Understanding the communication of earthquake information in a multi-hazard context to improve society's resilience

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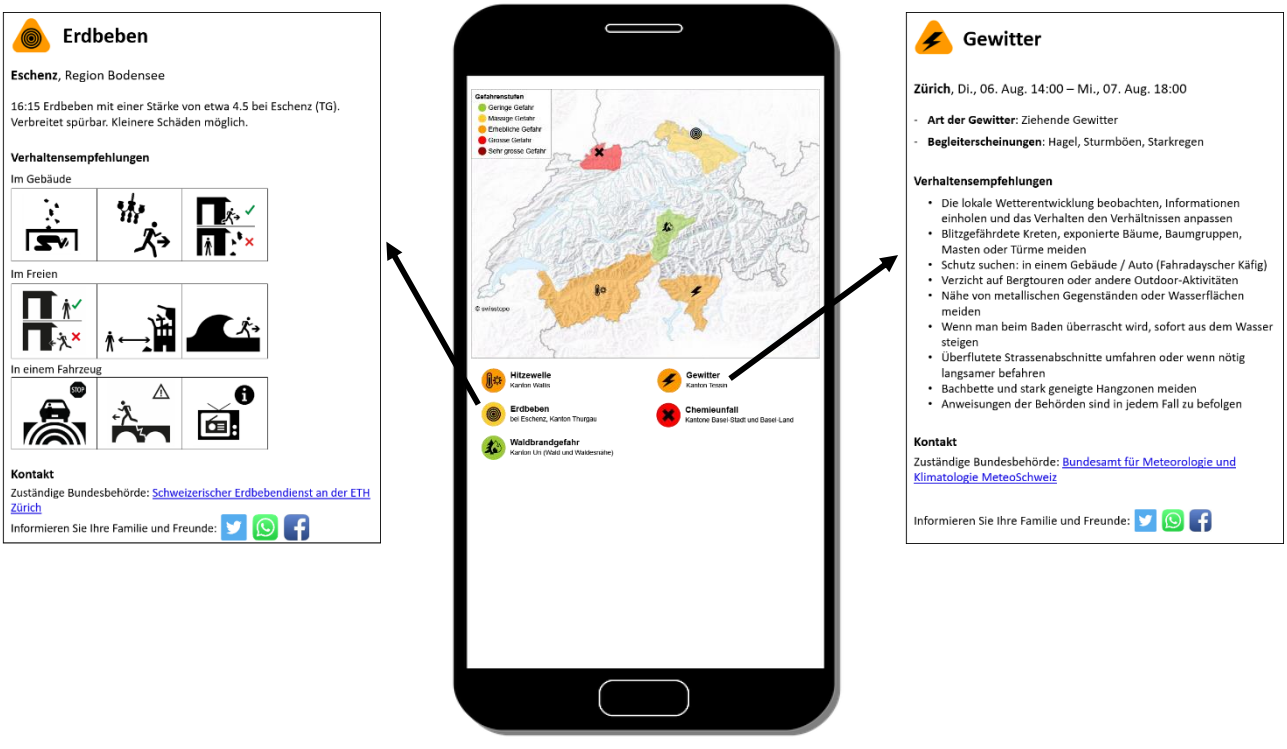
Earthquakes pose a major threat for many countries and are causing the most fatalities and financial losses worldwide. Despite various efforts actual preparedness levels remain universally low. Several studies conclude that information aiming at preventing damage from hazards is only of limited use if not adequately designed and broadly shared. As a result, many disasters are made worse by institutional failures, the lack of coordination between authorities and an ineffective communication among all involved stakeholders and those potentially affected.

In the last decades, the use of mobile apps, websites and social media as communication channels has grown. With it also the potential to combine information about different natural, technological and anthropogenic hazards. A multi-hazard approach has various potentials. Just to name a few, the design of consistent hazard maps and warning messages, the communication of common emergency preparedness measures, a collaboration between the responsible federal agencies and a better understanding of warnings by non-experts to allow them to take appropriate actions.

So far, information processing in a multi-hazard context has not been rigorously tested and further research studies are still needed. My studies aim to significantly contribute to fill up the existing research gaps by assessing non-experts' needs and preferences. These objectives sum up under the following research question:

How to best communicate earthquake information in a multi-hazard context to non-experts?