

The Terrorist Choice: Nuclear, Biological, or Cyber Weapons

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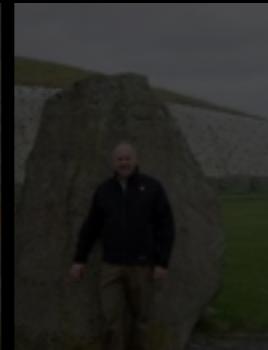
“Hello”















TERROISM

“Taking an innocent stranger and treating him as an enemy who you hurt or kill in order to create fear.”

FBI: 100% Chance of WMD Attack

3
IDEAS

1
Risk Matrix

2
Ideas of Terrorist Success

3
Black Swan Events

Risk = Threat x Consequence

Motivation

Economic

Materials & Tools

Health Effects

Management

Psychological Effects

Human Capital & Skills

Infrastructure

Planning & Execution

OPSEC

Risk = Threat x Consequence

Motivation

Economic

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OPSEC

Ideas of Terrorist Success



Operation Hemorrhage

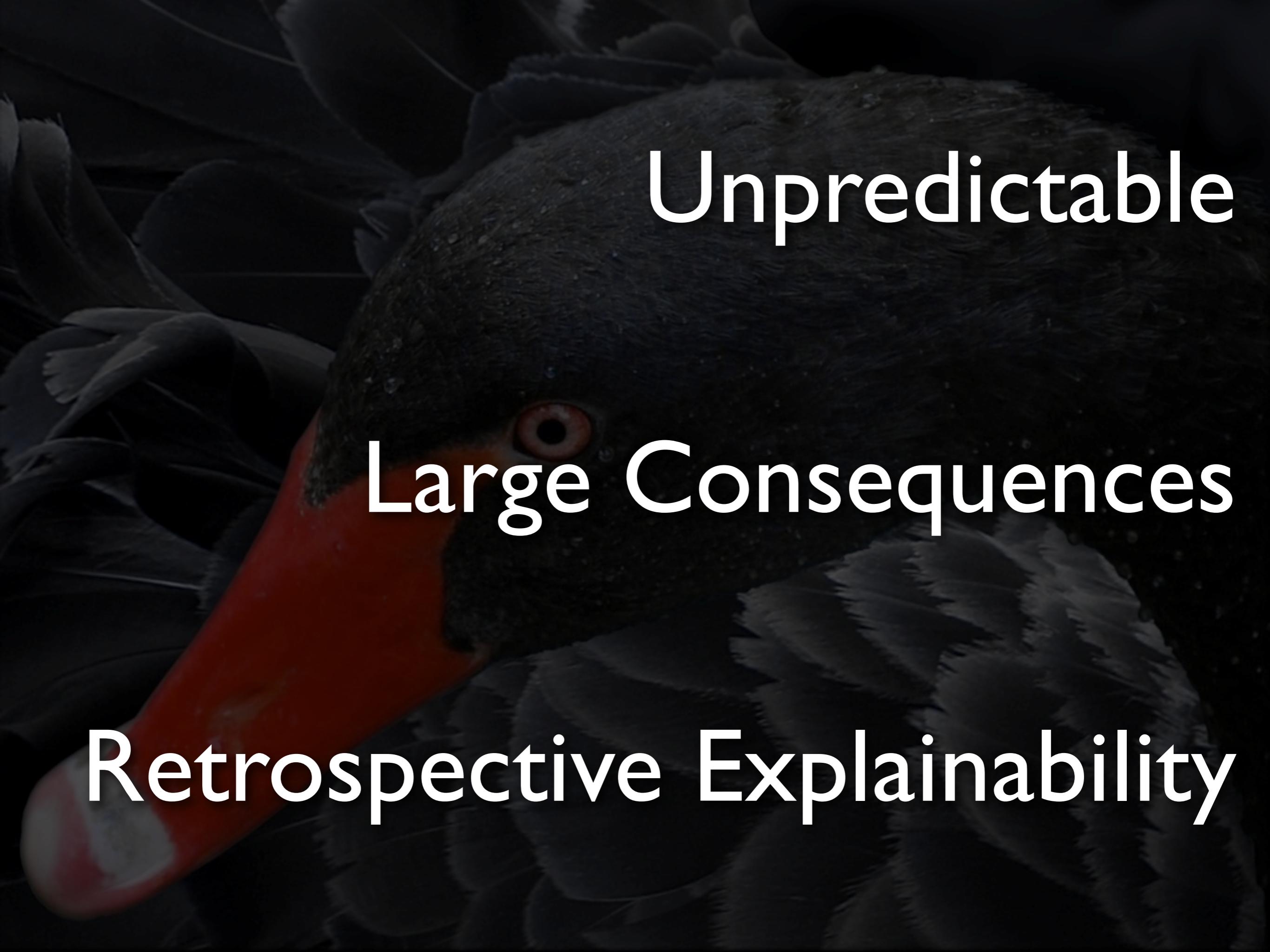
Range of Possibilities



Terrorists are Failure Adverse



Black Swan Events



Unpredictable

Large Consequences

Retrospective Explainability

Nuclear Weapons





Materials + Knowledge







TIME Magazine cover, "Merchant of Menace", Feb. 14, 2005



Urs Tinner, World Radio Switzerland



Marco Tinner, Associated Press

AP

94

Pu

Plutonium
(239)

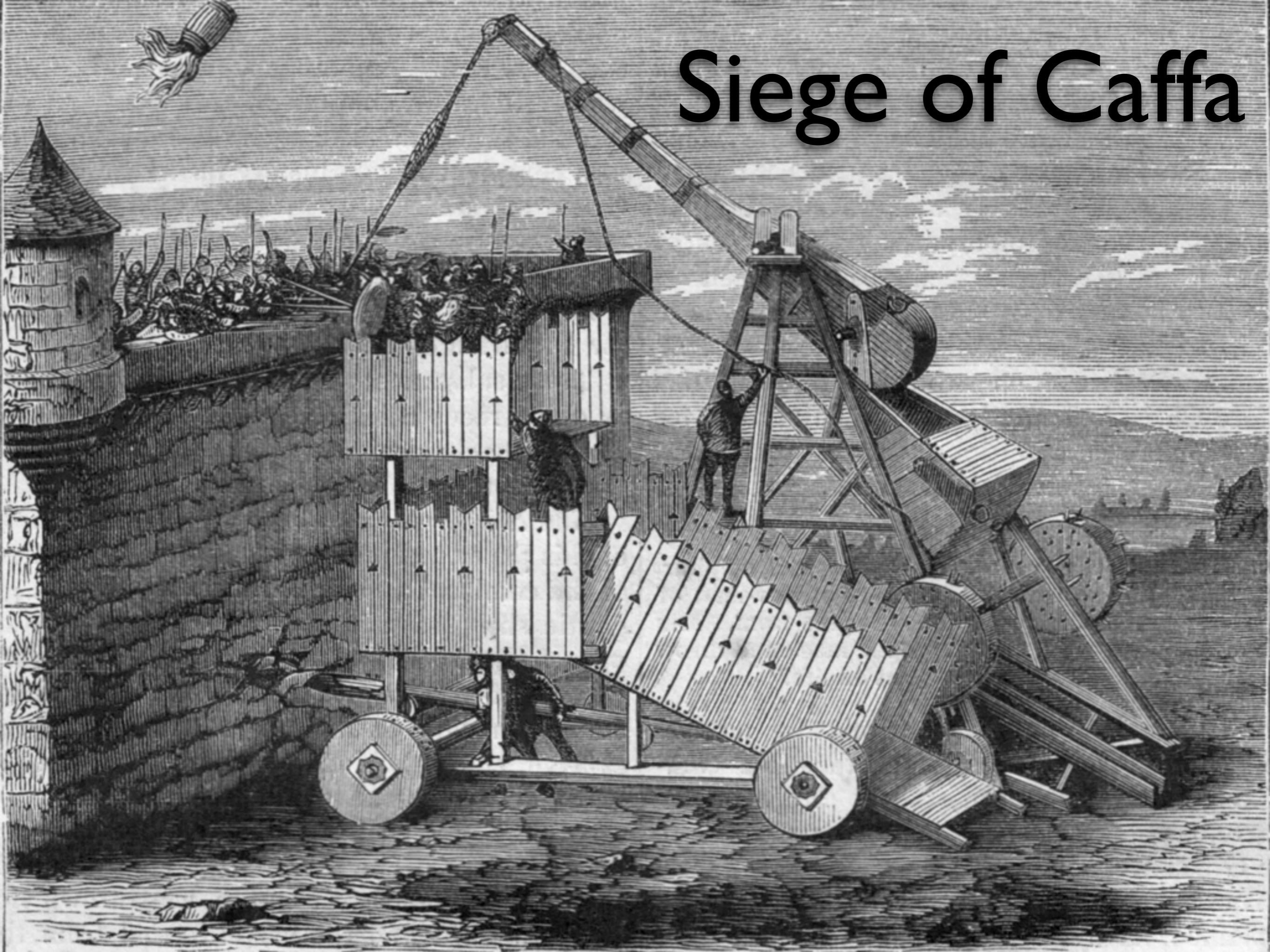




Final thoughts on
Nuclear Weapons

Biological Weapons

Siege of Caffa



Spread of Bubonic Plague in Europe



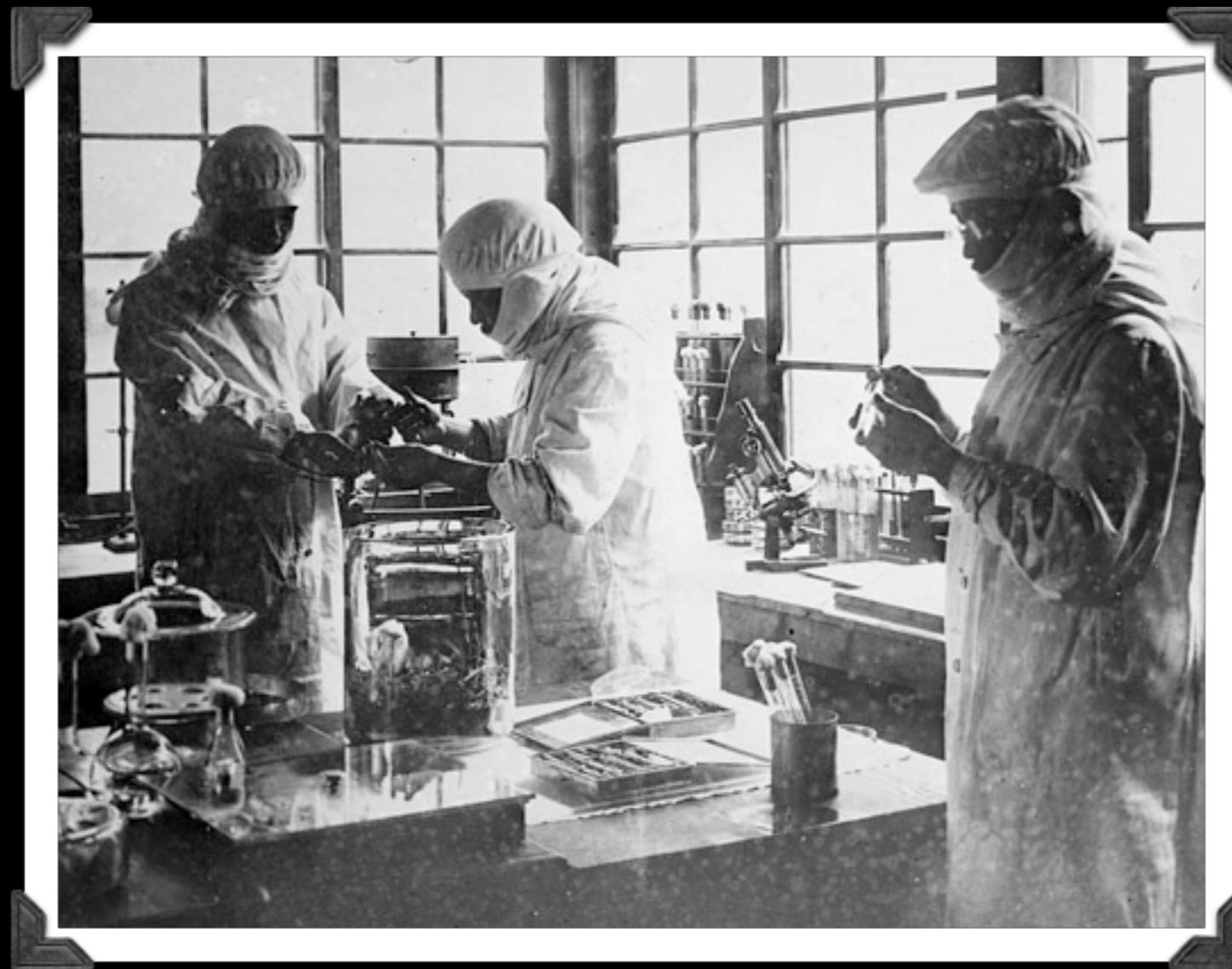




ANTHRAX



GANDERS

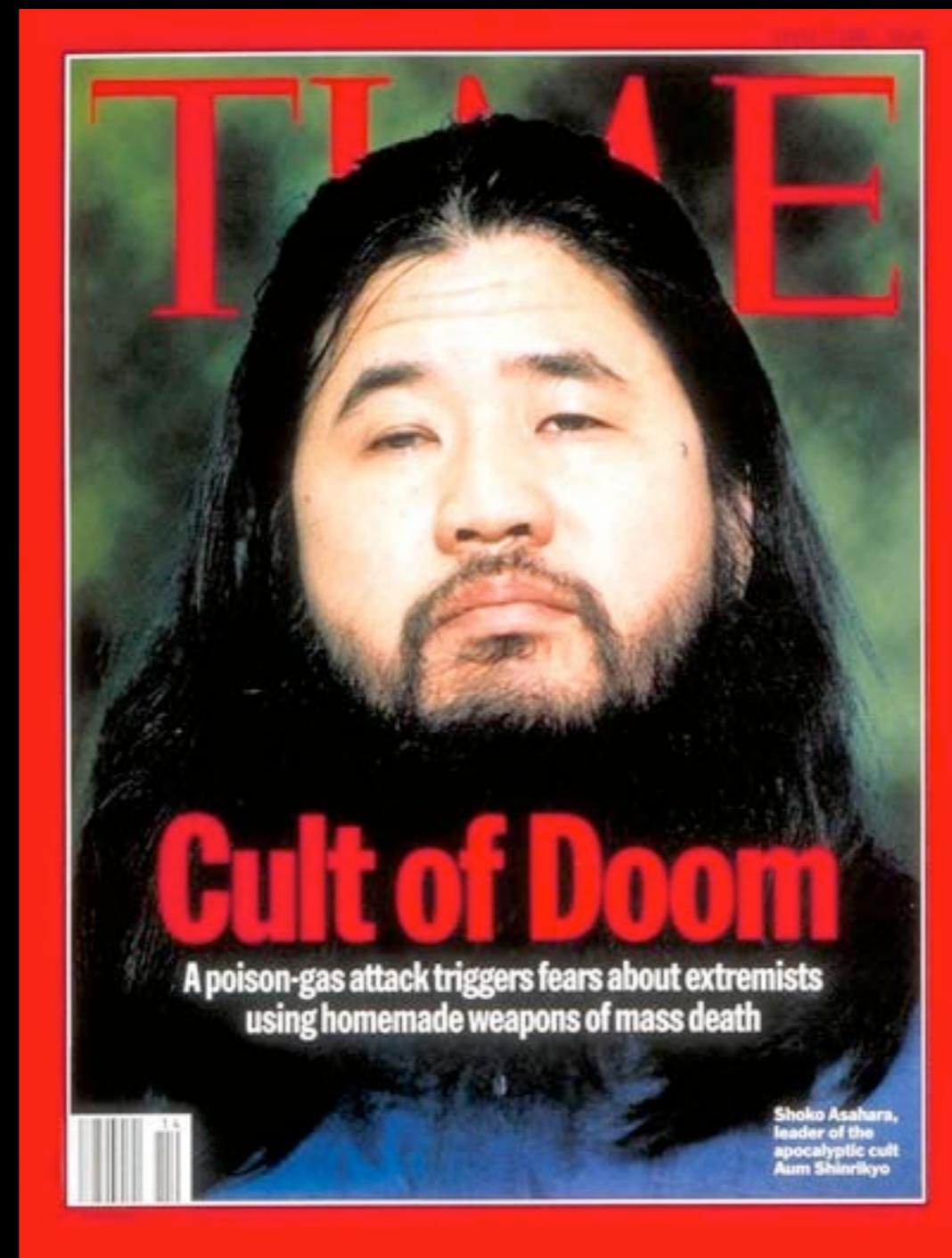


NOVA Science Now, History of Bio Warfare

Terrorist Use of Biological Agents



The Dalles, Oregon



TIME Magazine cover, "Cult of Doom", Apr. 3, 1995

Materials + Knowledge

WORLD AT RISK

THE REPORT OF THE COMMISSION
ON THE PREVENTION OF
WEAPONS OF MASS DESTRUCTION
PROLIFERATION AND TERRORISM

BOB GRAHAM, Chairman

JIM TALENT, Vice-Chairman

Graham Allison • Robin Cleveland • Steve Rademaker
Tim Roemer • Wendy Sherman • Henry Sokolski • Rich Verma

AUTHORIZED EDITION

Bacteria

Toxins

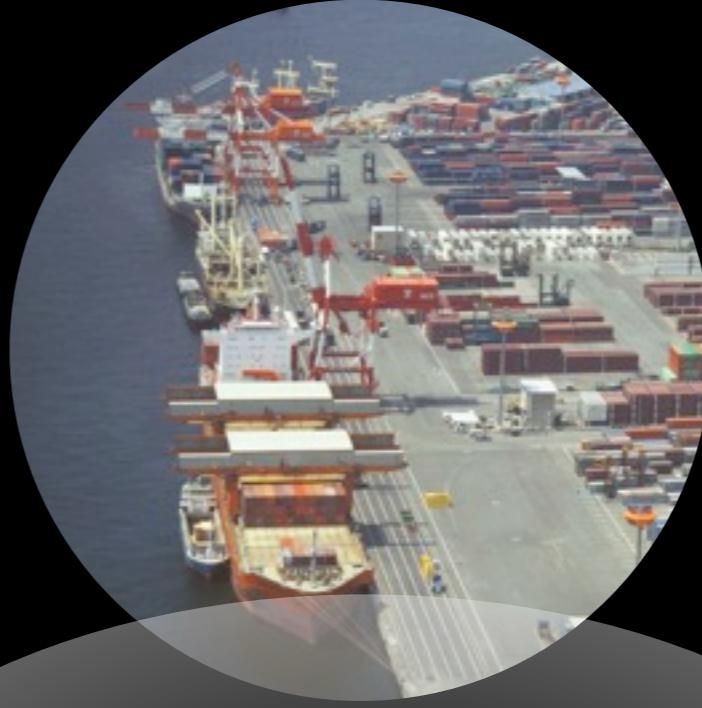
Rickettsia

Viruses

Final thoughts on
Bio Weapons

Cyber Weapons

We rely on our
cyber infrastructure
for so much!





Why are Cyber Threats Different?



Stuxnet

Final thoughts on

Cyber Attacks

*“Prediction is very difficult,
especially about the future.”*

Niels Bohr, 1922 Nobel Prize Winning Physicist



CHOICES

1
Considerations

2
Tactical Extremeness

3
Strategic Use

Revenge

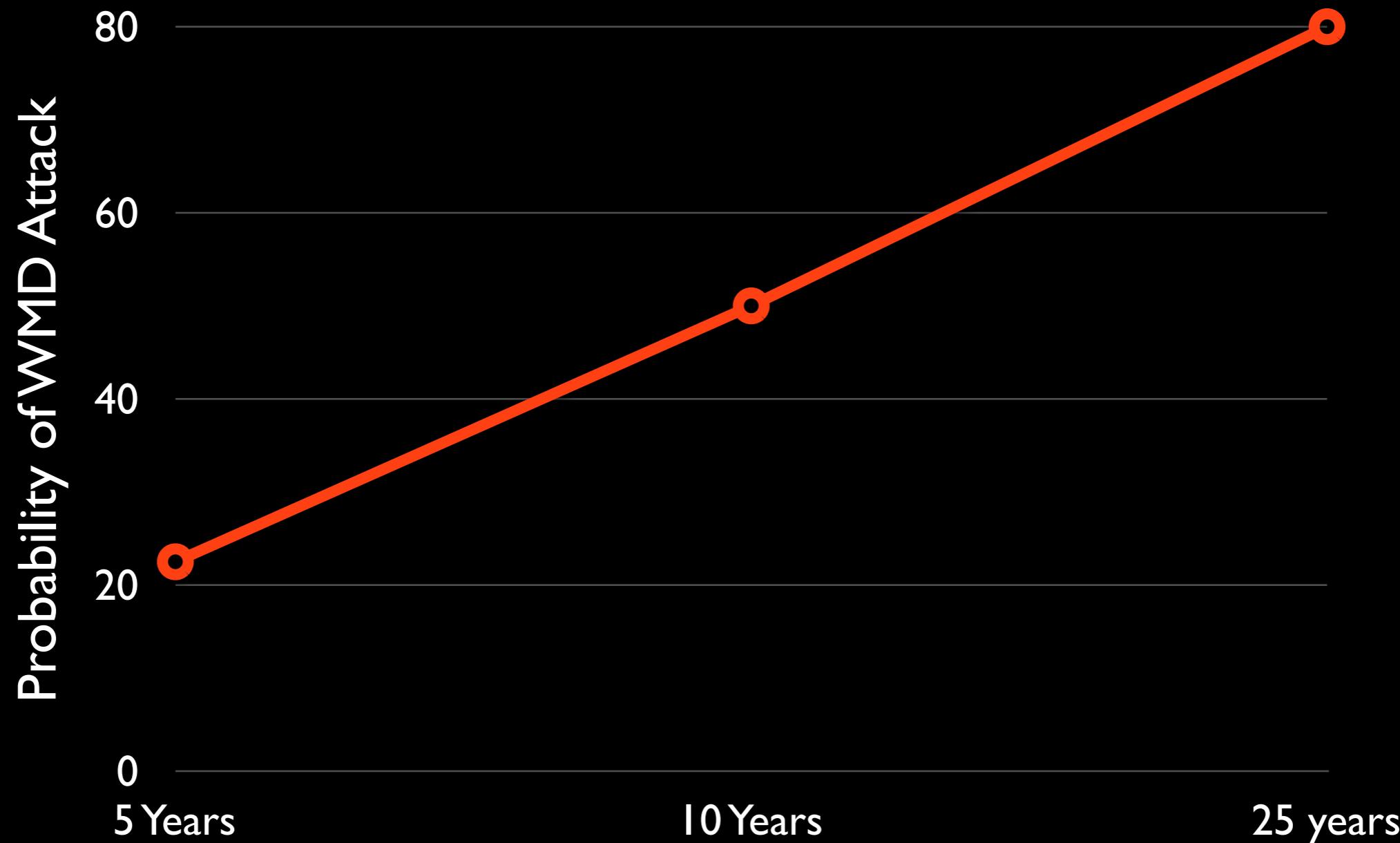


Consider Again
Black Swan Events

Delphi Survey

Rank	Weapon Type	Average Rank
1	Chemical Weapon	1.3
2	Radiological Weapon	2
3	Biological Weapon	2.7
4	Nuclear Weapon	4

Delphi Survey Results



Final Thoughts

TERROISM

“Taking an innocent stranger and treating him as an enemy who you hurt or kill in order to create fear.”

TERROISM Ant1dote

“Taking an innocent stranger and treating him as a friend whom you welcome into your home to create a friendship.”

“Thank You”