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Reflecting on the use of social media within a scenario planning project

1. Abstract and Introduction

Scenario planning is a tool which captures multiple futures that an organisation may face. The scenario planning process is often participative and conducted in a facilitated workshop setting, requiring people to be physically present in order to participate. A variety of social media exist which allow people to interact with each other virtually, and in real time. This paper explores the potential for social media, and in particular Twitter, to be used to facilitate and encourage engagement with workshops, beyond those physically attending the workshop. We describe and reflect on the use of social media within a project to develop scenarios for the future of the food system within Birmingham for 2050. The paper considers the broader implications of these reflections for the scenario process.

2. Theoretical context

Participation in scenario based exercises

A number of authors offer advice on who should participate in scenario planning exercises. For instance, Schoemaker (1995) suggests that identifying the key stakeholders was one of the ten steps in the scenario planning process honed at Royal Dutch Shell. The extant literature discusses the use of scenarios in a range of different contexts, with significant variation in participation. De Grassi (2007) considers a range of methods for planning for the future, including scenario planning, in the context of African agriculture. Videira et al (2003) provide a case study on environmental decision-making, which includes stakeholder groups affected by the environmental issues. Their participatory modelling aims to involve the public, and encourage stakeholder involvement in order to "foster trust in institutions, promote team learning and increase commitment towards actions" (p421). Such exercises see the aim of participation as being around "accommodating the public and stakeholders in a collaborative learning environment; promoting understanding of the economic, ecological and social dimensions of environmental problems; increasing shared understanding of the problems, which is likely to drive consensus and commitment towards action; and internalising the public's values, assumptions and preferences, which reduces the level of conflict among stakeholders and fosters trust in institutions" (Videira et al., 2003), p 443.

Analysis of social media data

While the emerging literature on social media discusses its use in a range of contexts, an analysis of its use in strategy development exercises such as scenario planning workshops is currently sparse. Lyons et al (2014) investigate how the Chicago Metropolitan Agency for Planning sought to engage the public in a mix of on-line, face-to-face and in-situ deliberations on the long term future of their region. Some studies have explored how Twitter has been used to encourage involvement and engagement by stakeholders. Park (2013) explored the interrelationships between opinion leadership, Twitter use and political engagement. They report that Twitter opinion leadership significantly contributed to an individual's involvement in political processes while Twitter use itself did not influence political engagement. Other studies report analyses of the content of tweets to explore the relationship between Twitter use and engagement. For example, Smitko (2012) used discourse analysis of tweet content to explore how non-profit organisations can encourage donor engagement, whilst Lovejoy et al (2012) used content analysis of tweets made by non-profit organisations to engage with stakeholders. Waters & Jamal (2011) also report the use of content analysis of the tweets from a sample of non-profit organisations to explore how such organisations were using Twitter. Burnap et al (2013) undertook an analysis of tweet content using conversation

analytic approaches, to explore social tension in online communities. In a marketing context, a number of studies have explored how social media is used to support marketing activities within organisations. Hanna et al (2011) explore the concept of a social media ecosystem for integrating social media into a firm's marketing communications strategy, and Weinberg and Pehlivan (2011) explore the use of social media within the context of marketing media spend.

3. Analytical approach and case study setting

Our research setting is a scenario planning case study involving a series of six workshops/events, as described below. Tweets relating to the six events were collected and analysed. The tweets were gathered into a dataset using Microsoft Excel, and the dataset was cleaned. As described further below, the researchers explored patterns in the data in terms of the distribution of tweets across categories and events, and conducted a content analysis of the tweets using a number of criteria explained below.

Our case study setting is a year-long scenario-based project run by the New Optimists, a Birmingham based not-for-profit organisation, who wanted to consider food futures for Birmingham in 2050. The project consisted of six events run over a year, involving a range of local scientists with expertise in areas such as architecture, biochemistry, bio-energy, chemical engineering, computer science, entomology, food distribution, geography, horticulture, plant science, public health, and veterinary epidemiology. The events ranged from informal dinner gatherings to larger workshops. Each event was supported with live social media reporting in the form of live Twitter postings which were intended to encourage and facilitate engagement and further discussion by non-attendees; the hashtag #TNOFOOD was used to provide a rallying point for the tweets. Table 1 presents a summary of the events organised.

Insert Table 1 here

This paper presents and reflects on an analysis of the tweets related to the project, to explore how this form of social media has been used. Our dataset consists of tweets made by the New Optimists, and others involved in the project who were either project participants, facilitators or members of the social media team. Tweets were coded according to their type (e.g. tweet, retweet, reply), and the nature of the content. The initial dataset consisted of 1718 tweets made by @newoptimists and some 22,500 tweets made by the others. Tweets not tweeted directly by newoptimists were subjected to a 'cleaning' process, which used a systematic keyword search to find tweets related to the project. Examples of the terms used include #TNOFOOD, Birmingham, newoptimists, and food. After cleaning this second set, 3776 tweets remained. These two collections of tweets were then individually inspected for relevance to the project, leaving 983 and 443 tweets by the newoptimists and others respectively. The tweets were allocated codes to indicate when they were made in relation to an event, i.e. before the event, during the event or after the event. Their content was coded according to the following categories:

- **Advertising** referred to direct event advertising, either posted from @newoptimists, or others, typically explaining an event.
- **Communication** covered any tweet that was involved in informal conversation, but not where tactical advertising had been intended.
- **Event content** covered all content that had been published from the events themselves, such as quotes and audio/video clips. This category is particularly interesting as many of the tweets are informative, yet also aiming to be prompts for discussion; further analysis of this category is planned.

- **Wider marketing** (non-direct event advertising) encompassed a range of tweets such as those that were designed to provoke discussion (not directly event related) or a commentary on the New Optimists movement beyond the six events. These tweets may provoke people to think about everything the New Optimists were doing, as well as their partners.
- **Miscellaneous** –other tweets relevant to the New Optimists project that did not fit into any of the above categories.

Our analysis of the above categories is summarised in Table 2.

Insert Table 2 here

To explore engagement with the project, the authors collected the tweets using the hashtag #TNOFOOD made during a time period that covered Event 3 as this had the largest number of event-based tweets made. Of the 192 tweets collected using this hashtag, the vast majority were made by team members or participants. Only 38 tweets were made by 'outsiders' of which only 9 were not retweets of typically 'insider' tweets. In fact, only 3 tweets, made by the same individual, were direct engagement with the event. The retweets were typically either advertising events or linking to event content in the form of video links.

4. Discussion

Our analysis reveals how Twitter was being used to support the scenario process. It supported communication between participants between the events, and promoted material generated during the events, e.g. participant quotes, and fragments of video and audio such as interviews with participants. Twitter was also used to post commentary of the event; to post prompts to encourage participation from those not present; and to market future events and promote wider interest in related topics. This use of social media is in sharp contrast with the more traditional practice of scenario projects. Social media such as Twitter can support the circulation of materials to those involved in the project – both between events, and final materials - to a much wider audience.

Our analysis also leads us to reflect on what constitutes 'good' or 'bad' practice of use of social media in such instances. On the positive side, we found significant evidence of the posting of quotes and video/audio material which had the potential to encourage wider interest in the project – and the team had anecdotal evidence of such occurrences. However, it was also observed that the project team did not appear to have a strategy for their social media activity, e.g. a planned schedule for tweeting before, during and after the events.

Our analysis suggests that there is scope for future use of social media in such projects to support participation. This is likely to be most appropriate in the more 'divergent' stages of the scenario process where wide participation and idea generation/input are encouraged to support a successful outcome of the project. Examples would include the brainstorming of external factors that might drive the scenarios, the generation of themes behind possible scenarios, and the generation of strategic options for the focal organisation. However, in this instance, we failed to find strong evidence of wide scale engagement beyond the core of 'activists'. This leads us to question whether, in order to achieve wider participation, the project team would have required a clearer strategy for getting 'outsiders' interested in the project and creating a following. Their experience on this project suggests a following on social media is unlikely to simply emerge, but has to be built via careful planning. We also note that in future projects of this type, social media can be used for several purposes; as well as supporting wider engagement in the project itself, it can facilitate communication between interested activists.

Conclusions

Our analysis suggests than on this project, Twitter was mostly used by existing 'activists', rather than by people new to the project. There is some modest evidence of emerging engagement by new experts and interested parties; this data is worthy of further analysis in future to explore the extent of this. Within the project, Twitter was typically used to advertise events and their content. It was also used to share information and commentary amongst activists. We looked for evidence that the use of Twitter encourages wider participation in the project. We note that there is little evidence of incoming Twitter activity fed live into forum events; it is possible that this could have been encouraged by more prompts from the project team to encourage engagement. We would also note that various definitions of 'engagement' are possible; for instance our analysis has not allowed us to observe 'passive' participation, such as people who were reading the material generated who chose not to interact.

Table 1: Events, settings and number of participants

Event	Topic and Setting	Number of Participants	No of participants who tweeted
1	Food Futures discussed in a forum style setting.	11	1
2	Food Poverty discussed over informal dinner	6	2
3	Food Futures discussed in a forum style setting	6	4
4	Factor selection discussed in a mini forum	3	1
5	Semantic Web discussed at a forum	8	4
6	Distributed energy systems discussed at a forum style setting	9	2

Table 2: Analysis of tweets by category

	Advertising	Communication	Event Content	Marketing	Miscellaneous	Totals
Before 1	30	33	0	81	42	186
Event 1	8	3	60	5	0	76
After 1	0	40	23	113	27	203
Before 2	4	36	2	42	13	97
Event 2	4	4	13	2	0	23
After 2	0	5	0	5	3	13
Before 3	5	5	0	10	3	23
Event 3	20	1	89	4	0	114
After 3	0	19	11	76	7	113
Before 4	2	59	3	44	16	124
Event 4	6	0	16	1	0	23
After 4	4	1	0	7	1	13
Before 5	8	2	0	6	1	17
Event 5	8	6	36	0	2	52
After 5	1	13	11	40	3	68
Before 6	2	5	0	12	1	20
Event 6	9	6	35	2	3	55
After 6	0	50	4	143	9	206
Total tweets	111	288	303	593	131	1426

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