

# Using social media for sociotechnical analysis: Examining the Fyre Festival

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## THE WORK IN CONTEXT

We present a sociotechnical analysis of the 2017 Fyre Festival. The Fyre Festival was marketed as a luxury festival in the Bahamas, promoted heavily through social media, attracting over 4000 attendees. The event was cancelled one day into its inaugural weekend amid chaos and acrimony, resulting in million-dollar losses for the organisers and subsequent law suits. We demonstrate the utility that social media presents for researchers undertaking sociotechnical analysis of business events and failures. Our sociotechnical analysis utilised archival materials, corporate websites, leaked internal documents and documentary accounts. These materials were supplemented with expert interviews with independent event organisers. Relevant twitter posts shared during the Fyre Festival were integrated into the analysis. 58467 tweets were collected in total. We discuss our key findings, drawing out sociotechnical factors and interdependencies that contributed to the failure. We reflect on the methodological challenges and opportunities of working with social media data, considering how this may be integrated within sociotechnical frameworks. We supplement our own interpretation with interviews with experts in the use of social media within social science research. We conclude by discussing the potential to apply sociotechnical frameworks to diverse business events, situations and problems.

## KEYWORDS

Sociotechnical systems analysis, organisational design, crowd events

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## A brief outline of the work carried out

We present a sociotechnical analysis of the Fyre Festival failure using the hexagonal sociotechnical systems framework (for example, Davis et al., 2014; Clegg et al., 2017). We followed the steps described in Davis et al. (2014) for gathering data and analysing this using the framework. Our analysis utilised written news articles which included first-hand accounts from attendees or those involved in the planning or execution of the event. We analysed corporate websites. We used the Wayback Machine, a digital archive of the World Wide Web, to capture descriptions initially published by the organisers, together with updates and information on the cancellation. We gathered leaked internal documents available online, including the investor pitch document and emails between employees. We analysed first-hand accounts provided by 27 of those involved in the festival organisation, contractors and attendees through a video documentary. These materials were supplemented with two expert interviews with independent event organisers to corroborate key observations and identify gaps in coverage.

Social media data was integrated into the analysis, specifically relevant Twitter posts shared during the festival. Data was filtered and collected through Twitter API (application programming interface) using the Python module Tweepy. Search operators were utilised to collect tweets

containing ‘#Fyrefestival’ and ‘#Fyre’, in the English language, between the dates of the 27th and 30th of April 2017. 58467 tweets were collected in total.

Template analysis was applied, with a coding template consisting of the hexagon framework, under the nodes of goals, people, infrastructure/buildings, technology, culture, processes/procedures and embedded within the external environment of stakeholders, regulatory frameworks and financial circumstance. Timelines, tables of key factors and a hexagon diagram were populated.

Following the event analysis, we conducted three interviews with experts on social media within social science research to supplement our own interpretations on the utility and opportunities relating to social media data in sociotechnical analyses. The interviews were thematically coded.

### **Findings/solutions (the outcome)**

Notable sociotechnical factors and interdependencies contributed to the failure of the event. The key factors were largely non-contradictory across data sources. The output yielded good coverage across sociotechnical system elements. The most impactful factors leading to the organisational failure centred around a lack of realism; inexperienced organisers; the remote location; too short a planning timeframe; autocratic leadership; inappropriate prioritisation of goals; uncollaborative attitude on troubleshooting; and lack of contingency planning. Interdependencies and causal chains were identified. These reflect underlying factors identified in many event and crowd management failures (for example, Clegg et al., 2017).

### **Impact**

Using social media in sociotechnical analyses presents distinct challenges, but also opportunities. Data is relatively simple to integrate within existing frameworks, however, defining search criteria, technically accessing data caches, identifying methods to analyse the volume of data in a time and resource efficient manner and negotiating ethical and legal ambiguities around user generated content presents challenges. Despite this, social media provides an opportunity to access first-hand accounts from eye witnesses, consumers and other stakeholders in real-time. This may help researchers to gather data at scale, to overcome hindsight or recall biases and to extend the scope of their analysis of specific events or failures. Furthermore, the application of sociotechnical systems analysis to this particular business failure demonstrates the potential to apply such frameworks and tools to diverse business events, situations and problems, going beyond safety critical industries and engaging in broader organisational design and business change.