

Interactive comment on “Geoscience on television: a review of science communication literature in the context of geosciences” by R. Hut et al.

Anonymous Referee #2

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This interesting, well-written paper represents a solid attempt on the highly relevant research field of geoscience communication. It focuses on geo-communicators in the field of natural hazards that use television as a medium to disseminate their messages. Despite the title, the papers findings are not limited to geoscience on television, but applicable to geocommunication in a wider sense. The authors claim that an awareness for important findings of science communication research is relatively low among geoscientists. They consequently review science communication literature and consider theoretical concepts relevant for approaching six major themes of geoscience communication: scientist motivation, target audience, narratives and storytelling, jargon and information transfer, relationship between scientists and journalists, and stereotypes of

C1

scientists on TV. Each theme is illustrated by a case study of geosciences on TV. The authors link the case studies to the findings of their theoretical research and critically discuss implications for geoscientists. This methodological approach is valid and interesting and the case studies in combination with the theoretical input are informative. Yet, there are three aspects that might be worth taking a closer look at, to make sure the scientific up-to-dateness of the paper is given.

1. In the introduction of the paper on page 2 it is stated that “effective communication of hydrogeoscience information to the general public is becoming increasingly important.” Here it might be worth clarifying how effectiveness is understood and what the features of an effective science communication are. Do the authors primordially focus on an increase of public awareness and a bigger scientific literacy? Or does their concept also encompass the public understanding of science and public participation? Especially in the field of natural hazard communication it is crucial to make sure that communication genuinely helps people at risk. Risk communication studies point out only little or no correlation between a heightened scientific literacy / risk awareness and risk adaptation measures. This provokes the question if communication can be considered as “effective” when it does not contribute to an increased preparedness. Therefore I would recommend a more holistic approach towards the idea of an “effective communication” that is not reduced to effective “knowledge transfer”.

2. In section 3 the authors address the theme of “target groups” (page 6-9). The authors stress the necessity to think more in-depth about possible audiences and their requirements. Although this reflection is highly relevant, the concept of target groups lacks some differentiation. For example, the authors state that “it is extremely difficult – if not impossible – to successfully reach more than one target audience” (page 6) without having defined what exactly constitutes a target group. They also describe “the general public” as a target group (page 8), which can be easily seen as a contradiction to their initial claim for a more differentiated approach.

3. The paper provokes the question of how geoscientist shall actually better under-

C2

stand target groups. It is widely shown that a one-way-mode of communication where the “knowing scientists” explains “scientific facts” to a lay audience (deficit model) has limitations. In order to avoid working with preconceptualized images of target groups or worth “the general public”, it would be useful also to stress more in detail the role of interactivity in the design of geocommunication. A reflection on “narrative and storytelling” and the “avoidance of jargons” as in section 4 and 5 of the paper are important to better reach audiences, but are not sufficient to address major shortcomings of science communication. The role of interaction with target groups and negotiation of mutual understandings are neglected in the paper and might be worth taken into account. Linking a case study with findings that indicate that one-way communication on television has not only benefits, as outlined on page 6 and 11, but also major restrictions, would be a useful to broaden the scope of the paper. Especially in empirical social science research there is a growing body of literature on the role of knowledge on social and cultural conditions which can turn out to be crucial elements to consider in the training and design of geocommunication.

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