

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Space Culture (9)

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DOWN TO EARTH: A FRAMEWORK FOR EMPHATHISING WITH SCIENTIFIC DATA AND  
INVISIBLE THREATS.

**Abstract**

The necessity to mobilise resources for space research is a topic that comes up quite often, with government funding being the focus of debate. *“Down to Earth”*, a digital platform we developed during the Space Apps Challenge led by NASA, examines the possible ways citizens can be familiarised with space research. We created an educational tool that suggests a new way to perceive asteroids. However, this project also intends to question the means employed for this purpose, especially when the discussion comes to potential disasters, like in the case of the asteroids. We stress the difficulty to make people (aka the taxpayers) empathise, avoiding the talk about invisible threats and using methods that resemble terrorism. The project started with the goal to deal practically with the aforementioned issues and then ask questions about the social implications involved.

**Application:** Although there are open and publicly available data about asteroids, terminology, scale and effects are incomprehensible to the public at large. The project takes asteroid data and produces familiar analogies that make the scales and magnitudes more meaningful; using locations and the open collaborative human knowledge database freebase.com, the application finds iconic buildings nearby and compares them with asteroid’s attributes like size, or distance from Earth to deliver meaningful visual data. It also provides a platform to create fictional scenarios of catastrophe on demand, according to which, the asteroid hits the selected place, in order to further examine the impact of an unfortunate incidence; using the same knowledge database, we retrieve real data about the population density of an area and we measure the disaster (deaths) caused by this fictional event.