



Downpour! – Engaging the public in flood management through interactive street games

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Climate change projections such as IPCC (2014) predict an increase in extreme rainfall with associated increases in future flood risk. Media coverage and political debates surrounding recent high magnitude storm events in the UK have fuelled great public interest in flooding. However, there remains an apparent mismatch between the scientific voice of flooding research and the public discourse on flooding. In this paper, we investigate the potential of immersive interactive games to address this discrepancy.

Downpour! is a street game that casts players as flood risk advisors in a fictional flooding scenario. Players work in teams to address an immediate crisis and make longer term decisions about flood mitigation, through a series of encounters with actors, films, puzzles and treasure hunts in an hour-long immersive experience. Their choices are tracked via a points system, which leads to a final gamble against an imaginary future flood, testing their decisions in the face of future unpredictability. The game was created by a street game designer in collaboration with film makers, environmental scientists and public institutions, and saw 118 players in its first two runs at the Manchester Science Festival and the Festival of Social Science 2016.

Based on a quantitative and qualitative evaluation of these two performances, we discuss how the game fostered understanding of and engagement with decision-making in flood risk management among players. Games have been highlighted as offering a playful way of engaging people in complex debates by putting them at the centre of the action. We show that by giving players agency to make informed decisions and experiment with solutions in a safe space, they independently begin to interrogate both scientific and political dimensions of flood management. The immersive nature of a street game further creates an emotional connection with the issues, which have the potential of triggering active involvement in flood-related efforts, but require further support beyond the game experience. We conclude by reflecting on the process behind the game creation, commenting on the strengths and difficulties of innovative collaborations between environmental scientists and creative practitioners.

The paper will be jointly presented by the designer and one of the scientists behind the game. A compact version of Downpour! will be available for the informal play session for delegates to try out.