

How will it end? Outreach activities to explore uncertainty in volcanology

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Common sense and a well-established practice suggest that scientific dissemination must be engaging, especially when targeting the youngster. Informal, interactive approaches where participants are actively involved in hands-on activities are in general more successful in keeping the attention alive and focused on the topic proposed. As a result, a number of well established, volcano-related activities has been developed through time, and are routinely proposed within institutional outreach programs. However, sometime the emphasis on the “engagement” part may prevail over the transfer of scientific concepts. While kids usually enjoy the programs, making sense of the game, in relation to the real natural phenomenon and its consequences can be difficult. We’ll introduce some outreach activities devised to address the uncertainty related to volcanic unrest, trying to highlight weaknesses and strengths. We’ll first describe a promising storytelling approach and then focus in particular on a game that explores the complexity of decision making under uncertainty. The game is based on party poppers whose explosion is triggered by pulling a string: participants are asked to guess the load required to explode the poppers. Participant's guesses and the visualisation of results are realised via web pages, using Free Software components. This approach makes the experiments easily recordable and allow to involve a wider audience in the activity. The distribution of guesses and the actual outcome of each experiment are discussed with the participants to gain information on the behaviour of the party poppers. While repeated experiments may help to constrain the amount of pull required to trigger the explosion, each popper is different and each explosion hits rather unexpectedly. We’ll discuss the outcome of these activities and share related outreach materials (video and booklets, in Italian, English and Spanish), all available through our institutional websites.