

PDC2019
Washington, DC, USA

- Key International and Political Developments
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- NEO Characterization Results
- Deflection and Disruption Models & Testing
- Mission & Campaign Designs
- Impact Consequences
- Disaster Response
- Decision to Act
- X Public Education & Communication**

(This paper is eligible for the student competition.)

**PLANETARY DEFENSE IN THE CLASSROOM,
A SOCIAL SCIENCE PERSPECTIVE**

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The Harvard College Astrosociology curriculum was established in the Fall of 2017 as a transdisciplinary platform to teach space ethics and philosophy as well as sociology of space to social science and policy concentrators. This paper will examine the results of an in-classroom reproduction of the PDC scenario 2017 as examined by social science students. Based on the conclusions of the PDC 2017 scenario exercise in Japan and in line with the recommendation to grant greater consideration to the social sciences, especially economics, law, policy and sociology, the PDC scenario 2017 was consequently adapted into a new simulation dedicated to students with a social science background. This simulation was twofold: first, students were given an introductory seminar on the key concepts of Planetary Defense (definitions, mitigation methods, roles of IAWN and SMPAG etc.). Secondly, students were asked to debate on the economic and social consequences resulting from each of the group's common decisions while they were role playing the scenario as « world leaders ». It pertained to questions of communication (when to warn the public? At which level – national? international? Should only partial information be communicated? And if so, which ones and when? etc.) Other issues, such as possible leakage of information to the press, mass panics and population displacement were explored. This paper will review the students' reactions, their challenges, and if & why they decided to ignore certain technical factors in order to take their decisions. The goal of this presentation at PDC 2019 will be to highlight the lessons from this planetary defense social science exercise, reflect on the key

questions raised during such simulation, notably the role of technical expertise and impact of risk perception in decision-making processes. The social sciences of space have been very little involved in past PDC scenarios. It is our objective to develop a classroom model which would educate future public policy leaders in topics such as Planetary Defense as well as to train them to take into consideration technical expertise in crisis situations.