



Implementing a Citizen Seismology Communication Strategy in a Complex Economic, Political and Security Context: Issues and Feedback from the OSMOSE Project in Haïti

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The OSMOSE project aims to develop citizen seismology in Haiti where seismic risk is high and the scars left by the 2010 earthquake are still very prominent. The project proposes to use low-cost seismic sensors (Raspberry Shake) to (1) complement the national seismic network and (2) improve risk perception, preparedness and scientific knowledge of the population.

This second objective is not self-evident and requires the integration of these volunteers in a wider network, with a real communication strategy towards them but also towards the general population. Originally, the communication strategy was to be established on three levels: the first one for exchanges between the volunteers and the scientists of the project, the second one to support the volunteers in their interactions with their communities so that they become « seismology ambassadors », and the third one to inform the general public. The project planned to support this communication strategy with a series of classic tools (website, social media, partnerships with schools or media), innovative ones (Messaging Apps bots, Virtual Reality...) and already existing tools such as the LastQuake application developed by the EMSC, which allows to collect and give information about felt earthquakes.

During the conception phase some challenges linked to the cultural, economic and hazard context had been considered and taken into account. For instance materials must be translated in French and Creole. Access to technology, whether for practical or literacy reasons, is very unequal. Moreover, the team had the ambition to study the place of voodoo, religious and scientific culture in the explanation of earth movements in order to adapt the approach and make communication more effective to increase risk awareness and preparedness.

However, we faced many unforeseen difficulties in implementing this communication strategy, mainly related to the security and political context in Haiti. The security context made it nearly impossible to access the field, which would have allowed for in-depth sociological surveys. These

surveys had for objectives to better understand risk perception and risk culture, but also educational and cultural barriers (e.g., how can we talk about earthquakes when people do not know that geological faults exist?) or the great differences between the educated people, the urban and impoverished public of the slums and the rural inhabitants. Yet, this knowledge is decisive in the establishment of the communication strategy and difficult to replace by purely quantitative online research. The existing literature is insufficient. Beyond these methodological difficulties, the political problems and the disorganization of the State have had repercussions on the academic community, and therefore on the project partners.

Through this presentation of a concrete example of communication in citizen science and the difficulties encountered, the authors wish to share their experience and launch a discussion around the solutions envisaged (an even stronger engagement with volunteers through a WhatsApp group, alternative ways to understand risk culture...).

This, in the expectation and hope for the Haitian people that the political and security situation will improve.