
- Health care costs 69
- Education 68
- Terrorism 67
- Social Security 67
- Medicare 67
- Poor and needy 60
- Environment 56
- Immigration 51
- Jobs 50
- Reducing crime 50
- Drug addiction 49
- Budget deficit 48
- Race relations 46
- Military 45
- Transportation 45
- Climate change 44
- Global trade 39

Pew, 2/19
5. What is the Future of Nuclear Weapons?

1. Will be determined by contingency and human choices (luck & politics)
   - NW an easier problem than climate change
   - No underlying, physical reason govts cannot dismantle their NW

2. Non-trivial chance that civil society groups go out of business

3. In US, hyper-partisanship and politicization will likely derail progress
   - International market?

4. Counter-intuitive thought: Could self-fulfilling prophecy of great power competition spur new concern about NW?

5. More likely: Will take a shock to galvanize both the public and policymakers
   - Something pretty big to break through noise and hold attention
5. What is the Future of Nuclear Weapons?

Shocks to the system

• **Detonation: deliberate use or accident**
  Examples: Hiroshima; above ground tests, potential India/Pakistan
  Possible consequences
  • use/accident leads to reductions and disarmament
  • use leads to proliferation and larger arsenals
  • use does not change the nuclear trajectory

• **Near miss or person sparks acute fear of nuclear war**
  Examples: Cuban missile crisis, Reagan
  Possible consequences
  • leads to reductions and disarmament
  • use leads to proliferation and larger arsenals
  • use does not change the nuclear trajectory
Walsh’s Theses

1) Absent a social movement to pressure govs, govs will not give up their NW

2) Today, there is no peace or disarmament movement, only individuals and organizations

2) The orgs are small, siloed, legacy groups with few resources, an aging base, and analogue thinking

3) Cannot have a social movement, if not rooted in society

4) Cannot succeed if not in a position to respond to the opportunities provided by external events/crises
The End?