



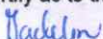
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DisCoord: Co-creating DRR knowledge in Uganda through interaction in a serious game

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ABSTRACT

Effective disaster risk reduction (DRR) presupposes awareness among key stakeholders on the causal factors that exacerbate disaster risks as well as a feeling of ownership over proposed DRR measures. Yet, the prevailing top-down communication of risk and the expert-centered knowledge have a limited impact in bringing significant positive change. Serious games respond to the need for a community-based DRR approach as they encourage a collective recognition of societal issues and co-learning at the different levels of the DRR governance system. However, there is still a gap in understanding how serious games facilitate co-creation of knowledge. In this article, we introduce DisCoord, a serious game first implemented in the landslide- and flood-prone Rwenzori mountains in South-West Uganda. Designed as a public pedagogy tool, DisCoord bridges diverse views and sets of knowledge of DRR stakeholders separated by spatial and socio-cultural domains. Secondly, through a qualitative analysis of the dialogues, narratives and observation notes during the actual game sessions and debriefings, we explored the factors and processes that influence knowledge co-creation. Three different knowledge actors are involved in the co-creation process, namely the game designers, game facilitators and players. These actors have diverse pre-game views, which are expressed through the game rules, arguments, game strategies, and game outcomes, and are confronted within the public space provided by the game. We find that crises experienced during the game, real-life based arguments provided by the players and own interpretations by the players are key factors in the co-creation process. This study leads us to conclude that games like DisCoord are useful as a public pedagogy intervention as they bring different forms of knowledge together in a public space and facilitate co-learning. This paper also contends that countering a top-down approach of risk communication using a public pedagogy approach requires an openness towards the unpredictable, de-centered DRR, and plural co-learning outcomes.

1. Introduction

Understanding disaster risks is the Key Priority 1 of the Sendai Framework for Disaster Risk Reduction [1]. This entails identifying and addressing the factors underpinning disaster risks and ensuring proper communication among stakeholders to collectively develop disaster risk reduction (DRR) knowledge and policies. Communication ensures that actors crucial to risk management understand the risks and are informed about their roles and responsibilities in managing risk [2] in order to build a culture in which risk preparedness and reduction are part of daily

life. Yet, there is a slow progress in meeting this priority among those who are on the ground and have a major role to play in DRR [3].

Critical analysts have pointed out that the conventional expert-driven capacity building approach, including the top-down communication of risk, has a limited impact on effective DRR [4,5]. The worsening cases of disasters suggest that the progress in research and technology does not automatically translate into an effective DRR condition [6]. White et al. (2001) explained that we are in a 'knowing better and losing even more' situation due to the existing gap among diverse sets of knowledge, and between knowledge and its applications [7] p.1).

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