CYBER ARMS CONTROL
A NEW ARMS RACE THREATENS HUMANITY – IT IS CYBER

Something Should Be Done To Stop It
TOPICS

GLOBAL INSTABILITY IN CYBERSPACE

CYBER POWER OF NATION STATE

THE ARMS RACE PROBLEM

HISTORICAL CONTEXT

INTERNATIONAL LAW

WORK AT UNITED NATIONS FIRST COMMITTEE

SCENARIO: UNITED NATIONS CYBER PEACEKEEPING FORCE

WHAT CAN YOU DO?
SOME NATIONS CRIPPLED: UKRAINE, GEORGIA, ESTONIA

CYBER CONFLICT CAN DO “KINETIC” HARM TO A NATION STATE

INFRASTRUCTURE AT RISK: ELECTRIC; TRANSPORTATION; FINANCIAL SYSTEMS

CORPORATIONS MASSIVE HARM

CYBER ESPIONAGE “THE GREATEST TRANSFER OF WEALTH IN THE HISTORY OF THE WORLD”
CYBER -- NEW ELEMENT OF NATIONAL POWER

- Traditional elements: economy; innovation; technology; population; raw materials
- New element: cyber (what are measurements?)
- U.S. National Security Agency (NSA) has stood up a “cyber command”
- Other nations developing similar capabilities
PROBLEM: A CYBER WEAPONS ARMS RACE

MORE THAN 40 COUNTRIES ARE DEVELOPING CYBER WEAPONS – “OFFENSIVE CYBER CAPABILITIES”

POTENTIAL FOR A MASSIVE INTERNET EMERGENCY

THERE IS NO INTERNATIONAL ARRANGEMENT TO CONTROL THIS ARMS RACE
LONG HISTORY ARMS CONTROL

- Conventional Arms
- WW1
- WW2
- Biological
- Nuclear
- Cold War I
- Cold War II
- Chemical
- Autonomous Weapons
- Cyber

19th Century
20th Century
21st Century
HOW TO CONTROL CYBER WEAPONS?

INTERNATIONAL AGREEMENT (TREATY; CONVENTION)

BILATERAL

MULTILATERAL

TYPES OF ARMS CONTROL TREATIES

AFTER THE FACT – STRATEGIC ARMS LIMITATIONS TALKS (SALT)

HYBRID – NUCLEAR NON-PROLIFERATION TREATY

ANTICIPATORY – UNDERSEA; NUCLEAR ZONES; OUTER SPACE

WILL GLOBAL INTERNET EMERGENCY BE REQUIRED TO GET NATIONS TO ACT?
WORK AT THE UNITED NATIONS

FIRST COMMITTEE (DISARMAMENT)

FORUM FOR NEGOTIATION

CONTEXT OF POWER POLITICS
INTERNATIONAL CYBER LAW PROBLEMS

- RIGHT OF SELF-DEFENSE (ARTICLE 51 OF CHARTER) – KINETIC/VIRTUAL
- THE ATTRIBUTION PROBLEM
- MECHANISM OF ENFORCEMENT (VERIFICATION; MONITORING)

United Nations Charter

Article 51.

Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security.
WORK AT THE UNITED NATIONS

- INFORMATION SHARING
- CAPACITY BUILDING
- CONFIDENCE-BUILDING MEASURES

ABANDONED WORK ON CYBER ARMS CONTROL – CHANGED TO “CYBER STABILITY”
WHY THE UN TALKS HAVE FAILED

DEFINITION OF CYBER WEAPONS IS BARRIER TO INTERNATIONAL AGREEMENT

MYTH

ANY HACKER CAN DO IT

TECHNOLOGIES WIDELY AVAILABLE

REALITY

STUX-NET

MULTI-BILLION; STATE-SPONSORED; USING NATIONAL RESOURCES; DESIGNED WITH NATIONAL STRATEGIC INTENT; DEPLOYED WITH NATIONAL RESOURCES
SCENARIO:
PEACEKEEPING
UNITED NATIONS PEACEKEEPING

WELL-ACCEPTED FOR CONVENTIONAL “KINETIC” CONFLICT
UNITED NATIONS CYBER PEACEKEEPING?
ARTICLE 39 OF UNITED NATIONS CHARTER
“THREAT TO INTERNATIONAL PEACE AND SECURITY”

UN SECURITY COUNCIL
THE FIRST BARRIER IS ARTICLE 39

Article 39
The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.
SCENARIO

UNITED NATIONS CHARTER

- ARTICLE 39 -- “THREAT TO INTERNATIONAL PEACE AND SECURITY”
- ARTICLE 40 -- PROVISIONAL MEASURES
- ARTICLE 41 -- “MEASURES NOT INVOLVING USE OF ARMED FORCE” – INTERNET “KILL SWITCH”
- ARTICLE 42 -- UN CYBER FORCE
THE CYBER ARMS RACE
–– WHAT IS TO BE DONE?

(If The International Community Is Unable To Solve The Problem)
ONLY NATIONAL LEADERS WILL MAKE CYBER ARMS CONTROL POSSIBLE

ROLE OF CIVIL SOCIETY

PUBLIC OPINION

ACADEMIA

PRIVATE SECTOR INNOVATION
THANK YOU!

DISCUSION

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