S3.17>Strategies and tools for communicating geohazards and georisks, raising public awareness and enhancing preparedness to natural disasters

ORAL PRESENTATION

Augmented and Virtual Reality: new tools for communicating volcanic hazards and risks

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The impact of volcanic activity may have substantial economic implications, affecting societal aspects at varying degree. For example, tourism can benefit from excursions in volcanic regions with mild activity (e.g., Strombolian explosions); on the other hand, air traffic can be easily disrupted by ash emission even without climactic eruptions (e.g., during a lava fountain). To minimize exposure to volcanic hazard, volcano observatories worldwide offer multimedia information also able to convey fast communication on on-going eruptive events; these digital resources have been changing the actual relationships between scientists and citizens: i) creating a two-way communication that can significantly enhance awareness and preparedness, and ii) limiting the effect of fake news. Scientists disseminate scientifically validated information, while citizens can contribute by using new tools (custom APPs, web forms) generating a huge amount of data.

In this scenario, the contribution of tools based on Augmented and Virtual Reality can simplify and enrich the process of collection of information, which is especially – but not exclusively – enjoyed by the Native Digital generation. New communication strategies have been developed, and are one of the main topics of the 3DTeLC project (Bringing the 3D-world into the classroom: a new approach to Teaching, Learning and Communicating the science of geohazards in terrestrial and marine environments; Project Reference: 2017-1-UK01-KA203-036719). In the framework of the 3DTeLC project, we present examples of custom developed tools, promoting the exploitation of these new techniques for so-called “citizen science”, with a particular focus on volcanic hazard communication concerning Mt. Etna (Italy).