

The art of communicating seismology to broad audiences: the exhibition which changed the perception

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Seismology is a geoscience often perceived by uninstructed broad audiences as unreliable or inconsistent, since it cannot predict future earthquakes or warn about them effectively; this criticism disregards important achievements that seismology has offered during its more than 100 years of history – such as evidence of Earth’s inner structure, knowledge regarding plate tectonics, mineral resource identification, contributions to risk mitigation, monitoring of explosions etc. Moreover, seismology is a field of study with significant advances, which make (or could make) living much safer, in areas with high seismic hazard. We mentioned “could make” since people often fail to understand an important aspect: seismology offers consistent knowledge regarding how to prepare, construct or behave – but it’s up to people and authorities to implement the effective measures.

In all this story, the effective communication between scientists and the general public plays a major role, making the leap from misconception to relevant impact. As scientists, we wanted to show the true meaning and purpose of seismology to all categories of people.

We are in the final stage of the MOBEE (MOBile Earthquake Exhibition) Project implementation, an innovative initiative in a highly seismic country (Romania), where major Vrancea intermediate-depth earthquakes source have the potential to generate a significant amount of damage over large areas; however, unlike countries like Japan, the medium to long period between felt or significant events (20-40 years) is long enough to make the newer generation in Romania disregardful of the hazard, and older generations skeptical about the role of seismology. MOBEE intended to freshen up things, raise awareness and change the overall perception - through new approaches involving a blend of digital content (interactive apps, responsive and continuously updated website), 3D models achieved through new technologies (3D printing, fiber optics), non-formal activities and experiments or visual arts. The modular concept which allows ease of transportation to multiple sites was definitely one of the aspects that raised the impact, bringing science closer to people (and also science “in the street”). As we will show in the extended paper, it was a quite difficult task to discover the art of communicating science efficiently, but one of the keys was the work in multidisciplinary teams. By preparing and taking advantage of important dates (such as the Researcher’s Night or the 40th commemoration of the 1977 earthquake), we were able to capture media and public attention, maximizing significantly the interest and showing that something is and can be done, regarding the earthquakes. Also, the direct connection between people and scientists was established, providing quality and authoritative information.

In this paper we present not solely the MOBEE Project, but most importantly our findings regarding the best ways to communicate science and specifically seismology through new technologies (which, depending on the means of implementation, do not always serve the true intention) and ways to assess and increase the outreach impact.