



A Social-Learning Approach to Hazard-Related Knowledge Exchange: Boundary Workers at the Geoscience-Humanitarian Interface

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Peer-reviewed science has the potential to guide policy-makers and practitioners in developing robust responses to social problems and issues. Despite advances in hazard-related science, it can often be a challenge to translate findings into useful social applications. With natural hazards affecting 2.9 billion people between 2000 and 2012 the need for hazard science to be effectively communicated is undeniable. This is particularly so in humanitarian contexts as non-governmental organisations (NGOs) play a key role in the poorer nations most affected by natural disasters.

Past methods of 'knowledge transfer' have tended to lead to misinterpretations and misrepresentations of science to the extent that it is often used incorrectly or not at all. 'Knowledge exchange' is currently heralded as a more effective means of bringing about successful communication and understanding, and is characterised by the presence of shared learning. Central to a knowledge exchange approach is an understanding of the social and organisational contexts within which learning takes place. Here we use Etienne Wenger's social-learning approach to analyse selected aspects of the social context influencing knowledge exchange across the geoscience-humanitarian interface.

For Wenger (2000) Communities of Practice (CoP) are bounded organisational and social groups united by their own distinct values, goals and ways of working. The boundaries surrounding CoPs can act as barriers to knowledge exchange but can also create opportunities for new shared learning by challenging existing perspectives and practice. Drawing on the findings of ongoing qualitative research into communication and learning between earthquake scientists and humanitarian NGOs in UK/Ireland, this paper outlines a number of key features of geoscience and humanitarian Communities of Practice. It focuses on the barriers to and enablers of learning on the boundaries between CoPs and explores the important role played by boundary workers/brokers at this interface. Wenger's (2000) typology of knowledge brokers is used to analyse the different forms this role can take and identify the challenges that hinder it. For example, boundary workers often find themselves in a 'no man's land' between CoP, where their efforts are not recognised or rewarded by either community of practice.

We conclude by drawing out wider conclusions on the potential for boundary workers to bridge the science-policy-practice interface particularly ways of developing appropriate boundary infrastructure (for example, recognised career paths, funding mechanisms and organisational support structures).