

Cyber Crisis Scenario

Instructions for Implementation

Background

The cyber crisis scenario was originally designed as an end-of-semester exercise for an MIT undergraduate political science course, 17.46: U.S. National Security Policy. The scenario was intended to provide students with an opportunity to apply core class concepts, which included an understanding of the interagency process, the various actors involved in making and implementing national security policy, the law of armed conflict/international law, and the changing character of international crises.

Although the scenario was designed to meet the teaching objectives of a specific class, instructors could also implement the scenario in courses on U.S. Foreign Policy, emerging technology and international security, the politics of cybersecurity, or U.S.-China relations. Instructors should feel free to modify elements of the scenario in order to tailor it to their teaching objectives.

Development of the crisis scenario was generously supported by MIT Schwarzman College of Computing's Social and Ethical Responsibilities of Computing (SERC) program.

The scenario was designed by Erik Lin-Greenberg (Assistant Professor, MIT Department of Political Science) and Lily Tsai (PhD Candidate, MIT Department of Electrical Engineering and Computer Science).

Implementation

The crisis scenario was implemented over two class sessions (each 80 minutes long).

Pre-class Preparation

Two days prior to the first of these classes, the instructor randomly assigned students into five teams of approximately six members each: 1) Department of State; 2) Department of Defense; 3) Department of Homeland Security; 4) Department of Justice; 5) Office of the Director of National Intelligence. Groups larger than ~7 may be more difficult to manage and quieter students may feel less inclined to participate.

Students were not assigned to specific roles within these teams (i.e., there was no designated Secretary of Defense, etc.)

The instructor emailed the first page of the crisis scenario packet ("The Road to Crisis") to students two days prior to the first crisis scenario class.

Class Session 1

When students arrived in class, they sat at tables organized by their team assignment (e.g., one table for State Department, one for Defense Department etc.).

The instructor then handed all students a copy of the second page of the crisis scenario packet (“Move 1”)

Students had 30 minutes to review the tasks for their team and to address responses. At the end of the 30 minutes, each team briefed the National Security Advisor on their recommendations (The National Security Advisor was played by a PhD student, but a course instructor could take on this role).

The teaching team member playing the National Security Advisor followed up with each team’s briefer, asking questions 1) to ensure: the recommendations aligned with the president’s objectives introduced in the Road to Crisis; 2) to assess whether students had given thought about how their recommended actions might be perceived by international actors (NB: this was intended to tie back to concepts of perceptions/misperceptions and inadvertent escalation covered in the assigned reading materials earlier in the semester); and 3) to assess whether students representing different departments and agencies were coordinating with other teams (NB: this was to help emphasize the role of the interagency process).

Students were given a short break and the instructor then distributed the third sheet of crisis scenario packet (“Move 2”).

The National Security Advisor told the students that several days had transpired since the briefing and that president had implemented some of their recommendations (The instructor can select any/all of the recommendations put forward by students at the end of Move 1).

Students then had 35 minutes to work through Move 2. The teaching team then repeated the briefing procedure from Move 1. In Move 2, however, there is less direct guidance about the tasks for each team, allowing students to think about the role their organization would likely play in an actual contingency. This was an intentional design choice to help reinforce student learning about the rules and responsibilities of different government agencies.

Class Session 2

During the final class session of the semester, students worked through Move 3 and discussed what they had learned from the crisis scenario.

Following the format used in Class session 1, the instructor provided students with page 4 of the crisis scenario packet (“Move 3”). This move was scheduled for 40 minutes as it 1) included several significant events and 2) did not provide students with defined tasks. The additional time was intended to allow students to process the events and to think about their department’s role in providing a response.

At the end of the 40 minute period, each team then briefed the National Security Advisor, who asked students questions similar to those outlined above.

After all teams had briefed, the class ended the exercise and held a facilitated discussion about lessons learned from the crisis scenario (and more broadly, on the use of scenarios as a learning tool). Potential discussion questions are on the next page.

Potential Discussion Questions:

How has technology changed the character of international crises?

What did the scenario teach you about the role of the strategic implications of technology on international security?

What key challenges did your teams face when dealing with new technology in the crisis scenario? (e.g., trust in AI analysis, attributing blame for cyber actions, etc.)

What key international relations theories did the crisis scenario help reinforce?

What, if anything, did the scenario teach you about U.S.-China Relations?

What, if anything, did the scenario teach you about crisis decision-making?

Was it challenging to coordinate with other departments/agencies during the simulation? Why or why not?

Did China always respond in the way you thought they would?

What types of actors had an outsized influence in the scenario? Put differently, what actors had a bigger influence than you anticipated (e.g., protestors, hackers)? What actors had less of an impact/played less of a role?

Are scenarios a useful tool for studying international relations? Why or why not?

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RES.TLL-008 Social and Ethical Responsibilities of Computing (SERC)

Fall 2022

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