Shutdown! Using Immersive Theatre
To Assess People's Reactions to Nationwide Power Failure

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Summary

"Shutdown!" employs digital storytelling to immerse a group of participants in the consequences of a prolonged nationwide blackout, gradually introducing decision and discussion points to probe how they might behave in a situation of which they have little prior experience. Six pilot sessions conducted in 3 communities showed that participants experienced the format as realistic and engaging. Beyond providing quantitative and qualitative data to answer specific decision questions for the policy end users (the Cabinet Office and other departments), the sessions indicated how existing community networks can be empowered to help official services deal with the fallout. The group discussions also provided insights into the kinds of civil unrest that are possible if the situation is inadequately managed. In sum, the project provides proof-of-concept of a novel methodology to study group deliberation; to elicit experiential learning through the creation of immersive experiences; and to gather public opinion to inform decision making. As the second project of the team spanning theatre, digital arts, and neuroscience, it shows the added value of interdisciplinary collaboration and of co-producing decision research with policymakers.

Background

Widespread electricity failure is classified in the UK National Risk Register (NRR, 2017) as having a small chance of occurring, but high impact severity should it occur. Restarting the electricity network after a nationwide failure may take up to 7 days. What complicates readiness planning for policymakers and service providers is that people's responses to such a prolonged power failure are difficult to assess. Humans tend to be poor at predicting how they will feel and act in unfamiliar situations, so simply asking them what they would do is an unreliable indicator of their actual behaviour. This problem is known in psychology as the "intention-action gap" (Ajzen, 2005). Combining practices from participatory theatre and insights from the sciences of brain and mind, we developed a realistic experience of a blackout to explore people's feeling and likely actions with higher fidelity. In collaboration with the Cabinet Office we identified questions of interest to different government departments, and built relevant decision points into a piece of playable theatre which combines immersive digital storytelling with group discussions and response gathering.

Methodology

In Shutdown, visual, audio and documentary material about a power blackout is delivered via tablets to a group of participants. Recreating the physical conditions of a prolonged blackout so that it is experienced as realistic proved to be too complex and costly. Instead, we opted for a retrospective story approach: a seven-day national blackout has happened recently. The participants are asked to review, deliberate and judge the actions of five "citizens" (played by actors), as they relate their experiences during the blackout. Humans may be poor at predicting how they will feel and behave in unfamiliar situations, but the brain naturally and effortlessly tries to make sense of, judges the behaviour of, and vicariously learns from other people undergoing such experiences. In psychology and neuroscience, these "social brain" mechanisms have been studied over many decades in areas such as social attribution studies, social learning theory, social cognition, social neuroscience, perspective taking, empathy etc. They also form the basis for the wide appeal of dramatic storytelling, from Shakespeare, over The Archers to Coronation Street.

The video testimonies of the actors are interspersed with "national emergency radio broadcasts" and documentary material to supplement the realistic feel of the experience, and to allow the

introduction of official communication material into the actors' storylines. As the experience unfolds, participants are asked to vote, type short answers to specific questions into the tablets, and discuss points that are of relevance to the readiness preparations of government departments. The system anonymously logs all responses given on the tablets, and audio of the group discussions is recorded. We included sections to test under what conditions participants would ignore government advice not to travel; who self-identifies as "critical worker"; whether people would follow government advice about the use of essential resources such as water and electricity in emergency locations; how they judge prosocial community behaviour and illegal behaviour; and how they judge their own resourcefulness to deal with the blackout.

Results of the Pilot Sessions

We conducted 6 pilot sessions across 3 locations, with between 6 and 10 participants per session. The first location was the parish hall in a small village on the River Thames. In recent years the village had suffered a few times from serious flooding. Consequently, the community has established networks and contingency plans in place to deal with flood disasters (e.g., there are trained flood wardens). The second location was in central London with groups of professionals and students without prior community connections. The third location was a room in a community space in a London suburb with a strong community feel. We selected the 3 locations to test the format across a range of community contexts: village, big city, and suburb.

Each session lasted between 90-105 minutes followed by a 20 minute debrief to ask about people's experience and to explain the purpose of the session. During the debrief, participants across all sessions expressed that it felt very realistic, and that they had very quickly been drawn into the story. The levels of engagement in the group discussions showed that taking part was both fun and challenging: "terrified" and "frightened" were often the first words uttered when asked - during the first group discussion 20 minutes in the session - how they felt. Although 6 pilot sessions are too little to draw conclusions from the quantitative data, the preliminary answers we have indicate that many members of the public would ignore government advice not to stockpile water in their bath, but would follow advice not to visit A&E departments to charge mobile phones. We measured the proportion of participants who would be likely to travel against official advice (usually to be with vulnerable family members), and observed that, although very few people self-identify as "critical worker", a proportion of them would still feel obliged to go to work!

The most important findings emerging from a preliminary analysis of the discussion data show the rich set of ideas, community structures and initiatives that people came up with during the discussions that they would rely on and contribute to in order to cope with the situation. These ideas were often specific to the local context - and could therefore easily escape more centralised preparation efforts. For instance, in the village a parallel was quickly drawn with how they had collectively dealt with the floods. In the suburban location, references were made to existing community structures (local church, a school, someone's apartment building etc). There were positive indications of people's willingness to bond together, but also of great individual differences in how resourceful they felt, and differences in levels of trust in how others would respond. People who remembered the blackouts in the 1970s displayed more resilience in their ability to cope with the consequences - as did participants from countries with more extreme weather conditions or less reliable electricity provisions (US, Canada, Australia, the Philippines). The discussions about illegal behaviour also showed what type of civil unrest might appear: almost all groups spontaneously discussed and agreed that the raiding of supermarkets for essential food supplies would be justified, indicating that it might be best for those providers to open their doors voluntarily!

Research and Impact Potential

Whereas the pilot sessions we conducted do not provide enough answers or numbers to help with emergency preparations, they have provided proof of the method's potential. If repeated in a variety of communities across the UK, they could help policymakers at local and national level with taking stock of what community structures exist to help deal with emergency situations. If repeated at sufficient scale, the quantitative results can be used to estimate e.g., the proportion of people who will feel the need to travel, or test how people will respond to official communications. As a method of gathering public opinion and understanding, it can be used in addition to questionnaires and surveys, and overlaps with focus groups and public dialogue methods. The pilot sessions also show their potential to generate experiential learning, where they can be used as a training tool for local government officials, emergency responders, service providers and community members. The intervention is likely to be more effective to explain the far-reaching consequences of a blackout than written text, and more economical and easier to deliver than simulation exercises.

"Shutdown!" is the team's second intervention using a similar combination of playable theatre with psychological decision research. Our first iteration, "The Justice Syndicate, is currently playing (and generating research data) in theatres across the UK (fanSHEN, 2017). A third iteration, "Open Disclosure" (under development for KCL and an NHS trust) is an experiential training tool to help health professionals prepare for the potentially devastating consequences of clinical incidents. Further projects are also in the pipeline.

Taken together, this novel way of combining digital arts with decision research and experiential learning has far-reaching research and impact potential. To reach its full potential, however, it will benefit from an improved approach to co-production of research and decision making, where decision makers engage from the earliest moment in the design of scenarios, and work iteratively with researchers and participants to incorporate the findings of the projects. In the long run, it can help usher in different approaches to the public's and experts' involvement in policy making.

References

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